



**The career you want.  
The degree you need.**



Catalog

2016 - 2017

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## Welcome to Clark State



Dear Students,

We are so pleased that you have chosen Clark State Community College to further your education. Your success is important to us, and the faculty and staff are here to ensure that you meet your goals. Clark State is your campus, and we want to help you make the most of your time here.

Clark State offers many certificate and degree programs that result in high-wage, high-demand careers, as well as a general education curriculum that is transferrable to most four-year universities. We want you to have all of the tools you need to be prepared for college, and we provide tutoring and college readiness courses to assist you in this endeavor.

We are proud of our dedication to student success at Clark State, and this catalog should help you learn more about the programs and services we offer, as well as how to get involved in campus activities.

If there is anything you should need during your time here at Clark State, please do not hesitate to contact my office. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Jo Alice Blondin". The signature is fluid and cursive, written over a light grey rectangular background.

Jo Alice Blondin, Ph.D.  
President

This Catalog was prepared prior to the 2016 - 2017 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, 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 Americans with Disabilities Act, and other applicable statutes.

In accordance with the Americans with Disabilities Act, it is the policy of Clark State to provide reasonable accommodations to persons with disabilities. If you require disability-related accommodations, please contact the Office of Accessibility at 937.328.6049.

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 have 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

Clark State will build a community that empowers individuals to experience intellectual growth by creating opportunities for them to be accepted, challenged, held accountable, rewarded, and transformed.

## Mission

To serve a diverse population of learners by providing access to high-quality, learning-centered education and services while fostering individual and community success.

## Guiding Principles

We believe in the power of education to change people's lives.

### 1. Learning

We value the use of best academic practices and resources to create a learning community that challenges, transforms, and empowers students and employees.

### 2. Community

We trust, respect, and care for people with whom we work and serve.

### 3. Partnerships

We foster collaboration to address student and stakeholder needs and to contribute to the economic and social well-being of our region.

### 4. Innovation

We push the boundaries of creativity.

### 5. Diversity

We welcome all individuals to create an inclusive environment.

## 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 various high schools and career technology centers in the region. 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 on the heart of downtown Springfield. 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 with 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 percent 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 within the guidelines set for each course. For example, the Clark State MathLab is a high technology learning environment where students work at their own pace through College Preparatory mathematics courses. Directed learning courses are self-paced courses except that class work must be completed on Clark State's campus using the Directed Learning Lab and its resources.

Through these alternative modes of instructional delivery, 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 their courses 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 page at [www.clarkstate.edu/online\\_learning](http://www.clarkstate.edu/online_learning).

### Accreditations/Approvals

Clark State Community College is accredited by the Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604, 1.800.621.7440.

The Realtime Court Reporting program, both Judicial and Broadcast Captioning/CART options, is approved by the National Court Reporters Association, 8224 Old Courthouse Road, Vienna, VA 22182-3808, 703.556.6272.

The Early Childhood Education program is approved by the Ohio Department of Higher Learning for Pre-Kindergarten Associate Licensure, 25 South Front Street, Columbus, OH 43215, 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, [www.nursing.ohio.gov](http://www.nursing.ohio.gov) and accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, 404.975.5000, [www.acenursing.org](http://www.acenursing.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, 614.466.3947, [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), 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33756, 727.210.2350, [www.caahep.org](http://www.caahep.org) upon recommendation of the Medical Assistant Education Review Board (MAERB).

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, 773.714.8880, www.naacls.org.

The Paramedic program (#308-OH) is accredited by the Ohio Department of Public Safety Services, Division of Emergency Medical Services, 1970 West Broad Street, Columbus, Ohio 43218-2073, 800.233.0785 and by the Commission on Accreditation of Allied Health Education programs, 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33756, 727.210.2350, upon recommendation of the Committee on Accreditation for the Emergency Medical Services Profession (CoAEMSP).

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, 703.706.3245, www.captionline.org, e-mail: accreditation@apta.org.

The Firefighter program (#308-OH) is accredited by the Ohio Department of Public Safety Services, Division of Fire Services, 1970 West Broad Street, Columbus, OH 43218, 800.233.0785.

## 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 two additional semesters to complete both programs. The following technical degrees are offered:

- Associate of Applied Business (AAB)
- Associate of Applied Science (AAS)
- Associate of Technical Studies (ATS)

### Agriculture and Horticulture

Agricultural Business	AAB
Agricultural Engineering Technology Option	AAB
Golf Course Operations Option	AAS
Landscape Design Option	AAS
Natural Resources Option	AAS
Nursery Operations Option	AAS
Precision Agriculture	AAS
Turf and Landscape Operations Option	AAS

### Business

Accounting	AAB
Human Resource Management Option	AAB
Insurance Option	AAB
Logistics and Supply Chain Management Option	AAB
Management	AAB
Marketing Option	AAB

Medical Office Administration Major	AAB
Office Administration	AAB
Paralegal Technology	AAS
Professional Services Management	ATS

### Career and Technical Education

Career and Technical Education	ATS
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### Computer and IT

Computer Networking	AAB
Computer Software Development	AAB
CyberSecurity/Information Assurance	AAS
Information Services Library Paraprofessional	AAS
Technical Systems Support Option	AAB

### Court Reporting

Judicial Court Reporting	AAB
Broadcast Captioning/CART Option	AAB

### Diesel Technology

Diesel Technology	ATS
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### Digital Media

Graphic Design	AAB
New Media	AAB

### Early Childhood Education

Early Childhood Education	AAS
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### EMS/Fire

Emergency Medical Services/Paramedic	AAS
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### Engineering

Computer-Aided Design	AAS
Industrial Technology	AAS
Manufacturing Engineering	AAS
Mechanical Engineering	AAS

### Food Science

Food Science and Technology	AAS
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### GIS/Geospatial Technology

GIS/Geospatial Technology	AAS
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### Health

Exercise Science (Consortium Program)	
Medical Assisting	AAS
Medical Laboratory Technology	AAS
Multi-Skilled Healthcare	ATS
Occupational Therapy Assistant (Consortium Program)	

Physical Therapist Assistant	AAS
Radiographic Imaging (Consortium Program)	
Registered Nursing	AAS
Registered Nursing Evening/Weekend	AAS
Registered Nursing - LPN to RN Transition	AAS
Registered Nursing - Paramedic to RN Transition	AAS
Respiratory Care (Consortium Program)	

- Network Administration
- Network Infrastructure
- Nurse Aide
- Phlebotomy
- Precision Agriculture
- Property Insurance Claims
- Real Estate
- Technical Support

**HVAC-R**

Heating, Ventilation, Air Conditioning, and Refrigeration	ATS
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**Law Enforcement**

Criminal Justice - Corrections	AAS
Criminal Justice - Law Enforcement	AAS

**Social Services**

Social Services	AAS
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**Certificate Programs**

- Accounting Management
- Medical Assisting
- Multi-Skilled Healthcare
- New Media Web Design
- Paramedic
- Practical Nursing
- Practical Nursing - Evening/Weekend
- Office Administration

**Short-Term Technical Certificates**

- Advanced Medical Coding
- Police Academy
- Chemical Dependency
- Customer Service
- CyberSecurity
- Diesel Technology
- Electrocardiography
- EMT
- EMT Advanced
- Fire Safety Inspector
- Firefighter Level I
- Firefighter Level II
- Geospatial Precision Agriculture Specialist
- GIS Analyst
- GIS Image Analyst
- Medical Coding

**Departmental Certificates**

- Additive Manufacturing
- Advanced Technical Intelligence
- Communication
- Computer-Aided Design
- Computer Numerical Control (CNC)
- Computer Programming
- Firefighter/Transition Certification
- Firefighter/Volunteer Certification
- GIS Programming
- Health Information Technology
- Heating, Ventilation, Air Conditioning, and Refrigeration
- Human Resources Management
- Judicial Reporting Scopist
- Industrial Maintenance
- Logistics and Supply Chain Management
- Manufacturing
- Manufacturing Foundation
- Marketing
- Paramedic Certificate for RN
- Patient Care Technician
- Public Safety Instructor
- Small Business
- Supervisory
- Supply Chain Management Degree+
- Theatre Arts Administration
- Web Development
- Welding

**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 degrees. The flexibility of this program permits you to work with an advisor to construct an inter-disciplinary degree program from present course offerings. To pursue an Associate of Technical Studies, you need to apply prior to completing 40 credit hours. You can apply at any academic division office.

## 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, 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.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena, and make predictions.

The faculty under leadership of the College's Assessment Committee has established criteria and tools by which student achievement of the CORE is assessed and reported in all academic programs.

### General Education Requirements for Technical Programs

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 written and oral communication, arts and humanities, social and behavioral sciences, mathematics, and physical/natural sciences.

Students in technical programs take English I, plus at least three additional credit hours in the area of oral and written communication. Technical students must also take a minimum of three credit hours from either arts/humanities or social/behavioral sciences and at least three credit hours from mathematics or natural/physical sciences. The remaining three general education credits may come from any one of the areas already mentioned. Technical programs may define which courses a student must take in a given area or they may allow the student to select the courses from the list below.

### Global Awareness

Because of the importance of international events to our lives, we require each student to successfully complete one or more courses that emphasize global awareness. The number of classes varies with the degree being sought. Courses meeting this requirement are designated with a GA following each course. Students registering for courses should use the following list:

#### Written and Oral Communication

COM 1110 Interpersonal Communication I (GA)  
 COM 1130 Introduction to Mass Communication  
 COM 1170 Small Group Communication (GA)

COM 1120 Public Speaking I  
 ENG 1112 English II  
 ENG 2211 Business Communication (GA)  
 ENG 2230 Technical Report Writing

### Social and Behavioral Sciences

ECO 1100 General Economics\*  
 ECO 2210 Macroeconomics  
 ECO 2220 Microeconomics  
 GEO 1000 Introduction to GIS and Cartography (GA)  
 GEO 1100 World Human Geography (GA)  
 GEO 2200 World Regional Geography (GA)  
 PLS 1100 Introduction to American Politics  
 PLS 1300 Introduction to Comparative Politics (GA)  
 PLS 2300 Introduction to International Relations (GA)  
 PSY 1111 Psychology I (GA)  
 PSY 2218 Introduction to Educational Psychology  
 PSY 2223 Lifespan Human Growth and Development  
 PSY 2300 Abnormal Psychology  
 RST 2600 Regional Studies: North India (GA)  
 RST 2700 Regional Studies: Africa (GA)  
 RST 2800 Regional Studies of Latin America (GA)  
 SOC 1110 Introduction to Sociology (GA)  
 SOC 2220 Comparing Cultures (GA)  
 SOC 2230 Social Problems  
 SOC 2240 Racial and Cultural Minorities (GA)  
 SOC 2250 Sociology of Poverty: Feminization of Poverty  
 SOC 2260 Sociology of Sex and Gender

\*ECO 1110 cannot be used as a general education elective in any program that requires ECO 2221 or ECO 2222.

### Arts and Humanities

ART 1001 Art History I (GA)  
 ART 1002 Art History II (GA)  
 ART 1300 Appreciation of the Arts (GA)  
 ENG 1600 Introduction to Literature (GA)  
 ENG 2300 Great Books: World Literature (GA)  
 ENG 2500 American Literature  
 ENG 2610 British Literature to 1700 1800 (GA)  
 ENG 2620 British Literature 1700-1800-present (GA)  
 FRN 1111 French I (GA)  
 FRN 1112 French II (GA)  
 HON 2810 Science & Religion (GA)  
 HST 1110 Western Civilization to 1600 (GA)  
 HST 1120 Western Civilization Since 1600 (GA)  
 HST 1210 American History to 1865  
 HST 1220 American History Since 1865  
 HST 2200 Topics in African-American History and Culture (GA)  
 MUS 1130 Music Appreciation (GA)  
 PHL 2000 Critical Thinking  
 PHL 2050 Deductive Logic  
 PHL 2100 Ethics (GA)  
 PHL 2300 Medical Ethics (GA)  
 PHL 2400 Philosophy of World Religions (GA)  
 SPN 1100 Survival Spanish (GA)  
 SPN 1111 Spanish I (GA)  
 SPN 1112 Spanish II (GA)

THE 1130	Introduction to Theatre (GA)
THE 1133	Script Analysis
THE 2241	Theatre History I (GA)
THE 2422	Theatre History II (GA)

\*ECO 1110 cannot be used as a general education elective in any program that requires ECO 2221 or ECO 2222.

## Mathematics and Physical/Natural Sciences

BIO 1101	Fundamentals of Human Biology
BIO 1105	Fundamentals of Anatomy and Physiology
BIO 1131	Microbiology
BIO 1410	Fundamentals of Biology
BIO 1420	Global Biology (GA)
BIO 1510	Biology I
BIO 1520	Biology II
BIO 2121	Anatomy and Physiology I
BIO 2122	Anatomy and Physiology II
CHM 1100	Chemistry and Society (GA)
CHM 1120	Survey of General, Organic, and Biological Chemistry
CHM 1150	Introduction to General Chemistry (GA)
CHM 1210	General Chemistry I
CHM 1220	General Chemistry II
CHM 2110	Organic Chemistry I
CHM 2120	Organic Chemistry II
GLG 1114	Ohio Field Geology
GLG 1129	Survey of Earth Science
GLG 1131	Physical Geology
GLG 1132	Historical Geology
MTH 1050	Mathematics in Today's World
MTH 1060	Business Mathematics
MTH 1115	Industrial Calculations
MTH 1200	Technical Math for Agriculture
MTH 1280	College Algebra
MTH 1340	Pre-Calculus
MTH 2100	Calculus for the Management, Life and Social Sciences
MTH 2200	Calculus I
MTH 2220	Calculus II
MTH 2240	Multivariable Calculus
MTH 2330	Differential Equations
MTH 2530	Matrix Algebra
PHY 1100	Fundamentals of Physics
PHY 1200	Introduction to Astronomy
PHY 1501	General Physics I with Algebra
PHY 1502	General Physics II with Algebra
STT 2640	Elementary Statistics I
STT 2650	Elementary Statistics II

## Transfer Options

Students commonly combine credits to reach an academic goal, such as an associate degree or a bachelor's 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, College Credit Plus (CCP), College in the Classroom (CITC), or articulated credit from a career center.

Many students who begin their college career at Clark State intend to eventually transfer their CSCC credits to a university to obtain a bachelor's 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 bachelor's degree. The Associate of Arts degree or the Associate of Science degree at Clark State 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 Transferology 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.

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

- Associate of Arts
- Associate of Science
- Advanced Technical Intelligence - Associate of Science
- Aviation Concentration - Associate of Arts
- Aviation Concentration - Associate of Science
- Business Transfer - Central State University
- Business Transfer - Wright State University
- Chemistry Transfer - Wright State University
- Communication Studies
- Communication Transfer - Wright State University
- Economics Transfer - Wright State University
- Engineering Transfer



- English Transfer - Wright State University
- Health Care Concentration - Associate of Arts
- Health Care Concentration - Associate of Science
- 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
- Sociology Transfer - Wright State University
- Teacher Education Transfer
- Teacher Education Middle Child Language Arts/ Social Studies - Wright State University
- Teacher Education Middle Child Math/Science - 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 Clark State 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 bachelor's 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 course schedules that would facilitate a timely transition to a four-year institution.

Clark State 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 Clark State. Upon enrolling at Clark State, an academic advisor, as well as the Records and Registration Office, will assist the student with necessary documentation.

## 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 institution if you have worked carefully with Clark State advisors and with personnel at the prospective transfer institution. The transfer institution, however, will make the final determinations.

A minimum of 60 semester credit hours are required to graduate with a Clark State Associate of Arts or Associate of Science degree. Work with an advisor and sign up for appropriate courses each term. 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 Clark State 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

## Transferology

Clark State Community College is a member of Transferology. Information about the transferability of Clark State's credit hours may be found by accessing Transferology at <https://www.transferology.com>. Students interested in transferring credits to Clark State may access Transferology to determine credit equivalency. Please note that not all colleges/universities are listed in Transferology. To verify credit transferability, please submit your official transcripts to the Admissions Office, Clark State Community College, P.O. Box 570, Springfield, Ohio 45501.

Transferology was developed as an online tool that serves as a gateway to participating institutions' transfer articulation systems. Upon creating a free account in Transferology, students and/or parents may view course equivalencies, request information about program requirements, and request an evaluation of transfer work toward a specific program.

## Clark State/Wright State University Gateway Program

To enhance access and affordability of bachelor degree programs, Wright State University and Clark State Community College have entered into an agreement to provide a "gateway" to bachelor degree programs. Students will receive joint advising from the two schools to ease the transition to Wright State. All Gateway students have the option to apply for housing at Wright State. There are three paths to joining the Gateway Program, all designed to support student success in attaining a bachelor's degree.

The Gateway Pathway Program is designed for students entering Clark State with the intention of attaining a bachelor's degree. Students will be guaranteed acceptance to Wright State upon successful completion of their program of study at Clark State.

The Gateway Jump Start Program is designed for students who apply to Wright State but do not initially meet the university's entrance requirements. Students are encouraged to enroll at Clark State with the intention to transfer to Wright State.

The Gateway New Beginning Program is designed for students who are ineligible to continue at Wright State because of a lack of academic progress. These students are encouraged to enroll at Clark State and refocus on their academic progress with the intention of returning to Wright State.

## 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 and 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 available at the Greene Center Campus in Beaver Creek are highlighted.

- Pre-Business
- Pre-Chemistry
- Pre-Communication
- Pre-Economics
- 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 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.

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 for assistance with these guides. The majors currently available at Franklin University via this alliance include the following:

- Accounting
- Allied Healthcare Management
- Applied Management
- Applied Psychology
- Business Administration
- Business Economics
- Business Forensics
- Computer Science
- E-Marketing
- Financial Management
- Financial Planning
- Forensic Accounting
- Healthcare Information Systems Management
- Healthcare Management
- Human Resources Management
- Information Technology
- Interactive Media Design
- Interdisciplinary Studies

- Management
- Management Information Sciences
- Marketing
- Organizational Communication
- Operation and Supply Chain Management
- Public Relations
- Public Safety Management
- Safety, Security & Emergency Management
- Web Development

## Urbana University - Transfer Options

Clark State 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, and 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 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 bachelor's 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's 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's 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 degrees 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 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 bachelor's 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's 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. 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 Ohio University environment, the people, the opportunities, and quality education.

The following three programs are available:

### Bachelor of Technical and Applied Studies

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 bachelor's 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's degree in nursing.

## Northwest Ohio Allied Health Education Consortium

Clark State Community College is a member of the Northwest Ohio Allied Health Education Consortium (NOANEC), which expands local allied health training options. Through this consortium, which includes Clark State Community College, Marion Technical College, Northwest State Community College, and Rhodes State College, Clark State students have an opportunity to complete Exercise Science, Radiographic Imaging Technology, Respiratory Care Practitioner and Occupational Therapist Assistant programs. Students enroll at both Clark State and Rhodes State and complete their general education classes and basic program classes through Clark State at one of our campuses or online. Technical courses are taught by Rhodes State faculty through distance learning on the Clark State campus. Clinical requirements take place at a regional healthcare facility. Students need to periodically travel to the Rhodes State campus in Lima for skills lab instruction and hands-on practice.

Visit the program area of Clark State's catalog and website or [www.ohioalliedhealth.com](http://www.ohioalliedhealth.com) for more information.

## 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 bachelor's degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree programs 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 the following areas:

- 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 or from oral communication, foreign language, or interdisciplinary 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 36 semester 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

ENG 1111	English I	3
ENG 1112	English II	3

### Oral Communication

COM 1120	Public Speaking	3
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### Mathematics

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

MTH 1050	Mathematics and Today's World	3
MTH 1280	College Algebra I	4
MTH 1340	Pre-Calculus	5
MTH 2100	Calculus for the Management, Life, and Social Science	5
MTH 2200	Calculus I	5
MTH 2220	Calculus II	5
MTH 2240	Multivariable Calculus*	4
MTH 2330	Differential Equations*	3
MTH 2530	Matrix Algebra*	5
STT 2640	Statistics I	3
STT 2650	Statistics II*	2

### Arts & Humanities

Complete six semester hours by choosing three semester hours from Category A and three semester hours from Category B.

#### Category A

ART 1001	Art History I	3
ART 1002	Art History II	3
ART 1300	Appreciation of the Arts	3
ENG 1600	Introduction to Literature	3
ENG 2300	Great Books: World Literature	3
ENG 2500	American Literature	3
ENG 2610	British Literature to 1800	3
ENG 2620	British Literature 1800-Present	3

THE 1130	Theatre Appreciation	3
THE 1133	Script Analysis	3
THE 2241	Theatre History I	3
THE 2242	Theatre History II	3

**Category B**

HST 1110	Western Civilization to 1600	3
HST 1120	Western Civilization Since 1600	3
HST 1210	American History to 1865	3
HST 1220	American History 1865-Present	3
PHL 2000	Critical Thinking	3
PHL 2100	Ethics	3
PHL 2300	Medical Ethics	3
PHL 2400	Philosophy of World Religions	3

**Social & Behavioral Sciences**

Complete six semester hours chosen from at least two different subject areas from among the following:

ECO 1100	General Economics	3
ECO 2210	Principles of Macroeconomics	3
ECO 2220	Principles of Microeconomics	3
GEO 1100	World Human Geography	3
GEO 2200	World Regional Geography	3
PLS 1100	Introduction to American Politics	3
PLS 1300	Introduction to Comparative Politics	3
PLS 2300	Introduction to International Relations	3
PSY 1111	Psychology I	3
PSY 2223	Lifespan Human Growth & Development	3
PSY 2230	Abnormal Psychology	3
RST 2700	Regional Studies: Africa	3
RST 2800	Regional Studies: Latin America	3
SOC 1110	Sociology	3
SOC 2220	Comparing Cultures	3
SOC 2230	Social Problems	3
SOC 2240	Racial and Cultural Minorities	3
SOC 2250	Sociology of Poverty	3

**Natural & Physical Sciences**

Complete one, two-course sequence in the same science chosen from the sequences with asterisks or complete two courses from two separate content areas.

BIO 1410	Fundamentals of Biology*	4
BIO 1420	Global Biology*	4
BIO 1510	Biology I	5
BIO 1520	Biology II*	5
BIO 2121	Anatomy & Physiology I	4
BIO 2122	Anatomy & Physiology II	4
CHM 1100	Chemistry and Society	4
CHM 1150	Intro to General Chemistry	4
CHM 1160	Intro to Organic and Biological Chemistry	4
CHM 1210	General Chemistry I	5
CHM 1220	General Chemistry II	5
CHM 2110	Organic Chemistry I	5
CHM 2120	Organic Chemistry II	5
GLG 1130	Earth Science	4
GLG 1131	Physical Geology	4
GLG 1132	Historical Geology	4
GLG 1133	Environmental Geology	4

PHY 1100	Fundamentals of Physics	4
PHY 1200	Introduction to Astronomy	4
PHY 1501	General Physics I	5
PHY 1502	General Physics II*	5
PHY 2501	General Physics I with Calculus	5
PHY 2502	General Physics II with Calculus*	5

Please note: \* indicates final Transfer Module approval pending.

**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 bachelor's 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 bachelor's 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 Transferology 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 of your transcript evaluation, 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 academic 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 academic 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

# 2016 2017

Experience everything Clark State has to offer! From financial aid and scholarship opportunities to career planning and tutoring services, successful students take advantage of Student Services.

## Getting Started - The Admissions Process

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 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.

Some students may need additional coursework in science, mathematics, and English 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 ACCUPLACER 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 or if the student needs to take college preparatory courses.

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, the Greene Center Campus located at 3775 Pentagon Boulevard in Beavercreek, or the Bellefontaine Campus located at the Ohio Hi-Point Career Center at 2280 State Route 540 in Bellefontaine.

### Apply for Admission

The Admissions Office is available to help you get started at Clark State and is located in the Sara T. Landess Technology and Learning Center, Room 120, the Greene Center, Room 202, and the Bellefontaine Campus at 2280 State Route 540, Bellefontaine.

Complete the Clark State admissions application online 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. If you have questions, please contact the Admissions Office in Springfield at 937.328.6028, the Beavercreek Campus at 937.429.8819, the Bellefontaine Campus at 937.328.6484, or e-mail [admissions@clarkstate.edu](mailto:admissions@clarkstate.edu).

Students will 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 in the section on Health and Human Services programs. Students applying to the Realtime Court Reporting programs must submit a high school transcript upon graduation or GED certificate.

Applicants are notified of their acceptance within 3 business days of the Admissions Office receiving their application. All admission procedures apply to both full-time and part-time students.

### Apply for Financial Aid

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 in Sara T. Landess Technology and Learning Center, Room 114 or the Greene Center, Room 202. You may also contact them at 937.328.6034, the Greene Center 937.429.8912, or [finaid@clarkstate.edu](mailto:finaid@clarkstate.edu).

### Send Your Transcripts

You need to send your high school and/or other college transcripts or your General Education Diploma (GED) 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 an official copy of your college transcripts.
- You are entering either of the Realtime Court Reporting program options, you must submit your high school transcripts.

High school and/or other college transcripts should be sent to the Clark State Admissions Office, P.O. Box 570, Springfield, OH 45501 or to the Greene Center, 3775 Pentagon Boulevard, Beavercreek, OH 45431.

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 ACCUPLACER Placement Test

If you are entering a degree or certificate program at the College, you may be required to take placement tests in reading, writing, and mathematics before you register for your first courses. If you are a recent high school graduate, you may be able to use your high school transcripts to bypass all or part of the placement test. To determine if you are eligible, you may contact 937.328.6049 or email [successcenter@clarkstate.edu](mailto:successcenter@clarkstate.edu). This test will determine the level of classes in which you will have the most success during your first term at Clark State.

A scheduled appointment is required for testing. Allow yourself three 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 (see below). If you are enrolling exclusively in non-credit courses you do not need to take the test.

Paper, pencil, and calculator will be provided. Personal calculators may not be used. A study guide is available in the Admissions Office, the Student Academic Support Center, the Greene Center, or online at [www.accuplacer.org/students](http://www.accuplacer.org/students).

Most often, your placement test results will remain valid for three years. Initial placement tests are free of charge. The first retest is allowed seven (7) days after the initial test. All subsequent retests are permitted 120 days from the most recent test. The Retest fee is \$15.

Your transcripts or scores must be on file at the time of registration. You will be required to bring a valid photo ID and your acceptance letter.

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 Office of Accessibility, 937.328.6019 or 937.431.7155.

Testing is available on the Leffel Lane Campus, Greene Center Campus and the Bellefontaine Campus. To schedule an appointment, contact one of the locations below:

- Leffel Lane Campus, Springfield: Student Academic Support Center, Rhodes Hall lower level, 937.328.6049 or [springfieldtesting@clarkstate.edu](mailto:springfieldtesting@clarkstate.edu)
- Greene Center Campus, Beavercreek: Success Center, Room 121, 937.429.8921
- Bellefontaine Campus: Ohio Hi-Point Career Center, 937.599.7602.

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 520 SAT.
- Students are excused from placement testing in reading if they have received the following Reading scores in the last three years: 21 ACT or 450 SAT.
- Students are excused from placement testing in writing if they have received the following English scores in the last three years: 18 ACT or 430 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.

## 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 and staff. You can register for orientation online at [www.clarkstate.edu](http://www.clarkstate.edu) or by calling 937.328.6084 for the Springfield Campus or 937.429.8819 for the Beavercreek Campus. If you are a fire or police academy student, you do not have to attend orientation.

You will complete the following at orientation:

- Meet with an advisor who will help you register for classes.
- Pick up your new student ID.
- Obtain your schedule and invoice from the Records and Registration Office in Sara T. Landess Technology and Learning Center, Room 114, Greene Center Student Services, Room 202 or at the Bellefontaine campus. 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 at the Cashiers Office in the Sara T. Landess Technology and Learning Center or at the Greene Center Student Services, Room 202. Credit card payments may be made in person, by calling 937.328.6048 or 937.429.8819, or online through WebAdvisor.
- If you need help paying for your classes, you can meet with financial aid specialists.
- 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. Check the online calendar for dates when vouchers can be used. The Bookstore is located in LRC, Room 120 and at the Greene Center. You may contact the Bookstore at 937.328.6099, 937.429.8918 or [bookstore@clarkstate.edu](mailto:bookstore@clarkstate.edu).

## Obtain Your Student ID

You may obtain your ID at the Library in the Sara T. Landess Technology and Learning Center, Room 122 or at the Greene Center Information Desk beginning the first day of the term. Please bring an existing photo ID with you. Students attending new student orientation can obtain their student ID that day after registering for classes.

## Validate Your Student ID

You may have your student ID validated at the Library, Sara T. Landess Technology and Learning Center, Room 122 or at the Greene Center, Room 121. 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](mailto:library@clarkstate.edu).

## What Kind of Student Are You?

### 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 250 courses offered each semester, so that you can maintain your career, family, and home. Clark State offers over 125 degrees 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, career exploration, financial aid and scholarships, and veterans services to name a few. Additional information on entrance requirements and services can be obtained through the Admissions Office at 937.328.6028, 937.429.8819, 937.328.6484, or [admissions@clarkstate.edu](mailto:admissions@clarkstate.edu).

### 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, 937.429.8819 or 937.328.6484.

### College Credit Plus Program (CCP)

The College Credit Plus Program provides 7th through 12th grade students who are academically ready for college with a chance to start college early. The program is intended to provide students with a more rigorous academic schedule while earning both high school credit and college credit simultaneously in a variety of subjects. After graduating from high school, you can use your CCP credits to continue your education at Clark State to complete a certificate or an associate degree, or you can transfer your credits to another college or university in Ohio. This program is free for all high school students who participate. College Credit Plus is offered in a variety of modalities for students: in the high school (where approved), online, and on campus.

Clark State has created 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. All CCP 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 and will also be the grade recorded on your official college transcript. Your high school instructors and counselors can help you decide if the classes you are taking meet the Clark State requirements for credit and can facilitate your enrollment. The Admissions Office can provide you with additional information and entrance requirements.

CCP students can also take courses online or at Clark State's Springfield, Beavercreek, or Ohio Hi-Point locations. CCP students on a Clark State campus will experience a positive college environment with personal attention in the classroom with our small class sizes. If you are ready for the college experience, Clark State is a great place to begin!

All CCP students must complete the online College Credit Plus Program application by going to [www.clarkstate.edu](http://www.clarkstate.edu) and selecting "Apply Online." CCP students must then select "Apply for High School Programs" to complete the application. CCP students must submit either ACT, SAT or ACCUPLACER Placement test results to determine eligibility for course enrollment and attend a CCP orientation session.

High school students who are not enrolled in the CCP Program and are seeking to enroll at Clark State should refer to the Jump Start Option instructions.

### College Tech Prep

Tech Prep is the national initiative which creates curriculum pathways between high schools and career centers and colleges. Clark State is part of the Northwest Ohio Tech Prep Regional Center. Students in career technology programs and area high schools may receive college credit for their high school technology training. Clark State has articulations with high schools as well as career centers and their satellite locations in Clark, Champaign, Logan, Hardin, Union, Montgomery, and Greene counties.

Clark State offers pathways in:

- Agriculture/Landscape/Turf Management
- Animal Science
- Business Technologies: Accounting, Marketing
- Computer-Aided Design
- Criminal Justice
- Digital Media
- Diesel Technology
- Early Childhood
- Engineering Technologies
- Financial Services
- Geographic Information Systems (GIS) and Geospatial Technologies
- Graphic Design
- Health Occupations/Nursing/Physical Therapy Assistant
- Heating, Ventilation, Air Conditioning and Refrigeration
- High School of Business
- Interactive Media
- Medical Assisting
- Networking
- Office Administration
- Project Lead the Way
- Supply Chain Management
- Software Design
- Welding

Clark State also offers an Associate of Technical Studies degree for students whose technical skills are not offered in a specific technical degree program. This is offered to career center and high students in career tech programs such as carpentry, cosmetology, and others.

A great opportunity for all high school career tech students is the \$3,000 George Mueller Tech Prep Scholarship. This is open to all qualified Tech Prep students in Clark, Champaign, Hardin, Logan, and Greene counties and career centers and high schools graduating with a 2.5 GPA or better. Students must apply by March 31.

For more information contact the Tech Prep office at 937.328.3888.

### Jump Start Option

High school students who are not participating in the College Credit Plus (CCP) Program can still enroll in college classes on Clark State's campus while in high school. Students interested in this option must apply and meet all necessary prerequisites and co-requisites for all Clark State courses. 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 at 937.328.6028 or 937.429.8819.

### New Student

If you are a new student who has never attended a college, you need to take the placement test or provide ACT/SAT scores, and attend orientation. You will be required to provide proof of a high school diploma or GED test. Students who need additional academic support may be referred to a local ABLE or adult literacy program.

### Transfer Student

If you are transferring from a regionally 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 to Clark State Community College, P.O. Box 570, Springfield, OH 45501, or hand-carried, sealed and unopened, to the Clark State Admissions Office, 570 East Leffel Lane, Springfield, OH 45505 or to the Greene Center, 3775 Pentagon Boulevard, Beavercreek, OH 45431.

### 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 reduced tuition rate of \$67.50 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.

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 Veteran Services at 937.328.6462.

### 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 & Sciences Division, Rhodes Hall, Room 330.

### Mature Citizens Program

If you are 60 years of age or older, you may enroll in college credit and non-credit classes on a space-available basis. Instructional and general fees are waived. In addition to course enrollment, you'll have the opportunity to use the College facilities and educational resources. We also encourage you to take part in student activities. If you would like more information, call or visit the Clark State Admissions Office at 937.328.6028, 937.429.8819, 937.328.6484 or [admissions@clarkstate.edu](mailto:admissions@clarkstate.edu).

### 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](http://www.clarkstate.edu/international). The following documents are required:

**New Student** (You are currently living in your home country)

International Student Application: Please print clearly. Be sure that your name on your application is spelled

the same as your name in your passport. This application can be found on our website, [www.clarkstate.edu/international\\_admissions](http://www.clarkstate.edu/international_admissions).

**Proof of Graduation from High School:** Original or certified copies of official diploma or certificate from each high school translated in English.

**Evidence of English Language Proficiency** (waived for students whose native language is English): Applicants must present evidence of their level of English language proficiency. Any of the methods below can be used to satisfy this requirement:

- **Test of English as a Foreign Language (TOEFL):** The applicant must attain a score of at least 60 on the Internet-based test or 500 on the paper-based test. Applicants applying from abroad must submit an official TOEFL score report to the College. The TOEFL code for Clark State Community College is 1127.
- **International English Language Testing System (IELTS):** The applicant must attain an overall IELTS Band Score of 5.0 or better.
- **Official transcripts from a previous U.S. college or university showing a grade C or better in college/university-level English courses.** This does not include English as a Second Language.

Please note: Regardless of TOEFL or IELTS scores, all new students are required to take the ACCUPLACER placement test upon arrival at Clark State Community College.

**Evidence of Financial Support:** You and your sponsor(s) must complete the Statement of Financial Support, which states that there are sufficient funds available to cover your educational and living expenses, estimated at \$25,200 per year.

**IMPORTANT:** Your sponsor **MUST** also provide current financial documentation such as bank statements, employment/salary letters, tax returns, etc. The documentation must be less than six months old, include the sponsor's name and signed by the appropriate bank or government official.

**Transfer Student** (You are transferring from another US institution)

Complete and submit the following:

- All documents required for a New Student under the International Student Admission.
- Form I-20: Copies of your current and all previous I-20s.
- A photocopy of your passport: Pages with identification information and expiration date.
- A photocopy of your current Visa in your passport.

- If eligible, the transfer form will be made available after all admission documents have been received. You and the DSO at your current institution must complete this form.

**Concurrent Student** (You are concurrently enrolled at your U.S. home institution and Clark State Community College):

Complete and submit the following:

- International Student Application. Please print clearly. Be sure that your name on your application is spelled the same as your name in your passport.
- Copy of your current I-20.
- Copy of your VISA.
- Transcript(s) from your current U.S. college or university.

Please note: If your transcript does not show the necessary course prerequisite(s), you may be denied approval to register for a specific course.

Clark State 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. Failure to submit the documents as required will result in the delay of the processing of your application.

## Fresh Start

If you re-enroll after an absence of three or more consecutive academic years, you may petition the Records and Registration Office 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. To qualify students must have a cumulative progress GPA of 2.5 or less prior to readmission and submit the application for Fresh Start within one year of readmission. A Fresh Start can only be used once and cannot be applied to the coursework of a degree or certificate that has already been conferred. A Fresh Start will not change your academic progress calculation for financial aid purposes of warning or suspension. For more information about Fresh Start and eligibility, contact the Records and Registration Office at 937.328.6015.

## Re-Admission

If you return to Clark State after two 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. Students who interrupt their attendance for four or more consecutive semesters 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 academic 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, Human and Public 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 you wish to test out of English 1111, you will need to complete a three-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. This test is not available to students who are currently enrolled in English 1111, or have previously taken ENG 1111 at Clark State with a grade of A, B, C, D, F, W, or Z. Proficiency testing is not available for English 1112.

You should take the test before the end of midterm week of the term before you plan to be registered for the class. For Fall Semester, the test should be taken in the spring.

The test will be graded by three English faculty members who will determine if you should receive credit for English 1111 or if should enroll in English 1111 based on the results of this exam. The fee for taking the exam is \$60. Call the Arts & 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, Nursing Transition (Practical Nursing to Registered Nursing, Paramedic to Registered Nursing), and the health programs offered through the Northwest Ohio Allied Health Education Consortium (Respiratory Care, Radiographic Imaging, and Occupational Therapy Assistant programs). 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/application request. Students must fulfill the prerequisites as listed prior to petitioning/applying 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.

Entry into some of the health programs is competitive and based on academic achievements.

All applicants must meet the required cumulative grade point average and academic requirements for the respective program prior to applying. 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.

Non-space limited healthcare certificates and AA, AS, and ATS degrees are available. Students interested in completing one of the certificates or degrees while waiting to enter a space-limited program should contact an academic advisor for guidance. Students should also contact the Financial Aid Office to determine the impact pursuing an additional certificate or degree might have on their financial aid.

## Physical Therapist Assistant

Students must obtain the PTA Program Application Handbook from the Admissions Office, Health and Human Services Division Office, the Greene Center, or online, and complete an application to enter the PTA program. Students must refer to PTA program information pages in the Catalog and the PTA Application Handbook for information and take the following steps:

- Demonstrate a minimum 2.5 cumulative grade point average (GPA) for all required courses in the curriculum, regardless of where the course were completed.
- Have a minimum 2.0 cumulative Clark State institutional GPA.
- Successfully complete reading, writing, and math placement tests or equivalency prior to applying.
- Successfully complete or be currently enrolled in course to complete the biology and physics prerequisites prior to applying.
- Complete 60 hours of observation.

Acceptance into the PTA program is a competitive admission process. Applications are accepted in the Health and Human Services Division Office, Applied Science Center, Room 133 or at the Greene Center between December 1-February 1 of each school year. Students are entered into the program once a year in the Fall Semester. Admission notifications are made in March or April of each year.



## Medical Assisting

Students must successfully complete reading, writing, and math/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. Students who have met the petition requirements and submitted a petition are eligible to start the Medical Assisting program's technical (MAS) course sequence. They must contact the Medical Assisting program coordinator for academic advising and approval to enroll in the MAS courses.

## 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. Students are entered into the program once a year in Fall Semester 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. 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.

Students must successfully complete MST 1181 or an equivalent nurse aide training course and furnish verification of nurse aide competency at the time of enrollment in the technical courses. MST 1181 is not a requirement for the waiting list.

## Registered Nursing / Evening Registered Nursing / Nursing Transition / Paramedic to RN

The Registered Nursing (RN) program is space limited and has a competitive admission process. Application to the program does not guarantee admission. To be considered for acceptance into the RN Program, students must:

- Complete application to the college, declaring RN as their major

- Provide official high school transcripts or GED certificate and official transcripts from all previously attended colleges/universities to the Admissions Office
- Demonstrate a minimum 2.5 cumulative grade point average (GPA) for all required courses in the curriculum, regardless of where the course were completed
- Have a minimum 2.0 cumulative Clark State institutional GPA
- Complete reading, writing, math, and algebra placement tests or equivalency (refer to nursing program information for equivalencies)
- Have high school or college chemistry or biology course (refer to nursing program information for more specific information)
- Have current Nurse Aide certification or MST 1181 completed, in progress, or planned for completion prior to starting nursing courses (not required for LPN to RN)

Completion of the above minimum requirements and application to the program does not guarantee admission. Entry to the nursing program is competitive and based on academic achievements. Applications are reviewed and scored using a rubric. Applicants with the highest points will be offered admission to the program. If spaces are not available for all applicants with the same score, these applicants will be ranked by the dates and times their applications were received.

### *Northwest Ohio Allied Health Education Consortium Programs*

Students submit their program application to Rhodes State College. Refer to the programs and majors area on Clark State's web site for application requirements.

## Reinstatement for Health 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, Human, and Public 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, finger printing, 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.

## Academic Advising

Academic advising is a shared responsibility between student and advisor. The student and advisor collaborate to develop, follow and complete an academic plan for the first two semesters. New students are expected to begin their academic program by discussing goals with an academic advisor. First-term students, should attend New Student Orientation for placement test score interpretation and first term scheduling assistance.

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 ACCUPLACER placement test, or after transcripts from previous institutions have been received and reviewed, academic advisors can provide guidance with first term 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.

During the advising session in New Student Orientation, academic advisors will review the specific requirements for completion of the student's academic program. However, the program requirements can also be found on the Clark State website.

Priority registration provides current students with first choice of classes. It is highly recommended that current students take advantage of this opportunity and work with their advisors to make appropriate course selections.

New students will meet with their academic advisor for their first two terms after which time they will transition to their programmatic faculty advisor. Health majors may work with their advisor until they have been admitted into their program.

If you do not know the name of your first-year advisor, you may contact Academic Advising at 937.328.6084 or 937.429.8819 at the Greene Center campus.

## Registration Information

New students should attend New Student Orientation before registering for classes. Students will meet with advisors for scheduling.

If you are a returning student, you should contact an academic advisor for registration assistance.

Priority registration is for students who are currently enrolled at the College and those students enrolled any of the four previous semesters. 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 when to register for classes is found on the college calendar at [www.clarkstate.edu](http://www.clarkstate.edu).

## Ways to Register

- Register online through WebAdvisor on the myClarkState student portal.
- Register in person at the Records and Registration Office in the Sara T. Landess Technology and Learning Center, Room 114; the Business and Applied Technologies Office, LRC first floor; the Greene Center Student Services, Room 202; or at the Bellefontaine Campus at 2280 State Route 540, Bellefontaine.

## Credit-Hour Limit

You may enroll for a maximum of 20 credit hours per term during the regular academic year. You must have the approval of your academic division dean to enroll in more than 20 credit hours.

## Adding Courses

You can add courses through the seventh calendar day of the term in Fall and Spring Semesters. For Summer Terms A and B, you can add courses through the first day of the term. For Summer C and D, you can add courses through the seventh calendar day of the term. The Drop/Add card can be obtained from faculty advisors, academic division offices, academic advisors, Records and Registration, the Greene Center, the Bellefontaine Campus and online.

## Dropping Courses

If for any reason you cannot complete a course, you must officially withdraw from the course. Even if you never attended a course that you registered for, you must officially drop/withdraw, or you may receive a grade. To drop/withdraw a course, you must complete and submit a drop form in accordance with College policy. Check the College calendar for the official published date to drop/withdraw from a course.

Grades will be reflected on transcripts as follows for a regular 16-week term:

- If the course is dropped on or prior to the 15th calendar 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 after the 15th calendar day of the term through the published date indicating completion of 70 percent of the term, the grade of W will appear on the transcript.
- If the course is dropped after the published date indicating completion of 70 percent of the term, the earned grade will be recorded.
- Students who do not attend class by the 15th day of the term will be administratively dropped for non-attendance. The course will not be counted and no notation of the enrollment will appear on the transcript.
- Students who stop attending class prior to completion of 70 percent of the term, but fail to officially withdraw from the course will receive a grade of UW (unofficial withdraw).

For the last date to withdraw from a 16-week term course and receive a grade of W, check the online calendar. For the last date to withdraw from courses that run for less than a full semester, please contact the Records and Registration Office. Drop/Add forms are available from academic divisions, advising offices, Records and Registration, 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 Veteran's Certifying Official in the Financial Aid Office, Sara T. Landess Technology and Learning Center, Room 114, 937.328.6462. Courses dropped anytime during the term could result in an over-payment dating back to the first day of the term.

## 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 academic 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 GPAs.

## 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 will not 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. If you are adding a major with the intent of pursuing two certificates and/or degrees, you must meet with your advisor for approval.

## 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, a list of the colleges and universities participating in the SOCHE cross-registration program, and the Cross-Registration application are available in the Records and Registration Office and on the web at [www.soche.org/crossreg.htm](http://www.soche.org/crossreg.htm).

## Credit/No-Credit Enrollment

You may petition the Records and Registration Office for permission to take one course each term 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 term has begun, you cannot change back to the standard grading system. Your instructor will not know of your decision. At the end of the term, 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, however, the CR grade credits will be added to hours completed.

## Appeals for Transfer Credit

A student disagreeing with the application of transfer credit by Clark State 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. The student must complete the Transfer Appeal form located in the Records and Registration Office, Sara T. Landess Technology and Learning Center, Room 114 or at the Greene Center.

The appeal form is forwarded by the Records and 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 and 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 Provost and Vice President of Academic Affairs. The Provost and Vice President of Academic Affairs has the final decision for all academic matters.

## Paying for College

### How Much Does Clark State Cost?

	Ohio Resident (per credit hour)	Non - Resident (per credit hour)
Instructional fee	\$121.33	\$242.66
General fee	\$9.00	\$9.00
Technology fee	\$9.00	\$9.00
<b>Total Cost</b>	<b>\$139.33</b>	<b>\$260.66</b>

### Other Fees and Expenses

Application fee (one time only) .....	\$15
Late payment fee .....	\$15
Late registration fee.....	\$25
Transcript fee.....	\$5
Transcript online processing fee .....	\$2.25
Auxiliary services fee (per semester).....	\$7.50
Delayed Payment Plan (DPP) service charge .....	\$25
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
ACCUPLACER Re-test fee (maximum of one retake per subject area) .....	\$15
Corporate Proficiency (per credit hour) .....	\$5
Skills proficiency demonstration fee (for certain courses only) (per clock hour) .....	\$25
Make-up class/lab/clinical instructor fee (per clock hour).....	\$25
Test proctoring fee (non-Clark State students) .....	\$25

Instructional fees are charged for all credit hours registered in any one academic term. 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, Counseling Services, and Career Services.

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.

Revenue generated by the technology fee is used to directly benefit students by providing the state-of-the-art technology that is critical to the learning experience.

All fees and expenses are established by the Clark State Community College Board of Trustees and are subject to change without notice. Your fees and expenses are due and payable prior to the beginning of the term in which you are enrolled. Although we make every effort to maintain tuition and fees at the lowest possible level, some 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 terms 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).

To participate in this plan for Fall and Spring semesters, you will pay one-fourth of your assessed fees plus the service charge by the fee payment deadline. The remaining balance is divided into three installments and is payable in approximately three 30-day increments.

To participate in this plan for the summer session, you will pay one-half of your assessed fees plus the service charge by the fee payment deadline. The remaining balance is due approximately 30 days later. This plan is not available for students enrolled in mini-mesters. Books and supplies are not included in this fee payment plan. If you register after the fee payment deadline, you must pay the initial installment (including the service charge) when you register. Contracts and additional information are available in the Cashier's Office in Sara T. Landess Technology and Learning Center Rotunda 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 - Fall, Spring and Summer Semesters

Date	Refund
By the 15th calendar day of the semester	100%

## Parking Enforcement and Penalties

Parking permits are not required for students. Any vehicle ticketed for a Clark State violation that displays a current Clark State 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 term. Fines can be paid in the Cashier's Office in the TLC Rotunda.

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

Parking on grass, sidewalk, loading zone or other restricted area .....	\$25
Student in faculty/staff lot.....	\$20
Improper parking .....	\$20
Parking in visitor designated spaces.....	\$10

City of Springfield violations and fines include the following:

- Handicapped parking without displaying a
- permit issued by the State of Ohio
- Parking in fire lane
- Disobeying traffic control device
- Reckless operation

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

Other violations that could be cited and require 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 Department of Higher Education 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. An Ohio Residency Application Packet must be submitted two weeks prior to the term begin date and approved prior to the first day of classes for the term.

## Student Printing

Each enrolled student is provided \$7.50 in a printing account to print documents on campus each semester. 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 semester can add additional funds for printing by purchasing a pre-paid top-up card from the Bookstore. Money placed into the students' printing accounts by the student will carry over from one term to the next. However, once the money is placed into the printing account, it cannot be refunded.

Each term, 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 will be used 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 Fall semester. 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 his or her 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 term, providing the student meets all eligibility requirements and has submitted all requested documents.

## Priority Deadlines

Fall ..... May 15  
 Spring ..... October 15  
 Summer..... March 15

Generally, Pell Grants may be used for the academic year beginning with Fall Semester and ending with Spring Semester. Eligible students who attend in Summer Semester may request financial aid if they have remaining eligibility at the end of the year.

Part-time students may receive a Pell Grant for an additional term of eligibility.

The Financial Aid Office begins processing financial aid applications for the next academic year in the spring. It is suggested that students apply as early as possible.

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. You may also be required to confirm your identity.

## Eligibility Requirements

The federal program eligibility requirements are listed below:

- Generally, you must show financial need.
- You need to have a high school diploma or GED.
- 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, exceeding the maximum credit hours for 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 either mailed to the student's home address or direct deposited into a bank account by request in the fifth week of the term. Students who totally withdraw may not receive any surplus funds.

## Federal Pell Grant

The Pell Grant is a federal assistance program designed to provide the foundation on which other aid can be built. As in any grant, it is a form of gift aid, which does not have to be repaid. The amount of the award depends on the Expected Family Contribution (EFC) on the Student Aid Report and the number of credit hours for which a student enrolls. A student who has already earned a bachelor's degree is not eligible for this grant. During 2015-2016, the annual value of Pell Grants at Clark State ranged from \$588 to \$5,775 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's degree. The maximum award by law is \$4,000 per year; however, the amount of any individual award may be much less because of restricted funding.

FSEOG awards must be targeted to exceptionally needy students with priority given to Pell Grant recipients.

## Federal DIRECT 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 DIRECT 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 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 \$2,250 per term and must be repaid by the eighth week of the term. 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 or certificate. 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, Federal Direct Stafford Loans, and Parent PLUS 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, each term and cumulatively, with grades of A, B, C, D, IP or S. Grades of F, Z, W, I, U,UW and PG are not considered as successful completions. You must also maintain a cumulative grade point average of at least 2.0.

You must complete your program of study within 150 percent of the program length. Clark State credits and any transfer credits accepted by Clark State are included in the 150 percent timeframe maximums, also including withdrawals, non-completions and College Preparatory Education credit hours. If a student changes majors within the same degree or certificate, he or she is still required to complete within the same maximum timeframe.

## Financial Aid Warning

Students who fail to complete 67 percent of their attempted hours and/or fall below the minimum GPA requirement are placed on financial aid warning. Aid is applied for one term only and is re-evaluated before the next term. Students must achieve a cumulative 67 percent completion rate of all attempted hours and meet a minimum 2.0 GPA requirement by the end of their warning term. The student's entire academic history at Clark State is included in the evaluation. 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. You have an opportunity to appeal a suspension. If you do not appeal, or your appeal is denied, you must successfully complete 16 credit hours at Clark State without the assistance of federal financial aid and achieve a cumulative GPA of 2.0. in order to receive further financial aid. If you complete 16 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 financial aid 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 student is placed on probation, the cumulative standards of 67 percent completion rate and cumulative GPA must be met by the end of the probation semester.

If the student is placed on an Academic Plan, the student must adhere to all requirements outlined in the Academic Plan. Minimum requirements are successful completion of 67 percent of attempted credit hours and a GPA of 2.0 at the end of the specified semester. Other additional restrictions may apply. Progress is evaluated at the end of each semester. The student may continue on the Academic Plan for subsequent semesters until the cumulative completion rate is at least 67 percent and cumulative GPA is 2.0.

If at the end of either the probation semester or any Academic Plan semester, the minimum standards are not met, the student will be suspended a second time. Students may only file one financial aid appeal. Once the cumulative minimum standards are achieved, the student will be considered to be making satisfactory academic progress.

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

## Additional Degrees/Certificates

Students who have received one or more associate degrees or certificates and are returning for an additional degree or certificate must complete a New Degree Form in the Financial Aid Office to be considered for any further aid. The form will be forwarded to the Records and Registration Office to determine additional credit hour eligibility. The student will be notified of the new credit hour maximum limit for financial aid. Once the student has reached the new limit, financial aid will be terminated. Financial aid will be limited to only those classes required for the new degree or certificate.

## Work-Study Program

The Federal Work-Study Program provides part-time college 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 term to be eligible to participate. During the Summer term, you must be enrolled for at least six credit hours. Currently, the wage rate is \$8 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 Services 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.

## Non-Attendance

Students that fail to attend class within the first 15 days of the semester (reported by the class instructor) will be administratively withdrawn from the class. Tuition for the class will be refunded and financial aid will be adjusted accordingly.

## Unofficial Withdrawals

Students who begin class but stop participating either by class attendance, online contact, or assignments prior to completion of 70 percent of the term, will be considered an unofficial withdrawal. The student will receive a failing grade of UW on their transcript. In addition, a required federal financial aid recalculation will be completed and the student may owe funds back to Clark State.

## 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 semester 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 semester 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. semester). For example, if a student completely withdrew on the 20th day of the semester that is 114 days in length, the student would have only earned 17.5 percent of the aid he or she received (20 divided by 114 = 0.175). Clark State 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 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 Direct Stafford Loans (unsubsidized, then subsidized), Federal PLUS Loans, Federal Pell Grant, and Federal SEOG.

Students who remain enrolled more than 60 percent of the payment period (semester) 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 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 or on the Clark State website under Scholarships.

### Trustee Honor Scholarship

Fifteen full-tuition packages are available to academically talented students from high schools and vocational schools in Clark, Champaign, Greene, or Logan County.

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, the Admissions Office, or the Clark State website. Application deadline is December 15. Trustee Honor Scholarship recipients are required to participate in the Honor's Program as well.

### Honors Program

The mission of the Honors Program is to offer enhanced courses and recognition to a community of students with outstanding academic potential, to promote personal and civic responsibility through purposeful service to others and to equip students to actively engage in academic and community leadership. There are two honors levels. The Eagle Award is designated

for students who successfully complete three honors courses with a grade of B or higher. The Honors Scholar is designated for students who successfully complete six honors courses with a grade of B or higher. Limited scholarship opportunities are available for students who are not Trustee Scholarship recipients.

### Clark State Foundation

The Clark State 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. Applications are available on 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. Foundation scholarships can be used for tuition, books and fees.

### George Mueller Tech Prep Scholarship

High School Tech Prep students graduating from a career center or high school in Clark, Champaign, Greene, Hardin, or Logan County may apply for the George Mueller Tech Prep Scholarship. Students must have a 2.5 GPA during junior and senior years and continue in the same Tech Prep pathway at Clark State to qualify for this \$3000 per year scholarship. Applications are available from the career center or high school counselors and Tech Prep teachers. Deadline for applications is March 31. Contact Clark State Tech Prep at 937.328.3888 for additional information.

### Other Ohio Scholarships Available

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 percent of instructional and general fees of its members approved for education. Application is made through the local Guard unit.

#### Ohio Tuition Waivers

The State of Ohio grants tuition waivers for the children of Ohio peace officers and fire fighters killed in the line of duty. Applications are processed through the Financial Aid Office.

#### Ohio War Orphans Scholarship

The State of Ohio awards scholarships for the 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, 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 order an official transcript of your academic records online, in person, or by mail. There is a \$5 fee per transcript. (An additional \$2.25 processing fee will be charged per recipient for online ordering.) All financial obligations to the College must be paid and all College equipment returned before a transcript can be released. Once a request is received, transcripts will, normally, be sent within 3-5 business days.

#### Online

Clark State offers online transcript ordering, which allows for 24/7 ordering access, faster service, secure transactions, online order tracking, and e-mail updates. For detailed information and a link to online ordering, visit the College website. A major credit card is required for online ordering.

#### In person

Transcripts may be ordered in person during normal business hours by completing a Transcript Request Form at the Leffel Lane Campus in Springfield or at the Greene Center in Beavercreek.

#### By Mail

We strongly encourage and recommend that you use online transcript ordering. If, however, you are unable to do so, you may send a written letter of request to: Records Office, Clark State Community College, PO Box 570, Springfield, OH 45501.

Written requests must contain all of the following information: Full, current name, previous name(s) used while attending Clark State, SSN or student identification number, date of birth, approximate years of attendance, a contact phone number where you can be reached if there is a problem with your order, number of transcripts requested, name(s) and address(es) where the transcript is to be sent, and your signature authorizing release of your transcript.

For in-person and mail orders, Clark State accepts cash, check, money order, VISA, MasterCard, and Discover Card. Payment must accompany the transcript request.

### Access to Educational Records

The Family Educational Rights and Privacy Act (FERPA) affords you certain rights with respect to your educational records. You have the right to inspect and review your educational 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 educational records if you believe it is inaccurate or misleading. You should write the College department 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 Enrollment Services 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 educational 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

Family Educational Rights and Privacy Act of 1974 as amended is designed to protect your privacy and your educational records. Clark State recognizes "Directory Information" as the following: student name, address, email 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.

## Student Services and Programs

### Tutoring

Tutoring is available by subject area free of charge to all Clark State students. A schedule of available tutoring hours will be posted at the beginning of every term. For more information about tutoring or to become a tutor, please visit the Student Academic Support Center in the lower level of Rhodes Hall or the Greene Center, Room 121.

## Success Center

The Greene Center offers a Success Center located in Room 121. Services include testing, ACCUPLACER testing, Accessibility Services, tutoring, and serves as the drop off and pick up location for OhioLINK online orders.

## Office of Accessibility

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

Students must self-disclose their disability and register with the Office of Accessibility in order to receive accommodations. Students may need to provide documentation of the disability such as an Individualized Education Plan (IEP), Multifactor Evaluation (MFE), or other testing information, or a letter from a doctor or other licensed professional. Students are strongly encouraged to meet with a counselor in Rhodes Hall, Room 105 or Greene Center, Room 121 before enrolling in classes to determine eligibility for services. For more information, contact the Office of Accessibility at 937.328.6019 or 937.431.7155.

## 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, 150 magazine and journal titles with electronic access to thousands more, and over 2,000 media titles. In addition, through OhioLINK, the library provides access to 17,000 periodicals and more than 49 million books, plus nearly 70,000 e-books. The library website offer links to the catalog and to OhioLINK, as well as to other helpful tools. The website is [lib2.clarkstate.edu](http://lib2.clarkstate.edu).

A valid Clark State student identification card serves as your library card and entitles you to full borrowing privileges. A valid identification card also serves as a library card to other college and university libraries in Ohio.

Students can reserve small group study rooms, which have VCR/DVD players. Reservations must be made four hours in advance.

The Paul Laurence Dunbar Library at Wright State University serves as the nearest library for students completing courses at the Greene Center Campus. Students may access and utilize this library with a valid Clark State student ID.

OhioLINK services are available at the Greene Center Monday through Thursday 9 a.m. - 6 p.m., and Friday 8 a.m. - 5 p.m.

Requests for diplomas, transcripts, and registration for subsequent terms may be rejected due to Library obligations.

Library hours are 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.

## Counseling 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. Counseling is 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.

The Counseling Center is located in Rhodes Hall, Room 224. Office hours are Monday-Friday, 9 a.m.-3 p.m. You may walk in or call 937.328.7961 for an appointment. Students at the Greene Center campus can call 937.328.7961 to set up an appointment.

## Career and Employment Services

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, Clark State will help you meet these challenges. We have a full range of services designed to assist you in exploring the wide range of personal and professional choices open to you and to find the career path that fits you best. All Clark State students and alumni are encouraged to use the web-based resume referral service, self-assessment, career exploration, and job search resources.

For assistance with career exploration, schedule an appointment with an academic advisor by calling 937.328.6084 for the Springfield campus or 937.429.8819 for the Beaver Creek campus.

For assistance with writing a resume, preparing for an interview, obtaining a co-op/internship, applying for jobs, and many other career-related activities, call 937.328.6468.

You may also access resources online at <http://www.clarkstate.edu/student-life/career-planning>.

## Cooperative Education

Cooperative education is a unique form of education which shows you how to use classroom learning in the workplace. This combination of classroom study and related, paid, and supervised on-the-job training prepares you to join the workforce after graduation.

Clark State operates on a semester calendar. This allows you to be placed in a work site for approximately 15 weeks each semester. Most students prefer to work part-time (typically 20 hours per week) while carrying either full- or part-time coursework. Some students may prefer to work full time during the summer.

To participate in the Co-op Program at Clark State, you must:

- be a currently enrolled student with a GPA of at least 2.0 (some employers may have a higher GPA requirement),
- successfully complete the course Employability Skills (EBE 1000), and
- be committed to obtaining an associate's degree from Clark State.

For more information, contact the Co-op and Employment Coordinator at 937.328.6468.

## Student Support Services

The Student Support Services Program (TRIO) 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 937.328.6061.

## College Preparatory Education

College Preparatory Education (CPE) courses in reading, writing, and mathematics are designed to build skills so that you will 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 sufficient background in an area (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 the academic division dean in your major.

## 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.

## Phi Theta Kappa

Phi Theta Kappa is the International Honor Society for two-year colleges. 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 15 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 123 campus and field chapters throughout the world. 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.

## Student Ambassador Program

Student Ambassadors are positive, enthusiastic, and well-informed representatives of the student body who work with faculty, staff, and students to promote Clark State's programs and services. They serve as advocates for all students by fostering support in their academic performance, achievement, and social development. Student Ambassadors are dedicated to student success, diversity, and strengthening student connections. To be eligible, students must have a minimum grade point average of 2.5, completed a minimum of 12 credit hours, and received a recommendation from the Ambassador Selection Committee.

## Athletics/Intramurals

Clark State Community College offers five intercollegiate athletic programs: men's basketball, men's baseball, women's basketball, women's softball, and women's volleyball.

As a member of the National Junior College Athletic Association (NJCAA), Clark State competes in Division II in intercollegiate athletics. Recruited student-athlete applicants to the college must provide official transcripts from all high schools attended, as well as all other colleges attended. Qualified, recruited student-athletes can be offered athletic scholarships. For more information about recruiting, eligibility, and participation in intercollegiate athletics, contact the Athletics Office at 937.328.7819.

You may also participate in recreational and intramural sports. Some of the activities include club golf, flag football, co-ed volleyball, wiffle ball, and basketball.

## Wellness Center

The Wellness Center is available for any Clark State student, faculty member, or staff member to use. A wide array of cardiovascular equipment as well as strength training equipment is available. The Clark State gymnasium is also available for recreational use and must be entered through the Wellness Center. Locker rooms and showers are available for use. Access to the Wellness Center and gymnasium is only allowed after showing Clark State identification and signing in at the desk inside the Wellness Center. The hours of operation are Monday-Thursday, 8 a.m. – 6 p.m. and Friday, 8 a.m.- 5 p.m.

## Performance/Concerts

Clark State 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.

For more information about the auditions or student theatre productions, please contact the Theatre Arts Program at 937.328.3880.

In addition to performing opportunities, Clark State offers students the rewarding opportunity to work back stage at the Performing Arts Center events through the College Work-Study Program. Contact Performing Arts Center technical director at 937.328.3863 for more details.

## 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 Provost and Vice President of Academic 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 (UW or F) 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 academic 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 eight weeks after the end of the semester. If the grade was for a Spring or Summer term class, you should discuss it with your instructor by the eighth week of Fall Semester. If the problem is still not resolved, you may discuss it with the academic division dean and then with the Provost and Vice President of Academic 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 semester's work, you will be enrolled on the Dean's List in recognition of achievement that semester. 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:

<i>Hours attempted</i>	<i>Progress GPA</i>
1-10	Below 1.50
11-20	Below 1.60
21-30	Below 1.70
31-40	Below 1.80
Over 40	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 is 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 term 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 term following the term in which your progress GPA falls below probation levels. However, you will be placed on probation at least one term 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 term will result in dismissal. You will be dismissed when your progress grade point average falls into the following ranges.

### *Hours attempted*

1-10  
11-20  
21-30  
31-40  
Over 40

### *Progress GPA*

Below .80  
Below .90  
Below 1.20  
Below 1.40  
Below 1.60

## Re-Admittance After Dismissal

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

Upon re-admittance, you must meet with the academic 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 terms.

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 progress GPA of 2.0 each term. If you fail to maintain a progress GPA of 2.0 each term, you will be dismissed again if your cumulative progress GPA falls into 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 Department of Higher Education.

## Grading System

Academic achievement is indicated by the following grades and points used in calculating grade point average:

A-Excellent	(4 grade points per credit hour)
B-Good	(3 grade points per credit hour)
C-Average	(2 grade points per credit hour)
D-Poor	(1 grade point per credit hour)
F-Failing	(0 grade points per credit hour)
UW-Unofficial Withdrawal*	(0 grade points per credit hour)

\*Student stops attending class prior to completion of 60 percent of the term, but never officially withdraws from the course.

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:

	<i>Credit Hours</i>	<i>Grade</i>	<i>Points</i>
Course 1	3	B	9
Course 2	3	C	6
Course 3	4	B	12
Course 4	3	C	6
<b>Totals</b>	<b>13</b>		<b>33</b>

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:

S .....	Satisfactory
U .....	Unsatisfactory
I .....	Incomplete
PR .....	Proficiency
CR .....	Credit
NC .....	No Credit
EX .....	Experiential Credit
TR .....	Transfer Credit
AR .....	Articulated Credit
W .....	Withdrawal
X .....	Audit
N .....	No Grade Reported (Records Office use only)

## Incomplete

The incomplete "I" grade may be granted 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 prior to the last day of any term. 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 term. 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 eighth week of the following term to an "F" grade on your transcript. A student receiving an incomplete grade at the end of Spring or Summer term must complete all conditions by Friday of the eighth week of Fall Semester.

## 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 Reporting 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 20 credit hours of coursework at Clark State for an associate degree or 12 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 academic division dean. All financial obligations to the College (instructional fees, general fees, laboratory fees, technology fees, library fines, parking fines, etc.) must be paid and all College equipment returned before your grades or a diploma will be issued by the College.

## Graduation Process

Students will receive an email from Records and Registration during the term in which a student is enrolled in the final courses needed to complete his/her degree or certificate. This email will confirm that the student has registered for the necessary courses and that pending successful completion of those courses, can expect to receive his/her diploma or certificate at the end of the term.

Once courses have been successfully completed and confirmed by Records and Registration, students will be graduated. They will receive their diploma or certificate through the US Mail approximately eight weeks after the end of the term.

Important things for the graduating student to do prior to/during their last term:

- Check with your faculty advisor to ensure that all requirements for your degree/certificate will be met by the end of the term in which you wish to complete. You must also insure that required course substitutions (if any) have been submitted and processed.
- Check your Clark State Student email regularly.
- Verify that Records and Registration has your current mailing address.

## Participation in Commencement

Students earning an associate degree or one-year certificate will be offered the opportunity to participate in Clark State's annual Commencement Ceremony. Information about the ceremony will be sent to participants approximately 30 days before the ceremony. Clark State has one Commencement Ceremony each year at the end of Spring Term. Associate degree and certificate recipients who will graduate during Fall through Summer Terms are eligible to participate in the May Commencement Ceremony.

## 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 term, you are part-time.

You are a first-year student if you are registered in a specific program and have earned fewer than 30 semester hours of credit, including transfer credit. You are a second-year student once you have earned 30 or more semester 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.

As of Fall Term 2009, students obtaining an Advanced Placement (AP) exam score of three or above are 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 toward graduation where such elective credit options exist within the academic major.

Additional courses or credits may be available when a score of four or five 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.



# Program Listing / Campus Key

## Key

- E** - Online
- G** - Beavercreek (Greene Center)
- L** - Bellefontaine (Ohio Hi-Point Career Center)
- M** - Dayton
- O** - Outreach location
- S** - Springfield (Leffel Lane or Downtown Springfield)
- U** - Urbana
- ★** - Start here, finish there

### Start a Bachelor's Degree / Transfer

- Associate of Arts
- Associate of Science
- Business Transfer - Central State University
- Business Transfer - Wright State University
- Communication Studies Concentration
- Social Work Transfer - Wright State University
- Teacher Education Transfer

### Advanced Technical Intelligence Degree

- Advanced Technical Intelligence

### Advanced Technical Intelligence Certificate

- Advanced Technical Intelligence

### Agriculture and Horticulture Degrees

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

### Agriculture and Horticulture Short-Term Technical Certificate

- Precision Agriculture

### Aviation Degrees

- Associate of Arts - Aviation Concentration G, S, U
- Associate of Science - Aviation Concentration G, S, U

### Aviation Certificates

- Aviation Multi-Engine Post-Degree G, S, U
- Aviation Pilot Flight G, S, U

### Business Degrees

- G, S Accounting G, S, E
- G, S Human Resource Management Option G, S
- G, S Insurance Option E
- G, S Logistics and Supply Chain Management Option G, S
- S Management G, S, E
- G, S Marketing Option G, S
- G, S Medical Office Administration G, L, S
- Office Administration G, L, S
- Paralegal G, S, ★
- G Professional Services Management G, S, E

### Business Certificates

- G Accounting G, S, E
- G Management G, S, E
- Office Administration G, L, S

### Business Short-Term Technical Certificates

- S Advanced Medical Coding G, S
- S Customer Service G, S, E
- S Medical Coding G, L, S
- S Property Insurance Claims E
- S Real Estate G, S

### Business Departmental Certificates

- Communication G, S
- Health Information Technology G, S
- S Human Resource Management G, S
- Logistics and Supply Chain Management G, S
- Marketing G, S
- Small Business G, S
- Supervisory G, S, E
- Supply Chain Management Degree + G, S

### Career and Technical Education Degree

Career and Technical Education - ATS G, S

### Computer and IT Degrees

Computer Networking G, S  
Computer Software Development G, S  
CyberSecurity/Information Assurance G, S  
Information Services: Library Paraprofessional S, ★  
Technical Systems Support Option G, S

### Computer and IT Short-Term Technical Certificates

CyberSecurity G, S  
Network Administration G, S  
Network Infrastructure G, S  
Technical Support G, S

### Computer and IT Departmental Certificates

Computer Programming G, S, E  
Mobile Application Programming G, S, E  
Web Development G, S, E

### Court Reporting / Captioning Degrees

Judicial Court Reporting E, S  
Broadcast Captioning/ CART Option E, S

### Court Reporting / Captioning Departmental Certificate

Judicial Reporting Scopist E, S

### Diesel Technology Degree

Diesel Technology M

### Diesel Technology Short-Term Technical Certificate

Diesel Technology M

### Digital Media Degrees

Graphic Design S  
New Media S

### Digital Media Certificate

New Media Web Design Certificate S

### Early Childhood Education Degree

Early Childhood Education S

### EMS / Fire Degree

Emergency Medical Services S

### EMS / Fire Short-Term Technical Certificates

EMT Advanced Certification L, S  
EMT Certification G, L, S  
Firefighter I Certification L, O, S  
Firefighter II Certification L, O, S

### EMS / Fire Departmental Certificates

Firefighter / Transition Certification L, O  
Firefighter / Volunteer Certification L, O  
Paramedic Certification L, S  
Paramedic Certification for Registered Nurses S

### Engineering Degrees

Computer-Aided Design L, S  
Industrial Technology L, S  
Manufacturing Engineering L, S  
Mechanical Engineering L, S

### Engineering Departmental Certificates

Additive Manufacturing S  
Computer Numerical Control (CNC) S  
Computer-Aided Design S  
Industrial Maintenance S  
Manufacturing S  
Manufacturing Foundation S  
Welding S

### Food Science Degree

Food Science and Technology S

### GIS/Geospatial Degree

GIS/Geospatial Technology G

### GIS/Geospatial Short-Term Technical Certificates

Geospatial Precision Agriculture Specialist G  
GIS Analyst G  
GIS Image Analyst G

**GIS/Geospatial Departmental Certificates**

GIS Programming

**Health Degrees**

Associate of Arts - Healthcare Concentration  
 Associate of Science - Healthcare Concentration  
 Exercise Science  
 Medical Assisting  
 Medical Laboratory Technology  
 Multi-Skilled Healthcare  
 Occupational Therapy Assistant  
 Physical Therapist Assistant  
 Radiographic Imaging  
 Registered Nursing  
 Registered Nursing - Evening-Weekend  
 Registered Nursing - LPN to RN Transition  
 Registered Nursing - Paramedic to RN Transition  
 Respiratory Care

**Health Certificates**

Medical Assisting  
 Multi-Skilled Healthcare  
 Practical Nursing  
 Practical Nursing - Evening-Weekend

**Health Short-Term Technical Certificates**

Electrocardiography  
 Nurse Aide  
 Phlebotomy

**Health Departmental Certificates**

Patient Care Technician

**HVAC-R Degree**

Heating, Ventilation, Air Conditioning,  
 and Refrigeration

**HVAC-R Departmental Certificate**

Heating, Ventilation, Air Conditioning,  
 and Refrigeration

**Law Enforcement Degrees**

G Criminal Justice - Corrections Concentration G, S  
 Criminal Justice - Law Enforcement Concentration G, S

**Law Enforcement Short-Term Technical Certificate**

G, S  
 G, S Basic Peace Officer Academy S

S, ★

G, S

**Social Services Degree**

S Social Services G, S

G, S

S, ★

O, S

S, ★

S

S

**Theatre Arts Degrees**

L, S Performance S

G Technical Theatre S

S, ★

**Theatre Arts Departmental Certificate**

Theatre Arts Administration S

S

G, S

L, S

G, S



# Degrees and Certificates

## Start a Bachelor's Degree / Transfer

### Associate of Arts (3180)

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 60 semester credit hours necessary to earn an AA degree at Clark State, a minimum of 39 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 coursework in these two categories, no more than 10 should be selected from technical/career programs unless indicated in a curriculum guide or planned with an advisor with the academic 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:

- Communicate clearly, writing and speaking (Area 1, Area 2).
- Think critically (Area 1, Area 4).
- Critically analyze a work of literature, music, theatre, art, or architecture (Area 3).
- 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 2, Area 4).
- Demonstrate mathematical literacy (Area 5).
- Identify and apply the concepts of various aspects of the natural and physical world (Area 6).

#### Area 1 - English (6 credit hours)

Grades of C or better in ENG 1111 English I and ENG 1112 English II are required for graduation with the AA degree.

#### Area 2 - Communication (3 credit hours)

At least one class from COM 1110, 1120, 1130, 1170, 2220

#### Area 3 - Literature, the Arts, and Humanities (15 credit hours)

Five courses, at least one of which is chosen from ENG 1600, 2250, 2300, 2500, 2610, 2620; at least one from HST or PHL; and at least three additional class from ART 1300, 1330, 1340; MUS 1300; THE 1130, 1133, 2241, 2242; SPN 1111, 1112, 2211, 2212; FRN 1111, 1112; HST; PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620

#### Area 4 - Social Sciences (9 credit hours)

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

#### Area 5 - Mathematics (3 credit hours)

At least one course from those listed under Mathematics (in the Transfer Module). This includes MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530, STT 2640, STT 2650.

#### Area 6 - Natural Sciences (8-10 credit hours)

Many options are available; choose one most suited to your transfer institution. At least two classes from BIO, CHM, GLG, PHY; taken from those listed under Natural & Physical Sciences in the Transfer Module.

#### Foundations (1 credit hour)

All students pursuing an AA or AS degree must take FYE 1100 College Success or FYE 1000 College Success & Computer Basics. FYE 1100 or FYE 1000 should be taken as early as possible in a student's academic career.

#### Capstone Seminar (3 credit hours)

All students pursuing the AA degree are required to take the HUM 2899 Capstone Seminar. Students must have earned at least 40 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of specific AA program goals Concentration/Elective (12-25 credit hours)

These hours should be clearly transferable and count toward or be related to the major at the transfer institution.\* They may also be used to fulfill additional general education requirements at the four-year institution.\* These classes should be planned carefully with an advisor. The credits in this category must bring the total degree credits to at least 60 semester credit hours.

### **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 four courses with significant international content. Courses meeting the requirement are identified in the College catalog. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

### **Advanced Courses**

In addition to the Capstone Seminar, all students pursuing the AA degree are required to complete at least 6 credit hours in courses numbered 2000 or higher. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

Total Credit Hours: 60

\*The number of credit hours and courses may vary with specific curriculum guides. Check with your advisor first. Clark State has detailed transfer agreements with many local colleges and universities. The greatest number of these are with Wright State University, and are in areas such as Business, English, Math, Pre-Teacher Education, Psychology, etc. Please check the Clark State website for more information about these transfer agreements.

## Associate of Science (3250)

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 60 semester credit hours necessary to earn an AS degree at Clark State, a minimum of 39 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, and elective courses.

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 coursework in these categories, no more than 10 should be selected from technical/career programs unless indicated in a curriculum guide or planned with an advisor with the academic 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:

- Communicate clearly, writing and speaking (Area 1, Area 2).
- Think critically (Area 1, Area 4).
- Critically analyze a work of literature, music, theatre, art, or architecture (Area 3).
- 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 2, Area 4).
- Demonstrate mathematical literacy (Area 5).
- Identify and apply the concepts of various aspects of the natural and physical world (Area 6).

### Area 1 - English (6 credit hours)

Grades of C or better in ENG 1111 English I and ENG 1112 English II are required for graduation with the AS degree.

### Area 2 - Communication (3 credit hours)

At least one class from COM 1110, 1120, 1130, 1170, 2220

### Area 3 - Literature, the Arts, and Humanities (9 credit hours)

Three courses, at least one of which is chosen from ENG 1600, 2250, 2300, 2500, 2610, 2620; at least one from HST or PHL; and at least one additional class from ART 1300, 1330, 1340; MUS 1300; THE 1130, 1133, 2241, 2242; SPN 1111, 1112, 2211, 2212; FRN 1111, 1112; HST; PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620

### Area 4 - Social Sciences (9 credit hours)

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

### Area 5 - Mathematics (5 credit hours)

At least one or more courses to total at least 5 credit hours, taken from those listed under Mathematics in the Transfer Module. This includes MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530. STT 2640 and STT 2650 meet AS degree requirements only if both STT 2640 and STT 2650 are successfully completed.

### Area 6 - Natural & Physical Sciences (8 - 10 credit hours)

Many options are available; choose one most suited to your transfer institution. At least two classes from BIO, CHM, GLG, PHY; taken from those listed under Natural & Physical Sciences in the Transfer Module. Each class must have a lab component.

### Foundations (1 credit hour)

All students pursuing an AA or AS degree must take FYE 1100 College Success or FYE 1000 College Success & Computer Basics. FYE 1100 or FYE 1000 should be taken as early as possible in a student's academic career.

### Concentration/Elective (14-30 credit hours)

These hours should be clearly transferable and count toward or be related to the major at the transfer institution.\* They may also be used to fulfill additional general education requirements at the four-year institution.\* These classes should be planned carefully with an advisor. The credits in this category must bring the total degree credits to at least 60 semester credit hours.

### 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 four courses with significant international content. Courses meeting the requirement are identified in the College catalog. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

### **Advanced Courses**

Students pursuing the AS degree are required to complete at least 9 credit hours in courses numbered 2000 or higher. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6.

Total Credit Hours: 60

\* The number of credit hours and courses may vary with specific curriculum guides. Check with your advisor first. Clark State has detailed transfer agreements with many local colleges and universities. The greatest number of these are with Wright State University, and are in areas such as business, English, math, pre-teacher education, psychology, etc. Check the Clark State website for more information about these transfer agreements.



## Business Transfer - Central State University (3210G)

The Business Transfer program is a calculus-based curriculum that will prepare a student to transfer into the College of Business at Central 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 the requisite GPA.

The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Some individuals, especially part-time students and those taking college preparatory courses, will require additional semesters 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 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 1280 College Algebra will need to take the necessary prerequisite mathematics courses before beginning the mathematics sequence.

### Area 1 - English (6 credit hours)

Grades of C or better in ENG 1111 English I and ENG 1112 English II are required for graduation with the AA degree.

### Area 2 - Communication (3 credit hours)

Take COM 1120 Public Speaking

### Area 3 - Literature, the Arts, and Humanities (9 credit hours)

Take ENG 2300 Great Books: World Literature, HST 2200 Topics in African American History and Culture, and either HST 1110 Western Civilization to 1600 or 1120 Western Civilization since 1600

### Area 4 - Social Sciences (9 credit hours)

Take PSY 1111 Introduction to Psychology, SOC 1110 Introduction to Sociology, and either ECO 2210 Macroeconomics or ECO 2220 Microeconomics

### Area 5 - Mathematics (5 credit hours)

Take MTH 1280 College Algebra and MTH 2100 Business Calculus

### Area 6 - Natural & Physical Sciences (10 credit hours)

Take BIO 1510 Biology I and PHY 1501 General Physics with Algebra Foundations (1 credit hour). All students pursuing an AA degree must take FYE 1100 (College Success) or FYE 1000 (College Success and Computer Basics). The FYE class should be taken as early as possible in a student's academic career.

### Concentration/Elective (15-30 credit hours)

Select from ACC 1100 Introduction to Financial Accounting, ACC 1200 Managerial Accounting, ECO 2210 Principles of Macroeconomics (if not taken as part of Area 4), ECO 2220 Principles of Microeconomics (if not taken as part of Area 4), ITS 1105 Computer Concepts & Office Productivity Tools, MGT 1120 Principles of Management, MKT 2000 Marketing Management, MGT 2600 Legal Environment of Business, MGT 1105 Contemporary American Business, STT 2640 Elementary Statistics I. These Concentration/Elective classes should be planned carefully with an advisor from Central State, and may vary by the specific concentration chosen.

## Business Transfer - Wright State University (3210W)

The Business Transfer program is a calculus-based curriculum that will prepare a student to transfer into the Raj Soin 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 semesters 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 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 1280 College Algebra will need to take the necessary prerequisite mathematics courses before beginning the mathematics sequence.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ACC 1100	Introduction to Financial Accounting	4
HST 1110	Western Civilization to 1600	3
STT 2640	Elementary Statistics I	3
GEN 1100	College Readiness	1
<b>Spring</b>		
ENG 1112	English II	3
ACC 1200	Managerial Accounting	4
STT 2650	Elementary Statistics II	2
HST 1120	Western Civilization Since 1600	3
<b>Summer</b>		
ENG 2211	Business Communication	3
PSY 1111	Introduction to Psychology <i>or</i>	
SOC 1110	Introduction to Sociology	3
COM 1120	Public Speaking I	3
<b>Fall</b>		
ECO 2210	Principles of Macroeconomics	3
MGT 1120	Principles of Management	3
MKT 2000	Marketing Management	3
BIO 1510	Biology I <i>or</i>	
PHY 1501	General Physics I with Algebra	5
ENG 2300	Great Books: World Literature	3
<b>Spring</b>		
MTH 2100	Calculus for the Management, Life and Social Sciences	5
BIO 1520	Biology II <i>or</i>	
PHY 1502	General Physics II with Algebra	5
ECO 2220	Principles of Microeconomics	3
MGT 2600	Legal Environment of Business	3
Total Credit Hours		68

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

\*\* Choose from Regional Studies: Regional Studies: 2600: North India, Regional Studies: 2700: Africa, or Regional Studies: 2800: Latin America.

## Communication Studies Concentration (3380)

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 four-year institutions. Some of the schools to which students may choose to transfer include Antioch University Midwest, The Ohio State University, Wittenberg University, Wright State University, Franklin 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 recommendations. Some individuals, especially part-time students and those taking college preparatory courses will require additional quarters of study. Students should consult their academic advisors for help in planning their schedules.

### Learning Outcomes

Upon completion of an associate degree 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:

- 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
- Demonstrate proficiency in a foreign language

### 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 1050 Mathematics and Today's World will need to take the necessary prerequisite mathematics courses before beginning the statistics or math course. 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
<b>Fall</b>		
FYE 1100	College Success	1
ENG 1111	English I **	3
MTH 1050	Mathematics and Today's World **	3
- -	GLG <i>or</i> BIO *	4
SPN 1111	Beginning Spanish, Course I ***	3
COM 1150	Introduction to Communication Theory	3
<b>Spring</b>		
ENG 1112	English II **	3
- -	GLG <i>or</i> BIO *	4
COM 1120	Public Speaking I **	3
PSY 1111	Introduction to Psychology **	3
SPN 1112	Beginning Spanish, Course II ***	3
<b>Fall</b>		
COM 1110	Interpersonal Communication I ** (GA)	3
COM 1170	Small Group Communication (GA)	3
SOC 1110	Introduction to Sociology **	3
ENG 2300	Great Books: World Literature	3
PHL 2100	Ethics	3
SPN 2111	Intermediate Spanish, Course I ***	3
<b>Spring</b>		
COM 2220	Public Speaking II	3
COM 1130	Introduction to Mass Communication **	3
HUM 2899	Capstone Seminar **	3
PLS 1100	Introduction to American Politics	3
SPN 2112	Intermediate Spanish, Course II ***	3
Total Credit Hours		66

\* 8 - 10 credit hours are required in science for an AA degree. See the transfer module for courses that fall into this category; additionally, it is best to select courses which are compatible with the degree plan at the intended transfer institution.

\*\* Online availability.

\*\*\*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.

## Social Work Transfer - Wright State University (3190W)

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 semester-by-semester 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 schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory recommendations. Some individuals, especially part-time students and those taking college preparatory courses, will require additional semesters 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-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 coursework at Clark State.

Foreign language courses are not required for a Clark State AA degree. Foreign language courses are required for BA in social work from WSU. Students may take SPN 1111, 1112, and 2111 at Clark State toward this requirement. SPN 1111 and SPN 1112 are included in the curriculum plan. 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 1111 and 1112, and completion of the official application to the Social Work program. Students should apply to WSU's Social Work program by 4 p.m. February 1, to be considered for admission. Meeting the minimum requirements does not guarantee admission. The Wright State University Social Work application is available on their Department of Social Work, Bachelor of Arts in Social Work web site.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
BIO 1410	Fundamentals of Biology	4
ENG 1111	English I	3
FYE 1100	College Success	1
HST 1110	Western Civilization to 1600	3
PSY 1111	Introduction to Psychology	3
SWK 1100	Introduction to Social Work	3
<b>Spring</b>		
BIO 1420	Global Biology *	4
ENG 1112	English II	3
MTH 1050	Mathematics and Today's World **	3
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
COM 1110	Interpersonal Communication I	3
SPN 1111	Beginning Spanish, Course I	3
SWK 2231	Introduction to Social Welfare ***	3.2
SWK 2260	Multicultural Competence in a Diverse World	3
<b>Spring</b>		
ECO 1100	General Economics	3
ENG 2300	Great Books: World Literature	3
HST 1120	Western Civilization Since 1600	3
HUM 2899	Capstone Seminar	3
PLS 1100	Introduction to American Politics	3
SPN 1112	Beginning Spanish, Course II	3
Total Credit Hours		60.2

\* Any Ohio Transfer Module (OTM) approved laboratory science course may be substituted for BIO 1420.

\*\* Any Ohio Transfer Module (OTM) approved mathematics course may be substituted for MTH 1050.

\*\*\*SWK 2230 and SWK 2271 can be substituted for SWK 2231.

## Teacher Education Transfer (3333)

The Associate of Arts (AA) Teacher Education Transfer concentration is designed for students who plan to transfer into a Teacher Education program at a four-year college or university. It is not designed to prepare students for immediate employment in an educational setting upon graduation. This is a generalist preparation degree program for all students planning future K-12 licensure. 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.

The AA degree focuses on courses in the liberal arts and sciences. Credit hours must come from areas in accordance with the AA degree requirements listed in the front of the catalog. The remaining credit hours are divided among the College Success course and specific education courses. Students completing the curriculum will satisfy the AA degree requirements and 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.

Students seeking an Associate of Arts Education Transfer degree should plan the details of the program at Clark State according to the requirements of the individual transfer institution. 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. 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. In some instances, to prevent taking additional courses, the student may benefit by transferring to the University after one year 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 recommendations. Many individuals, especially part-time students and those taking college preparatory requirements, will require additional semesters of study.

### Learning Outcomes

Upon completion of an Associate of Arts in Teacher Education Transfer-Early Childhood Education degree 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 3).
- 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).
- Demonstrate knowledge of core educational concepts and strategies.

### 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 coursework at Clark State.

Course #	Course Title	Credit Hours
<b>Fall</b>		
EDU 1110	Introduction to Education *	3
ECE 1102	Child Development and Education *	3
BIO 1410	Fundamentals of Biology	4
ENG 1111	English I	3
FYE 1100	College Success	1
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
ENG 1112	English II	3
SOC 1110	Introduction to Sociology	3
ART 1300	Appreciation of the Arts <b>or</b>	
THE 1130	Theatre Appreciation	3
- -	Natural Science Elective **	4
<b>Fall</b>		
PSY 2218	Introduction to Educational Psychology *	3
COM 1120	Public Speaking I	3
ENG 2300	Great Books: World Literature	3
HST -	History Elective***	3
PHL -	Philosophy Elective****	3
<b>Spring</b>		
ECE 2110	Family, Community, Schools *	3
EDU 2217	Individuals with Exceptionalities *	3
STT 2640	Elementary Statistics I	3
SOC 2220	Comparing Cultures <b>or</b>	
SOC 2240	Racial and Cultural Minorities	3
HST -	History Elective***	3
	Total Credit Hours	60

\*Ohio TAG course. TAG courses are consistently transferable to other Ohio public colleges and normally will count toward the major at the transfer institution. Courses may also be used to fulfill additional general education requirements at the four-year institution as applicable.

\*\*Science courses should be selected from those listed under Natural & Physical Sciences in the Transfer Module. Many options are available; choose one most suited to your transfer institution.

\*\*\* History courses should be selected from those listed under Arts and Humanities, Category B in the Transfer Module.

\*\*\*\*The Philosophy course should be selected from those listed under Arts and Humanities, Category B in the Transfer Module.

## Advanced Technical Intelligence

### Advanced Technical Intelligence (5450)

The Associate of Science degree with a concentration in Advanced Technical Intelligence (ATI) 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 planning on a career in the technical intelligence field do need to complete a baccalaureate degree.

Students must be US Citizens and qualify for a security clearance in order to complete the course of study. Students must complete a BCI background check before beginning ATI 2101. 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:

- Demonstrate an understanding of the intelligence community.
- Demonstrate knowledge of the use of remote sensing in collection of intelligence data.
- Demonstrate knowledge of the application of spectral sensing in the collection of intelligence data.
- Demonstrate an understanding of MASINT and SAR.

#### 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 1280. Students who have not had a high school physics class may want to consider taking PHY 1100 before enrolling in PHY 1501. Students who wish to transfer credits to a bachelor's 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 bachelor's degrees in science, engineering, or mathematics should take calculus and the calculus-based physics sequence.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ATI 2101	Introduction to Intelligence	4
ATI 2102	Fundamentals of Remote Sensing in Intelligence	4
ENG 1111	English I	3
FYE 1100	College Success	1
MTH 1280	College Algebra <b>or</b>	
MTH 2200	Calculus I	4
<b>Spring</b>		
ATI 2201	Introduction to Radar and Synthetic Aperture Radar	4
ATI 2202	Introduction to Large-Area Surveillance	3
ATI 2203	Advanced Technical Intelligence Capstone	1
ENG 1112	English II	3
HST 1120	Western Civilization Since 1600	3
MTH 1340	Pre-Calculus <b>or</b>	
MTH 2220	Calculus II	5
<b>Fall</b>		
COM 1120	Public Speaking I	3
GEO 1000	Introduction to GIS and Cartography *	3
PHY 1501	General Physics I with Algebra <b>or</b>	
PHY 2501	College Physics I with Calculus	5
PHL 2000	Critical Thinking <b>or</b>	
PHL 2050	Deductive Logic	3
<b>Spring</b>		
GEO 2200	World Regional Geography	3
PHY 1502	General Physics II with Algebra <b>or</b>	
PHY 2502	College Physics II with Calculus	5
PLS 2300	Introduction to International Relations	3
- -	Literature <b>or</b> Creative Writing Elective**	3
Total Credit Hours		63

\*A Regional Studies (RST) course may be taken instead.

\*\*Select one course from ENG 1600, ENG 2250, ENG 2300, ENG 2500, ENG 2610, or ENG 2620.

## Advanced Technical Intelligence Certificate

### Advanced Technical Intelligence Departmental Certificate (5454D)

The Advanced Technical Intelligence (ATI) certificate is designed for individuals desiring a career in technical intelligence and, in particular, Advanced Geospatial Intelligence (AGI) and Measurement and Signature Intelligence (MASINT). The certificate may be especially attractive to working professionals who already hold a bachelor's degree or possess a background in mathematics and physics and who wish to extend their knowledge of the intelligence community.

Students who are not prepared for college algebra should begin the college preparatory math sequence sufficiently far in advance so as to be able to take MTH 1280 in the fall term along with ATI 2102. Students must be US Citizens and qualify for a security clearance in order to complete the course of study. Students must complete a BCI background check before beginning ATI 2101. Passing the background check does not necessarily indicate that a student will qualify for a security clearance. When work for this certificate has been completed, contact the Business and Applied Technologies Division to apply for the certificate.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
ATI 2101	Introduction to Intelligence	4
ATI 2102	Fundamentals of Remote Sensing in Intelligence	4
ENG 1111	English I	3
MTH 1280	College Algebra *	4
<b>Spring</b>		
ATI 2201	Introduction to Radar and Synthetic Aperture Radar	4
ATI 2202	Introduction to Large-Area Surveillance **	3
ATI 2203	Advanced Technical Intelligence Capstone	1
MTH 1340	Pre-Calculus *	5
	Total Credit Hours	28

\* Students may meet the mathematics requirements by testing beyond the respective courses on the placement test or by transferring in equivalent courses from other colleges.

\*\* Having tested beyond or completed MTH 1280, students can meet the prerequisites on ATI 2200 by completing MTH 1200 or MTH 1115. Either of these math courses may then be substituted for MTH 1340 on this certificate.

## Agriculture and Horticulture

### Agricultural Business (1100)

The Agricultural Business program emphasizes preparation for agriculture service-industry occupations. Courses are offered in soil science, soil fertility, animal science, pest management, sales, business management, and marketing. 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 terms 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.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Demonstrate basic trouble shooting and maintenance skills for small gas engines.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena, and make predictions.

#### Scholastic Preparation

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

#### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1250	Animal Agriculture	3
AGR 1300	Soil Science	4
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
- -	AGR Elective **	3
COM 1120	Public Speaking I	3
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
<b>Summer</b>		
AGR 200B	Co-op Experience in Ag Business	2
<b>Fall</b>		
AGR 2200	Crop Production	3
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
MKT 2450	Sales and Sales Management	3
<b>Spring</b>		
AGR 2650	Integrated Pest Management	4
AGR 2775	Ag Marketing and Trade	3
AGR 2800	Equipment Management, Maintenance & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
- -	Arts/Humanities <b>or</b> Social/Behavioral Science Elective (GA) *	3
Total Credit Hours		63

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as general education for technical programs.

\*\* AGR elective may be any AGR course not required above. AGR 1700, 1750, 1800, 2300, 2450 are recommended. Other course work is to be approved by an AGR academic advisor.



## Agricultural Engineering Technology Option (1120)

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, landscape construction, soil science, soil fertility, 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 terms 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 the Agriculture Engineering Technology option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Demonstrate the proper care of established plants in the landscape.
- Demonstrate basic trouble shooting and maintenance skills for small gas engines.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges

or universities have designed bachelor's 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</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1600	Landscape Maintenance	4
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
AGR 1800	Welding	4
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
- -	Arts/Humanities <b>or</b> Social/Behavioral Sciences Elective *	3
<b>Summer</b>		
AGR 200E	Co-op Experience in Ag Engineering	2
<b>Fall</b>		
AGR 1700	Landscape Construction	4
AGR 2700	Ag Business Management	4
COM 1120	Public Speaking I	3
INT 1201	Hydraulics and Pneumatics I	3
MKT 2450	Sales and Sales Management	3
<b>Spring</b>		
AGR 2450	Irrigation Systems	3
AGR 2800	Equipment Management, Maintenance & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
- -	Technical Elective **	3
Total Credit Hours		64

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as General Education for technical programs.

\*\* Technical electives must be approved by an AGR academic advisor.

## Golf Course Operations Option (1410)

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 golf course operations 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 terms 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 the Golf Course Operations option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Identify common landscape plant materials.
- Demonstrate the proper care of established plants in the landscape.
- Demonstrate basic trouble shooting and maintenance skills for small gas engines.
- Write clearly and accurately in variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges

or universities have designed bachelor's 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</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1400	Turfgrass Science	3
AGR 1600	Landscape Maintenance	4
<b>Spring</b>		
AGR 1350	Soil Fertility	4
COM 1120	Public Speaking I	3
ENG 1111	English I	3
MTH 1200	Technical Math for Agriculture	3
- -	Arts/Humanities <i>or</i> Social/Behavioral Science Elective (GA)*	3
<b>Summer</b>		
AGR 200G	Co-op Experience in Golf Course Ops	2
<b>Fall</b>		
AGR 1700	Landscape Construction	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
ENG 1112	English II	3
<b>Spring</b>		
AGR 2450	Irrigation Systems	3
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Management, Maintenance & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
Total Credit Hours		62

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as General Education for technical programs.

## Landscape Design Option (1440)

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, design, 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 terms 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 the Landscape Design option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Identify common landscape plant materials.
- Demonstrate the proper care of established plants in the landscape.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1600	Landscape Maintenance <i>or</i>	
AGR 1700	Landscape Construction	4
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
AGR 1500	Landscape Design	4
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
<b>Summer</b>		
AGR 200L	Co-op Experience in Landscape Design	2
<b>Fall</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
- -	Arts/Humanities <i>or</i> Social/Behavioral Science Elective (GA) *	3
<b>Spring</b>		
AGR 2150	Herbaceous Plant Materials	3
AGR 2500	Advanced Landscape Design	4
AGR 2850	Agricultural Capstone Seminar	3
COM 1120	Public Speaking I	3
MKT 2450	Sales and Sales Management	3
Total Credit Hours		62

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as general education for technical programs.

## Natural Resources Option (1451)

The Natural Resources 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 terms 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 the Parks and Recreation Operations option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Identify common landscape plant materials.
- Demonstrate the proper care of established plants in the landscape.
- Demonstrate basic trouble shooting and maintenance skills for small gas engines.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena, and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1700	Landscape Construction	4
AGR 1300	Soil Science	4
AGR 1400	Turfgrass Science	3
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
COM 1120	Public Speaking I	3
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
<b>Summer</b>		
AGR 200P	Co-op Experience in Natural Resources	2
<b>Fall</b>		
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
AGR 1600	Landscape Maintenance	4
<b>Spring</b>		
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Management, Maintenance & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
- -	Arts/Humanities <i>or</i> Social/Behavioral Science Elective (GA) *	3
Total Credit Hours		63

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as General Education for technical programs.

## Nursery Operations Option (1420)

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 plant propagation 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 terms 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 the Nursery Operations option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Identify common landscape plant materials.
- Demonstrate the proper care of established plants in the landscape.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1600	Landscape Maintenance	4
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
- -	Arts/Humanities <b>or</b> Social/Behavioral Science Elective (GA) *	3
<b>Summer</b>		
AGR 200N	Co-op Experience in Nursery Ops	2
<b>Fall</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</b>		
AGR 2150	Herbaceous Plant Materials	3
AGR 2300	Plant Propagation	4
AGR 2650	Integrated Pest Management	4
AGR 2850	Agricultural Capstone Seminar	3
MKT 2450	Sales and Sales Management	3
Total Credit Hours		62

\* Must be a global awareness (GA) course and may come from social/behavioral sciences or arts/humanities courses identified in the Catalog as General Education for technical programs.

## Turf and Landscape Operations Option (1430)

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 terms 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 the Turf and Landscape Operations option, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Identify common landscape plant materials.
- Demonstrate the proper care of established plants in the landscape.
- Demonstrate basic trouble shooting and maintenance skills for small gas engines.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena, and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1400	Turfgrass Science	3
ENG 1111	English I	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
COM 1120	Public Speaking I	3
ENG 1112	English II	3
MTH 1200	Technical Math for Agriculture	3
- -	Arts/Humanities <b>or</b> Social/Behaviorial Science Elective (GA)*	3
<b>Summer</b>		
AGR 200T	Co-op Experience in Turf & Landscape	2
<b>Fall</b>		
AGR 1600	Landscape Maintenance	4
AGR 2100	Woody Plant Materials	4
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
<b>Spring</b>		
AGR 2650	Integrated Pest Management	4
AGR 2800	Equipment Management, Maintenance & Repair	4
AGR 2850	Agricultural Capstone Seminar	3
MKT 2450	Sales and Sales Management	3
	Total Credit Hours	62

\* Must be a global awareness (GA) course and may come from social/behaviorial sciences or arts/humanities courses identified in the Catalog as General Education for technical programs.

## Precision Agriculture (1510)

The Precision Agriculture program emphasizes preparation for agriculture service-industry occupations. Courses are offered in soil science, soil fertility, plant pests, precision agriculture, remote sensing, applied GIS for Agriculture, and data analysis. The curriculum is designed to prepare students for employment with companies using geospatial technologies, including geographic information systems (GIS) and global positioning systems (GPS) applied to agricultural production or management activities, such as pest scouting, site-specific pesticide application, yield mapping, or variable-rate irrigation.

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 terms 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 Precision Agriculture, a graduate will be able to:

- Identify plant nutrient deficiencies and describe corrective measures.
- Identify major plant pests, including weeds, insects, and diseases and describe corrective measures.
- Develop a written agricultural business plan.
- Locate and use current information in solving technical and critical thinking problems.
- Demonstrate effective employability skills.
- Analyze data from precision agriculture platforms and prepare recommendations.
- Write clearly and accurately in a variety of contexts and formats.
- Speak clearly and accurately in a variety of contexts and formats.
- Use critical thinking and problem solving to draw logical conclusions.
- Use numerical data to solve problems, explain phenomena, and make predictions.

### Scholastic Preparation

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

### Transfer Options

Students enrolled in 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 bachelor's degree. A number of colleges or universities have designed bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information or talk to your academic advisor.

Course #	Course Title	Credit Hours
<b>Fall</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1300	Soil Science	4
AGR 1750	Precision Agriculture	3
GEO 1000	Introduction to GIS and Cartography	3
<b>Spring</b>		
AGR 1350	Soil Fertility	4
ENG 1111	English I	3
GST 1300	Introduction to UAS	3
GST 1500	Remote Sensing	3
MTH 1200	Technical Math for Agriculture	3
<b>Summer</b>		
AGR 200R	Co-op Experience in Precision Agriculture	2
<b>Fall</b>		
AGR 2200	Crop Production	3
AGR 2600	Plant Pests	4
AGR 2700	Ag Business Management	4
AGR 2750	Applied GIS for Agriculture	4
<b>Spring</b>		
AGR 2650	Integrated Pest Management	4
AGR 2850	Agricultural Capstone Seminar	3
COM 1120	Public Speaking I	3
ENG 1112	English II <i>or</i>	
ENG 2211	Business Communication	3
MGT 2450	Data Analytics	3
	<b>Total Credit Hours</b>	<b>63</b>

# Agriculture and Horticulture Certificate

## Precision Agriculture Short-Term Technical Certificate (1510D)

Agricultural sales and service companies are hiring people who have complete coursework in both agriculture and geospatial technologies to develop precision agriculture programs or to provide technical assistance to farmers.

The Precision Agriculture Specialist certificate is designed to provide the technical background necessary to begin a successful career as a Precision Agriculture Specialist. This certificate program is designed to address training needs in:

- Skills needed to use, manage, and manipulate GIS applications
- Hands-on experience using GIS software
- Knowledge of fundamental concepts and issues related to precision agriculture
- Skills necessary to conduct precision agricultural analysis

Students enrolled in Precision Agriculture certificate usually have an associate's or bachelor's degree. However, coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
AGR 1100	Ag Survey and Professional Development	4
AGR 1750	Precision Agriculture	3
GEO 1000	Introduction to GIS and Cartography	3
<b>Spring</b>		
GST 1300	Introduction to UAS	3
GST 1500	Remote Sensing	3
MTH 1200	Technical Math for Agriculture	3
<b>Fall</b>		
AGR 2750	Applied GIS for Agriculture	4
<b>Spring</b>		
MGT 2450	Data Analytics	3
	Total Credit Hours	26



## Aviation

### Associate of Arts - Aviation Technology Concentration (3390)

The Aviation Technology Concentration of the Associate of Arts degree is designed to prepare students for careers in aviation and for transfer to four-year institutions to complete a bachelor's degree. Clark State partners with MacAir Aviation, Mad River Air, Champion City Aviation, and Middletown Regional Flight Training Institute to provide the formal ground school and flight training courses. Flight fees are collected as special fees associated with the various flight courses. In order to successfully complete all of the AVN courses and qualify to test for the various licenses, a student must pass the required FAA physical before his or her first solo flight. Students may wish to determine if they meet the physical requirements prior to starting the Aviation Concentration.

Students will be enrolled in general education courses and in aviation courses each semester. Students will be eligible for financial aid based on normal requirements for full-time enrollment and academic progress.

#### Learning Outcomes

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

- Qualify to test for the Private Pilot's License.
- Quality to test for a Commercial Pilot's License.
- Communicate clearly, writing and speaking.
- Think critically.
- Critically analyze a work of literature, music, theatre, art, or architecture.
- Analyze and evaluate issues of the human historical and philosophical experience.
- Describe and assess divergent aspects of individual and group human behavior.
- Demonstrate mathematical literacy.
- Identify and apply the concepts of various aspects of the natural and physical world.

Course #	Course Title	Credit Hours
<b>Fall</b>		
COM 1120	Public Speaking I	3
ENG 1111	English I	3
FYE 1100	College Success	1
GEO 1000	Introduction to GIS and Cartography *	3
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
AVN 1003	Supervised Flight I	2
AVN 1011	Instrument Ground	3
ENG 1112	English II	3
HST 1120	Western Civilization Since 1600	3
STT 2640	Elementary Statistics I **	3
<b>Summer</b>		
AVN 1012	Instrument Flight Lab	1.5
AVN 1013	Supervised Flight Lab II	2
- -	Arts, Human, Foreign Language****	
	Elective	3
<b>Fall</b>		
AVN 1014	Supervised Flight Lab III	2
AVN 2001	Commercial Ground	3
AVN 2002	Commercial Flight Lab	1
- -	Literature <i>or</i> Creative Writing	
	Elective***	3
- -	Arts, Human, Foreign Language	
	Elective****	3
- -	Natural <i>or</i> Physical Science	
	Elective*****	4
<b>Spring</b>		
AVN 2011	Certified Flight Instructor Ground	2.5
AVN 2012	Certified Flight Instructor Flight Lab	0.75
GEO 2200	World Regional Geography	3
HUM 2899	Capstone Seminar	3
- -	Arts, Human, Foreign Language	
	Elective****	3
- -	Natural <i>or</i> Physical Science	
	Elective*****	4
	Total Credit Hours	65.75

\*A different Social and Behavioral Science elective may be substituted provided the Global Awareness requirement is met.

\*\*Statistics or Transfer Module Mathematics courses totaling at least 3 semester credit hours. Select mathematics courses that will meet the requirements of the intended major at the transfer institution.

\*\*\*Select once course from ENG 1600, 2250, 2300, 2500, 2610, or 2620 that will meet the requirements for your intended major at your transfer institution.

\*\*\*\*Transfer Module Arts, Humanities or Foreign Language course of at least 3 semester hours that has not been taken to fulfill another requirement. Select the arts, humanities or foreign language electives that will meet the requirements of your intended major at your transfer institution.

\*\*\*\*\*Transfer Module Natural and Physical Sciences electives must total a minimum of 8 semester hours. Select the natural and physical science electives that will meet the requirements of the intended major at the transfer institution.

## Associate of Science - Aviation Technology Concentration (3350)

The Aviation Technology Concentration of the Associate of Science degree is designed to prepare students for careers in aviation and for transfer to four-year institutions to complete a bachelor's degree. Clark State partners with MacAir Aviation, Mad River Air, Champion City Aviation, and Middletown Regional Flight Training Institute to provide the formal ground school and flight training courses. Flight fees are collected as special fees associated with the various flight courses. In order to successfully complete all of the AVN courses and qualify to test for the various licenses, a student must pass the required FAA physical before his or her first solo flight. Students may wish to determine if they meet the physical requirements prior to starting the Aviation Concentration.

Students will be enrolled in general education courses and in aviation courses each semester. Students will be eligible for financial aid based on normal requirements for full-time enrollment and academic progress. A Private Pilot license is required prior to beginning the Aviation courses within the Aviation Technology Concentration of the Associate of Science degree. Students must be at least 18 years of age as well as possess a High School Diploma or General Educational Development (GED) diploma.

### Learning Outcomes

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

- Quality to test for a Commercial Pilot's License.
- Qualify to test for a Certified Instructor's License.
- Communicate clearly, writing and speaking.
- Think critically.
- Critically analyze a work of literature, music, theatre, art, or architecture.
- Analyze and evaluate issues of the human historical and philosophical experience.
- Describe and assess divergent aspects of individual and group human behavior.
- Demonstrate mathematical literacy.
- Identify and apply the concepts of various aspects of the natural and physical world.

Course #	Course Title	Credit Hours
<b>Fall</b>		
COM 1120	Public Speaking I	3
ENG 1111	English I	3
FYE 1100	College Success	1
GEO 1000	Introduction to GIS and Cartography *	3
HST 1120	Western Civilization Since 1600	3
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
AVN 1011	Instrument Ground	3
AVN 1012	Instrument Flight Lab	1.5
ENG 1112	English II	3
--	MTH <b>or</b> STT Transfer Module	
	MTH <b>and/or</b> STT**	5
--	Arts & Humanities Elective***	3
<b>Summer</b>		
AVN 2101	Commercial Pilot Ground PH I	2.5
AVN 2102	Commercial Pilot Flight Lab PH I	2.5
<b>Fall</b>		
AVN 2103	Commercial Ground PH II	3
AVN 2104	Commercial Flight Lab PH II	2
GEO 2200	World Regional Geography	3
--	Literature <b>or</b> Creative Writing elective****	3
--	Natural <b>or</b> Physical Science Elective*****	4
<b>Spring</b>		
AVN 2011	Certified Flight Instructor Ground	2.5
AVN 2012	Certified Flight Instructor Flight Lab	0.75
AVN 2021	Certified Flight Instructor Instrument Ground	2.5
AVN 2022	Certified Flight Instructor Instrument Flight Lab	0.5
--	Natural <b>or</b> Physical Science Elective*****	4
Total Credit Hours		61.75

\*A different Social and Behavioral Science elective may be substituted provided the Global Awareness requirement is met.

\*\*Transfer Module Mathematics courses (including Statistics) totaling at least 5 semester hours. Select mathematics courses that will meet the requirements of the intended major at the transfer institution.

\*\*\*Transfer Module Arts and Humanities course of at least 3 semester hours that has not been taken to fulfill another requirement.

\*\*\*\*Select one course from: ENG 1600, 2250, 2300, 2500, 2610, 2620.

\*\*\*\*\*Transfer Module Natural and Physical Sciences electives must total a minimum of 4 semester hours. Select the natural and physical science electives that will meet the requirements of your intended major at your transfer institution.

## Aviation Certificates

### Aviation Multi-Engine Post-Degree Certificate (3351D)

The Aviation Technology Multi-Engine Post-Degree Certificate is intended to prepare the student for multi-engine flight. It is intended for students who have completed the Aviation Technology Concentration of the AS degree. AA Aviation graduates who also completed AVN 2021 and AVN 2022 may also pursue this certificate.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
AVN 2031	Multi-Engine Ground	2
AVN 2032	Multi-Engine Commercial Flight Lab	0.5
AVN 2042	Multi-Engine Flight Instructor Flight Lab	0.33
	Total Credit Hours	2.83

### Aviation Pilot Flight Certificate (3350D)

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. In order to successfully complete all of the courses and qualify to test for the Private Pilot's license, a student must pass the required FAA physical before his or her first solo flight. Students may wish to determine if they meet the physical requirements prior to starting the certificate.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
AVN 1001	Private Pilot Ground	3
AVN 1002	Private Pilot Flight Lab	2
<b>Spring</b>		
AVN 1003	Supervised Flight I	2
AVN 1011	Instrument Ground	3
AVN 1012	Instrument Flight Lab	1.5
AVN 2001	Commercial Ground	3
	Total Credit Hours	14.5

## Business

### Accounting (4100)

Accountants must have an appreciation of all aspects of business organizations as well as technical proficiency in maintaining accurate records, preparing and analyzing financial statements and other types of financial reports. Accountants may work in such areas as general accounting, bookkeeping, auditing, tax preparation, cost accounting, budgeting, or financial investigation. The demand for trained accountants has increased substantially with the growth and complexity of business and government. According to the U.S. Bureau of Labor Statistics, accountants and auditors can expect much faster than average employment growth over the 2014-2024 decade.

Students with little or no computer background should enroll in ITS 0800 Computer Fundamentals as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 1210 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 semesters of study. Students should consult their academic advisors for help in planning their schedules.

This program is available both in class and online. 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 their roles in business and decision making.
- Interpret, analyze, and present reliable and relevant information to financial statement users based upon generally accepted accounting principles both manually and electronically.

#### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
ACC 1100	Introduction to Financial Accounting	4
ENG 1111	English I	3
FYE 1100	College Success	1
ITS 1235	Beginning Spreadsheet *	1
ITS 1245	Beginning Database *	1
MGT 1105	Contemporary American Business	2
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1200	Managerial Accounting	4
ACC 1300	Payroll Accounting	2
ACC 1400	Computerized Accounting	3
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1120	Public Speaking I	3
ENG 2211	Business Communication	3
<b>Fall</b>		
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
<b>Spring</b>		
ACC 2200	Intermediate Accounting II	4
ACC 2300	Cost Accounting	3
ART 1300	Appreciation of the Arts ** <i>or</i>	
SPN 1100	Survival Spanish **	3
ECO 2220	Principles of Microeconomics	3
MGT 2270	Business Finance	3
Total Credit Hours		63

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Or advisor approval on alternate Arts/Humanities Global Awareness (GA) elective.

# Human Resource Management Option (4320)

The Human Resource Management option provides students with a well-rounded education. It consists of basic management courses complemented with in-depth studies of human resource management, staffing, training and development, employment law, and compensation and benefits. 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 semesters 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.

### 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:

- Analyze quantitative data.
- Apply basic business and management concepts, skills, and tools.
- Demonstrate knowledge of global business trends.
- Demonstrate knowledge of social responsibility trends, ethical issues, and legal considerations.
- Effectively use communications and human relations knowledge and skills.
- Effectively use information technology skills in the business environment.
- Apply knowledge and skills in four functional areas of human resources including staffing, training and development, employment law, and compensation and benefits.

### Degree Availability

The Human Resource Management option is available in a combination of online, hybrid, and traditional formats. Traditional format is offered during the day and evening at the Greene Center Campus as well as the Springfield Campus. Students should consult with an advisor for the recommended sequencing of courses.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications ** ^	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management ^	3
MTH 1060	Business Mathematics ^	3
<b>Spring</b>		
ACC 1000	Accounting Concepts * <b>or</b>	
ACC 1100	Introduction to Financial Accounting *	3
ECO 2220	Principles of Microeconomics	3
ENG 1112	English II <b>or</b>	
ENG 2211	Business Communication	3
MKT 2000	Marketing Management	3
PSY 1111	Introduction to Psychology Arts/Humanities <b>or</b> Social Behavioral Science Elective <b>or</b>	
SOC 1110	Introduction to Sociology Arts/Humanities <b>or</b> Social Behavioral Science Elective	2
<b>Fall</b>		
HRM 1725	Human Resource Management	3
HRM 2300	Training and Development	3
HRM 2350	Employment Law	3
MGT 2000	Introduction to Project Management <b>or</b>	
MGT 2020	Quality Management	3
MGT 2450	Data Analytics <b>or</b>	
STT 2640	Elementary Statistics I	3
EBE 1000	Employability Skills or Technical Elective ***	1
<b>Spring</b>		
EBE 2702	Co-op Education I or Technical Elective ***	2
HRM 2400	Staffing	3
HRM 2450	Compensation and Benefits	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
Total Credit Hours		60

\* Students who plan to complete a baccalaureate degree in the future should opt to take ACC 1100, Introduction to Financial Accounting. A proficiency test is available for ACC 1100.

\*\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\*\* Technical electives must total 3 semester hours. You may choose ACC 1300, MGT 1105, or MGT 1115. ACC 1300 recommended.

^ Proficiency Test available.

## Insurance Option (4361)

The Insurance option at Clark State Community College provides a well-rounded education consisting of basic management courses with concentrated studies related to the insurance industry in claims handling, property loss adjusting, customer service, and claims software. The insurance courses prepare the students for the AIC 30 and AIC 31 certification exams. The associate degree provides students not only with fundamental knowledge and skills for the insurance industry but also the skills needed to serve in management and supervisory capacities.

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 semesters 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.

### Learning Outcomes

Upon completion of an Associate of Applied Business degree in Insurance, a graduate will be able to do the following:

- Analyze quantitative data.
- Apply basic business and management concepts, skills, and tools.
- Demonstrate knowledge of global business trends.
- Demonstrate knowledge of social responsibility trends, ethical issues, and legal considerations.
- Effectively use communications and human relations knowledge and skills.
- Effectively use information technology skills in the business environment.
- Effectively handle insurance claims and adjustments.

### Degree Availability

The Insurance courses in this option are available online. Other courses are available during the day and the evening in Springfield, at the Greene Center, and online. Each semester offers an 8-week A term or B term track, with a D term offered during the summer. Students should consult with an advisor for the recommended sequencing of courses.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
INS 1050	Property and Liability Insurance Principles (A Term)	3
INS 1100	Insurance Claims Handling Principles/Practices (A Term)	3
INS 1115	Customer Service for the Insurance Industry (B Term)	2
INS 1200	Software for the Insurance Claims Industry (B Term)	1
INS 1325	Property Coverages (B Term)	3
<b>Spring</b>		
INS 1400	Property Loss Adjusting (A Term)	5
FYE 1100	College Success (A Term)	1
ENG 1111	English I (B Term)	3
ITS 1105	Computer Concepts and Software Applications (B Term)	3
<b>Summer</b>		
ENG 1112	English II (D Term) <i>or</i>	
ENG 2211	Business Communication (D Term)	3
MTH 1060	Business Mathematics (D Term)	3
<b>Fall</b>		
MGT 1060	Organizational Behavior (A Term)	3
MGT 1120	Principles of Management (A Term)	3
ECO 2220	Principles of Microeconomics (B Term)	3
MKT 2000	Marketing Management (B Term)	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting (A Term)	4
MGT 2600	Legal Environment of Business (A Term)	3
MGT 2800	Business Strategy/Policy Seminar (Capstone) (B Term)	3
--	Technical Elective** (B Term)	3
<b>Summer</b>		
STT 2640	Elementary Statistics I (D Term)	3
--	Arts/Humanities/Social Science Elective*** (D Term)	3
Total Credit Hours		61

(A) = A term track | (B) = B term track | (D) = D term

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Technical electives must total 3 semester hours. They may come from any combination of courses (including online courses) not already prescribed that use the following course codes: HRM, INS, LSC, MGT, MKT, ACC, CSD, CSE, ITS (except ITS 0800, ITS 0810), NTK, OAD, and RES.

\*\*\* Must be a global awareness (GA) course and may come from social/behavioral sciences (Except ECO 1100) or arts/humanities.

## Logistics and Supply Chain Management Option (4340)

The Logistics and Supply Chain Management (LSC) option provides a well-rounded education consisting of basic management courses with concentrated studies in purchasing, logistics, negotiation, supply chain management, and inventory/materials management. The associate degree in LSC provides students with fundamental knowledge and skills for managing the logistics and supply chain functions in both profit and not-for-profit organizations/businesses.

Supply Chain Management is the coordinated management and control of the supply chain (the process of supplying a product to a customer), from the acquisition of raw materials from vendors through their transformation into finished goods to the delivery of merchandise to the final customer. It involves information sharing, planning, resource synchronization, and performance measurement.

Logistics is the process of planning, implementing, and controlling the efficient and cost-effective flow and storage of raw materials, in-process stocks, finished goods, and related information from the point of origin to the point of consumption for customers. It is the science and art of ensuring that the right products reach the right place in the right quantity at the right time in order to satisfy consumer demand.

### What can I do with this degree?

Career options: Find entry-level to supervisory-level positions in purchasing, logistics, negotiation, and inventory/materials management. Some of the a range of job titles in a career in LSC are: buyer/purchasing agent, freight specialist, shipping-receiving clerk, inventory planner, outbound operations manager, transportation coordinator, warehouse supervisor, distribution manager, management analyst, and customer service manager.

### LSC Functional Career Competencies

Professionalism, networking, basics of LSC, transportation, warehousing, materials handling, packaging, inventory planning, supply forecasting, reverse logistics, environmental management, purchasing, contracting, production, product decisions, pricing, customer relationship management, problem solving, functions of management, risk management, quality management, business law, ethics, legal issues, economics, demand forecasting, information technology support, teamwork, and entrepreneurial processes.

### Learning Outcomes

Upon completion of the 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 trends, ethical issues, and legal considerations.
- Demonstrate knowledge of global business trends.
- 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, is offered online, and is available on all campuses. Students should consult with their advisor for the recommended sequencing of courses.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting	4
ECO 2220	Principles of Microeconomics	3
ENG 1112	English II <b>or</b>	
ENG 2211	Business Communication	3
MKT 2000	Marketing Management	3
PSY 1111	Introduction to Psychology <b>or</b>	
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
EBE 2703	Co-op Education I or Technical Elective ** <b>or</b>	
LSC 1100	Introduction to Supply Chain Management <b>or</b> Technical Elective ** <b>or</b>	
MGT 2020	Quality Management or Technical Elective **	3
ECO 2210	Principles of Macroeconomics	3
ITS 1245	Beginning Database *	1
LSC 2220	Logistics and Physical Distribution	3
MGT 2450	Data Analytics <b>or</b>	
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
LSC 2100	Purchasing and Supply Management	3
LSC 2270	Operations Management	3
MGT 2600	Legal Environment of Business	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
	<b>Total Credit Hours</b>	<b>60</b>

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Technical electives must total 3 semester hours. They may come from any combination of courses not already prescribed that use the following course codes: HRM, INS, LSC, MGT, MKT, ACC, CSD, CSE, EBE (except EBE 1100), ITS (except ITS 0800, ITS 0810, ITS 1100), NTK, OAD, and RES. LSC students should consider taking MGT 2020 Quality Management or LSC 1100 Introduction to Supply Chain Management (3) as their technical elective. Logistics and GIS go hand in hand. Logistics and GIS go hand in hand.

\*\*\* Must be a global awareness (GA) course and may come from social/behavioral sciences (Except ECO 1100) or arts/humanities. LSC students should consider taking GEO 1000 Introduction to Geographic Information Systems (GIS) and Cartography (GA) course (3). Logistics and GIS are closely associated and GEO 1000 satisfies the requirement for a Social and Behavioral Sciences GA course. Students should follow the recommended sequencing of courses, with consideration to the pre-/co-requisites, including college preparatory (CPE) requirements.



## Management (4300)

The Management curriculum provides a well-rounded education consisting of basic courses in accounting, information technology, economics, finance, business law, management, marketing, and operations. 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 semesters 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.

### Learning Outcomes

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

- Analyze quantitative data.
- Apply basic business and management concepts, skills, and tools.
- Demonstrate knowledge of global business trends.
- Demonstrate knowledge of social responsibility trends, ethical issues, and legal considerations.
- Effectively use communications and human relations knowledge and skills.
- Effectively use information technology skills in the business environment.

### Degree Availability

The Management program is available during the day and the evening at the Brinkman Center, the Greene Center, Ohio Hi-Point, and online. Students should consult with an advisor for the recommended sequencing of courses.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting	4
ECO 2220	Principles of Microeconomics	3
ENG 1112	English II	
<b>or</b>		
ENG 2211	Business Communication	3
MKT 2000	Marketing Management	3
PSY 1111	Introduction to Psychology	or
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
ECO 2210	Principles of Macroeconomics	3
HRM 1725	Human Resource Management	3
MGT 2000	Introduction to Project Management <b>or</b>	
MGT 2020	Quality Management	3
MGT 2450	Data Analytics <b>or</b>	
STT 2640	Elementary Statistics I	3
MGT 2600	Legal Environment of Business	3
<b>Spring</b>		
LSC 2270	Operations Management	3
MGT 2270	Business Finance	3
MGT 2650	Negotiation Skills	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
- -	Co-op <b>or</b> Technical Elective **	1
Total Credit Hours		60

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Technical electives must total 6 semester hours. They may come from any combination of courses not already prescribed that use the following course codes: HRM, INS, LSC, MGT, MKT, ACC, CSD, CSE, EBE (except EBE 1100), ITS (except ITS 0800, ITS 0810, ITS 1100), NTK, OAD, and RES.

\*\*\* Must be a global awareness (GA) course and may come from social/behavioral sciences (Except ECO 1100) or arts/humanities.

## Marketing Option (4350)

The Marketing option provides students with a well-rounded education. It includes a strong foundation in marketing, highlighting the major areas of marketing including product management, promotional and pricing strategies, and physical distribution.

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 semesters 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.

### Learning Outcomes

Upon completion of the Associate of Applied Business degree in Marketing, a graduate will be able to do the following:

- Analyze quantitative data.
- Apply basic business and management concepts, skills, and tools.
- Demonstrate knowledge of global business trends.
- Demonstrate knowledge of social responsibility, trends, ethical issues, and legal considerations.
- Effectively use communications and human relations knowledge and skills.
- Effectively use information technology skills in the business environment.
- Apply knowledge and skills in the four Ps of marketing: product management, promotional strategies, pricing strategies, and logistics and physical distribution.

### Degree Availability

The Marketing option is available during the day and in the evening at the Brinkman Center, at the Greene Center as well as online. Students should consult with their advisor for the recommended sequencing of courses.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting	4
ECO 2220	Principles of Microeconomics	3
ENG 1112	English II <b>or</b>	
ENG 2211	Business Communication	3
MKT 2000	Marketing Management	3
PSY 1111	Introduction to Psychology <b>or</b>	
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
HRM 1725	Human Resource Management <b>or</b>	
LSC 2270	Operations Management	3
LSC 2220	Logistics and Physical Distribution	3
MKT 2100	Pricing Strategies	3
MKT 2400	Electronic Business Applications <b>or</b>	
MKT 2450	Sales and Sales Management	3
STT 2640	Elementary Statistics I <b>or</b>	
MGT 2450	Data Analytics	3
<b>Spring</b>		
MGT 2600	Legal Environment of Business	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
MKT 2150	Product Management	3
MKT 2550	Promotion & IMC Strategies	3
- -	MGT, MKT or EBE Elective **	3
Total Credit Hours		62

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* EBE 1000 is a prerequisite for EBE 2702, the co-op experience, and must be completed prior to the co-op experience. EBE 2702 or EBE 2703 or EBE 2704 may be used for the co-op experience.

\*\*\* Must be a global awareness (GA) course and may come from social/behavioral sciences (Except ECO 1100) or arts/humanities.

## Medical Office Administration Major (4750)

Medical office administrators function in a wide variety of medical settings, including physicians' offices, hospitals, and nursing homes. They may 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. Mastery of these skills provide 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.
- Code medical documents and assist in the management of patient's health information.
- Demonstrate good oral communication skills.
- Demonstrate good human relations skills, including customer service, teamwork, and ethics.

### Scholastic Preparation

Medical Office Administration students should possess basic computer skills: use a keyboard, mouse, external storage device, and a printer; differentiate among drives, folders, and files; employ a username and password. Students lacking in any of these areas should enroll in ITS 0800, Computer Fundamentals, prior to enrolling in any OAD or other ITS courses. Students should also be able to type at least 35 words per minute on a five-minute timed writing. Students who cannot meet this standard should enroll in ITS 0810 Keyboarding or ITS 1210 Keyboarding/Word Processing prior to enrolling in any OAD or other college-level ITS course. Students who cannot meet the 35 word-per-minute standard on the first day of OAD 1101 will be required to withdraw and enroll in ITS 0810 or ITS 1210. ITS 0800, ITS 0810 and ITS 1210 are considered preparatory for entry into the Medical Office Administration Program and do not count toward the degree.

### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
OAD 1105	Business English	4
OAD 1205	Office Procedures	3
BIO 1105	Fundamentals of Anatomy and Physiology	3
FYE 1100	College Success	1
ITS 1105	Computer Concepts and Software Applications *	3
MST 1105	Medical Terminology	2
<b>Spring</b>		
OAD 1101	Document Production I	3
OAD 2301	CPT/ICD-10-PCS Coding	3
OAD 2302	ICD-10-CM Coding	3
ACC 1000	Accounting Concepts	3
ENG 1111	English I	3
MTH 1060	Business Mathematics	3
<b>Fall</b>		
OAD 2205	Electronic Health Records	3
OAD 1102	Document Production II	3
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1170	Small Group Communication	3
EBE 1000	Employability Skills	1
ENG 2211	Business Communication	3
<b>Spring</b>		
OAD 2312	Advanced Medical Coding	3
OAD 2320	Medical Office Certification Review	1
OAD 2703	Co-op Education/Internship	3
MST 1140	Human Disease	3
SPN 1100	Survival Spanish	3
Total Credit Hours		60

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Office Administration (4700)

Office administrators function in a continually shifting role in a variety of office settings because of changing 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 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 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, office administrators have opportunities for promotion to management positions.

### Learning Outcomes

Upon completion of an Associate of Applied Business degree in 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

Office Administration students should possess basic computer skills: use a keyboard, mouse, external storage device, and a printer; differentiate among drives, folders, and files; employ a username and password. Students lacking in any of these areas should enroll in ITS 0800, Computer Fundamentals, prior to enrolling in any OAD or other ITS courses. Students should also be able to type at least 35 words per minute on a five-minute timed writing. Students who cannot meet this standard should enroll in ITS 0810 Keyboarding or ITS 1210 Keyboarding/Word Processing prior to enrolling in any OAD or other college-level ITS course. Students who cannot meet the 35 word-per-minute standard on the first day of OAD 1101 will be required to withdraw and enroll in ITS 0810 or ITS 1210. ITS 0800, ITS 0810 and ITS 1210 are considered preparatory for entry into the Office Administration Program and do not count toward the degree.

### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
FYE 1100	College Success	1
ITS 1105	Computer Concepts and Software Applications *	3
ITS 1205	Windows Concepts	1
OAD 1105	Business English	4
OAD 1205	Office Procedures	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1000	Accounting Concepts	3
ENG 1111	English I	3
ITS 1110	Software Applications II	1
MGT 1105	Contemporary American Business	2
OAD 1101	Document Production I	3
PSY 1111	Introduction to Psychology <i>or</i>	
PHL 2100	Ethics	3
<b>Fall</b>		
COM 1120	Public Speaking I	3
EBE 1000	Employability Skills	1
ENG 2211	Business Communication	3
ITS 1236	Intermediate Spreadsheet	2
OAD 1102	Document Production II	3
SPN 1111	Beginning Spanish, Course I	3
<b>Spring</b>		
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1170	Small Group Communication	3
HRM 1725	Human Resource Management	3
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
OAD 2703	Co-op Education/Internship	3
Total Credit Hours		60

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Any MGT course not already prescribed and totaling a minimum of 3 semester hours.

## Paralegal (4850)

The Paralegal Technology program prepares individuals to assist attorneys in the delivery of legal services. Someone who enjoys conducting research, solving problems, and communicating the results has good potential as a paralegal. 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 in offering the nonparalegal courses for this AAS degree program. Students can take classes at Clark State concurrently with the Sinclair paralegal courses if they wish to complete the degree within a two-year time frame, or they can complete the nonparalegal courses at Clark State first and then transfer to Sinclair to complete the program. Students are cautioned that once they begin the paralegal courses at Sinclair, it will still take two years to sequence through the paralegal courses. By taking course work at Clark State, students are able to minimize commuting time. The Paralegal Program at Sinclair is a limited-enrollment program and students must be accepted into the program before beginning paralegal courses. Students should contact the Dean of Business and Applied Technologies for information on applying to Sinclair's Paralegal Program and for academic advising while enrolled at Clark State.

Completion of the Paralegal Program does not authorize a graduate to practice law as an attorney. The program layout below reflects the recommended sequence of courses for students planning to complete a degree within two years. Clark State courses may be completed concurrently with Sinclair courses or prior to enrolling at Sinclair. Sinclair courses are designated by SCC. The 32 credit hours at Clark State can be completed by a full-time student within one year provided he or she has few or no college preparatory requirements.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications	3
ENG 2211	Business Communication	3
--	PAR 1101 Paralegal Principles (SCC)	3
--	PAR 1102 Legal Technology (SCC)	1
--	PAR 1103 Litigation (SCC)	3
<b>Spring</b>		
COM 1110	Interpersonal Communication I	3
ENG 1112	English II	3
--	PAR 1201 Legal Research & Writing (SCC)	3
--	PAR 1202 Advanced Legal Technology (SCC)	1
--	PAR 1203 Advanced Litigation (SCC)	3
--	PAR 1204 Real Estate Law (SCC)	3
<b>Summer</b>		
MGT 2600	Legal Environment of Business	3
PSY 1111	Introduction to Psychology	or
SOC 1110	Introduction to Sociology	3
--	Arts and Humanities Elective	3
--	PAR/LAW Elective (SCC)	3
<b>Fall</b>		
ACC 1000	Accounting Concepts	3
--	PAR 2301 Advanced Legal Research & Writing (SCC)	3
--	PAR 2302 Family Law (SCC)	3
--	PAR 2303 Probate Law (SCC)	3
<b>Spring</b>		
MTH 1060	Business Mathematics	3
--	PAR 2401 Paralegal Internship (SCC)	3
--	PAR/LAW Elective (SCC)	3
Total Credit Hours		65

Total hours taken at Clark State: 27. Total hours taken at SCC: 38.

## Professional Services Management (4360)

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 semesters 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.

### Arts/Humanities Electives

A complete listing of arts and humanities electives can be found in the College Catalog. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting	4
ECO 2220	Principles of Microeconomics	3
ENG 1112	English II <b>or</b>	
ENG 2211	Business Communication	3
MKT 2000	Marketing Management	3
PSY 1111	Introduction to Psychology <b>or</b>	
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
HRM 1725	Human Resource Management	3
MGT 1115	Customer Relations	2
MGT 2600	Legal Environment of Business	3
MGT 2800	Business Strategy/Policy Seminar (Capstone)	3
- -	Professional Electives***	6
<b>Spring</b>		
ACC 1200	Managerial Accounting	4
MGT 2140	Small Business Management	3
MGT 2000	Introduction to Project Management <b>or</b>	
MGT 2650	Negotiation Skills	3
- -	Professional Electives***	3
Total Credit Hours		62

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Arts and Humanities elective must be a Global Awareness (GA) course.

\*\*\* A total of 9 semester hours must be earned from the professional area. The 9 hours can be earned from professional licensure. Any of the 9 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 (4101C)

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, and basic cost accounting concepts/entries. Courses are applicable to the associate degree program.

Students with little or no computer background should enroll in ITS 0800 Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 1210 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 semesters of study. Students should consult their academic advisors for help in planning their schedules.

Read the Gainful Employment Disclosure for the Accounting Certificate.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Summer</b>		
ACC 1100	Introduction to Financial Accounting	4
FYE 1100	College Success	1
<b>Fall</b>		
ACC -	Accounting Elective 2-4 credit hours	3
COM 1110	Interpersonal Communication I	3
EBE 1000	Employability Skills	1
ENG 1111	English I	3
ITS 1235	Beginning Spreadsheet *	1
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1200	Managerial Accounting	4
ACC 1400	Computerized Accounting	3
ACC 2000	Spreadsheet Accounting	3
ENG 2211	Business Communication	3
Total Credit Hours		32

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

### Accounting Executive Option Departmental Certificate (4102D)

This certificate is available to those who already hold an associates degree or higher. It will provide the student with the essential skills necessary to work in the growing field of Accounting. Students can fully apply the courses in this one year certificate towards the completion of the full two-year Accounting degree.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Summer</b>		
ACC 1100	Introduction to Financial Accounting	4
<b>Fall</b>		
- -	ACC Elective 2-4 credit hours	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
ACC 1200	Managerial Accounting	4
ACC 1400	Computerized Accounting	3
- -	ACC <b>or</b> MGT Elective	3
Total Credit Hours		20

## Advanced Medical Coding Short-Term Technical Certificate (0000)

This certificate will provide the student with experience using ICD-9-CM/ICD-10-CM, CPT, ICD-10-PCS and HCPCS. All coding resources available in print and online. 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. Courses are offered in an eight (8) week format to be completed in either Fall or Spring semesters. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Summer</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
MST 1105	Medical Terminology	2
<b>Fall</b>		
OAD 2301	CPT/ICD-10-PCS Coding	3
OAD 2302	ICD-10-CM Coding	3
<b>Spring</b>		
OAD 2312	Advanced Medical Coding	3
OAD 2320	Medical Office Certification Review	1
MST 1140	Human Disease	3
Total Credit Hours		18

## Communication Departmental Certificate (4704D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
OAD 1105	Business English	4
ENG 1111	English I	3
COM 1110	Interpersonal Communication I	3
COM 1120	Public Speaking I	3
<b>Spring</b>		
COM 1170	Small Group Communication	3
COM 1130	Introduction to Mass Communication	3
ENG 1112	English II	3
ENG 2211	Business Communication	3
Total Credit Hours		25

## Customer Service Short-Term Technical Certificate (4304D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
MGT 1060	Organizational Behavior	3
MGT 1115	Customer Relations	2
MGT 1120	Principles of Management	3
MKT 2000	Marketing Management	3
<b>Spring</b>		
MGT 2020	Quality Management	3
ITS 1105	Computer Concepts and Software Applications *	3
PSY 1111	Introduction to Psychology	3
Total Credit Hours		20

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.



## Health Information Technology Departmental Certificate (4757D)

This certificate will prepare the student to assist in the management of patient's health information. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
OAD 1105	Business English	4
OAD 2205	Electronic Health Records	3
BIO 1105	Fundamentals of Anatomy and Physiology	3
ITS 1105	Computer Concepts and Software Applications	3
MST 1105	Medical Terminology	2
<b>Spring</b>		
OAD 2301	CPT/ICD-10-PCS Coding	3
OAD 2302	ICD-10-CM Coding	3
EBE 1000	Employability Skills	1
ENG 2211	Business Communication	3
MST 1140	Human Disease	3
<b>Summer</b>		
OAD 2312	Advanced Medical Coding	3
OAD 2320	Medical Office Certification Review	1
EBE 2500	Co-op/Internship Seminar	1
EBE 2701	Co-op Education I	1
	Total Credit Hours	34

## Human Resource Management Departmental Certificate (4324D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
HRM 1725	Human Resource Management	3
HRM 2300	Training and Development	3
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1060	Organizational Behavior	3
<b>Spring</b>		
HRM 2350	Employment Law	3
HRM 2400	Staffing	3
HRM 2450	Compensation and Benefits	3
MGT 2000	Introduction to Project Management <i>or</i>	
MGT 2020	Quality Management <i>or</i>	
MGT 2650	Negotiation Skills	3
MTH 1060	Business Mathematics	3
	Total Credit Hours	30

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Logistics and Supply Chain Management Departmental Certificate (4344D)

This certificate is focused on developing essential knowledge and skills needed by an individual who wants to work in the strategic planning and coordinating of activities that include sourcing and procurement of materials and services, transformation activities and logistics for the purpose of integrating supply and demand management. 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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1000	Management Program Orientation	1
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
LSC 2100	Purchasing and Supply Management	3
LSC 2270	Operations Management	3
ENG 1112	English II <i>or</i>	
ENG 2211	Business Communication	3
MGT 2650	Negotiation Skills	3
PSY 1111	Introduction to Psychology Arts/Humanities or Social/Behavioral Science Elective (GA) <i>or</i>	
SOC 1110	Introduction to Sociology Arts/Humanities or Social/Behavioral Science Elective (GA)	3
<b>Fall</b>		
LSC 2220	Logistics and Physical Distribution	3
ACC 1100	Introduction to Financial Accounting	4
ITS 1245	Beginning Database *	1
MGT 2020	Quality Management	3
MGT 2600	Legal Environment of Business	3
	Total Credit Hours	45

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Management Certificate (4301C)

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 semesters of study. Students should consult their academic advisor for help in planning their schedules. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements. Read the Gainful Employment Disclosure for the Management Certificate.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
MGT 1060	Organizational Behavior	3
MGT 1120	Principles of Management	3
ITS 1105	Computer Concepts and Software Applications *	3
MTH 1060	Business Mathematics <i>or</i>	
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
ACC 1100	Introduction to Financial Accounting	4
ENG 1112	English II <i>or</i>	
ENG 2211	Business Communication	3
MGT 2000	Introduction to Project Management <i>or</i>	
MGT 2020	Quality Management	3
- -	Technical Elective **	3
- -	Arts/Humanities <i>or</i> Social/Behavioral Science elective (GA)***	3
Total Credit Hours		31

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* Technical electives must total 3 semester hours. They can come from any combination of courses not already prescribed that use the following course codes: HRM, INS, LSC, MGT, MKT, ACC, CSD, CSE, EBE (except EBE 1100), ITS (except ITS 0800, ITS 0810, ITS 1100), NTK, OAD, and RES.

\*\*\* Must be a global awareness (GA) course and may come from social/behavioral sciences (Except ECO 1100) or arts/humanities.

## Marketing Departmental Certificate (4351D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ACC 1100	Introduction to Financial Accounting	4
MKT 2000	Marketing Management	3
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1120	Principles of Management	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
MKT 2400	Electronic Business Applications	3
MKT 2550	Promotion & IMC Strategies	3
MGT 2020	Quality Management	3
STT 2640	Elementary Statistics I	3
<b>Fall</b>		
LSC 2220	Logistics and Physical Distribution	3
MKT 2100	Pricing Strategies	3
MKT 2150	Product Management	3
Total Credit Hours		37

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Medical Coding Short-Term Technical Certificate (4755D)

This certificate will provide the student with an introduction to the fundamentals of coding including use of ICD-10-CM, CPT, ICD-10-PCS, and HCPCS. Courses are offered in an eight (8) week format to be completed in either Fall or Spring semesters. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Summer</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
MST 1105	Medical Terminology	2
<b>Fall</b>		
OAD 2301	CPT/ICD-10-PCS Coding	3
OAD 2302	ICD-10-CM Coding	3
Total Credit Hours		11

## Professional Office Administration Certificate (4701C)

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 Office Administration or the Medical Office Administration associate degree programs.

This certificate can be earned through a combination of evening and online courses.

Office Administration certificate students should have basic computer skills: use a keyboard, mouse, external storage device, and a printer; differentiate among drives, folders, and files; employ a username and password. Students lacking in any of these areas should enroll in ITS 0800, Computer Fundamentals, prior to enrolling in any OAD or other ITS courses.

Students should also be able to type at least 35 words per minute on a five-minute timed writing. Students who cannot meet this standard should enroll in ITS 0810 Keyboarding or ITS 1210 Keyboarding/Word Processing prior to enrolling in any OAD or other college-level ITS course. Students who cannot meet the 35 word-per-minute standard on the first day of OAD 1101 will be required to withdraw and enroll in ITS 0810 or ITS 1210. ITS 0800, ITS 0810 and ITS 1210 are considered preparatory for starting the Office Administration Certificate and do not count toward the certificate. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Read the Gainful Employment Disclosure for the Professional Office Administration Certificate.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ITS 1105	Computer Concepts and Software Applications *	3
MTH 1060	Business Mathematics	3
OAD 1101	Document Production I	3
OAD 1105	Business English	4
OAD 1205	Office Procedures	3
<b>Spring</b>		
ACC 1000	Accounting Concepts	3
ENG 1111	English I	3
ITS 1110	Software Applications II	1
ITS 1236	Intermediate Spreadsheet	2
MGT 1105	Contemporary American Business	2
OAD 1102	Document Production II	3
Total Credit Hours		30

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Property Insurance Claims Short-Term Technical Certificate (4361D)

Employment opportunities in the Miami Valley and in Ohio in the finance and insurance industries continue to grow. The Property Insurance Claims Certificate provides students with the skills needed for employment in the property-claims industry and preparing them for the AIC 30 and AIC 31 industry exams. The courses are applicable to the Associate of Applied Business degree in Insurance. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
INS 1050	Property and Liability Insurance Principles (A Term)	3
INS 1100	Insurance Claims Handling Principles/Practices (A Term)	3
INS 1115	Customer Service for the Insurance Industry (A Term)	2
INS 1200	Software for the Insurance Claims Industry (B Term)	1
INS 1325	Property Coverages (B Term)	3
<b>Spring</b>		
INS 1400	Property Loss Adjusting (A Term)	5
Total Credit Hours		17

## Real Estate Short-Term Technical Certificate (4363D)

This certificate focuses on four areas of Real Estate Technology. Upon completion of this certificate, students have the option to be seated for the Ohio Division of Real Estate exam. Courses are offered in an eight (8) week format to be completed in either Fall or Spring Semester. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
RES 1100	Real Estate Principles	3
RES 1200	Real Estate Law	3
RES 1300	Real Estate Appraisal	2
RES 1400	Real Estate Finance	2
Total Credit Hours		10

\* An appropriate compass placement, ACT, or SAT score will satisfy the respective CPE requirement.

## Small Business Departmental Certificate (4305D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
MGT 1120	Principles of Management	3
ACC 1100	Introduction to Financial Accounting	4
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications *	3
MKT 2000	Marketing Management	3
<b>Spring</b>		
MGT 2020	Quality Management	3
MGT 2140	Small Business Management	3
MGT 2250	Leadership in Organizations	3
ENG 1112	English II <i>or</i>	
ENG 2211	Business Communication	3
<b>Fall</b>		
MGT 1060	Organizational Behavior	3
MGT 2600	Legal Environment of Business	3
MKT 2400	Electronic Business Applications	3
MKT 2450	Sales and Sales Management	3
Total Credit Hours		40

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Supervisory Departmental Certificate (4306D)

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. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ACC 1100	Introduction to Financial Accounting	4
ITS 1105	Computer Concepts and Software Applications *	3
MGT 1060	Organizational Behavior	3
MGT 1105	Contemporary American Business	2
MGT 1120	Principles of Management	3
<b>Spring</b>		
HRM 1725	Human Resource Management	3
MGT 2020	Quality Management	3
MGT 2250	Leadership in Organizations	3
PSY 1111	Introduction to Psychology	3
Total Credit Hours		27

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

## Supply Chain Management Degree + Departmental Certificate (4345D)

This post-degree certificate program is designed for students who already hold a bachelor's degree and are looking to meet their educational and professional development (career broadening) needs relative to logistics and supply chain management. Functional areas covered include: contracting and negotiation, social responsibility, performance management, forecasting, materials and inventory management, transportation and distribution, assessment, planning product and service, development, quality, strategic sourcing, and risk compliance. These foundational topics are often considered by many professional certification organizations as the inner core to the understanding of the logistics and supply chain management career field. Students should follow the recommended sequencing of courses, with consideration to the pre/co requisites, including college preparatory (CPE) requirements.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ECO 2210	Principles of Macroeconomics	3
LSC 2220	Logistics and Physical Distribution	3
MGT 2020	Quality Management	3
- -	LSC, MGT, MKT, ACC <i>or</i> ITS Technical Elective*	3
<b>Spring</b>		
ECO 2220	Principles of Microeconomics	3
LSC 2100	Purchasing and Supply Management	3
LSC 2270	Operations Management	3
MGT 2650	Negotiation Skills	3
MKT 2000	Marketing Management	3
Total Credit Hours		27

\* Technical electives must total 3 semester hours. They may come from any combination of courses not already prescribed that use the following course codes: HRM, INS, LSC, MGT, MKT, ACC, CSD, EBE (except EBE 1100), ITS (except ITS 0800, ITS 0810, ITS 1100), NTK, OAD, or RES.

## Career and Technical Education

### Career and Technical Education - ATS (9060)

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 our campus locations in Springfield, Beavercreek and Bellefontaine.

#### Curriculum - Basic Requirement

Technical work-based experience credit: 14 semester hour credits based on documentation of Ohio Route B Licensure.

- Technical Requirement (total of 32 semester credit hours)
- A combination of Professional Teacher Education coursework transferred from ODE approved institutions (up to 26 semester credit hours) and
- STT 2640 Elementary Statistics I (3 semester credit hours)
- COM 1120 Public Speaking (3 semester credit hours).

CSCC General Education coursework 15 semester credit hour credits including:

- ENG 1111 English I 3
- ENG 1112 English II *or*
- ENG 2230 Technical Report Writing 3
- Social Science Elective 3
- Humanities Elective 3
- Humanities/ Social Science Elective 3

Course #	Course Title	Credit Hours
ENG 1111	English I	3
ENG 1112	English II <i>or</i>	
ENG 2230	Technical Report Writing	3
--	Social Science Elective	3
--	Humanities Elective	3
--	Humanities/Social Sciences Elective	3
Total Credit Hours		15

\* At least 20 semester hours must be completed at Clark State.

\*\* At least one of the three 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 STT 2640 and COM 1120 do not total 32 semester credit hours, the student will need to have additional technical credits approved by his/her advisor to meet the 32-credit-hour minimum.

## Computer and IT

### Computer Networking (5200)

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+, Project+); Microsoft Certified Professional, 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 semesters 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 semesters 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.

#### 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 0800, ITS 0810, ITS 1105, ITS 1210. Students who have not completed a full sequence of high school mathematics may need to complete a series of college preparatory math classes.

#### Degree Availability

This program is available during the day and evening. Contact your academic advisor about an evening curriculum guide. Some classes may be offered on Saturdays, however the entire degree can not be completed on weekends.

#### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
COM 1120	Public Speaking I	3
ENG 1111	English I	3
FYE 1100	College Success	1
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
NTK 1211	Convergence Technology I	3
CSE 1110	Introduction to CyberSecurity	3
CSE 1120	CyberSecurity - Security +	3
ENG 2211	Business Communication	3
- -	Arts/Humanities <b>or</b> Social/Behavioral Science Elective (GA) *	3
<b>Fall</b>		
MGT 2000	Introduction to Project Management	3
MTH 1060	Business Mathematics	3
NTK 2100	Cisco - Introduction to Networks	3
NTK 2110	Cisco - Routing and Switching	3
NTK 2220	Microsoft Client Administration	3
NTK 2222	Administering Microsoft Server	3
<b>Spring</b>		
NTK 2120	Cisco - Scaling Networks	3
NTK 2130	Cisco - Connecting Networks	3
NTK 2212	Linux Server Administration	3
NTK 2890	Computer Networking Capstone <b>or</b> Co-op Electives	3
- -	Arts/Humanities <b>or</b> Social/Behavioral Science Elective	3
Total Credit Hours		61

\* At least one social/behavioral science or arts/humanities elective must be a global awareness (GA) course.

## Computer Software Development (5100)

Information technology is one of the fastest-growing career fields today. The Computer Software Development curriculum focuses on programming, database, and web design. Students learn to analyze, design, and develop solutions to business problems through the use of technology.

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 terms 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 web sites.
- 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 0600, Algebra I. Students with little or no computer background should enroll in ITS 0800, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810, Beginning Keyboarding, or ITS 1210, Keyboarding/Word Processing.

### Degree Availability

Most courses in the curriculum are available online or in hybrid format (part online, part classroom). The Advanced Topics course currently requires class attendance. Some courses may be available at only one location (Springfield or Beavercreek). Some courses are offered only once a year. Contact your academic advisor about course sequencing. Graduating Computer Software Development students wishing to further build their skills could also receive an Associate of Applied Business in New Media by completing an additional 10 courses in the New Media curriculum.

### 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 bachelor's degree. A number of colleges or universities have bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

### General Education

ElectivesA general education elective is a course in one of the following categories: Oral and Written Communication, Social and Behavioral Sciences, Arts and Humanities, Mathematics, or Physical and Natural Sciences. A complete listing of general education electives is available in the College Catalog.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
CSD 1500	Programming Fundamentals	3
ENG 1111	English I	3
FYE 1100	College Success	1
ITS 1105	Computer Concepts and Software Applications *	3
ITS 1205	Windows Concepts *	1
MTH 1060	Business Mathematics	3
<b>Spring</b>		
CSD 2510	Python Programming	3
CSE 1110	Introduction to CyberSecurity	3
ENG 2211	Business Communication	3
ITS 1300	Introduction to Computers and Networks	2
ITS 1500	HTML and CSS	3
MGT 1115	Customer Relations	2
<b>Fall</b>		
CSD 1400	Database Management	3
CSD 2200	JavaScript	3
CSD 2520	Java Programming	4
MGT 1060	Organizational Behavior	3
--	Arts/Humanities Elective	3
<b>Spring</b>		
CSD 2100	Systems Analysis and Design	3
CSD 2540	C++ Programming	4
CSD 2800	Advanced Topics <i>or</i> Co-Op/Internship**	3
--	Social/Behavioral Science Elective	3
--	Technical Elective***	2
Total Credit Hours		61

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\* The co-op or internship consists of EBE 1000 and EBE 2702. EBE 1000 must be completed at least one term before EBE 2702.

\*\*\* The technical elective may be any CSD, CSE, GST, NTK, NWM, or GEO 1000 course.

## CyberSecurity/Information Assurance Technology (5300)

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 and Cisco Certified Network Associate.

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 semesters 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 semesters of study. Students should consult their academic advisors for help in planning their schedules. Learn more through the Center for Information Assurance/Cyber Defense Education.

### Learning Outcomes

Upon completion of an Associate of Applied Science 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.
- Demonstrate knowledge of computer and network security terms and concepts.
- 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 0800,

ITS 0810, ITS 1105, ITS 1210. Students who have not completed a full sequence of high school mathematics may need to complete a series of college preparatory math classes.

### Degree Availability

This program is available during the day and evening. Contact your academic advisor about an evening curriculum guide. Some classes may be offered on Saturdays but the entire degree cannot be completed on weekends.

### 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 bachelor's degree. A number of colleges and universities have designed bachelor's completion programs 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</b>		
COM 1120	Public Speaking I	3
ENG 1111	English I	3
FYE 1100	College Success	1
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
CSE 1110	Introduction to CyberSecurity	3
CSE 1120	CyberSecurity - Security +	3
ENG 2211	Business Communication	3
NTK 1211	Convergence Technology I	3
--	Arts/Humanities or Social/Behavioral Science Elective (GA) *	3
<b>Fall</b>		
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 - Introduction to Networks	3
NTK 2110	Cisco - Routing and Switching	3
<b>Spring</b>		
NTK 2120	Cisco - Scaling Networks	3
NTK 2130	Cisco - Connecting Networks	3
NTK 2890	Computer Networking Capstone <b>or</b> Co-op Electives	3
CSD 1500	Programming Fundamentals	3
--	Arts/Humanities <b>or</b> Social/Behavioral Science Elective*	3
Total Credit Hours		61

\* At least one social/behavioral science or arts/humanities elective must be a global awareness (GA) course.

\*\*At least 3 hours of technical electives must be taken from any NTK, CSD, or EBE (except EBE 1100) course not already prescribed. The EBE courses consist of Employability Skills and co-op/internship opportunities.



## Information Services: Library Paraprofessional (5550)

Belmont College 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 Services: Library Paraprofessional. This formal arrangement permits CSCC students to benefit in order to pursue library paraprofessional training from Belmont College.

In an information-driven age, there is a definite need for trained information specialists and library paraprofessionals who possess advanced technological skills. This degree provides an array of skill sets that are applicable to many career fields.

This specialty is intended for those interested in employment or already employed in public, academic, K-12, or other type of library or information technology organization. The program is designed to accommodate part-time distance education students. Studies focus on the skills needed to assist information seekers in defining, finding, evaluating and using information. Libraries increasingly need employees who can use computers effectively and present information - especially on the web, as part of patron training, or in professionally developed brochures, and flyers.

This specialty focuses on understanding library and information services and operations; finding, evaluating, organizing and presenting information; and preparing information for presentation. The curriculum in this program matches the competencies required by the American Library Association - Allied Professional Association (ALA-APA) sponsored Library Support Staff Certification Program. For more information, visit [www.belmontcollege.edu](http://www.belmontcollege.edu) and <http://ala-apa.org/lssc>.

### Learning Outcomes

- Demonstrate effective team communications and collaboration.
- Demonstrate the ability to effectively use computer software while completing an organizational project.
- Demonstrate the ability to apply information literacy skills
- Demonstrate the ability to apply effective, clear, and grammatically correct written communications.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications	3
--	FYE 1120 Success in Online Learning (Belmont online)	2
--	LIS 1104 Communication and Teamwork (Belmont online)	3
--	Social Science Elective (See transfer module eligible courses)	3
<b>Spring</b>		
--	LIS 1101 Foundations of Library Services (Belmont online)	3
--	LIS 1105 Reference and Information Services (Belmont online)	3
NWM 1010	Social Media and Digital Interactivity Social Media and Digital Interactivity	3
--	Information Technology Elective (Select from ITS, NTK, CSD, NWM, and GPH courses)	3
--	Literature Elective	3
<b>Summer</b>		
--	General Education Elective	3
--	Directed Library Elective (Belmont online)	3
<b>Fall</b>		
--	LIS 2103 Technology in Libraries (Belmont online)	3
COM 1120	Public Speaking I	3
MTH 1050	Mathematics and Today's World	or
MTH 1280	College Algebra	or
STT 2640	Elementary Statistics I	3
--	Information Technology Elective	3
--	Directed Library Elective (Belmont online)	3
<b>Spring</b>		
--	LIS 2282 Information Services Capstone & Project (Belmont online)	2
--	LIS 2280 Information Services Seminar (Belmont online)	1
--	Library Elective (Belmont online)	3
--	General Education Elective	3
--	Natural & Physical Science Elective (with a lab - see transfer module eligible courses)	3
Total Credit Hours		62

## Technical Systems Support Option (5210)

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 Professional, 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 semesters 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 semesters 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

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 0800, ITS 0810, ITS 1105, ITS 1210. Students who have not completed a full sequence of high school mathematics may need to complete a series of college preparatory math classes.

### Degree Availability

This program is available during the day and evening. Contact your academic advisor about an evening curriculum guide. Some classes may be offered on Saturdays, however the entire degree can not be completed on weekends.

### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
COM 1120	Public Speaking I	3
ENG 1111	English I	3
FYE 1100	College Success	1
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
CSE 1110	Introduction to CyberSecurity	3
CSE 1120	CyberSecurity - Security +	3
ENG 2211	Business Communication	3
NTK 1211	Convergence Technology I	3
--	Arts/Humanities <b>or</b> Social/Behavioral Science Elective (GA) *	3
<b>Fall</b>		
MTH 1060	Business Mathematics	3
MGT 2000	Introduction to Project Management	3
NTK 2100	Cisco - Introduction to Networks	3
NTK 2220	Microsoft Client Administration	3
NTK 2222	Administering Microsoft Server	3
--	ITS Electives**	3
<b>Spring</b>		
NTK 2212	Linux Server Administration	3
NTK 2890	Computer Networking Capstone <b>or</b>	
--	Co-op Electives	3
--	ITS Electives**	6
--	Arts/Humanities <b>or</b> Social/Behavioral Science Elective*	3
Total Credit Hours		61

\* At least one social/behavioral science or arts/humanities elective must be a global awareness (GA) course.

\*\* A minimum of 9 hours of technical electives must be taken. At least 6 hours must come from ITS courses not already prescribed. They may not include ITS 0810, ITS 1105, ITS 1205. Three additional hours may also come from EBE classes (except EBE 1100). The EBE classes consist of Employability Skills and co-op/internship opportunities.

## Computer and IT Certificates

### Computer Programming Departmental Certificate (5104D)

This certificate provides the knowledge and skills necessary to design and develop computer software applications.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
ITS 1245	Beginning Database <i>or</i>	
ITS 1105	Computer Concepts and Software Applications	1
ITS 1500	HTML and CSS	3
<b>Spring</b>		
CSD 1400	Database Management	3
CSD 1500	Programming Fundamentals	3
<b>Fall</b>		
CSD 2520	Java Programming	4
<b>Spring</b>		
CSD 2540	C++ Programming	4
Total Credit Hours		18

### CyberSecurity Short-Term Technical Certificate (5304D)

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

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
CSE 1110	Introduction to CyberSecurity	3
CSE 1120	CyberSecurity - Security +	3
<b>Fall</b>		
CSE 2251	CyberSecurity - Security Professional I	3
CSE 2252	CyberSecurity - Security Professional II	3
<b>Spring</b>		
NTK 1211	Convergence Technology I	3
Total Credit Hours		21

### Network Administration Short-Term Technical Certificate (5204D)

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

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
NTK 1211	Convergence Technology I	3
CSE 1110	Introduction to CyberSecurity	3
<b>Fall</b>		
NTK 2220	Microsoft Client Administration	3
NTK 2222	Administering Microsoft Server	3
<b>Spring</b>		
NTK 2212	Linux Server Administration	3
Total Credit Hours		21

### Network Infrastructure Short-Term Technical Certificate (5205D)

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

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
<b>Spring</b>		
NTK 1211	Convergence Technology I	3
<b>Fall</b>		
NTK 2100	Cisco - Introduction to Networks	3
NTK 2110	Cisco - Routing and Switching	3
<b>Spring</b>		
NTK 2120	Cisco - Scaling Networks	3
NTK 2130	Cisco - Connecting Networks	3
Total Credit Hours		21

## Technical Support Short-Term Technical Certificate (5206D)

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

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
NTK 1110	PC Hardware Essentials	3
NTK 1120	PC Operating Systems Essentials	3
ITS 1205	Windows Concepts	1
ITS 1215	Beginning Word Processing	1
ITS 1235	Beginning Spreadsheet	1
ITS 1245	Beginning Database	1
<b>Spring</b>		
NTK 1211	Convergence Technology I	3
ITS 1216	Intermediate Word Processing	2
ITS 1236	Intermediate Spreadsheet	2
ITS 1246	Intermediate Database	2
	Total Credit Hours	19

## Web Development Departmental Certificate (5205D)

The focus of this certificate is to provide the knowledge and skills necessary to develop web applications and e-business systems.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
ITS 1245	Beginning Database <i>or</i>	
ITS 1105	Computer Concepts and Software Applications	1
ITS 1500	HTML and CSS	3
<b>Spring</b>		
CSD 1400	Database Management	3
CSD 1500	Programming Fundamentals	3
<b>Fall</b>		
CSD 2200	JavaScript	3
CSD 2520	Java Programming	4
	Total Credit Hours	17

## Court Reporting / Captioning

### Broadcast Captioning/CART Option (4810)

Broadcast Captioners capture the spoken word on live television programs instantly using state-of-the-art technology, and their work product is visible nationally as the captions scroll 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. CART (Communication Access Realtime Translation) reporters provide instantaneous text of the spoken word displayed on a computer screen or large projection screen referred to as realtime translation. 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.

An associate's degree in Broadcast Captioning/CART can be earned completely online or in a hybrid classroom setting at Clark State's downtown campus in Springfield or the Greene Center campus in Beavercreek.

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 realtime learning practice and testing web environment along with a multitude of additional specialized drills, and students have access to 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 obtain information regarding the required equipment.

Students are able to follow the curriculum of the Realtime Court 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 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 Court 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 of 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 0800 as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810. 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 philosophy, political science, and sociology electives is available in the College Catalog.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
RCR 1200	Survey of Realtime Reporting	1
RCR 1201	Realtime Theory	6
RCR 1211	Introduction to Realtime Writing	1
RCR 1225	Vocabulary and Reference Use	1
OAD 1105	Business English	4
ITS 1105	Computer Concepts and Software Applications	3
<b>Spring</b>		
RCR 1202	Beginning Speed Building	5
RCR 1212	Beginning Realtime Writing	1
RCR 1220	Law and Legal Terminology	2
RCR 1231	Fundamentals of CAT	2
ENG 1111	English I	3
ENG 2211	Business Communication	3
<b>Summer</b>		
RCR 1203	Intermediate Speed Building	5
RCR 1213	Intermediate Realtime Writing	1
GLG 1129	Survey of Earth Science	3
MST 1105	Medical Terminology	2
MTH 1060	Business Mathematics	3
<b>Fall</b>		
RCR 2100	Introduction to the Deaf Community	2
RCR 2101	Captioning /CART I	2
RCR 2201	Advanced Speed Building	5
RCR 2211	Advanced Realtime Writing	1
RCR 2245	Realtime Business Practices	3
<b>Spring</b>		
RCR 2102	Captioning/CART II	1
RCR 2180	Captioning/CART Professional Experience	1
RCR 2202	Terminal Speed Building	5
RCR 2212	Terminal Realtime Writing	1
GEO 2200	World Regional Geography	3
- -	PHL, PLS, SOC Elective**	3
	<b>Total Credit Hours</b>	<b>73</b>

\* RCR 125A-F courses are optional skill-building courses that students may elect to take to increase skill growth.\*\*PLS 1100, Introduction to American Politics (prereq: ENG 1111), PSY 1111, Psychology I (GA) (Prerequisite(s): CPE 0100; Pre/Corequisite(s): CPE 0300; An appropriate COMPASS placement, ACT, or SAT score will satisfy the respective CPE requirement); SOC 1110, Introduction to Sociology (GA) (prereq: ENG 1111).

## Judicial Court Reporting (4800)

This online program is a “Shared Program” between Clark State Community College and Stark State College, offering a unique opportunity for providing excellence in teaching and learning.

The vital, exciting, and rewarding IT profession of judicial court reporting provides opportunities in multiple realtime career paths. Judicial court reporters are the guardians of the record, providing a verbatim record of the proceedings of a courtroom, deposition, hearing, arbitration, or meeting and producing an accurate transcript of the proceedings, using state-of-the-art technology. This technology allows court reporters to provide instantaneous translation referred to as realtime for all parties involved in the proceedings, whether present on site or at a distance via the Internet. The ability to create word-for-word accounts and provide realtime translation opens the career opportunities beyond the courtroom and depositions to closed captioning and beyond.

Clark State/Stark students learn to write realtime using a computerized machine and to prepare transcripts using computer-aided (CAT) software. Students’ writing skills are perfected by utilizing a realtime learning practice and testing web environment along with many additional specialized drills, and students have access to an on-campus mock courtroom, as well as on-campus realtime labs. Students are required to complete a significant internship prior to graduating, providing exposure to the judicial court reporting field in a real-world environment.

According to an independent study conducted by Ducker Worldwide (Ducker), one of the nation’s leading marketplace analyst firms, demand for court reporters will exceed supply within five years, yielding a nationwide shortage. By 2018, there will be 5,500 new court reporter jobs available in the U.S. according to the 2013-14 Court Reporting Industry Outlook Report. Average starting salary for a court reporter, as reported by Ducker, is \$43,000 annually; and according to the U.S. Bureau of Labor Statistics, the growth rate for court reporting salaries is expected to increase by 14 percent through the year 2020.

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 semesters 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 Judicial Court 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.
- Perform skills in reporting procedures, transcript production, and operating practices in the role of the realtime reporter.
- Demonstrate knowledge of professional issues, continuing education, and 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 75 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 a computer fundamentals course (consult with academic advisor) as a preparatory course before taking other computer courses.

### Graduation Requirements

The Judicial Court Reporting program is approved by the National Court Reporters Association (NCRA). This association’s requirements are met or exceeded with the following standards:

- The student shall pass three five-minute tests with a minimum of 95-percent accuracy at each of the following speeds: 225 words per minute (wpm) testimony (two-voice), 200 wpm jury charge, and 180 wpm literary.
- The student shall complete at least 75 verified hours of internship under the supervision of a practicing professional judicial court reporter, composing a summary of complete experience as well as preparing a 40-page complete, accurate transcript from internship experience.
- The student shall prepare a five-page, first-pass transcript with a minimum of 95-percent accuracy.

Clark State and Stark State reserve 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 bachelor's degree. A number of colleges or universities have designed bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the appropriate college catalog for more information.

## Humanities/Social Science Electives

A complete listing of humanities and social science electives is available in the Clark State Community College catalog.

Course #	Course Title	Credit Hours
<b>Fall</b>		
JCR 1001	Realtime Theory I	3
JCR 1002	Realtime Theory II	3
AOT 121S	Keyboarding/Formatting (SS)	3
AOT 130S	Editing, Proofreading, & Language Skills (SS)	3
ENG 1111	English I	3
FYE 1100	College Success	1
<b>Spring</b>		
JCR 1003	Realtime Theory Applications	3
JCR 1101	Skill Building I	3
JCR 131S	Legal Terminology (SS)	3
ITD 122S	Computer Applications for Professionals (SS)	3
MTH 1060	Business Mathematics	3
<b>Summer</b>		
JCR 1102	Skill Building II	3
BIO 125S	Medical Terminology (SS)	3
<b>Fall</b>		
JCR 2103	Skill Building III	3
JCR 2104	Skill building IV	3
JCR 2200	Realtime Business Procedures	3
ENG 2211	Business Communication	3
PHL 122S	Ethics (SS)	3
<b>Spring</b>		
JCR 2105	Skill Building V	3
JCR 2106	Skill Building VI	3
JCR 2300	CAT Transcript Production	2
JCR 2400	JCR Internship	2
- -	*Social/Behavioral Science Elective	3
Total Credit Hours		65

\*PLS 1100, Introduction to American Politics (prereq: ENG 1111), PSY 1111, Psychology I (GA) (Prerequisite(s): CPE 0100; Pre/Corequisite(s): CPE 0300; An appropriate COMPASS placement, ACT, or SAT score will satisfy the respective CPE requirement); SOC 1110, Introduction to Sociology (GA) (prereq: ENG 1111).

## Court Reporting / Captioning Certificates

### Realtime Court Reporting Scopist Departmental Certificate (4801D)

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 Court Reporting program to aid them in working in their career field while completing their degree in Realtime Court Reporting. All courses required for the completion of this certificate can be applied toward the completion of the Judicial Court 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 or other proceedings. 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 and Technology Center.

Course #	Course Title	Credit Hours
<b>Fall</b>		
RCR 1200	Survey of Realtime Reporting	1
RCR 1201	Realtime Theory	6
RCR 1211	Introduction to Realtime Writing	1
RCR 1225	Vocabulary and Reference Use	1
ITS 1105	Computer Concepts and Software Applications	3
OAD 1105	Business English	4
<b>Spring</b>		
RCR 1202	Beginning Speed Building	5
RCR 1212	Beginning Realtime Writing	1
RCR 1220	Law and Legal Terminology	2
RCR 1231	Fundamentals of CAT	2
ENG 1111	English I	3
ENG 2211	Business Communication	3
<b>Summer</b>		
RCR 1203	Intermediate Speed Building	5
RCR 1213	Intermediate Realtime Writing	1
MST 1105	Medical Terminology	2
Total Credit Hours		40



## Diesel Technology

### Diesel Technology Program (5650)

The diesel industry is growing and there is a current and future need for qualified technicians. Diesel engines are more powerful and durable than gas engines, making them a popular alternative in the trucking, busing, agriculture, and construction industries. Diesel technicians perform complete engine overhauls, minor preventative maintenance services, and everything in between. Starting wages are usually in the \$13 to \$16 per hour range with increases going to \$30 per hour or more. Job opportunities are going unfilled in the Miami Valley and throughout Ohio and the country.

The Clark State Diesel Technology program is a comprehensive sequence of courses that combines theory and practical applications. Students learn the theory, design, operation, diagnosis, repair and service of diesel engines, power train and chassis, hydraulic systems, electrical systems, and fuel injection systems. They develop communication and mathematical skills. The program includes 300 hours of on-the-job training in a co-op work experience.

#### Learning Outcomes

Upon successful completion of the Associate of Technical Studies in Diesel Technology, a graduate will be able to:

- Diagnose and repair medium and heavy-duty truck engines
- Diagnose and repair medium and heavy-duty truck suspension and steering systems
- Diagnose and repair medium and heavy-duty truck brake systems
- Diagnose and repair medium and heavy-duty truck electrical/electronic systems
- Perform preventative maintenance and inspections on medium and heavy-duty trucks
- Diagnose and repair medium and heavy-duty truck drivelines
- Diagnose and repair medium and heavy-duty truck heating, ventilation and air conditioning systems
- Diagnose and repair medium and heavy-duty truck fluid power systems

#### Scholastic Preparation

Basic mechanical ability or previous mechanical work experience is helpful, but not required. Students with little or no computer background should enroll in ITS 0800 Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 1210 Keyboarding/Word Processing.

#### Program Design and Availability

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

This program is taught in a modern, clean training facility at the Miami Valley Career Technology Center at 6800 Hoke Road in Clayton, Ohio. Some general education courses may need to be completed online or at the Clark State Community College Greene Center Campus.

#### 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</b>		
DSL 1300	Preventative Maintenance	2
DSL 1500	Heavy Truck Drive Trains	3
DSL 1600	Basic Electrical	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
INT 1000	OSHA 10-Hour General Safety	1
MGT 1100	Personal Finance	3
<b>Spring</b>		
DSL 1100	Hydraulic Theory and Operation	2
DSL 1200	Fundamentals of Engines	3
DSL 1550	Truck Steering and Suspension	2
WLD 1000	Introduction to Welding Processes <i>or</i>	
AGR 1800	Welding	3
EBE 1000	Employability Skills	1
MTH 1115	Industrial Calculations	3
<b>Summer</b>		
DSL 1650	Truck Brake Systems	3
DSL 2600	Heavy Truck HVAC	2
<b>Fall</b>		
DSL 2300	Advanced Electrical / Electronics	3
DSL 2500	Heavy Truck Automatic Transmissions	2
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications	3
--	Arts/Humanities <i>or</i> Social/Behavioral Science Elective (GA)	3
<b>Spring</b>		
DSL 2710	Diesel Engine Performance	4
EBE 2702	Co-op Education I	2
ENG 2211	Business Communication	3
COM 1110	Interpersonal Communication I	3
MGT 1115	Customer Relations	2
	<b>Total Credit Hours</b>	<b>62</b>

## Diesel Technology Certificates

### Diesel Technology Short-Term Technical Certificate (5651D)

The diesel industry is growing and there is a current and future need for qualified technicians. Diesel engines are more powerful and durable than gas engines, making them a popular alternative in the trucking, busing, agriculture, and construction industries. Diesel technicians perform complete engine overhauls, minor preventative maintenance services, and everything in between. Job opportunities are going unfilled in the Miami Valley and throughout Ohio and the country.

The Clark State Diesel Technology certificate provides the introductory skills needed to begin working in the diesel-maintenance field. All courses taken on this certificate can be applied to the Associate of Technical Studies degree in Diesel Technology.

This program is taught in a modern, clean training facility at the Miami Valley Career Technology Center at 6800 Hoke Road in Clayton, Ohio. Some general education courses may need to be completed online or at the Clark State Community College Greene Center Campus.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
DSL 1300	Preventative Maintenance	2
DSL 1500	Heavy Truck Drive Trains	3
DSL 1600	Basic Electrical	3
MTH 1115	Industrial Calculations	3
<b>Spring</b>		
DSL 1100	Hydraulic Theory and Operation	2
DSL 1200	Fundamentals of Engines	3
DSL 1550	Truck Steering and Suspension	2
AGR 1800	Welding	4
<b>Summer</b>		
DSL 1650	Truck Brake Systems	3
	Total Credit Hours	25

## Digital Media

### Graphic Design (3700)

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, creatively 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, project-based 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. Students with little experience with computers should take special note of the scholastic preparation listed below.

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 semesters of study. Students should consult their academic advisor for help in planning their schedules. Graduating graphic design students wishing to further build their web design skills could also receive an Associate of Applied Business in New Media by completing an additional 12 courses in the New Media curriculum.

#### Learning Outcomes

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

- Utilize industry standard software effectively as a design tool.
- Professionally communicate ideas, concepts, and design knowledge.
- Manage a design problem from conceptualization to a finished layout.
- Design and present a professional portfolio.

#### Scholastic Preparation

Graphic Design students with little or no computer background should enroll in ITS 0800, Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810, Beginning Keyboarding.

#### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. Some colleges or universities have designed bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
GPH 1000	Intro to Graphic Design	4
FYE 1100	College Success	1
ART 1111	Drawing I	3
ENG 1111	English I	3
MTH 1060	Business Mathematics	3
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
GPH 1110	Digital Illustration I	3
GPH 1112	Typography Seminar	3
GPH 1201	Electronic Imagery I	3
ART 1121	Drawing II	3
COM 1170	Small Group Communication	3
<b>Fall</b>		
GPH 2011	Computer Layout I	3
GPH 2111	Digital Illustration II	3
GPH 2120	Logo, Symbol, Corporate I.D.	3
GPH 2202	Electronic Imagery II	3
ENG 2211	Business Communication	3
ITS 1500	HTML and CSS	3
<b>Spring</b>		
GPH 2012	Computer Layout II	3
GPH 2051	Professional Development	3
GPH 2085	Service Learning Capstone	3
ART 1002	Art History II	3
NWM 1600	Web Design	3
	Total Credit Hours	65

Note: It is extremely important that students save all artwork from the first term forward to enable them to build a portfolio in GPH 2051.

## New Media (3800)

New media brings together web design and development; social media; and digital content creation such as photography, video, audio, and animation to create the ultimate, interactive experience for a computer user. Students with this degree can work in the field of Web Development, User Experience Design, Social Media Strategy, Digital Marketing, Digital Content Production. Graduates in new media need a balance of technical skills and aesthetic design sense with strong communication and personal skills to interact with clients. Employers in new media need skilled and intuitive, creative problem solvers to help them adapt to this new technological age. Employees in New Media must have strong computer competencies to allow them to work remotely from home.

The New Media program is a two-year computer intensive learning experience focusing on industry-standard practices. Students with little experience with computers should take special note of the scholastic preparation listed below.

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 requiring college preparatory courses, will need additional semesters of study. Students should consult their academic advisor for help in planning their schedules.

Graduating new media students wishing to further build their skills could also receive an Associate of Applied Business in Graphic Design by completing an additional 12 courses in the Graphic Design curriculum and an Associate of Applied Business in Computer Software Development by completing an additional 11 courses in the Computer Software Development Curriculum.

### Learning Outcomes

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

- Design websites with usability in mind.
- Work with a team and individually on new media design solutions for clients.
- Utilize industry standard software effectively as a digital media editor.
- Use social media effectively as an interactive communication tool.

### Scholastic Preparation

New Media students need a high school algebra background equivalent to CPE 0500 Pre-Algebra. Students with little or no computer background should enroll in ITS 0800 Computer Fundamentals, as a preparatory course before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 Beginning Keyboarding.

### Transfer Options

Students enrolled in Associate of Applied Business 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 bachelor's degree. Some colleges or universities have designed bachelor's completion programs designed for students completing applied degrees. See the Transfer section of the catalog for more information.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
NWM 1000	Introduction to New Media	2
FYE 1100	College Success	1
GPH 1000	Intro to Graphic Design	4
ENG 1111	English I	3
MTH 1060	Business Mathematics	3
ITS 1500	HTML and CSS	3
<b>Spring</b>		
NWM 1005	Digital Aesthetics and User Experience	3
NWM 1010	Social Media and Digital Interactivity	3
NWM 1020	Adobe for Web Professionals	3
CSD 1500	Programming Fundamentals	3
NWM 1600	Web Design	3
<b>Fall</b>		
NWM 2000	Digital Multimedia I	3
NWM 2100	Web Programming, Scripting, and Database	3
COM 1170	Small Group Communication	3
CSD 2200	JavaScript	3
ENG 2211	Business Communication	3
<b>Spring</b>		
NWM 2010	Digital Multimedia II	3
NWM 2210	New Media Capstone	3
NWM 2400	Advanced Web Design	3
ART 1002	Art History II	3
CSD 2600	Mobile Web Application Programming	2
PSY 1111	Introduction to Psychology	3
Total Credit Hours		63

Note: It is extremely important that students save all work from the first term forward to enable them to build a portfolio in NWM 2210 and NWM 2400.

## Digital Media Certificates

### New Media Web Design Certificate (3810D)

This certificate provides the knowledge and skills necessary to do web design and front end development.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ITS 1500	HTML and CSS	3
CSD 1500	Programming Fundamentals	3
<b>Spring</b>		
NWM 1005	Digital Aesthetics and User Experience	3
NWM 1020	Adobe for Web Professionals	3
NWM 1600	Web Design	3
<b>Fall</b>		
NWM 2100	Web Programming, Scripting, and Database	3
CSD 2200	JavaScript	3
<b>Spring</b>		
NWM 2400	Advanced Web Design	3
	Total Credit Hours	24

## Early Childhood Education

### Early Childhood Education - Pre-Kindergarten Licensure (7100)

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 and school-aged child. Graduates of the Early Childhood Education degree program are prepared to work with young children, helping them develop into the whole, productive persons they are meant to be.

The following 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 requirements, will require additional semesters of study. Students should consult their academic advisors for help in planning their schedules.

#### Learning Outcomes

Upon completion of an Associate of Applied Science 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 300 clock hours of supervised experiences in approved early childhood education settings during Practicum I and II. Students are given the opportunity to observe and complete student teaching with young children in authentic learning environments. Students have the unique opportunity to spend their practicums in the nationally accredited and quality rated Early Childhood Education Center adjacent to the Leffel Lane Campus as well as in other quality settings throughout the service area. Seminars I and II provide students the opportunity to discuss their experiences and share ideas concerning curriculum planning and behavior management. All classes are web enhanced.

#### Certification

The Early Childhood Education program is approved by the Ohio Department of Higher Education and meets all criteria for preparing individuals for pre-kindergarten

associate licensure. Students who choose to obtain Pre-Kindergarten licensure must meet all guidelines listed in the Pre-Kindergarten Associate Licensure orientation packet, which is available from ECE full-time faculty. Additionally, candidates must pass the Ohio Assessment for Educators licensure exam in order to be awarded licensure following successful completion of all required coursework.

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 and EDU courses is required for graduation. Requests to repeat technical courses more than twice must be approved by the Dean of Health, Human, and Public Services.

#### Liability Insurance

Students will be billed for liability insurance for appropriate courses while enrolled in the Early Childhood Education program.

Course #	Course Title	Credit Hours
<b>Fall</b>		
ECE 1101	Professional Development for Educators	1
ECE 1102	Child Development and Education	3
ECE 1105	Language and Literacy in Education	3
EDU 1110	Introduction to Education	3
ENG 1111	English I	3
FYE 1100	College Success	1
<b>Spring</b>		
ECE 1108	Creative and Motor Development in Early Childhood	3
ECE 1112	Cognitive Development in Early Childhood	3
ECE 1115	Observation and Assessment in Early Childhood	4
COM 1120	Public Speaking I	3
- -	Science Elective*	3
<b>Summer</b>		
ENG 1112	English II	3
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
ECE 2100	Socioemotional Development in Early Childhood	3
ECE 2130	Practicum Field I	1
ECE 2133	Early Education Curriculum and Instruction	3
PSY 2218	Introduction to Educational Psychology	3
- -	Math or Statistics Elective**	3
<b>Spring</b>		
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		65

Suggested courses:\*BIO 1410 Fundamentals of Biology, BIO 1105 Fundamentals of Anatomy and Physiology, GLG 1131 Physical Geology, GLG 1129 Survey of Earth Sciences (See list of others under Physical/Natural Sciences in front of catalog)  
\*\*MTH 1060 Business Math; MTH 1280 Algebra; MTH 1050 Math and Today's World; STT 2640 Elementary Statistics



## Emergency Medical Services (2700)

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 semesters 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 (written, verbal) effectively with patients, families, healthcare providers, and other supportive agencies.
- Exhibit ethical 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 patient.

### Overview

Clark State Community College offers an 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.

### Technical Standards

All students accepted into the Emergency Medical Services programs must be able to meet the General Knowledge and Skills Requirements of EMS Personnel with or without reasonable accommodations. These requirements are linked to this program page on the College's website and are also provided to students via the EMS Policy Manual. Students are required to sign a form indicating they have reviewed these requirements and submit that form to the EMS Program Coordinator when they enter the program.

### 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 1131, the student must meet the following entrance requirements:

- Pass COMPASS or ACCUPLACER Reading and Writing placement tests with scores testing out of college preparatory reading and writing or pass with a C or better college preparatory courses (CPE 0200 for Reading, CPE 0300 with a B or CPE 0400 with a C for writing).
- Pass COMPASS Math test with score of 47 or ACCUPLACER with a score of 77, or pass with a grade of C or better the CPE 0500.
- Complete MST 1105 and BIO 1105 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 towards the first level EMS courses in the curriculum. These will be granted after the student has completed 15 hours of semester 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 EMS Program Coordinator.

### Prior Learning Assessment

Students who have prior education or training equivalent to the paramedic course of study may demonstrate knowledge acquisition and practical skill competency in a series of steps that may absolve the student from attendance at the formalized paramedic sequence of classes. Contact the EMS Program Coordinator for more information on this Prior Learning Assessment policy.

### 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.

## 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
<b>Spring</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
ENG 1111	English I	3
MST 1105	Medical Terminology	2
EMS 1100	EMT Theory & Practice	7
EMS 1171	Basic Life Support: CPR	0.5
FYE 1100	College Success	1
<b>Fall</b>		
PSY 1111	Introduction to Psychology	3
EMS 1112	Paramedic Hospital Practice I	1
EMS 1122	Paramedic Field Practice I	1
EMS 1131	Paramedic Theory I	6
EMS 1141	Paramedic Practical Skills Lab I	1.6
--	Humanities/Social Science Elective	3
<b>Spring</b>		
COM 1110	Interpersonal Communication I	3
EMS 1114	Paramedic Hospital Practice II	1
EMS 1124	Paramedic Field Practice II	1
EMS 1133	Paramedic Theory II	6
EMS 1143	Paramedic Practical Skills Lab II	1.7
<b>Summer</b>		
PSY 2223	Lifespan Human Growth and Development	3
EMS 1116	Paramedic Hospital Practice III	1
EMS 1126	Paramedic Field Practice III	1
--	Math Elective*	3
<b>Fall</b>		
EMS 1128	Paramedic Field Practice IV	1
EMS 1135	Paramedic Theory III	6
EMS 1145	Paramedic Practical Skills Lab III	1.7
--	Technical Elective**	3
	Total Credit Hours	64.5

Students who have current Ohio EMT Advance Certification are given in-class credit for clinical skills previously obtained.

\*Math electives include courses that have course codes of MTH or STT.

\*\*Technical electives include: EMS, 2210, EMS 2211, EMS 2230, EMS 2232, FFC 1070 (1050, 1060), FFC 2020 (2010), FFC 2070 (2060), FFC 2080 (2090), MGT 1060, NUR 1120, SWK 1105.

## EMS | Fire Certificates

### EMT Advanced Short-Term Technical Certification (2703D)

This program builds on the existing knowledge and skill of the EMT 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 EMT Advanced level.

#### 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 1106, the student must meet the following entrance requirements:

- Pass COMPASS or ACCUPLACER Reading and Writing placement tests with scores testing out of college preparatory reading and writing or pass with a C or better college preparatory courses (CPE 0200 for Reading, CPE 0300 with a B or CPE 0400 with a C for writing) prior to enrolling
- Pass COMPASS Math test with score of 47 or ACCUPLACER with a score of 77, or pass with a grade of C or better the CPE 0500 prior to enrolling
- Have Ohio EMT certification.
- Have current Basic Life Support or CPR provider certification.
- Complete physical exam and health requirements prior to attending clinical.
- Complete criminal background check requirements prior to attending clinical.
- Complete drug screen requirement prior to attending clinical if required by assigned clinical agency.

Course #	Course Title	Credit Hours
<b>Fall</b>		
EMS 1106	EMT Advanced Theory & Practice I	4
<b>Spring</b>		
EMS 1108	EMT Advanced Theory & Practice II	4
	Total Credit Hours	8

## EMT Short-Term Technical Certification (2702D)

The EMT Course is a seven credit-hour very fast paced and labor intensive course that includes 150-180 hours of classroom, lab, and clinical/field education that can be completed in one semester. Upon successful completion of this course the student is eligible to take 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 in 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 1100 must:

- Pass COMPASS or ACCUPLACER Reading and Writing placement tests with scores testing out of college preparatory reading and writing or pass with a C or better college preparatory courses (CPE 0200 for Reading, CPE 0300 with a B or CPE 0400 with a C for writing) prior to enrolling.
- Pass COMPASS Math test with score of 47 or ACCUPLACER with a score of 77, or pass with a grade of C or better the CPE 0500 prior to enrolling
- Have Basic Life Support (BLS) certification for professional CPR or enroll in EMS 1171, Basic Life Support, concurrently.
- Complete health requirements prior to attending clinical.
- Complete criminal background check requirement prior to attending clinical.
- Complete drug screen requirement prior to attending clinical if required by assigned clinical agency.

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

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
EMS 1100	EMT Theory & Practice *	7
	Total Credit Hours	7

\*Offered fall, spring, and summer terms

## Firefighter I Short-Term Technical Certification (2802D)

This course is also offered as a direct delivery outreach offering as requested. This 156-hour program is designed to meet the NFPA 1001 Standard for Firefighter Professional Qualifications. The program provides the foundation for Firefighters to operate on the fire ground and initiate fire attack inside a structure. The Level I completes the basic training required to enter the Firefighter Level II program required to be a career Firefighter.

### Learning Objectives

- Fire Department Organization and Safety
- Life Safety Initiatives
- Fire Behavior
- Building Construction
- Basic Rescue
- Ventilation and Tools
- Salvage and Overhaul
- Ground Ladders
- Certified Emergency Vehicle Operations
- Hazardous Materials Operations Level Certificate
- Incident Command System
- Basic First Aid and CPR Skills
- CEVO - Certified Emergency Vehicle Operator Certification with documented 8 hours of hands-on driving skills.

An in-depth list of the Firefighter I course objectives are available on the [Ohio Department of Public Safety](#).

### Learning Outcomes

The graduate firefighter will gain the knowledge, skill, and confidence to initiate interior fire suppression operation, complete a building search and rescue, and master the use and operation of breathing apparatus. The graduate should also be able to properly ascertain the need for proper ventilation, using ground ladders, working on roof structures to complete building ventilation, using hand tools and power equipment to understand extrication from auto and structures. Graduates will also understand and apply building construction methods to predict fire movement inside a structure.

### Prerequisites

Test out of preparatory reading via college placement exam or complete college preparatory reading course (CPE 0100), NIMS 100 & 700, valid drivers license.

### Graduation Requirements

Overall course average of 78%, pass the State of Ohio Public Safety Level I test with 70% and pass all 10 Pro Board accredited skill stations.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
FFC 1070	Firefighter I	7
	Total Credit Hours	7

## Firefighter II Short-Term Technical Certification (2803D)

This course is also offered as a direct delivery outreach offering as requested. This 104-hour Level II course transitions the Level I Firefighter to the minimum requirement under NFPA 1001 Standard for Fire Fighter Professional Qualifications to be a career Firefighter.

The Level II course completes the advanced tactics of ventilation, fire control, an in-depth understanding of fire prevention, and public education as well as rope rescue and auto machinery extrication.

### Learning Objectives

- Fire alarms and communications
- Firehose appliances and streams
- Foam fire systems
- Rescue
- Fire detection alarm and suppression systems
- Fire cause and education
- Extensive live fire operations

An in-depth list of the Firefighter II course objectives are available on the [Ohio Department of Public Safety](#).

### Learning Outcomes

The student will gain confidence in working with fire alarm detection systems and well as automatic suppression systems, understand concepts of foam and how it relates to fire control on liquid fuel fires. The student will also gain confidence performing rescue and fire control operation in live fire situations and hands on scenarios.

### Prerequisites

State of Ohio Level I Firefighter certification, NIMS 100 & 700, Hazardous Materials Responder Operations Level certification and certified emergency vehicle operators (CEVO) certification.

### Graduation Requirements

Must achieve 78% overall course average, pass the Ohio Department of Public Safety final exam with 70% and pass all 14 Pro Board Accredited skill stations,

Course #	Course Title	Credit Hours
FFC 2020	Firefighter II	4
	Total Credit Hours	4

## Firefighter / Transition Departmental Certificate (2801D)

This course is also offered as a direct delivery outreach offering as requested. This 120-hour course builds on the awareness level 36-hour Volunteer Firefighter course. The course uses extensive hands-on labs to help the student move from an awareness level only Firefighter to a NFPA 1001 Standard Firefighter.

### Learning Objectives

- CEVO - Certified Emergency Vehicle Operator certification with documented 8 hours of hands-on driving skills
- Hazardous Materials Operations level certificate
- Interior live fire training
- Vehicle extrication training
- Advanced PPE/SCBA training
- Ventilation and tools
- Rope use and care
- Salvage and overhaul
- Ground ladders
- 16 Life Safety Initiatives

### Learning Outcomes

This course transitions the basic 36 hour Volunteer Firefighter to a NFPA 1001 Level 1 Firefighter. The course prepares the firefighter to operate inside burning structures, safely place and climb ground ladders, determine need and apply sound ventilation practices. Firefighter will gain skills in incident command and basic first aid.

### Prerequisites

36-hour Volunteer Firefighter certification, NIMS 100 & 700, valid driver's license.

### Graduation Requirement

Must achieve 78% overall course average and successfully pass the Ohio Department of Public Safety exam with minimum 70% and pass all 10 Pro Board Accredited skill stations.

Course #	Course Title	Credit Hours
FFC 1020	Firefighter I Transition	5
	Total Credit Hours	5

## Firefighter / Volunteer Departmental Certificate (2804D)

This program is also offered as a direct delivery outreach offering as requested. This 36 hour course, classified as (Awareness level) firefighting, covers the basics of entry level firefighting for volunteers. The course consists of classroom and hands on practical.

### Learning Objectives

- Fire department organization and safety
- Basic ground ladder use
- Basic hose evolutions
- Basic tools and equipment
- SCBA and personal protective equipment (PPE)
- Basic fire control and ventilation techniques
- Basic fire behavior
- Portable fire extinguishers

An in-depth list of the Volunteer Firefighter course objectives are available on the [Ohio Department of Public Safety](#).

### Learning Outcomes

The student will gain the basic knowledge to assist fire departments with exterior operations. Also provides the foundation that will be needed to learn through department continuing education, the complex techniques required for interior operations and direct fire attack.

### Prerequisites

Test out of preparatory reading via college placement exam or complete college preparatory reading course (CPE 0100), NIMS 100 & 700.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
FFC 1010	Volunteer Firefighter	1
	Total Credit Hours	1

## Paramedic Certification (2701D)

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.

The Paramedic program (#308-OH) is accredited by the Ohio Department of Public Safety Services, Division of Emergency Medical Services, 1970 West Broad Street, Columbus, Ohio 43218-2073, 800-233-0785 and accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)), 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, 727-210-2350, upon recommendation of the Committee on Accreditation for the Emergency Medical Services Professions (CoAEMSP).

Upon successful completion the student will be eligible to challenge the National Registry Certification exam at the paramedic level.

### Learning Outcomes

Upon completion of the Paramedic Certificate a graduate will be able to:

- Demonstrate technical proficiency in all skills necessary to fulfill the role of entry-level paramedic.
- Communicate (written, verbal) effectively with patients, families, healthcare providers, and other supportive agencies.
- Exhibit ethical 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 patient.

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. The student will find that at least a year’s experience as an EMT will be beneficial as they challenge this advanced course.

### Technical Standards

All students accepted into the Emergency Medical Services programs must be able to meet the General Knowledge and Skills Requirements of EMS Personnel with or without reasonable accommodations. These requirements are linked to this program page on the College’s web site and are also provided to students via the EMS Policy Manual. Students are required to sign a form indicating they have reviewed these requirements and submit that form to the EMS Program Coordinator when they enter the program.

## Prerequisites

Prior to entering EMS 1131, the student must meet the following entrance requirements:

- Pass COMPASS or ACCUPLACER Reading and Writing placement tests with scores testing out of college preparatory reading and writing or pass with a C or better college preparatory courses (CPE 0200 for Reading, CPE 0300 with a B or CPE 0400 with a C for writing).
- Pass COMPASS Math test with score of 47 or ACCUPLACER with a score of 77, or pass with a grade of C or better the CPE 0500.
- Complete MST 1105 and BIO 1105 with a C or better.
- Have Ohio EMT certification.
- Have Current CPR provider card.
- Complete physical exam and health requirements prior to attending clinical.
- Complete criminal background check requirements prior to attending clinical.
- Complete drug screen prior to attending clinical if required by the clinical agency.

## Prior Learning Assessment

Students who have prior education or training equivalent to the paramedic course of study may demonstrate knowledge acquisition and practical skill competency in a series of steps that may absolve the student from attendance at the formalized paramedic sequence of classes. Contact the EMS Program Coordinator for more information on this Prior Learning Assessment policy.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
EMS 1112	Paramedic Hospital Practice I	1
EMS 1122	Paramedic Field Practice I	1
EMS 1131	Paramedic Theory I	6
EMS 1141	Paramedic Practical Skills Lab I	1.6
<b>Spring</b>		
EMS 1114	Paramedic Hospital Practice II	1
EMS 1124	Paramedic Field Practice II	1
EMS 1133	Paramedic Theory II	6
EMS 1143	Paramedic Practical Skills Lab II	1.7
<b>Summer</b>		
EMS 1116	Paramedic Hospital Practice III	1
EMS 1126	Paramedic Field Practice III	1
<b>Fall</b>		
EMS 1128	Paramedic Field Practice IV	1
EMS 1135	Paramedic Theory III	6
EMS 1145	Paramedic Practical Skills Lab III	1.7
	Total Credit Hours	30

## Paramedic Certification for Registered Nurses (2704D)

This program is designed to provide education encompassing the entire Paramedic 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 2288, the student must meet the following entrance requirements:

- Complete a Request to Enter form, available on-line or from the Public Safety Services office.
- Have Ohio EMT-Basic certification.
- Have current BLS/CPR provider, ACLS provider or instructor, and PALS provider or instructor certification. PHTLS or ITLS provider certifications are recommended.
- Complete physical exam and health requirements prior to attending clinical.
- Complete criminal background check and drug prior to attending clinical if required by clinical agency.
- Have active Ohio licensure/certification as RN, nurse practitioner, respiratory therapist or physician's assistant.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
EMS 2288	Paramedic Theory/RNs	5
	Total Credit Hours	5

## Engineering

### Computer-Aided Design Technology (5810)

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 a co-op experience. Students must complete EBE 1000, Employability Skills, and then work with the 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 semesters 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:

- Design a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Produce a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Document a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Analyze a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.

#### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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. Those without high school physics must complete PHY 1100 Fundamentals of Physics.

Course #	Course Title	Credit Hours
Fall		
CAD 1101	Computer-Aided Design I	3
EBE 1000	Employability Skills	1
ENG 1111	English I	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
Spring		
CAD 1301	Architecture I	3
CAD 2100	Solid Modeling	3
ENT 2100	Manufacturing Processes	3
MTH 1280	College Algebra	4
ENT 1500	Engineering Materials	3
Summer		
EBE 2701	Co-op Education I	1
Fall		
CAD 1102	Computer-Aided Design II	3
ECO 2210	Principles of Macroeconomics <i>or</i>	
ECO 2220	Principles of Microeconomics	3
PHY 1501	General Physics I with Algebra	5
MTH 1340	Pre-Calculus	5
Spring		
CAD 2200	Advanced Solid Modeling	3
ENT 2600	Engineering Design	3
ENG 2211	Business Communication	3
EBE 2703	Co-op Education I	3
Total Credit Hours		60

\* The technical elective must be a minimum of 4 semester hours in any combination of co-op (EBE 2701 - EBE 2704, EBE 2801 - EBE 2804) or any course not already prescribed in the following areas: CAD, ENT, INT or NTK 1110.

## Industrial Technology (5610)

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, electrical maintenance technician, or industrial maintenance mechanic.

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

Some required courses for the Associates degree are offered only at the Springfield location. In addition to applied technical courses, Industrial Technology includes a co-op experience. Students must complete EBE 1000, Employability Skills, 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:

- Use computers in troubleshooting, maintenance planning, and report writing.
- Use commonly-available instruments, schematics, operating manuals, and troubleshooting guides.
- Demonstrate and understand the safety requirements for working in an industrial setting.
- Demonstrate fundamental knowledge of power machinery.

### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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.

Course #	Course Title	Credit Hours
<b>Fall</b>		
INT 1000	OSHA 10-Hour General Safety	1
INT 1300	Electrical Systems	3
EBE 1000	Employability Skills	1
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
ENG 1111	English I	3
<b>Spring</b>		
INT 1201	Hydraulics and Pneumatics I	3
INT 1350	Motor and Motor Controls	3
INT 2500	Programmable Logic Control	3
INT 1400	Mechanical Maintenance	3
MTH 1115	Industrial Calculations	3
<b>Summer</b>		
EBE 2702	Co-op Education I	2
<b>Fall</b>		
INT 2200	Hydraulic and Pneumatic Troubleshooting	3
INT 2300	Electrical Troubleshooting	3
INT 2325	Alternating Current/ Direct Current (AC/DC) Servos	3
INT 2400	Industrial Machine Maintenance	3
- -	Arts/Humanities or Social/Behavioral Science Elective*	3
<b>Spring</b>		
INT 2550	Automated Systems	3
PHY 1100	Fundamentals of Physics	4
ECO 2210	Principles of Macroeconomics <b>or</b>	
ECO 2220	Principles of Microeconomics	3
ENG 2211	Business Communication	3
Total Credit Hours		60

The co-op must be a minimum of 3 (depends on the degree) semester hours in any combination of co-op (EBE 2701, EBE 2702, EBE 2703, EBE 2704)

\*Arts/Humanities or Social/Behavioral Science Electives recommended are PHL 2000 Critical Thinking or SPN 1111 Spanish I or ART 1300 Appreciation of the Arts.



## Manufacturing Engineering Technology (5830)

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. Students will choose two certificate programs in the following areas; Computer Numerical Control (CNC), manufacturing, Additive Manufacturing, Welding, SCADA, Computer-Aided Design (CAD), and Industrial Manufacturing. In addition to the courses in these programs, students will complete additional course work to complete the Manufacturing Engineering Associates Degree. In addition to applied technical courses, Manufacturing Engineering Technology Associate Degree includes a co-op experience. Students must complete EBE 1000, 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 semesters 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. Those without high school physics must complete PHY 1100, Fundamentals of Physics.

### Learning Outcomes

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

- Design a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Produce a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Document a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Analyze a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.

### 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
EBE 1000	Employability Skills	1
ENG 1111	English I	3
INT 1000	OSHA 10-Hour General Safety	1
--	First Certificate Class #1	3
<b>Spring</b>		
ENT 1500	Engineering Materials	3
ENT 2100	Manufacturing Processes	3
MTH 1280	College Algebra	4
--	First Certificate Class #2	3
--	First Certificate Class #3	3
<b>Summer</b>		
EBE 2702	Co-op Education I	2
<b>Fall</b>		
ENG 2211	Business Communication	3
PHY 1501	General Physics I with Algebra	5
MTH 1340	Pre-Calculus	5
--	Second Certificate Class #1	3
<b>Spring</b>		
ENT 2600	Engineering Design	3
ECO 2210	Principles of Macroeconomics	3
--	Second Certificate Class #2	3
--	Second Certificate Class #3	3
Total Credit Hours		61

\* The technical elective must be a minimum of 2 semester hours in any combination of co-op (EBE 2701 - EBE 2704, EBE 2801 - EBE 2804) or any course not already prescribed in the following areas: CAD, ENT, INT or NTK 1110.

## Mechanical Engineering Technology (5850)

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. In addition to applied technical courses, Mechanical Engineering includes a co-op experience. Students must complete EBE 1000, Employability Skills, and then work with Career Services to secure an appropriate co-op site. 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 semesters of study.

### Learning Outcomes

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

- Design a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Produce a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Document a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.
- Analyze a finished product per quality specifications using knowledge of engineering materials, metrology and the manufacturing process.

### 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. Those without high school physics must complete PHY1100, 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 bachelor's degree. A number of colleges or universities have

designed bachelor's 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
<b>Fall</b>		
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
ENG 1111	English I	3
EBE 1000	Employability Skills	1
MTH 1280	College Algebra <i>or</i>	
MTH 2200	Calculus I	4
<b>Spring</b>		
ENT 1450	Direct Current (DC) Circuits	3
ENT 1500	Engineering Materials	3
ENG 1112	English II	3
MTH 1340	Pre-Calculus <i>or</i>	
MTH 2220	Calculus II	5
<b>Summer</b>		
EBE 2702	Co-op Education I	2
<b>Fall</b>		
ENT 1460	Alternating Current (AC) Circuits	3
ENT 2200	Statics	3
CAD 1101	Computer-Aided Design I	3
PHY 1501	General Physics I with Algebra <i>or</i>	
PHY 2501	College Physics I with Calculus	5
- -	Arts/Humanities or Social/Behavioral Science (GA)	3
<b>Spring</b>		
ENT 2300	Strength of Materials	3
ENT 2600	Engineering Design	3
ENT 2100	Manufacturing Processes	3
PHY 1502	General Physics II with Algebra <i>or</i>	
PHY 2502	College Physics II with Calculus	5
Total Credit Hours		63

Students planning to take PHY 2501 may substitute PHY 1501 for PHY 1100; students who do not plan to take PHY 2501 may substitute a CAD or ENT course not already prescribed as a part of this program for PHY 1100.

Arts/Humanities or Social/Behavioral Science Electives recommended are PSY 1111 Psychology I or SPN 1111 Spanish I or ART 1300 Appreciation of the Arts. Students wishing to seek an Engineering Technology bachelor's degree at a four-year university are highly encouraged to review articulation agreements and consult with their academic advisor.

## Engineering Certificates

### Additive Manufacturing Departmental Certificate (5821D)

The Additive Manufacturing Certificate is designed for students who wish to enhance their skills in areas related to 3D printing and scanning. Students can apply the program courses to the Manufacturing Engineering Technology associate degree.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
CAD 2100	Solid Modeling	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
EBE 1000	Employability Skills	1
<b>Spring</b>		
ENT 1410	Introduction to Additive Manufacturing	3
ENT 1420	Rapid Prototyping Model Design and Fabrication	3
ENT 1500	Engineering Materials	3
ENT 2100	Manufacturing Processes	3
Total Credit Hours		24

### Computer Numerical Control (CNC) Departmental Certificate (5815D)

The Computer Numerical Control (CNC) Certificate is designed for students who wish to enhance their skills in areas related to CNC Machine Operation and CNC programming. Students can apply the program courses to the Manufacturing Engineering Technology associate degree.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
ENT 1310	Computer Numerical Control (CNC) Machine Operator - Turning	3
INT 1000	OSHA 10-Hour General Safety	1
EBE 1000	Employability Skills	1
<b>Spring</b>		
ENT 1320	Computer Numerical Control (CNC) Machine Operator - Milling	3
ENT 1330	Fundamentals of Computer Numerical Control (CNC)	3
ENT 1500	Engineering Materials	3
ENT 2100	Manufacturing Processes	3
Total Credit Hours		24

### Computer-Aided Design Departmental Certificate (5811D)

The Computer-Aided Design 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. Coursework included in this certificate program can ultimately be applied towards Computer-Aided Design and Manufacturing Engineering associate degrees.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
CAD 1101	Computer-Aided Design I	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
EBE 1000	Employability Skills	1
<b>Spring</b>		
CAD 1301	Architecture I	3
CAD 2100	Solid Modeling	3
ENT 1500	Engineering Materials	3
ENT 2100	Manufacturing Processes	3
Total Credit Hours		24

### Industrial Maintenance Departmental Certificate (5611D)

The Industrial Maintenance Certificate provides a broad base of courses in the field of industrial maintenance. The program courses are all included in the Industrial Technology Associate Degree. The program courses may also be applied toward the Manufacturing Engineering associate degree.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
INT 1000	OSHA 10-Hour General Safety	1
INT 1300	Electrical Systems	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
EBE 1000	Employability Skills	1
<b>Spring</b>		
INT 1201	Hydraulics and Pneumatics I	3
INT 1350	Motor and Motor Controls	3
INT 1400	Mechanical Maintenance	3
INT 2500	Programmable Logic Control	3
Total Credit Hours		24

## Manufacturing Departmental Certificate (5841D)

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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
INT 1300	Electrical Systems	3
EBE 1000	Employability Skills	1
<b>Spring</b>		
ENT 2100	Manufacturing Processes	3
ENT 1500	Engineering Materials	3
INT 2500	Programmable Logic Control	3
INT 2550	Automated Systems	3
	<b>Total Credit Hours</b>	<b>24</b>

## Manufacturing Foundation Departmental Certificate (5801D)

The Manufacturing Foundation Certificate is designed for students who wish to enhance their skills in areas related to manufacturing. The program courses are included in all other Industrial and Engineering certificate and associate degree program so students can apply the Manufacturing Foundations certificate to any of the Industrial and Engineering certificates and associate degrees.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
EBE 1000	Employability Skills	1
	<b>Total Credit Hours</b>	<b>9</b>

## Welding Departmental Certificate (5861D)

The Welding Certificate is designed for students who wish to enhance their skills in areas related to SMAW, GMAW, GTAW, oxyacetylene, and plasma cutting. Students can apply the program courses to the Manufacturing Engineering Technology associate degree.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
WLD 1000	Introduction to Welding Processes	3
ENT 1000	Introduction to Industrial and Engineering Technology	3
ENT 1050	Manufacturing Foundations	4
INT 1000	OSHA 10-Hour General Safety	1
EBE 1000	Employability Skills	1
<b>Spring</b>		
WLD 1010	Gas Metal Arc Welding (GMAW)	3
WLD 1020	Shielded Metal Arc Welding (SMAW)	3
WLD 1030	Gas Tungsten Arc Welding (GTAW)	3
	Total Credit Hours	21

## Food Science and Technology

### Food Science and Technology (1600)

The Food Science program provides basic preparation for careers in the Food Science Industry. Courses are offered in Food Science, Food Processing, Hazard Analysis and Critical Control Points (HACCP), Food Marketing, Food Law, and Advanced Topics in Food Science. Careers in this field include but are not limited to Food Safety Coordinator, Food Science Technician, Product Development, and Research and Development. The employment rate of agricultural and food science technicians is projected to grow from 2012 to 2022. More technology and scientific knowledge related to food production will allow greater control of the production and processing activities and in turn increase demand for these workers. Continued population growth will drive the need to increase efficiency of production and processing methods. More awareness and enforcement of food safety regulations will increase inspection requirements, which, in turn, will increase the need for agricultural and food science technicians.

#### Learning Outcomes

Upon completion of an Associate of Applied Science degree in Food Science and Technology, a graduate will be able to:

- Develop ability to quantify data as it relates to food industry.
- Apply basic food science and technology concepts, skills and tools.
- Demonstrate knowledge of food science trends.
- Demonstrate ability to collect, analyze and apply market data.
- Develop and market all aspects of a product in a domestic market.

#### Scholastic Preparation

Students should have successfully completed high school chemistry, biology, geometry, and algebra. Keyboarding skills are also strongly recommended.

#### Transfer Options

Students enrolled in Associate of Applied Science degree programs are preparing for employment upon graduation. However, at some point, many of these students are also interested in completing a bachelor's degree. A number of colleges and universities have designed bachelor degree completion programs for students completing applied degrees. See the Transfer section of the catalog for more information or talk to your academic advisor.

Course #	Course Title	Credit Hours
<b>Fall</b>		
AGR 1100	Ag Survey and Professional Development	4
CHM 1150	Introduction to General Chemistry	4
ENG 1111	English I	3
FST 1100	Introduction to Food Science	3
<b>Spring</b>		
BIO 1131	Microbiology	3
CHM 1210	General Chemistry I	5
FST 1200	Introduction to Food Processing	3
PHY 1100	Fundamentals of Physics	4
<b>Summer</b>		
EBE 2702	Co-op Education I	2
<b>Fall</b>		
AGR 1250	Animal Agriculture <i>or</i>	
AGR 2200	Crop Production	3
FST 2000	Food Marketing	3
FST 2300	Hazard Analysis and Critical Control Points (HACCP)	3
MGT 2000	Introduction to Project Management	3
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
ECO 2220	Principles of Microeconomics	3
ENG 2211	Business Communication	3
FST 2400	Food Laws and Regulations	3
FST 2700	Advanced Topics in Food Science	4
SOC 1110	Introduction to Sociology	3
Total Credit Hours		62

Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skill should enroll in IT 0810 before taking a computer class.

## GIS/Geospatial

### GIS/Geospatial Technology (5400)

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 semesters 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 bachelor's degree. A number of colleges or universities have designed bachelor's 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</b>		
GEO 1000	Introduction to GIS and Cartography	3
ENG 1111	English I	3
MTH 1280	College Algebra	4
ITS 1105	Computer Concepts and Software Applications *	3
FYE 1100	College Success	1
- -	Humanities/Social Science Elective	3
<b>Spring</b>		
GST 1400	Georeferencing and Mapping	3
GST 1500	Remote Sensing	3
CSD 1400	Database Management	3
EBE 1000	Employability Skills	1
- -	Natural/Physical Sciences Elective	3
<b>Summer</b>		
EBE 2702	Co-op Education I	2
<b>Fall</b>		
GST 1300	Introduction to UAS	3
GST 2100	Intermediate GIS & Data Management	3
CAD 1101	Computer-Aided Design I *	3
CSD 1500	Programming Fundamentals	3
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
GST 2350	Programming for GIS	3
GST 2700	Advanced Topics in Geospatial Technology	4
ENG 2211	Business Communication	3
MGT 2000	Introduction to Project Management	3
Total Credit Hours		60

\* Students with little or no computer background should enroll in ITS 0800 before taking other computer courses. Students without adequate keyboarding skills should enroll in ITS 0810 before taking a computer class.

\*\*GST electives must total a minimum of 3 semester hours and may come from any GST, CSD, or ATI course not already prescribed or CAD 1102 or any physics course at the PHY 1100 level or higher. BIO 1420 - Global Biology and GEO 1100 - World Human Geography are recommended electives.

## GIS/Geospatial Certificates

### Geospatial Precision Agriculture Specialist Short-Term Technical Certificate (5405D)

Geospatial Technology has been identified by the U.S. Bureau of Labor as an emerging industry. In addition, agricultural sales and service companies are hiring people who have completed coursework in both agriculture and geospatial technologies to develop precision agriculture programs or to provide technical assistance to farmers. With this in mind, the Geospatial Precision Agriculture Specialist certificate is designed to provide the technical background necessary to begin a successful career as a GIS Precision Agriculture Specialist. This certificate program is designed to address training needs in:

- Skills needed to use, manage, and manipulate GIS applications
- Hands-on experience using GIS software
- Knowledge of fundamental concepts and issues related to precision agriculture
- Skills necessary to conduct precision agricultural analysis

Students enrolled in the Geospatial Precision Agriculture Specialist certificate usually have an associate's or bachelor's degree. However, coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program. AGR 1750 and AGR 2750 are only offered in Springfield. All other courses can be taken in Springfield or in Beavercreek.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
GEO 1000	Introduction to GIS and Cartography	3
GST 1300	Introduction to UAS	3
ITS 1105	Computer Concepts and Software Applications	3
<b>Spring</b>		
AGR 1750	Precision Agriculture	3
GST 1500	Remote Sensing	3
<b>Fall</b>		
AGR 2750	Applied GIS for Agriculture	4
CSD 2450	Data Analytics	3
Total Credit Hours		22

### GIS Analyst Short-Term Technical Certificate (5404D)

Geographic Information Systems (GIS) has been identified by the U.S. Bureau of Labor as an emerging industry. With this in mind, the GIS Analyst Certificate is designed to provide the technical background necessary to begin a successful career as a GIS Analyst. The GIS Analyst Certificate program is designed to address training needs in:

- Skills needed to use and manage GIS applications
- Hands-on experience using GIS software
- Knowledge of fundamental concepts and issues related to GIS
- Skills necessary to conduct spatial analysis

This certificate is designed for those students who seek to enhance their job-related skills in becoming a GIS Analyst. This certificate is two years in length due to the sequence of prerequisites and the terms in which courses are offered. Students enrolled in the GIS Analyst Certificate usually have an associate or bachelor's degree. However, coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
GEO 1000	Introduction to GIS and Cartography	3
ITS 1105	Computer Concepts and Software Applications	3
MTH 1280	College Algebra	4
<b>Spring</b>		
GST 1400	Georeferencing and Mapping	3
CSD 1400	Database Management	3
<b>Fall</b>		
GST 2100	Intermediate GIS & Data Management	3
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
GST 2700	Advanced Topics in Geospatial Technology	4
MGT 2000	Introduction to Project Management	3
Total Credit Hours		29



## GIS Image Analyst Short-Term Technical Certificate (5401D)

Geographic Information Systems (GIS) has been identified by the U.S. Bureau of Labor as an emerging industry. With this in mind, the GIS Image Analyst Certificate is designed to provide the technical background necessary to begin a successful career as an Image Analyst. The GIS Image Analyst program is designed to address training needs in:

- Skills needed to use and manage GIS applications
- Hands-on experience using GIS software
- Knowledge of fundamental concepts and issues related to GIS
- Skills necessary to analyze imagery

This certificate is designed for those students who seek to enhance their job-related skills in becoming a GIS Image Analyst. This certificate is two years in length due to the sequence of prerequisites and the terms in which courses are offered. Students enrolled in the GIS Image Analyst usually have an associate or bachelor's degree. However, coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
GEO 1000	Introduction to GIS and Cartography	3
ITS 1105	Computer Concepts and Software Applications	3
MTH 1280	College Algebra	4
<b>Spring</b>		
GST 1400	Georeferencing and Mapping	3
GST 1500	Remote Sensing	3
CSD 1400	Database Management	3
<b>Fall</b>		
GST 1300	Introduction to UAS	3
GST 2100	Intermediate GIS & Data Management	3
STT 2640	Elementary Statistics I	3
	Total Credit Hours	28

## GIS Programming Certificate (5402D)

Geographic Information Systems (GIS) has been identified by the U.S. Bureau of Labor as an emerging industry. With this in mind, the GIS Programming Certificate is designed to provide the technical background necessary to begin a successful career as a GIS Programmer. The GIS Programmer Certificate program is designed to address training needs in:

- Skills needed to use, manage, and manipulate GIS applications
- Hands-on experience using GIS software
- Knowledge of fundamental concepts and issues related to programming
- Skills necessary to program in a variety of appropriate GIS languages

This certificate is designed for those students who seek to enhance their job-related skills in becoming a GIS Programmer. This certificate is two years in length due to the sequence of prerequisites and the terms in which courses are offered. Students enrolled in the GIS Programmer Certificate usually have an associate or bachelor's degree. However, coursework included in a certificate program may ultimately be applied for the associate degree in the related technology program.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
GEO 1000	Introduction to GIS and Cartography	3
ITS 1105	Computer Concepts and Software Applications	3
MTH 1280	College Algebra	4
<b>Spring</b>		
GST 1400	Georeferencing and Mapping	3
CSD 1400	Database Management	3
CSD 1500	Programming Fundamentals	3
<b>Fall</b>		
GST 2100	Intermediate GIS & Data Management	3
STT 2640	Elementary Statistics I	3
<b>Spring</b>		
GST 2350	Programming for GIS	3
CSD 2540	C++ Programming	4
	Total Credit Hours	32

## Health

### Associate of Arts - Healthcare Concentration Transfer (3440)

The Associate of Arts (AA) Healthcare concentration is designed for individuals desiring to transfer to a four-year institution to complete a bachelor's degree in a healthcare field. Four-year institutions generally require that students spend a significant portion of their first two years taking courses that build their knowledge and skills in general education. An AA degree focuses on general education courses and a minimum of 39 credit hours must come from areas 1-6 listed in the Associate of Arts section of the catalog. This AA degree is structured to include those general education courses that are commonly included in many bachelor degree healthcare programs. The remaining credit hours are divided among the College Readiness course, courses in the student's area of concentration, elective courses, and the Capstone Seminar. All students must take the College Readiness course and the Capstone Seminar in order to complete the AA degree.

Individuals completing the curriculum that follows will satisfy the College's AA degree requirements and many of the general education courses required for transfer to a four-year healthcare program. In addition, individuals will complete several courses that focus on healthcare which are especially helpful to those students interested in a career in healthcare.

Students seeking a transfer degree should plan the details of their program of study at Clark State according to the requirements of the transfer institution. 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.

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 semesters of study.

#### Learning Outcomes

Upon completion of an Associate of Arts degree in a Healthcare Concentration, a graduate will be able to meet the goals outlined for the general Associate of Arts degree; additionally, the graduate will be able to:

- Demonstrate knowledge of healthcare language, delivery systems, and occupations
- Demonstrate familiarity with the ethical and professional behaviors required in healthcare occupations

Course #	Course Title	Credit Hours
<b>Fall</b>		
BIO 1410	Fundamentals of Biology *	4
ENG 1111	English I	3
FYE 1100	College Success	1
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
<b>Spring</b>		
BIO 2121	Anatomy and Physiology I	4
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1120	Public Speaking I <i>or</i>	
COM 1170	Small Group Communication	3
ENG 1112	English II	3
PSY 1111	Introduction to Psychology (GA)	3
ENG -	English Literature Elective (GA)**	3
<b>Fall</b>		
BIO 2122	Anatomy and Physiology II	4
PSY 2223	Lifespan Human Growth and Development	3
SOC 1110	Introduction to Sociology (GA)	3
- -	Arts/Humanities Elective^	3
MTH -	Mathematics Elective ***	3
<b>Spring</b>		
PHL 2100	Ethics <i>or</i>	
PHL 2300	Medical Ethics	3
- -	Arts/Humanities Elective^	3
- -	Arts/Humanities Elective^	3
- -	Concentration or General Education Elective^^	3
HUM 2899	Capstone Seminar	3
Total Credit Hours		60

\*Students must complete two science courses (8-10 credit hours) with a lab component to meet the associate of arts degree requirements. Students who have not completed chemistry and biology in high school with a grade of C or better within the past five years must also take BIO 1410 to meet prerequisite requirement of BIO 2121 Anatomy and Physiology I. Students who have completed chemistry and biology in high school, may substitute 4 credit hours of concentration/general education electives for BIO 1410.

\*\*Choose from ENG 1600, ENG 2300, and ENG 2610 to meet the ENG literature GA elective requirement.

\*\*\*Students must complete 3 credit hours of math from those listed under mathematics in the transfer module. Transfer module math courses include MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530; STT 2640, 2650. ^Three classes (9 credit hours) of Arts/Humanities electives must be completed. Choose from ART 1300, 1001, 1002; MUS 1130; THE 1130, 1133, 2241, 2242; SPN 1111, 1112, 2111, 2112; FRN 1111, 1112; any HST; any PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620 for Arts/Humanities class.

^^ These classes should be clearly transferable and count toward the major at the transfer institution. Courses should relate to the major to be pursued or may be used to fulfill additional general education requirements at the four-year institution. Courses should be carefully planned with an academic advisor.

## Associate of Science - Health Care Concentration Transfer (3450)

The Associate of Science (AS) Health Care concentration is designed for individuals desiring to transfer to a four-year institution to complete a bachelor's degree in a healthcare field. Four-year institutions generally require that students spend a significant portion of their first two years taking courses that build their knowledge and skills in general education. An AS degree focuses on general education courses and a minimum of 44 credit hours must come from areas 1-6 listed in the Associate of Science section of the catalog. This AS degree is structured to include those general education courses that are commonly included in many bachelor degree healthcare programs. The remaining credit hours are divided among the College Readiness course, courses in the student's area of concentration, elective courses, and the Capstone Seminar. All students must take the College Readiness course in order to complete the AS degree.

Individuals completing the curriculum that follows will satisfy the College's AS degree requirements and many of the general education courses required for transfer to a four-year healthcare program. In addition, individuals will complete several courses that focus on healthcare and will prove to be especially helpful to those students interested in a career in healthcare.

Students seeking a transfer degree should plan the details of their program of study at Clark State according to the requirements of the transfer institution. 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.

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 semesters of study.

### Learning Outcomes

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

- Demonstrate knowledge of healthcare language, delivery systems, and occupations
- Demonstrate familiarity with the ethical and professional behaviors required in healthcare occupations

Course #	Course Title	Credit Hours
<b>Fall</b>		
BIO 1410	Fundamentals of Biology *	4
ENG 1111	English I	3
FYE 1100	College Success	1
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
<b>Spring</b>		
BIO 2121	Anatomy and Physiology I	4
COM 1110	Interpersonal Communication I <b>or</b>	
COM 1120	Public Speaking I <b>or</b>	
COM 1170	Small Group Communication	3
ENG 1112	English II	3
ENG -	English Literature Elective (GA)**	3
PSY 1111	Introduction to Psychology (GA)	3
<b>Fall</b>		
BIO 2122	Anatomy and Physiology II	4
PSY 2223	Lifespan Human Growth and Development	3
SOC 1110	Introduction to Sociology (GA)	3
- -	Arts/Humanities elective^	3
MTH -	Mathematics Elective***	3
<b>Spring</b>		
MTH -	Mathematics Elective***	2
PHL 2100	Ethics <b>or</b>	
PHL 2300	Medical Ethics	3
- -	Concentration or general education elective^^	3
- -	Concentration or general education elective^^	3
- -	Concentration or general education elective^^	4
Total Credit Hours		60

\*Students must complete 8-10 credit hours of science classes with a lab component to meet the Associate of Science degree requirements. Students who have not completed chemistry and biology in high school with a grade of C or better within the past five years must take BIO 1410 to meet prerequisite requirement of BIO 2121 Anatomy and Physiology I. Students who have completed chemistry and biology in high school, may substitute four credit hours of concentration/general education electives for BIO 1410.

\*\*Choose from ENG 1600, ENG 2300, and ENG 2610 to meet the ENG literature GA elective requirement.

\*\*\*Students must complete five credit hours of math from those listed under mathematics in the transfer module. Transfer module math courses include MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530; STT 2640, 2650. If students choose Statistics to meet the math requirement, they must complete both STT 2640 and STT 2650.

^Choose from ART 1300, 1001, 1002; MUS 1130; THE 1130, 1133, 2241, 2242; SPN 1111, 1112, 2111, 2112; FRN 1111, 1112; any HST; any PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620 for Arts/Humanities class.

^^These hours should be clearly transferable and count toward the major at the transfer institution. Courses should relate to the major to be pursued or may be used to fulfill additional general education requirements at the four-year institution. Courses should be carefully planned with an academic advisor.

## Exercise Science (Consortium Program) (3460)

Clark State Community College is a member of the Northwest Ohio Allied Health Education Consortium, which allows Clark State to expand allied health offerings, including an associate degree in Exercise Science, to Clark State students. The consortium allows Clark State students to complete their general education and basic classes through Clark State at one of its campuses or online. Students are also enrolled at Rhodes State. Technical courses are taught by Rhodes State faculty through distance learning on the Clark State campus. Students will need to travel to the Rhodes State campus in Lima for skills lab instruction and hands-on practice approximately once a week. Clinical learning experiences will be scheduled in local/regional facilities.

Information about the consortium is available at the consortium website. Specific information about the Exercise Science program is available on Rhodes State website.

The technical courses in the Exercise Science program start each year in fall semester. Seats for the program are filled with qualified applicants on a continuous basis. Clark State students interested in this program must also apply to Rhodes State online. Students should indicate they are applying to the Northwest Ohio Allied Health Education Consortium and that they are from Clark State by checking the appropriate boxes at the top of the application.

### Qualification Requirements

Academic qualification for the Exercise Science program are listed below as items 1-4. These requirements must be met prior to being placed on the qualification list.

1. Appropriate American College Test (ACT) or college placement test scores or completion of college preparatory coursework as listed below.
  - Test out of college preparatory writing coursework OR completion CPE 0300 with a grade of B or higher or CPE 0400 with a grade of C or higher.
  - Test out of college preparatory reading coursework OR completion of CPE 0200 with a C or higher.
  - Test out of college developmental/elementary algebra OR completion of CPE 0650 with a C or higher.
  - ACT score of 20 or higher in science OR completion of high school chemistry and high school biology OR BIO 1410 with a C or higher within past five years.
2. A minimum 2.0 grade point average (GPA) for any previous college course work at the time of selection and matriculation.
3. Attend a mandatory Allied Health Orientation session at Rhodes State and sign informed consent forms.

4. Have Clark State and other college transcripts with transferable college credits for basic and general education courses sent to Rhodes State.

NOTE: Applicants who do not meet academic requirements may plan a program of study under the guidance of an academic advisor to prepare for possible admission to the program.

Students will have additional requirements that will have to be met before entrance into the Exercise Science program. These requirements include but are not limited to exercise science observation, physical, immunizations, background check, drug screen, CPR certification, and meeting with the Exercise Science program director.

### Technical Standards

All applicants accepted into The Allied Health Consortium must be able to meet the technical standards of the program of study for which they enroll. Students are asked to review the standards and to sign a form certifying that they have read, understand, and are able to meet the standards. Students are to be provided the technical standards information upon selection of their program of study. The Rhodes State Allied Health Department's technical standards are available on pages 55-56 of the Allied Health Consortium General Preparation Manual.

### Curriculum

A link to the Exercise Science curriculum that shows the curriculum plan with Rhodes technical courses and Clark State general education and basic courses is available under Majors and Programs on the Clark State website.

## Medical Assisting (6700)

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 and should therefore submit a petition to graduate from 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.

### Learning Outcomes

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

- 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.
- Instruct patients regarding health maintenance and disease prevention.
- Apply legal and ethical concepts.

### Scholastic Preparation and Requirements

Students must petition online (apply) for admission to the program. To be eligible to petition to the Medical Assisting program, students must have:

- Reading: Appropriate score on reading placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory reading (CPE 0200) with a grade of C or better. Students are excused from reading

placement tests if they have obtained a C or better in a college-level English composition course or an appropriate recent high school senior English grade in accordance with College policy.

- Writing: Appropriate score on writing placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory writing, (CPE 0300 with a grade of B or better or CPE 0400 with a grade of C or better.) Students are excused from writing placement tests if they have obtained a C or better in a college-level English composition course or an appropriate recent high school senior English grade in accordance with College policy.
- Math: Appropriate scores on math/algebra placement tests (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory math through CPE 0500 with a grade of C or better within the past ten years. Students are excused from math/algebra placement tests if they have obtained a C or better in a college-level math course within the past ten years or an appropriate recent high school Algebra II grade in accordance with college policy
- Grade point average (GPA): A minimum cumulative Clark State transcript GPA of 2.0 (CPE courses are not included in the transcript GPA) as well as a minimum GPA of 2.0 in the courses in the Medical Assisting curriculum.

Students who have met the petition requirements and submitted a petition are eligible to start the Medical Assisting program's technical (MAS) course sequence. Students must contact the Medical Assisting program coordinator for academic advising and approval to enroll in the MAS courses. 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 BIO 1105 and all MAS and MST courses. Admitted students who drop out must complete and submit a request for reinstatement into the MAS courses. Students must have an overall GPA of 2.0 and may be required to retake technical courses that are more than one to two years old to be considered for reinstatement.

### Technical Requirements

All students accepted into the Medical Assisting program must be able to perform the essential functions of the medical assistant with or without reasonable accommodations. These essential functions are linked to this program page on the College's website and are also provided to students via the Medical Assisting Student Handbook. Students are required to sign a form indicating they have reviewed these requirements and submit it to the Medical Assisting Program Coordinator when they enter the program.

### Health and Directed Practice Requirements

All Medical Assisting associate degree and certificate

students will complete 200 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, obtain a criminal background check, and have current Basic Life Support (BLS)/professional cardiopulmonary resuscitation (CPR) certification prior to entering the directed practice course. Other requirements may be necessary depending on clinical site placement. All students are strongly encouraged to complete Hepatitis B immunizations prior to their second semester 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 Clark State cumulative transcript grade point average (GPA) of 2.0 (college preparatory (CPE) courses are not included) and have a C as a minimum grade in BIO 1105 and all MAS and MST courses.

### Certification

The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 25400 U.S. Highway 19 N., Suite 158, Clearwater, FL 33763; phone 727-210-2350; www.caahep.org, upon recommendation of the Medical Assistant Education Review Board (MAERB). Therefore students must be graduates of the certificate program to be authorized to take a national certification exam to obtain either their Certified Medical Assistant (CMA) or Registered Medical Assisting (RMA) certification credential. Students should submit a petition to graduate from the Medical Assisting Certificate program to the College's Records and Registration office after completion of all of the first year courses.

### Curriculum

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 semesters of study. In addition to the day program, offered at both the Springfield and the Beavercreek campuses, the Medical Assisting program is offered as a part-time evening/weekend option, at the Springfield campus, with the MAS courses for this option starting in spring term (January). Part-time evening/weekend students will still need to complete their Directed Practice clinical hours during the day. Students should consult their academic advisors for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
FYE 1100	College Success	1
BIO 1105	Fundamentals of Anatomy and Physiology	3
MAS 1103	Medical Administrative Office I	2
MAS 1104	Exam Room Procedures I	2
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
MST 1160	Phlebotomy	2
MST 1161	Phlebotomy Lab	1
<b>Spring</b>		
ENG 1111	English I	3
MAS 1105	Medical Administrative Office II	3
MAS 1106	Exam Room Procedures II	3
MAS 1115	Laboratory Procedures for the Medical Office	2
MAS 1112	Pharmacology for the Medical Office	3
MST 1171	Introduction to Electrocardiography	2
<b>Summer</b>		
PSY 1111	Introduction to Psychology	3
MAS 1117	Medical Assisting Directed Practice	2
MAS 1118	Clinical Perspectives Seminar	1
MAS 2100	Medical Assisting Certification Review	2
<b>Fall</b>		
ITS 1105	Computer Concepts and Software Applications	3
PSY 2223	Lifespan Human Growth and Development	3
SOC 1110	Introduction to Sociology	3
- -	Technical Elective*	3
<b>Spring</b>		
COM 1110	Interpersonal Communication I	3
MTH 1060	Business Mathematics	3
MST 1140	Human Disease	3
- -	Technical Elective*	3
Total Credit Hours		64

\* Please choose from the following courses to meet the Technical Elective requirement: MGT 1060 Organizational Behavior (3), MGT 1120 Principles of Management (3), OAD 2105 Medical Machine Transcription (3), OAD 2301 CPT/ICD -10-PCS Coding (3), OAD 2302 ICD-9-CM/ICD -10-CM Coding (3), SWK 1105 Chemical Dependency I (3).

## Medical Laboratory Technology (6200)

Medical laboratory technicians are a vital part of the health care process, providing information for patient diagnosis and treatment by performing laboratory tests in areas such as toxicology, chemistry, hematology, immunology and microbiology. Two-year associate degree programs with supervised clinical experience in approved laboratories provide the opportunity to enter this challenging, ever-changing career. The mission of the MLT program at Clark State Community College is to provide quality instruction, professional training, and technical skills to help graduates pass certification examinations and secure entry-level positions in the field of laboratory medicine. For more information about the program, please email [mlt@clarkstate.edu](mailto:mlt@clarkstate.edu) or call 937-328-6029.

### Learning Outcomes

Upon completion of an Associate of Applied Science 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.

### Technical Standards

MLT students should possess (with or without reasonable accommodations) appropriate visual, motor, cognitive, technical, communication, and affective skills to be able to accurately and safely perform, plan, prioritize, analyze, solve, and interpret patient's tests and other biological specimens. The National Accrediting Agency for Clinical Laboratory Science (NAACLS) has identified minimum essential functions. These are available as a link on the MLT program pages on the College's website and are also provided to students as they enter the MLT courses. Students are asked to sign a form certifying that they have read, understand, and possess the skills required to meet the essential functions of an MLT.

### 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 faculty and program coordinator.

### Program Admission

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. Completion of a high school general chemistry course or the equivalent is encouraged. Students who meet admission requirements and are accepted to the program are required to meet with the MLT program coordinator prior to enrolling in MLT courses.

### Health and Clinical Requirements

All Medical Laboratory Technology students must meet health requirements by the end of the first semester of MLT courses. Health requirements must be updated and a criminal background check must be completed and results must be satisfactory by the beginning of the third semester in order to meet requirements for the directed practice course. Specific information will be provided during the first semester of the program.

Distance students completing lab courses in clinical agencies may 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.

### 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).

### Program Outcomes Measures

As a program accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), the Clark State Community College MLT Program publishes

outcomes measures for the past three years (2012, 2013, and 2014 graduates). The outcome measures include ASCP Board of Certification (BOC) Exam pass rates, graduation rates, attrition rates, and graduate placement rates for students entering the final half of the MLT program. The definition of these measures and the three year Clark State MLT program percentage rates for these measures are listed below.

#### Certification Pass Rates -

- Percentage of students who took the ASCP Board of Certification (BOC) exam within the first year of graduation that passed the exam - 58%
- Percentage of students who took the ASCP Board of Certification (BOC) exam, regardless of the time line or number of attempts that passed the exam - 83%

Graduation Rates (percentage of students who began the final half of the program that went on to graduate from the program) - 93%

Attrition Rates (percentage of students who began the final half of the program but left before completing the program) - 7%

Placement Rates (percentage of graduates for which the program had information who found employment in the field or in a closely related field and/or continued their education within one year of graduation) - 100%

#### Transfer Options

Students enrolled in the Associate of Science Medical Laboratory Technology degree program are preparing for employment upon graduation from the program. However, at some point many of these students are also interested in completing a bachelor's degree. A number of colleges/universities have designed bachelor's 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.

#### Curriculum Plan

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 semesters of study. Students should consult the MLT program advisor for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
MLT 1120	Medical Laboratory Orientation and Phlebotomy	2
MLT 1125	Medical Laboratory Orientation and Phlebotomy Laboratory	1
MLT 1160	Urinalysis & Body Fluids	2
MLT 1165	Urinalysis & Body Fluids Laboratory	1
BIO 1105	Fundamentals of Anatomy and Physiology *	3
CHM 1150	Introduction to General Chemistry	4
FYE 1100	College Success	1
ITS -	ITS Elective	1
<b>Spring</b>		
MLT 1130	Basic and Clinical Chemistry	3
MLT 1135	Basic and Clinical Chemistry Lab	2
MLT 1140	Medical Microbiology I **	2
MLT 1145	Medical Microbiology I Lab **	2
MLT 2130	Medical Microbiology II ***	2
MLT 2135	Medical Microbiology II Lab ***	2
ENG 1111	English I	3
<b>Summer</b>		
ENG 1112	English II	3
PSY 1111	Introduction to Psychology	3
<b>Fall</b>		
MLT 1150	Hematology I **	2
MLT 1155	Hematology I Laboratory **	2
MLT 2140	Hematology II ***	2
MLT 2145	Hematology II Lab ***	2
MLT 2122	Immunology & Blood Banking	3
MLT 2125	Immunology & Blood Banking Lab	4
<b>Spring</b>		
MLT 2156	Directed Practice /Seminar	5
MLT 2160	MLT Review and Update	2
SOC 1110	Introduction to Sociology	3
MTH -	Math Elective****	3
Total Credit Hours		65

\* The two semester anatomy & physiology sequence BIO 2121 and BIO 2122 may be substituted for BIO 1105.

\*\* Offered in A term (first eight weeks of the semester)

\*\*\* Offered in B term (second eight weeks of the semester)

\*\*\*\* Choose from the MTH or STT courses listed under the General Education Requirement for Technical Programs, Mathematics courses.



## Multi-Skilled Health Care Associate of Technical Studies (6550)

The Multi-Skilled Health Care Associate of Technical Studies degree enables a student to design an individualized program of study to fulfill a unique healthcare career goal that cannot be met through the completion of one of the College's other technical healthcare programs. Students complete core courses and select technical courses from different healthcare specialty areas.

Upon completion of this degree, students will have the skills needed to obtain employment in a variety of healthcare settings. In addition to the degree, completion of some specialty courses result in completion of healthcare certificates and may enable students to take appropriate certification or licensure exams. Courses within this program can also be taken by students in other degree or certificate programs and by healthcare professionals who wish to expand their knowledge and skills and/or increase marketability for employment.

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 semesters of study. Students should consult their academic advisors for assistance with developing their individualized program plans prior to completing 40 credit hours towards the degree.

### Learning Outcomes

- Demonstrate knowledge of healthcare delivery systems and healthcare occupations.
- Communicate using correct medical terminology.
- Demonstrate computer skills essential for today's healthcare worker.
- Demonstrate effective infection control and safety practices.
- Recognize life-threatening situations and take appropriate actions.
- Demonstrate proficiency in technical skills.
- Demonstrate knowledge of the interpersonal, ethical, and professional behaviors required in healthcare.

### 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. May also be required to obtain drug screen, dependent on clinical agency requirements.

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.

### Graduation Requirements

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

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
EMS 1171	Basic Life Support: CPR	0.5
FYE 1100	College Success	1
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
- -	Technical Electives*	6
<b>Spring</b>		
ITS 1105	Computer Concepts and Software Applications	3
MST 1140	Human Disease	3
PSY 1111	Introduction to Psychology (GA)	3
- -	Technical Electives*	6
<b>Summer</b>		
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1120	Public Speaking I <i>or</i>	
COM 1170	Small Group Communication	3
ENG 1111	English I	3
<b>Fall</b>		
ENG 1112	English II <i>or</i>	
ENG 2211	Business Communication	3
- -	Economics Elective <i>or</i>	
PSY 2223	Lifespan Human Growth and Development	3
SOC 1110	Introduction to Sociology	3
- -	Technical Electives	5
<b>Spring</b>		
MTH 1060	Business Mathematics	3
- -	Arts/Humanities Elective <i>or</i>	
SPN 1100	Survival Spanish (recommended)	3
- -	Technical Electives*	5
Total Credit Hours		61.5

\* Students must choose a total of 22 credit hours of technical elective course work from two or more of the following specialty areas. Students should verify that course prerequisites have been met prior to registering for a course.

### Diagnostic Procedures

MST 1160 Phlebotomy (2 credits) (must also register for MST 1161)  
MST 1161 Phlebotomy Lab (1 credit) (must also register for MST 1160)  
MST 1171 Principles of Electrocardiography (2 credits)  
MLT 1120 Medical Laboratory Orientation and Phlebotomy (2 credits) (must also register for MLT 1125)  
MLT 1125 Medical Laboratory Orientation and Phlebotomy lab (1 credit) (must also register for MLT 1120)

### Direct Patient Care

MST 1181 Nurse Aide Training (4 credits)  
NUR 1110 Dosage Calculations (1 credit)  
PTA 1112 PTA Survey (1 credit)

### Emergency Care

EMS 1100 EMT Theory and Practice (7 credits)

### Chemical Dependency

SWK 1105 Chemical Dependency I: Pharmacology/ Physiology of Psychoactive Substances (3 credits)  
SWK 2205 Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies (3 credits)  
SWK 2215 Chemical Dependency III: Co-occurring Disorders of Addiction & Mental Health (3 credits)

### Medical Coding

OAD 2301 CPT/ICD-10-PCS Coding (3 credits)  
OAD 2302 ICD-9-CM/ICD-10-CM Coding (3 credits)  
OAD 2312 Advanced Medical Coding (3 credits)  
OAD 2320 Medical Office Certification Review (1 credit)

### Healthcare Management

ACC 1000 Accounting Concepts (3 credits)  
ACC 1100 Introduction to Financial Accounting (4 credits)  
MGT 1060 Organizational Behavior (3 credits)  
MGT 1120 Principles of Management (3 credits)

### Other Technical Electives

EBE 1000 Employability Skills (1 credit)  
MST 290X Special Topics courses

## Occupational Therapy Assistant (Consortium Program) (3430)

Clark State Community College joined the Northwest Ohio Allied Health Education Consortium in order to expand its allied health offerings, including an associate degree in Occupational Therapy Assistant to Clark State students. This consortium allows Clark State students to complete their general education and basic classes through Clark State at one of its campuses or online. Students are also enrolled at Rhodes State. Technical courses are taught by Rhodes State faculty through distance learning on the Clark State campus. Students will need to travel to the Rhodes State campus in Lima for skills lab instruction and hands-on practice approximately once a week. Clinical learning experiences will be scheduled in regional healthcare facilities. A very important aspect of the Occupational Therapy Assistant consortium program is that these clinical seats are reserved for qualified Clark State students living in Clark State's service area.

Information about the consortium is available at the consortium website. Specific information about the Occupational Therapy Assistant program is available on the consortium's Occupational Therapy Assistant web page.

The technical courses in the Occupational Therapy Assistant program start each year in summer semester (May). Seats for the program are filled with qualified applicants. Clark State applicants for this program must apply to Rhodes State online. Students should indicate they are applying to the Northwest Ohio Allied Health Education Consortium and that they are from Clark State by checking the appropriate boxes at the top of the application. Seats are limited so students are encouraged to submit documentation of meeting qualification requirements to Rhodes State in a timely manner.

### Qualification Requirements

Academic qualification for the Occupational Therapy Assistant program are listed below as items 1-5. These requirements must be met in order to be considered for the program. All courses must be completed with a grade of C or better.

1. Appropriate American College Test (ACT) or college placement test scores or completion of college preparatory coursework as listed below.
  - Test out of college preparatory writing coursework OR completion CPE 0300 with a grade of B or higher or CPE 0400 with a grade of C or higher.
  - Test out of college preparatory reading coursework OR completion of CPE 0200 with a C or higher.
  - Test out of college developmental/elementary algebra OR completion of CPE 0650 with a C or higher.
  - ACT score of 20 or higher in science OR completion of high school chemistry and high school biology OR BIO 1410 with a C or higher within past five years.

2. A minimum 2.5 grade point average (GPA) for any previous college course work at the time of selection and matriculation.
3. Complete TEAS V test.
4. Attend a mandatory Allied Health Orientation session at Rhodes State and sign informed consent forms.
5. Have Clark State and other college transcripts with transferable college credits for basic and general education courses sent to Rhodes State.

NOTE: Applicants who do not meet academic requirements may plan a program of study under the guidance of an academic advisor to prepare for possible admission to the program.

Students will have additional requirements that will have to be met before entrance into the Occupational Therapy Assistant program. These requirements include, but are not limited to, observation hours, physical, immunizations, background check, drug screen, CPR certification, and meeting with the Occupational Therapy Assistant program director.

### Technical Standards

All applicants accepted into The Allied Health Consortium must be able to meet the technical standards of the program of study for which they enroll. Students are asked to review the standards and to sign a form certifying that they have read, understand, and are able to meet the standards. Students are to be provided the technical standards information upon selection of their program of study. The Rhodes State Allied Health Department's technical standards are available on pages 55-56 of the Allied Health Consortium General Preparation Manual.

### Notice to Prospective or Current Occupational Therapy Assistant Students

Students who have been convicted of certain felonies and/or misdemeanor offenses are not eligible to participate in clinical education experiences. A criminal conviction may also affect ability to take the National Certification Examination for the Occupational Therapy Assistant or attain state licensure.

### Curriculum

A link to the Occupational Therapy Assistant curriculum shows the curriculum plan with Rhodes technical courses and Clark State general education and basic courses is available under Majors and Programs on the Clark State website.

## Physical Therapist Assistant (6600)

The Physical Therapist Assistant (PTA) 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 direction and 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 Ohio 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. Program Mission In accordance with the mission of Clark State Community College, the mission of the Physical Therapist Assistant program is to provide didactic and clinical learning experiences which are excellent in quality and reflective of evidence-based physical therapy practice, in order to prepare graduates to pass the state licensing examination and subsequently practice as competent and responsible physical therapist assistants within the scope of the law.

### Program Goal

To provide a technical program that gives students the opportunity to develop the knowledge and skills necessary to become successfully employed as a physical therapist assistant.

### Learning Outcomes

Upon completion of an Associate of Applied Science degree in Physical Therapist Assistant, 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 healthcare providers.
- Demonstrate behavior that reflects respect for and sensitivity to individual differences when working with patients, families, colleagues, and other healthcare 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.

### Technical Standards

All applicants accepted into the Physical Therapist Assistant program must be able to meet the essential functions, skills, and abilities required to provide safe patient practice with or without reasonable accommodations. The essential functions, skills, and abilities are listed in the PTA Application Handbook which is linked to the program page on the College's website. Applicants are required to sign a form indicating they have reviewed these essential functions, skills, and abilities and submit that form as part of the program application process.

### Course Format

Most PTA courses are composed of two components, an online lecture component and an onsite lab component, which may be taught at the Leffel Lane campus or other College approved site. Onsite labs are currently only offered in Springfield and Columbus, Ohio. Directed practices are in clinical facilities in the greater Springfield, Dayton, Columbus, and Cincinnati, Ohio regions. The College has national contracts with several organizations and can consider clinical placements outside of these regions.

### Program Admission Requirements

The Physical Therapist Assistant program must restrict the number of students accepted into the program each year due to the limited availability of clinical sites. The program is currently able to accept a maximum of 36 students each year; (26 students in Springfield and 10 students in Columbus.) Acceptance into the PTA program is a competitive process and application does not guarantee admission.

In addition to completing the standard procedures for admission to the College, students must apply to the PTA program. The PTA program application process, criteria, selection process, and time line are provided in the PTA Application Handbook which is linked on the PTA program page on the College's website and is also available from the Admissions Office and the Health, Human, and Public Services Division Office. Abbreviated information about this admission process is also provided here.

Students must have completed the following academic requirements to be eligible to apply to the Physical Therapist Assistant program:

- A COMPASS or ACCUPLACER reading score indicating college ready reading skills. If the student does not obtain appropriate score he/she is required

to take and pass CPE O200 with a grade of C or better. Students are excused from taking placement reading exam if reading score on a recent (within three years) ACT or SAT exam is greater than or equal to 21 on ACT and 450 on SAT.

- A COMPASS or ACCUPLACER writing score indicating college ready writing skills. If the student does not obtain a appropriate score, he/she is required to take and pass the appropriate college preparatory course (CPE O300 with a B or better or CPE O400 with a C or better). Students are excused from taking placement writing exam if writing score on recent (within three years) ACT or SAT exam is equal to or greater than 18 on ACT or 430 on the SAT.
- Students are excused from taking the reading and writing placement tests if they have obtained a C or better in a college-level English course. Recent high school graduates who completed a senior level English course may also be excused from placement testing dependent on the grade in the high school course.
- A COMPASS or ACCUPLACER math score indicating eligible to take a college level math course and PHY 1110, Fundamentals of Physics, if the course is needed to meet program application requirements.

Students must have completed or be enrolled in courses to complete the following academic requirements to be eligible to apply to the Physical Therapist Assistant Program:

- A grade of C or better in either high school physics (within the past five years) or a college physics course (PHY 1100 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 high school biology and chemistry within the past five years, or a college level biology course (BIO 1410 or the equivalent) with a grade of C or better within the past five years, or completion of BIO 2121, Anatomy and Physiology I (or the equivalent) with a C or better within the past five years.
- GPA of 2.5 in the required curricular courses; the GPA includes fundamentals of biology 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. 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 prerequisite and college preparatory courses (CPE). Please refer to the PTA Application Handbook for additional information on courses in which a C is required. While students are waiting to be admitted they may take any of the non-core PTA courses in the curriculum. (Muscle Anatomy and Biomechanics BIO 1118 is considered a core PTA course).

In addition to the academic requirements listed above, students must complete a total of 60 hours of observation/volunteer/paid work experience in three different settings under the supervision of a PT or PTA within five years and have the supervising PT/PTA at each setting complete the observation evaluation form. Twenty hours are required in an in-patient/hospital setting, 20 hours are required in an out-patient setting, and 20 hours are required in a third setting of the student's choosing. Students are advised to begin their Observation/Volunteer/Paid Work Experience hours while working on their application requirements. All 60 hours must be completed at the time of application.

Applications will begin being accepted each year on December 1. The application deadline for any given year is February 1. All application materials must be received on or before February 1 of each year. If February 1 falls on a weekend, the packet must be received by the next business day. Any application materials received after this date will be classified as late and will not be processed for the class beginning in that year. In addition, the Admissions Committee must be able to verify that the applicant has made application to Clark State, and that official transcripts from other institutions have been received by February 1. Transfer students should submit their Clark State applications and official transcripts early enough to avoid this problem.

Notification of acceptance into the program will not occur before the end of March or Early April. Once accepted, the student must maintain the required GPA.

### Graduation Requirements

A 2.0 cumulative grade point average (GPA) on a 4.0 scale and grades of C or better in the major courses in the PTA curriculum are required to graduate. Refer to the PTA Application Handbook for a list of courses that require a grade of C or better.

### 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, a flu shot, 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, including drug screens, 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 PTA Program at Clark State Community College is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone 703.706.3245; e-mail: accreditation@apta.org; website:

<http://www.capteonline.org>. Validation of current program accreditation is available on Clark State's Accreditation & Approvals web page.

### Graduate Statistics

Information reported is from the December 2015 Annual Assessment Report to CAPTE and includes the graduating classes of 2012, 2013, and 2014. Additional information about graduation rates can be requested from the program coordinator.

- Graduation rate\*: 77.8%
- Licensure Pass Rate \*\*: 95.6%
- Employment rate\*\*\*: 98.9%

\*Graduation rate as defined by the Commission on Accreditation in Physical Therapy Education (CAPTE) is completion of the program within 150 percent of the length of the program.

\*\*Program Ultimate Pass rate as reported by the Federation of State Boards of Physical Therapy.

\*\*\*Reflects employment rate of graduates who were eligible for and sought employment as a PTA within six months of graduation.

### Transfer Options

Students enrolled in the Physical Therapist Assistant degree are preparing for employment upon graduation from the program. However, at some point, many of these students are also interested in completing a bachelor's degree. A number of college or universities have designed bachelor's completion programs for students completing applied degrees. See the transfer section of the catalog for more information.

### Comments and Suggestions

The Physical Therapist Assistant (PTA) program engages in continuing assessment and improvements. Comments, suggestions, and constructive criticism from students and the public are welcome and are part of this process. Comments must be submitted in writing to the PTA program coordinator at the following address.

Clark State Community College  
Physical Therapist Assistant Program Coordinator  
P.O. Box 570  
570 East Leffel Lane  
Springfield, OH 45501

The PTA program coordinator will respond to all written comments that include the name and contact information for the individual submitting the comments within ten (10) business days.

### Curriculum Plan

The program plan 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 semesters of study. Students who plan to continue to work are strongly encouraged to complete all or most non-core PTA courses prior to starting the program. Students should consult their academic advisor for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
PTA 1112	PTA Survey *	1
PTA 1122	PTA Procedures I **	3
BIO 1119	Muscle Anatomy and Biomechanics **	3
BIO 2121	Anatomy and Physiology I	4
ENG 1111	English I	3
FYE 1100	College Success	1
MST 1105	Medical Terminology	2
<b>Spring</b>		
PTA 1148	PTA procedures II **	5
PTA 1162	PTA Rehabilitation I **	5
BIO 2122	Anatomy and Physiology II	4
ENG 1112	English II	3
<b>Summer</b>		
PTA 2243	PTA Procedures III first 8 weeks**	4
PTA 2245	PTA First Year Capstone (first 8 weeks)**	1
PTA 2281	PTA Directed Practice I (last 4 weeks)**	2
PTA 2291	PTA Seminar I (last 4 weeks)**	1
<b>Fall</b>		
PTA 2262	PTA Rehabilitation II **	5
PTA 2270	PTA Trends and Issues **	1
PSY 1111	Introduction to Psychology	3
MTH -	Math Elective***	3
<b>Spring</b>		
PTA 2275	PTA Special Topics (first 4 weeks)**	1
PTA 2282	PTA Directed Practice II (second 4 weeks)**	2
PTA 2292	PTA Seminar II (second 4 weeks)**	1
PTA 2283	PTA Directed Practice III (last 8 weeks)**	3
PTA 2293	PTA Seminar III (last 8 weeks)**	1
PSY 2223	Lifespan Human Growth and Development	3
Total Credit Hours		65

\* Students may take within two year of acceptance into the program although no sooner than one year is preferred. If the course was completed more than 24 months prior to when starting the program, the course will need to be repeated.

\*\* Students must be accepted into the PTA program to take classes that are starred.

\*\*\* Students may choose from any college level math or statistics course.

## Radiographic Imaging (Consortium Program) (3410)

Clark State Community College joined the Northwest Ohio Allied Health Education Consortium in order to expand its allied health offerings, including an associate degree in Radiographic Imaging to Clark State students. This consortium allows Clark State students to complete their general education and basic classes through Clark State at one of its campuses or online. Students are also enrolled at Rhodes State. Technical courses are taught by Rhodes State faculty through distance learning via online format. Students will need to travel to the Rhodes State campus in Lima for skills lab instruction and hands-on practice approximately once a week. Clinical learning experiences will be scheduled in regional healthcare facilities. A very important aspect of the Radiographic Imaging consortium program is that these clinical seats are reserved for qualified Clark State students living in Clark State's service area.

Information about the consortium is available at the consortium web site. Specific information about the Radiographic Imaging program is available on the consortium's Radiographic Imaging program web page.

The technical courses in the Radiographic Imaging program start each year in fall semester (August). Seats for the program are filled with qualified applicants. Clark State applicants for this program must also apply to Rhodes State online. Students should indicate they are applying to the Northwest Ohio Allied Health Education Consortium and that they are from Clark State by checking the appropriate boxes at the top of the application. Seats are limited so students are encouraged to submit documentation of meeting qualification requirements to Rhodes State in a timely manner.

### Qualification Requirements

Academic qualification for the Radiographic Imaging program are listed below as items 1-5. These requirements must be met in order to be considered for the program.

1. Appropriate American College Test (ACT) or college placement test scores or completion of college preparatory coursework as listed below.
  - Test out of college preparatory writing coursework OR completion CPE 0300 with a grade of B or higher or CPE 0400 with a grade of C or higher.
  - Test out of college preparatory reading coursework OR completion of CPE 0200 with a C or higher.
  - Test out of college developmental/elementary algebra OR completion of CPE 0650 with a C or higher.
  - ACT score of 20 or higher in science OR completion of high school chemistry and high school biology OR BIO 1410 with a C or higher within past five years.
2. A minimum 2.5 grade point average (GPA) for any previous college course work at the time of selection and matriculation.

3. Complete TEAS V test.
4. Attend a mandatory Allied Health Orientation session at Rhodes State and sign informed consent forms.
5. Have Clark State and other college transcripts with transferable college credits for basic and general education courses sent to Rhodes State.

NOTE: Applicants who do not meet academic requirements may plan a program of study under the guidance of an academic advisor to prepare for possible admission to the program.

Students will have additional requirements that will have to be met before entrance into the Radiographic Imaging program. These requirements include but are not limited to observation hours, physical, immunizations, background checks, drug screens, and meeting with the Radiograph Imaging program director.

### Technical Standards

All applicants accepted into The Allied Health Consortium must be able to meet the technical standards of the program of study for which they enroll. Students are asked to review the standards and to sign a form certifying that they have read, understand, and are able to meet the standards. Students are to be provided the technical standards information upon selection of their program of study. The Rhodes State Allied Health Department's technical standards are available on pages 55-56 of the Allied Health Consortium General Preparation Manual.

### Notice to Prospective or Current Radiographic Imaging Students

Students who have ever been convicted of a prior felony and/or some misdemeanors may not be able to participate in clinical education experiences at some hospitals or other clinical sites, therefore preventing them from completing the program. A criminal record may also prevent a graduate from obtaining a license or certificate in a chosen health-care profession.

### Curriculum

A link to the [Radiographic Imaging curriculum](#) showing the curriculum plan with Rhodes technical courses and Clark State general education and basic courses is available under Majors and Programs on the Clark State website.

## Registered Nursing (Clark State Community College - Springfield Regional School of Nursing) (6300)

The Registered Nursing (RN) program is accredited by the Accreditation Commission for Education in Nursing, Inc, 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404) 975-5000; [www.acenursing.org/](http://www.acenursing.org/) and approved by the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, Ohio 43215-7410; (614) 466-3947; [www.nursing.ohio.gov](http://www.nursing.ohio.gov).

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 of Applied Science degree in Registered Nursing, a graduate will be able to:

- Patient Centered Care: Engage in professional nursing practice, providing holistic, individualized, compassionate care that is patient centered and culturally, and developmentally appropriate across the lifespan.
- Communication, Teamwork, and Collaboration: Utilize effective communication with nursing and inter-professional teams, fostering open communication, respect, and shared decision making.
- Evidence Based Practice and Quality Improvement: Incorporate a spirit of inquiry through the utilization of current best evidence to make clinical judgements for quality improvement.
- Safety, Informatics, and Technology: Integrate informatics and technology to guide nursing judgement in making clinical decisions that minimize the risk of harm to patients and providers.
- Leadership and Professionalism: Transition to the role of the professional nurse, incorporating legal, ethical, and professional standards

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's web site.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse when applying to the program. These Essential Functions are also reviewed at the program orientation session. Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Admissions Requirements

The RN program is a space limited program that admits students twice a year in fall and spring semesters. In addition to applying to the college, students must apply to the program. Minimum grade point average, reading, writing, math, and science requirements must be met prior to applying to the RN program. Completion of the minimum requirements and application to the program does not guarantee admission to the program. Entry to the nursing program is competitive and based on academic achievements. Detailed information about the RN program's competitive admission criteria, process, time line, and forms are available in the Petitioning/ Application Process for Health programs area of Clark State's web site.

### Clark State/Wittenberg University Associate Degree/ Bachelor Degree Pathway Admission Option

A Nursing Pathway program has recently been developed. In this program, students are enrolled at Wittenberg for the first year, take general education courses, and apply to Clark State's nursing program once they have met Clark State's nursing program's application requirements. In the second and third years they are enrolled in Clark State's nursing program. At the end of the third year they will have completed their associate degree in nursing at Clark State and are eligible to take national RN licensure exam. During the second and third years students remain Wittenberg students as well with regards to housing and student services and activities. In the fourth year, they take nursing courses at Wittenberg and obtain their bachelor's degree in nursing.

### Clinical Requirements

Prior to entering the first clinical nursing course (NUR 1130) students must have current professional CPR provider status and current state-tested nurse aide credentials or have satisfactorily completed MST 1181 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, have a negative drug screen, 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, drug screens, and criminal background checks 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 1130 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.

## Student Achievement Data

The nursing program publishes student achievement data that is required by the Accreditation Commission for Education in Nursing (ACEN) The data includes the graduates' success on the licensure examination, program completion rates, and employment rates.

Licensure Examination Pass Rate - Performance on the licensure examination for first-time test-takers.

- 2015 first-time test-takers = 79.7%
- 2015 all test takers (first-time and repeats) = 94.7%

Cohort Data:

- Traditional Day first-time takers= 71% (first time and repeats = 88%)
- Traditional Evening first-time takers = 89% (100% first-time and repeats)
- LPN to RN Day first-time takers = 72% (94% first-time and repeats)
- LPN to RN Evening first-time takers =100%
- LPN to RN Bellefontaine first-time takers = 100%
- Paramedic to RN first-time takers = 82% (95% first-time and repeats)

Program Completion Rate - Percentage of students who graduate within a defined period of time. The definition used by ACEN for the program completion rate is the number of students who complete the program in no more than 150% of the stated program length beginning with enrollment in the first nursing course.

- 2015 program completion rate = 73%

Cohort Data:

- Traditional Day= 67%
- Traditional Evening = 71%
- LPN to RN Day = 90%
- LPNto RN Evening = 62%

- LPN to RN Bellefontaine = 80%
- Paramedic to RN = 100%

Job Placement Rate - Percentage of graduates, six (6) to twelve (12) months after graduating, employed in a position for which the program prepared them.

- 2015 job placement rates = 100%

## Bachelor of Science in Nursing (BSN) Completion Option

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 bachelor's nursing completion programs for associate degree prepared registered nurses. Clark State has articulation agreements with a number of area BSN completion program including Ohio State University, Ohio University, University of Cincinnati, Urbana University, Wittenberg University, and Wright State University. Students are encouraged to refer to the transfer section of the catalog, the transfer guides area of the college's web site, and their academic advisor for more information about these programs.

## Curriculum Plans and Course Formats

The program schedules are 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 semesters of study.

The curriculum plan that follows is for the fall semester start. The spring semester start varies somewhat in the sequencing of courses. Contact the Health, Human, and Public Services Division office for a copy of the spring semester start curriculum plan.

Many non-nursing and some nursing (NUR) courses in the curriculum are available in both traditional and online/hybrid formats.

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

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Summer</b>		
BIO 2121	Anatomy and Physiology I *	4
ENG 1111	English I	3
<b>Fall</b>		
BIO 2122	Anatomy and Physiology II *	4
PSY 1111	Introduction to Psychology	3
NUR 1110	Dosage Calculation	1
NUR 1130	Basic Nursing Concepts	6.5
<b>Spring</b>		
ENG 1112	English II	3
NUR 1132	Adult Nursing I	6.5
NUR 1134	Behavioral Health Nursing	2.5
<b>Summer</b>		
BIO 1131	Microbiology	3
PSY 2223	Lifespan Human Growth and Development	3
<b>Fall</b>		
MTH -	Math Elective**	3
NUR 2234	Maternal-Newborn Nursing	2.5
NUR 2236	Adult Nursing II	6.5
<b>Spring</b>		
SOC 1110	Introduction to Sociology	3
NUR 2232	Children-Family Nursing	2.5
NUR 2238	Adult Nursing III	7.5
NUR 2240	Nursing Review	0.5
	Total Credit Hours	65

\*BIO 2121 and BIO 2122, or the equivalent must be successfully completed within five years of entry into the first clinical nursing course. If older than five years, the courses must be repeated.

\*\* Students may choose from MTH 1050 Math for Today's World (prerequisite CPE 0650), MTH 1060 Business Math (prerequisite CPE 0500), or STT 2640 Elementary Statistics I (prerequisite CPE 0650). Students who plan to pursue a Bachelor of Science in Nursing (BSN) should choose a math course that will satisfy the BSN program requirements for their school of choice.

## Registered Nursing - Evening / Weekend (Clark State Community College - Springfield Regional School of Nursing) (6300)

The Registered Nursing program is also offered as a part-time evening-weekend program. All non-nursing (non NUR) courses must be completed before a student enrolls in the first evening nursing (NUR) course.

The Registered Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc, 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404) 975-5000; www.acenursing.org and approved by the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, Ohio 43215-7410; (614) 466-3947; www.nursing.ohio.gov.

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 of Applied Science degree in Registered Nursing, a graduate will be able to:

- Patient Centered Care: Engage in professional nursing practice, providing holistic, individualized, compassionate care that is patient centered and culturally, and developmentally appropriate across the lifespan.
- Communication, Teamwork, and Collaboration: Utilize effective communication with nursing and inter-professional teams, fostering open communication, respect, and shared decision making.
- Evidence Based Practice and Quality Improvement: Incorporate a spirit of inquiry through the utilization of current best evidence to make clinical judgements for quality improvement.
- Safety, Informatics, and Technology: Integrate informatics and technology to guide nursing judgement in making clinical decisions that minimize the risk of harm to patients and providers.
- Leadership and Professionalism: Transition to the role of the professional nurse, incorporating legal, ethical, and professional standards

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's web site.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse when applying to the program. These Essential Functions are also reviewed at the program orientation session. Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Admissions Requirements

The RN Evening program is a space limited program that admits students once a year in fall semester. In addition to applying to the college, students must apply to the program. Minimum grade point average, reading, writing, math, and science requirements must be met prior to applying to the RN program. Completion of the minimum requirements and application to the program does not guarantee admission to the program. Entry to the nursing program is competitive and based on academic achievements. Detailed information about the RN Evening program's competitive admission criteria, process, time line, and forms are available in the Petitioning/Application Process for Health Programs area of Clark State's website.

### Clinical Requirements

Prior to entering the first clinical nursing course (NUR 1130), students must have current professional CPR provider status and current state-tested nurse aide credentials or have satisfactorily completed MST 1181 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, have a negative drug screen, 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 drug screens, and criminal background checks 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 1130 and progress to subsequent clinical nursing course, students must have successfully completed all prerequisite 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.

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The nursing program publishes student achievement data that is required by the Accreditation Commission for Education in Nursing (ACEN) The data includes the graduates' success on the licensure examination, program completion rates, and employment rates.

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#### Cohort Data

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Program Completion Rate - Percentage of students who graduate within a defined period of time. The definition used by ACEN for the program completion rate is the number of students who complete the program in no more than 150% of the stated program length beginning with enrollment in the first nursing course.

- 2015 program completion rate = 73%

#### Cohort Data

- Traditional Day= 67%
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- LPN to RN Bellefontaine = 80%
- Paramedic to RN = 100%

Job Placement Rate - Percentage of graduates, six (6) to twelve (12) months after graduating, employed in a position for which the program prepared them.

- 2015 job placement rates = 100%

### 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 bachelor's nursing completion programs for associate degree prepared registered nurses. Clark State has articulation agreements with a number of area BSN completion program including Ohio State University, Ohio University, University of Cincinnati, Urbana University, Wittenberg

University, and Wright State University, Students are encouraged to refer to the transfer section of the catalog, the transfer guides area of the college's web site, and their academic advisor for more information about these programs.

### Curriculum Plan and Course Formats

The program schedule that follows is designed for part-time students who have completed all prerequisites and who have no college preparatory requirements. Individuals taking college preparatory education courses will require additional semesters of study.

Many non-nursing and some nursing (NUR) courses in the curriculum are available in both traditional and online/hybrid formats.

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

Course #	Course Title	Credit Hours
<b>Fall</b>		
ENG 1111	English I	3
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
BIO 1131	Microbiology	3
ENG 1112	English II	3
SOC 1110	Introduction to Sociology	3
<b>Fall</b>		
BIO 2121	Anatomy and Physiology I *	4
PSY 2223	Lifespan Human Growth and Development	3
<b>Spring</b>		
BIO 2122	Anatomy and Physiology II *	4
MTH -	Math Elective**	3
<b>Fall</b>		
NUR 1110	Dosage Calculation	1
NUR 1130	Basic Nursing Concepts	6.5
<b>Spring</b>		
NUR 1132	Adult Nursing I	6.5
NUR 1134	Behavioral Health Nursing	2.5
<b>Fall</b>		
NUR 2234	Maternal-Newborn Nursing	2.5
NUR 2236	Adult Nursing II	6.5
<b>Spring</b>		
NUR 2232	Children-Family Nursing	2.5
NUR 2238	Adult Nursing III	7.5
NUR 2240	Nursing Review	0.5
Total Credit Hours		65

\* BIO 2121 and BIO 2122, or the equivalent must be successfully completed within five years of entry into the first clinical nursing course. If older than five years, the courses must be repeated.

\*\* Students may choose from MTH 1050 Math for Today's World (prerequisite CPE 0650), MTH 1060 Business Math (prerequisite CPE 0500), or STT 2640 Elementary Statistics I (prerequisite CPE 0650). Students who plan to pursue a Bachelor of Science in Nursing (BSN) should choose a math course that will satisfy the BSN program requirements for their school of choice.

## Registered Nursing - LPN to RN Transition (6400)

The LPN to RN option meets the educational needs of the licensed practical nurse desiring to become a registered nurse.

The Registered Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404) 975-5000; [www.acenursing.org](http://www.acenursing.org) and approved by the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, Ohio 43215-7410; (614) 466-3947; [www.nursing.ohio.gov](http://www.nursing.ohio.gov).

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 of Applied Science degree in Registered Nursing, a graduate will be able to:

- **Patient Centered Care:** Engage in professional nursing practice, providing holistic, individualized, compassionate care that is patient centered and culturally, and developmentally appropriate across the lifespan.
- **Communication, Teamwork, and Collaboration:** Utilize effective communication with nursing and inter-professional teams, fostering open communication, respect, and shared decision making.
- **Evidence Based Practice and Quality Improvement:** Incorporate a spirit of inquiry through the utilization of current best evidence to make clinical judgements for quality improvement.
- **Safety, Informatics, and Technology:** Integrate informatics and technology to guide nursing judgement in making clinical decisions that minimize the risk of harm to patients and providers.
- **Leadership and Professionalism:** Transition to the role of the professional nurse, incorporating legal, ethical, and professional standards

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's website.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse when applying to the program. These Essential Functions are also reviewed at the program orientation session. Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Admission Requirements

The LPN to RN program is a space limited program that admits students twice a year in fall and spring semesters. In addition to applying to the college, students must apply to the program. Minimum grade point average, reading, writing, math, and science requirements must be met prior to applying to the program. Completion of the minimum requirements and application to the program does not guarantee admission. Entry to the LPN to RN program is competitive and based on academic achievements. Detailed information about the program's competitive admission criteria, process, time line, and forms are available in the Petitioning/Application Process for Health programs area of Clark State's website.

### Clinical Requirements

Transition students must meet health requirements, have a negative drug screen, 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 prerequisite 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.

### Student Achievement Data

The nursing program publishes student achievement data that is required by the Accreditation Commission for Education in Nursing (ACEN). The data includes the graduates' success on the licensure examination, program completion rates, and employment rates.

Licensure Examination Pass Rate - Performance on the licensure examination for first-time test-takers.

- 2015 first-time test-takers = 79.7%
- 2015 all test takers (first-time and repeats) = 94.7%

#### Cohort Data

- Traditional Day first-time takers= 71% (first time and repeats = 88%)
- Traditional Evening first-time takers = 89% (100% first-time and repeats)
- LPN to RN Day first-time takers = 72% (94% first-time and repeats)
- LPN to RN Evening first-time takers =100%
- LPN to RN Bellefontaine first-time takers = 100%
- Paramedic to RN first-time takers = 82% (95% first-time and repeats)

Program Completion Rate - Percentage of students who graduate within a defined period of time. The definition used by ACEN for the program completion rate is the number of students who complete the program in no more than 150% of the stated program length beginning with enrollment in the first nursing course.

- 2015 program completion rate = 73%

#### Cohort Data

- Traditional Day= 67%
- Traditional Evening = 71%
- LPN to RN Day = 90%
- LPN to RN Evening = 62%
- LPN to RN Bellefontaine = 80%
- Paramedic to RN = 100%

Job Placement Rate - Percentage of graduates, six (6) to twelve (12) months after graduating, employed in a position for which the program prepared them.

- 2015 job placement rates = 100%

### 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 bachelor's nursing completion programs for associate degree prepared registered nurses. Clark State has articulation agreements with a number of area BSN completion program including Ohio State University, Ohio University, University of Cincinnati, Urbana University, Wittenberg University, and Wright State University. Students are encouraged to refer to the transfer section of the catalog, the transfer guides area of the college's web site, and their academic advisor for more information about these programs.

### Curriculum Plans and Course Formats

The curriculum is offered as a full-time program in Springfield and the Bellefontaine area. A part-time evening weekend program is also available in Springfield. The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory requirements. Individuals taking college preparatory education courses or attending school part-time will require additional semesters of study. Students should contact the Health and Human Services main office for a copy of the part-time evening-weekend curriculum plan.

Many non-nursing and some nursing (NUR) courses in the curriculum are available in both traditional and online/hybrid formats for Springfield cohort students. All courses are presented in an online or hybrid format for Bellefontaine cohort. All lab sessions are conducted on campus and/or at a healthcare facility, regardless of the format.

All students should consult their academic advisors for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Spring</b>		
BIO 1131	Microbiology	3
BIO 2121	Anatomy and Physiology I *	4
ENG 1111	English I	3
PSY 1111	Introduction to Psychology	3
<b>Summer</b>		
BIO 2122	Anatomy and Physiology II *	4
ENG 1112	English II	3
<b>Fall</b>		
PSY 2223	Lifespan Human Growth and Development	3
NUR 1110	Dosage Calculation	1
NUR 1135	LPN to RN Transition	3
NUR 1136	Adult Nursing for LPNs	2
NUR 1134	Behavioral Health Nursing	2.5
NUR -	Articulated credit awarded**	8
<b>Spring</b>		
SOC 1110	Introduction to Sociology	3
NUR 2234	Maternal-Newborn Nursing	2.5
NUR 2236	Adult Nursing II	6.5
<b>Fall</b>		
MTH -	Math Elective***	3
NUR 2232	Children-Family Nursing	2.5
NUR 2238	Adult Nursing III	7.5
NUR 2240	Nursing Review	0.5
Total Credit Hours		65

\* BIO 2121 and BIO 2122, or the equivalent, must be successfully completed within five years of entry into the first clinical nursing course. If older than five years, the courses must be repeated.

\*\* Students are awarded 9 semester hours of articulated credit for advanced placement after successful completion of NUR 1135 and NUR 1136.

\*\*\* Students may choose from MTH 1050 Math for Today's World (prerequisite CPE 0650), MTH 1060 Business Math (prerequisite CPE 0500), or STT 2640 Elementary Statistics I (prerequisite CPE 0650). Students who plan to pursue a Bachelor of Science in Nursing (BSN) should choose a math course that will satisfy the BSN program requirements for their school of choice.

## Registered Nursing - Paramedic to RN Transition (6800)

The Paramedic to RN option meets the educational needs of the paramedic desiring to become a registered nurse.

The Registered Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404) 975-5000; [www.acenursing.org](http://www.acenursing.org) and approved by the Ohio Board of Nursing, 17 South High Street, Suite 400, Columbus, Ohio 43215-7410; (614) 466-3947; [www.nursing.ohio.gov](http://www.nursing.ohio.gov).

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 of Applied Science degree in Registered Nursing, a graduate will be able to:

- **Patient Centered Care:** Engage in professional nursing practice, providing holistic, individualized, compassionate care that is patient centered and culturally, and developmentally appropriate across the lifespan.
- **Communication, Teamwork, and Collaboration:** Utilize effective communication with nursing and inter-professional teams, fostering open communication, respect, and shared decision making.
- **Evidence Based Practice and Quality Improvement:** Incorporate a spirit of inquiry through the utilization of current best evidence to make clinical judgements for quality improvement.
- **Safety, Informatics, and Technology:** Integrate informatics and technology to guide nursing judgement in making clinical decisions that minimize the risk of harm to patients and providers.
- **Leadership and Professionalism:** Transition to the role of the professional nurse, incorporating legal, ethical, and professional standards.

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's website.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse when applying to the program. These Essential Functions are also reviewed at the program orientation session.

Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Admission Requirements

The Paramedic to RN program is a space limited program that admits students once a year in fall semester. In addition to applying to the college, students must apply to the program. Minimum grade point average, reading, writing, math, and science requirements must be met prior to applying to the Paramedic to RN program. Completion of the minimum requirements and application to the program does not guarantee admission. Entry to the nursing program is competitive and based on academic achievements. Detailed information about the Paramedic to RN program's competitive admission criteria, process, time line, and forms are available in the Petitioning/ Application Process for Health programs area of Clark State's website.

### Clinical Requirements

Within the two years prior to entering the first clinical nursing course (NUR 1138); students must successfully complete MST 1181 Nurse Aide Training course or demonstrate proficiency of the knowledge and skills taught in that course. Students who wish to demonstrate proficiency should contact their faculty advisor in the Health, Human, and Public Services Division office for proficiency information.

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 prerequisite 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.

### Student Achievement Data

The nursing program publishes student achievement data that is required by the Accreditation Commission for Education in Nursing (ACEN) The data includes the graduates' success on the licensure examination, program completion rates, and employment rates.

Licensure Examination Pass Rate - Performance on the licensure examination for first-time test-takers.

- 2015 first-time test-takers = 79.7%
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**Cohort Data**

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- LPN to RN Bellefontaine first-time takers = 100%
- Paramedic to RN first-time takers = 82% (95% first-time and repeats)

Program Completion Rate - Percentage of students who graduate within a defined period of time. The definition used by ACEN for the program completion rate is the number of students who complete the program in no more than 150% of the stated program length beginning with enrollment in the first nursing course.

- 2015 program completion rate = 73%

**Cohort Data**

- Traditional Day= 67%
- Traditional Evening = 71%
- LPN to RN Day = 90%
- LPN to RN Evening = 62%
- LPN to RN Bellefontaine = 80%
- Paramedic to RN = 100%

Job Placement Rate - Percentage of graduates, six (6) to twelve (12) months after graduating, employed in a position for which the program prepared them.

- 2015 job placement rates = 100%

**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 bachelor's nursing completion programs for associate degree prepared registered nurses. Clark State has articulation agreements with a number of area BSN completion program including Ohio State University, Ohio University, University of Cincinnati, Urbana University, Wittenberg University, and Wright State University. Students are encouraged to refer to the transfer section of the catalog, the transfer guides area of the college's web site, and their academic advisor for more information about these programs.

**Curriculum Plan and Course Format**

The program schedule that follows is designed for full-time students who have completed all prerequisites and who have no college preparatory requirements. Individuals taking college preparatory education courses or attending school part-time will require additional semesters of study.

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 online exams in a proctored environment. Students are required to attend assigned clinical learning experiences.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Spring</b>		
BIO 1131	Microbiology	3
BIO 2121	Anatomy and Physiology I *	4
ENG 1111	English I	3
PSY 1111	Introduction to Psychology	3
<b>Summer</b>		
BIO 2122	Anatomy and Physiology II *	4
ENG 1112	English II	3
NUR 1110	Dosage Calculation	1
NUR -	Articulated credit awarded ***	6
<b>Fall</b>		
PSY 2223	Lifespan Human Growth and Development	3
NUR 1134	Behavioral Health Nursing	2.5
NUR 1137	Paramedic to RN Transition	2.5
NUR 1138	Adult Nursing for Paramedics	4.5
<b>Spring</b>		
MTH -	Math Elective**	3
NUR 2234	Maternal-Newborn Nursing	2.5
NUR 2236	Adult Nursing II	6.5
<b>Fall</b>		
SOC 1110	Introduction to Sociology	3
NUR 2232	Children-Family Nursing	2.5
NUR 2238	Adult Nursing III	7.5
NUR 2240	Nursing Review ^	0.5
Total Credit Hours		65

\* BIO 2121 and BIO 2122, or the equivalent must be successfully completed within five years of entry into the first clinical nursing course. If older than five years, the courses must be repeated.

\*\* Students may choose from MTH 1050 Math for Today's World (prerequisite CPE 0650), MTH 1060 Business Math (prerequisite CPE 0500), or STT 2640 Elementary Statistics I (prerequisite CPE 0650). Students who plan to pursue a Bachelor of Science in Nursing (BSN) should choose a math course that will satisfy the BSN program requirements for their school of choice.

\*\*\* Students will be awarded 6 semester hours of articulated credit for advanced placement after successful completion of NUR 11737 Medic to RN Transition, and NUR 1138, Adult Nursing for Paramedics.

^Course only offered at Springfield campus.



## Respiratory Care (Consortium Program) (3420)

Clark State Community College joined the Northwest Ohio Allied Health Education Consortium in order to expand its allied health offerings, including an associate degree in Respiratory Care to Clark State students. This consortium allows Clark State students to complete their general education and basic classes through Clark State at one of its campuses or online. Students are also enrolled at Rhodes State. Technical courses are taught by Rhodes State faculty through distance learning on the Clark State campus. Students will need to travel to the Rhodes State campus in Lima for skills lab instruction and hands-on practice approximately once a week. Clinical learning experiences will be scheduled in regional healthcare facilities. A very important aspect of the Respiratory Care consortium program is that these clinical seats are reserved for qualified Clark State students living in Clark State's service area.

Information about the consortium is available at the consortium web site. Specific information about the Respiratory Care program is available on the consortium's Respiratory Care program web page.

The technical courses in the Respiratory Care program start each year in summer semester (May). Seats for the program are filled with qualified applicants on a continuous basis. Interested candidates are encouraged to apply early and seek qualified status as soon as possible to secure a seat as seats are limited. Clark State candidates for this program must also apply to Rhodes State online. Students should indicate they are applying to the Northwest Ohio Allied Health Education Consortium and that they are from Clark State by checking the appropriate boxes at the top of the application.

### Qualification Requirements

Academic qualification for the Respiratory Care program are listed below as items 1-5. These requirements must be met prior to being placed on the qualification list. All courses must be completed with a grade of "C" or better.

1. Appropriate American College Test (ACT) or college placement test scores or completion of college preparatory coursework as listed below.
  - Test out of college preparatory writing coursework OR completion CPE 0300 with a grade of B or higher or CPE 0400 with a grade of C or higher.
  - Test out of college preparatory reading coursework OR completion of CPE 0200 with a C or higher.
  - Test out of college developmental/elementary algebra OR completion of CPE 0650 with a C or higher.
  - ACT score of 20 or higher in science OR completion of high school chemistry and high school biology OR BIO 1410 with a C or higher within past five years.

2. A minimum 2.5 grade point average (GPA) for any previous college course work at the time of selection and matriculation.

3. Complete TEAS V test.

4. Attend a mandatory Allied Health Orientation session at Rhodes State and sign informed consent forms.

5. Have Clark State and other college transcripts with transferable college credits for basic and general education courses sent to Rhodes State.

NOTE: Applicants who do not meet academic requirements may plan a program of study under the guidance of an academic advisor to prepare for possible admission to the program.

Students will have additional requirements that will have to be met before entrance into the Respiratory Care program. These requirements include but are not limited to documented observations of a respiratory care practitioner in a hospital, physical, immunizations, background check, drug screen, CPR certification, and interview with the Respiratory Care program director.

### Technical Standards

All applicants accepted into The Allied Health Consortium must be able to meet the technical standards of the program of study for which they enroll. Students are asked to review the standards and to sign a form certifying that they have read, understand, and are able to meet the standards. Students are to be provided the technical standards information upon selection of their program of study. The Rhodes State Allied Health Department's technical standards are available on pages 55-56 of the Allied Health Consortium General Preparation Manual.

### Notice to Prospective or Current Respiratory Care Students

Students who have ever been convicted of a prior felony and/or some misdemeanors may not be able to participate in clinical education experiences at some hospitals or other clinical sites, therefore preventing them from completing the program. A criminal record may also prevent a graduate from obtaining a license or certificate in a chosen health-care profession.

### Curriculum

A link to the [Respiratory Care curriculum](#) showing the curriculum plan with Rhodes technical courses and Clark State general education and basic courses is available under Majors and Programs on the Clark State website.

## Health Certificates

### Electrocardiography Short-Term Technical Certificate (6551D)

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 Healthcare one-year certificate, Associate of Technical Studies Multi-skilled Healthcare degree, and the Medical Assisting one-year certificate and associate degree programs. Courses can also enhance the skills of students in the associate degree nursing programs. Credit equivalencies may not exceed one half of the required technical course credits to receive this certificate.

Credit equivalencies include articulated, experiential, transfer, and proficiency credit. In addition, MST 1171 must be completed at Clark State and all courses in the certificate must be completed with a grade of C or better.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
MST 1105	Medical Terminology	2
BIO 1105	Fundamentals of Anatomy and Physiology	3
EMS 1171	Basic Life Support: CPR	0.5
MST 1171	Introduction to Electrocardiography	2
	Total Credit Hours	7.5

## Medical Assisting Certificate (6750C)

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.

Read the Gainful Employment Disclosure for the Medical Assisting Certificate.

### Learning Outcomes

Upon completion of the Medical Assisting Certificate, a graduate will be able to:

- 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.
- Instruct patients regarding health maintenance and disease prevention.
- Apply legal and ethical concepts.

### Scholastic Preparation and Requirements

Students must petition online (apply) for admission to the program. To be eligible to petition to the Medical Assisting program, students must meet the following academic requirements:

- Reading: Appropriate score on reading placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory reading (CPE 0200) with a grade of C or better. Students are excused from reading placement tests if they have obtained a C or better in a college-level English composition course or an appropriate recent high school senior English grade in accordance with College policy.
- Writing: Appropriate score on writing placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory writing, (CPE 0300 with a grade of B or better or CPE 0400 with a grade of C or better.) Students are excused from writing placement tests if they have obtained a C or better in a college-level English composition course or an appropriate recent high school senior English grade in accordance with College policy.
- Math: Appropriate scores on math/algebra placement tests (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory math through CPE 0500 with a grade of C or better within the past ten years. Students are excused from math/algebra placement tests if they have obtained a C or better in a college-level math course within the past ten years or an appropriate recent high school Algebra II grade in accordance with college policy
- Grade point average (GPA): A minimum cumulative Clark State transcript GPA of 2.0 (CPE courses are not included in the transcript GPA) as well as a minimum GPA of 2.0 in the courses in the Medical Assisting curriculum.

Students who have met the petition requirements and submitted a petition are eligible to start the the Medical Assisting program's technical (MAS) course sequence. Students must contact the Medical Assisting Program Coordinator for academic advising and approval to enroll in the MAS courses. 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 BIO 1105 and all MAS and MST courses. Admitted students who drop out must complete and submit a request for reinstatement into the MAS courses. Students must have an overall GPA of 2.0 and may be required to retake technical courses that are more than one to two years old to be considered for reinstatement.

### Technical Requirements

All students accepted into the Medical Assisting program must be able to perform the essential functions of the medical assistant with or without reasonable accommodations. These essential functions are linked to this program page on the College's web site and are also provided to students via the Medical Assisting Student Handbook. Students are required to sign a form indicating they have reviewed these

requirements and submit it to the Medical Assisting Program Coordinator when they enter the program.

### Health and Directed Practice Requirements

All Medical Assisting certificate students will complete 200 hours of directed practice at the 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, obtain a criminal background check, and have current Basic Life Support (BLS)/professional cardiopulmonary resuscitation (CPR) certification prior to entering the directed practice course. Other requirements may be necessary depending on clinical site placement. All students are strongly encouraged to complete Hepatitis B immunizations prior to their second semester 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 Clark State cumulative transcript grade point average (GPA) of 2.0 (college preparatory (CPE) courses are not included) and have a C as a minimum grade in BIO 1105 and all MAS and MST courses.

### Certification

The Medical Assisting Certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 25400 U.S. Highway 19 N., Suite 158, Clearwater, FL 33763; phone 727-210-2350; www.caahep.org, upon recommendation of the Medical Assistant Education Review Board (MAERB).

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.

### Student/Graduate Outcomes

The five-year average for Clark State's Medical Assisting Certificate program outcomes include:

- Student/graduate retention rate of 88.52%
- Graduate placement rate of 74.07%
- Graduate satisfaction rate of 100%
- Employer satisfaction rate of 100%
- Graduate certification exam pass rate of 91.67%

### Curriculum

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 semesters of study. In addition to the day program, offered at both the Springfield and Beaver Creek campuses, the Medical Assisting program is offered as a part-time evening/weekend option on the

Springfield campus with the MAS courses for this option starting in spring term (January). Part-time evening/weekend students will still need to complete their Directed Practice clinical hours during the day. Students should consult their academic advisors for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
FYE 1100	College Success	1
MAS 1103	Medical Administrative Office I	2
MAS 1104	Exam Room Procedures I	2
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
MST 1160	Phlebotomy	2
MST 1161	Phlebotomy Lab	1
<b>Spring</b>		
ENG 1111	English I	3
MAS 1105	Medical Administrative Office II	3
MAS 1106	Exam Room Procedures II	3
MAS 1115	Laboratory Procedures for the Medical Office	2
MAS 1112	Pharmacology for the Medical Office	3
MST 1171	Introduction to Electrocardiography	2
<b>Summer</b>		
PSY 1111	Introduction to Psychology	3
MAS 1117	Medical Assisting Directed Practice	2
MAS 1118	Clinical Perspectives Seminar	1
MAS 2100	Medical Assisting Certification Review	2
Total Credit Hours		40

## Multi-Skilled Healthcare Certificate (6550C)

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

Courses within this program can also be taken by students in other degree or certificate programs and by healthcare professionals who wish to expand their knowledge and 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 Multi-skilled Healthcare option and select 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 semesters of study. Students should consult their academic advisors for help in planning their schedules.

### 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 Healthcare 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
<b>Fall</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
EMS 1171	Basic Life Support: CPR	0.5
FYE 1100	College Success	1
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
- -	Technical Elective(s) *	6
<b>Spring</b>		
ITS 1105	Computer Concepts and Software Applications	3
MST 1140	Human Disease	3
PSY 1111	Introduction to Psychology	3
- -	Technical Elective(s) *	6
<b>Summer</b>		
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1120	Public Speaking I <i>or</i>	
COM 1170	Small Group Communication	3
ENG 1111	English I	3
	Total Credit Hours	36.5

\* Students must choose a total of 12 credit hours of technical elective course work from two or more of the following specialty areas. Students should verify that course prerequisites have been met prior to registering for a course.

### Diagnostic Procedures

MLT 1120 Medical Laboratory Orientation and Phlebotomy (2 credits) (must also register for MLT 1125)  
 MLT 1125 Medical Laboratory Orientation and Phlebotomy Laboratory (1 credit) (must also register for MLT1120)  
 MST 1160 Phlebotomy (2 credits) (must also register for MST 1161)  
 MST 1161 Phlebotomy Lab (1 credit) (must also register for MST 1160)  
 MST 1171 Principles of Electrocardiography (2 credits)

### Direct Patient Care

MST 1181 Nurse Aide Training (4 credits)  
 NUR 1110 Dosage Calculations (1 credit)  
 PTA 1112 PTA Survey (1 credit)

### Emergency Care

EMS 1100 EMT Theory and Practice (7 credits)

### Chemical Dependency

SWK 1105 Chemical Dependency I: Pharmacology/Physiology of Psychoactive Substances (3 credits)  
 SWK 2205 Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies (3 credits)  
 SWK 2215 Chemical Dependency III: Co-occurring Disorders of Addiction & Mental Health (3 credits)

### Other Technical Elective

EBE 1000 Employability Skills (1 credits)

## Nurse Aide Short-Term Technical Certificate (6552D)

This 84 hour course will introduce students to the principles and procedures of basic patient care for a variety of individuals. The course is regulated by the Ohio Department of Health and 100% attendance is required. Students must complete specific health requirements and a criminal background check at their own expense prior to the clinical experience. After completing the classroom and clinical components, students will be trained for entry level employment in long term care, home healthcare, hospice, many free standing clinics and/or the hospital setting. Students will also receive a certificate of completion which will allow them to take the Ohio nurse aide exam. After passing both the written and skills components of the exam, the student will be placed on the Ohio Nurse Aide Registry.

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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
MST 1181	Nurse Aide Training Nurse Aide Training	4
	Total Credit Hours	4

## Patient Care Technician Departmental Certificate (6553D)

Patient care technicians are allied health professionals who provide direct patient care under the direction and supervision of a nurse. They perform basic nursing assistant tasks including obtaining patient vital signs and other data, assisting with activities of daily living, performing electrocardiograms (ECGs) and phlebotomy tasks, and communicating with the healthcare team and patients. All courses can be applied to the Multi-Skilled Healthcare one-year certificate and Associate of Technical Studies - Multi-skilled Healthcare degree programs.

Credit equivalencies may not exceed one half of the required technical course credits to receive this certificate. Credit equivalencies include articulated, experiential, transfer, and proficiency credit. All courses must be completed with a grade of C or better.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
EMS 1171	Basic Life Support: CPR	0.5
MST 1101	Introduction to Health Care	3
MST 1105	Medical Terminology	2
MST 1181	Nurse Aide Training *	4
<b>Spring</b>		
BIO 1105	Fundamentals of Anatomy and Physiology	3
MST 1160	Phlebotomy	2
MST 1161	Phlebotomy Lab	1
MST 1171	Introduction to Electrocardiography	2
	Total Credit Hours	17.5

\* Students must complete specific health requirements and obtain a criminal background check at their own expense prior to participating in the clinical component of the course. Students will be billed for liability insurance when registering for the course.

## Phlebotomy Short-Term Technical Certificate (6554D)

These courses provide 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 Healthcare and Medical Assisting one-year certificate and associate degree programs. Courses can also enhance the skills of students enrolled in the associate degree nursing programs.

Credit equivalencies may not exceed one half of the required technical course credits to receive this certificate. Credit equivalencies include articulated, experiential, transfer, and proficiency credit. In addition, MST 1160 and MST 1161 must be completed at Clark State and all courses in the certificate must be completed with a grade of C or better.

Course #	Course Title	Credit Hours
MST 1105	Medical Terminology	2
MST 1160	Phlebotomy	2
MST 1161	Phlebotomy Lab	1
	Total Credit Hours	5

## Practical Nursing Certificate (6350C)

The 12-month Practical Nursing Certificate is approved by the Ohio Board of Nursing and the Ohio Department of Higher Education. This program is offered at the College's Springfield campus and at the Clark State campus at the Ohio Hi-Point Career Center location in Bellefontaine.

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 semesters of study. Students should consult their academic advisors for help in planning their schedules. Read the Gainful Employment Disclosure for the Practical Nursing Certificate.

### 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.
- Clearly and accurately 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.

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's web site.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse at the program orientation session. Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Program Application (Petition) 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 Practical Nursing program, the student must meet the following academic requirements:

- **Reading:** Appropriate score on reading placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory reading (CPE 0200) with a grade of C or better. Students are excused from reading placement tests if they have obtained a C or better in a college-level English composition course or have recently completed high school senior English with an appropriate grade in accordance with College policy.
- **Writing:** Appropriate score on writing placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory writing (CPE 0400) with a grade of C or better. Students are excused from writing placement tests if they have obtained a C or better in a college-level English composition course or have recently completed high school senior English with an appropriate grade in accordance with College policy.
- **Math:** Appropriate scores on math/algebra placement tests (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory math through CPE 0600 OR CPE 0650 with a grade of C or better within the past five years. Students are excused from math/algebra placement tests if they have obtained a C or better in an Ohio Transfer Module (OTM) equivalent college-level math course within the past five years or have recently completed high school algebra II with an appropriate grade in accordance with College policy.
- **Grade point average (GPA):** A minimum cumulative Clark State transcript GPA of 2.0 (CPE courses are not included in the transcript GPA) as well as a minimum GPA of 2.0 in the courses in the practical nursing curriculum.

### 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 1101), students must have current professional cardiopulmonary resuscitation (CPR) provider status and current state-tested nurse aide credentials and/or have satisfactorily completed MST 1181 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. Drug screening will also be required prior to clinical placement in some clinical agencies. 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 Clark State college GPA of 2.0 and must have a C as a minimum grade in all courses in the practical nursing program curriculum.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Summer</b>		
BIO 1105	Fundamentals of Anatomy and Physiology *	3
ENG 1111	English I	3
FYE 1100	College Success	1
MST 1105	Medical Terminology *	2
<b>Fall</b>		
LPN 1101	Nursing Fundamentals	9
LPN 1201	Disease Process and Diet Therapy	4
LPN 1301	Pharmacology	3
PSY 1111	Introduction to Psychology	3
<b>Spring</b>		
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		45

\* BIO 1105 and MST 1105 must be successfully completed with a C or better within five years of entry into the first LPN course. If older than five years, the course must be repeated.



## Practical Nursing Certificate - Evening Weekend (6350C)

The Practical Nursing program is also offered as a part-time evening-weekend option at the Greene Center campus in Beavercreek. Students will need to travel outside of Greene County, generally to Clark County, for some clinical experiences. The part-time evening-weekend option provides students who are unable to attend school full-time or during the day, another option for certificate completion. Students can enroll on a part-time basis, taking less than 12 credit hours during each semester. 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.
- Clearly and accurately 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.

### Technical Standards

Specific attributes, characteristics, and abilities are essential to practice nursing. Professional competency is the summation of many cognitive, affective, and psychomotor skills. Students who enter the nursing program must be able to perform (with or without reasonable accommodations) these Essential Functions, which are linked to this program page on the College's web site.

Students who may require accommodations to perform the essential functions should contact the College's Office of Accessibility to request reasonable accommodations.

Students are asked to sign a form certifying that they have read, understand, and are able to perform the Essential Functions of the Student Nurse at the program orientation session. Attendance at this session is required for all students who have been accepted to start the nursing program's technical courses.

### Program Application (Petition) 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 Practical Nursing program, the student must meet the following academic requirements:

- Reading: Appropriate score on reading placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory reading (CPE 0200) with a grade of C or better. Students are excused from reading placement tests if they have obtained a C or better in a college-level English composition course or have recently completed high school senior English with an appropriate grade in accordance with College policy.
- Writing: Appropriate score on writing placement test (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory writing (CPE 0400) with a grade of C or better. Students are excused from writing placement tests if they have obtained a C or better in a college-level English composition course or have recently completed high school senior English with an appropriate grade in accordance with College policy.
- Math: Appropriate scores on math/algebra placement tests (COMPASS, ACCUPLACER, ACT, or SAT) or completion of college preparatory math through CPE 0600 OR CPE 0650 with a grade of C or better within the past five years. Students are excused from math/algebra placement tests if they have obtained a C or better in an Ohio Transfer Module (OTM) equivalent college-level math course within the past five years or have recently completed high school algebra II with an appropriate grade in accordance with College policy.
- Grade point average (GPA): A minimum cumulative Clark State transcript GPA of 2.0 (CPE courses are not included in the transcript GPA) as well as a minimum GPA of 2.0 in the courses in the practical nursing curriculum.

### 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 1101), students must have current professional cardiopulmonary resuscitation (CPR) provider status and must also have current state-tested nurse aide credentials and/or have satisfactorily completed MST 1181 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. Drug screening will also be required prior to clinical placement in some clinical agencies. 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 Clark State college GPA of 2.0 and must have a C as a minimum grade in all courses in the practical nursing program curriculum.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Spring</b>		
ENG 1111	English I	3
FYE 1100	College Success	1
MST 1105	Medical Terminology *	2
PSY 1111	Introduction to Psychology	3
<b>Summer</b>		
BIO 1105	Fundamentals of Anatomy and Physiology *	3
PSY 2223	Lifespan Human Growth and Development	3
<b>Fall</b>		
LPN 1201	Disease Process and Diet Therapy	4
LPN 1301	Pharmacology	3
<b>Spring</b>		
LPN 1101	Nursing Fundamentals	9
<b>Summer</b>		
LPN 1501	Nursing Care of Women, Infants & Children	5
<b>Fall</b>		
LPN 1401	Nursing Care of Adults	9
	Total Credit Hours	45

\*BIO 1105 and MST 1105 must be successfully completed with a grade of C or better within five years of entry into the first LPN course. If older than five years, the course must be repeated.

## Heating, Ventilation, Air Conditioning, and Refrigeration

### Heating, Ventilation, Air Conditioning, and Refrigeration (Clark County CTC) (5630)

Students completing the Heating, Ventilating, Air Conditioning and Refrigeration Technology program are prepared to find employment with large commercial heating and air conditioning contractors, residential mechanical contractors, parts and equipment distributors, large commercial and industrial facility maintenance departments, hospital facilities maintenance departments, custom design or new construction markets. The associate degree program offers the training needed to develop a high degree of technical skill, as well as the ability to work with minimal supervision and a strong sense of personal responsibility.

#### Learning Outcomes

Upon completion of an associate degree in Heating, Ventilating and Air Conditioning Technology a graduate will be able to:

- Select piping materials and design piping systems.
- Calculate heat loss and heat gain loads for residential and commercial structures.
- Use testing and analyzing instruments and calculate combustion process for various fuels (e.g., natural gas, coal, and fuel oil) to ensure proper operation for the most efficient operation of boilers and furnaces.
- Assist in the selection and application of a variety of residential and commercial HVAC equipment to solve environmental problems.
- Assist in the design of automatic control circuits using electro-mechanical and electronic control devices and in designing preventative maintenance programs for various HVAC systems.
- Research and apply local, state, and national codes to various environmental systems.
- Test and calculate airflow through system equipment.
- Read control schematics and test control circuits for malfunctions.
- Troubleshoot and repair gas/electric furnaces, fuel oil furnaces, split system air conditioners and heat pumps, humidifiers, and electronic air cleaners.

#### Program Design and Availability

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

This program is taught in Springfield at the Springfield-Clark Career Technology Center (CTC) (1901 Selma Road) near the Leffel Lane Campus. General education courses not offered at Springfield-Clark CTC may be completed online or at one of Clark State's other campus sites in Springfield, Bellefontaine, or Beavercreek.

Course #	Course Title	Credit Hours
<b>Fall</b>		
CAD 1101	Computer-Aided Design I	3
EBE 1000	Employability Skills	1
ENG 1111	English I	3
FYE 1100	College Success	1
ITS 1105	Computer Concepts and Software Applications	3
- -	Arts/Humanities <i>or</i> Social/Behavioral Science Elective	3
<b>Spring</b>		
HVC 1015	HVAC-R Fundamentals and Practices	3
HVC 1100	Basic Electricity and Motors for HVAC-R	4
HVC 1215	EPA Certifications	2
HVC 1315	Commercial Refrigeration	2
INT 1000	OSHA 10-Hour General Safety	1
MGT 1060	Organizational Behavior	3
<b>Summer</b>		
HVC 2010	Residential Gas Heating	4
HVC 2220	Residential Electric Heating	1
HVC 2030	Heat Pump Systems	2
<b>Fall</b>		
HVC 2040	Oil and Hydronic Heat	2
HVC 2315	Air Conditioning	2
HVC 2415	Indoor Air Quality and Distribution	3
HVC 2700	HVAC-R Job Skills	2
MTH 1115	Industrial Calculations	3
<b>Spring</b>		
COM 1170	Small Group Communication	3
ECO 2210	Principles of Macroeconomics <i>or</i>	3
ECO 2220	Principles of Microeconomics	3
ENG 2211	Business Communication	3
- -	Co-op <i>or</i> Technical Elective*	3
Total Credit Hours		60

\*The technical electives must total a minimum of 6 semester hours in any combination of co-op (EBE 2701 - EBE 2704, EBE 2801 - EBE 2804) or any course not already prescribed in the following areas: CAD, ENT, INT, or NTK 1110.

# Heating, Ventilation, Air Conditioning, and Refrigeration (Greene County CTC) (5630)

Students completing the Heating, Ventilating, Air Conditioning and Refrigeration Technology program are prepared to find employment with large commercial heating and air conditioning contractors, residential mechanical contractors, parts and equipment distributors, large commercial and industrial facility maintenance departments, hospital facilities maintenance departments, custom design or new construction markets. The associate degree program offers the training needed to develop a high degree of technical skill, as well as the ability to work with minimal supervision and a strong sense of personal responsibility.

## Learning Outcomes

Upon completion of an associate degree in Heating, Ventilating and Air Conditioning Technology a graduate will be able to:

- Select piping materials and design piping systems.
- Calculate heat loss and heat gain loads for residential and commercial structures.
- Use testing and analyzing instruments and calculate combustion process for various fuels (e.g., natural gas, coal, and fuel oil) to ensure proper operation for the most efficient operation of boilers and furnaces.
- Assist in the selection and application of a variety of residential and commercial HVAC equipment to solve environmental problems.
- Assist in the design of automatic control circuits using electro-mechanical and electronic control devices and in designing preventative maintenance programs for various HVAC systems.
- Research and apply local, state, and national codes to various environmental systems.
- Test and calculate airflow through system equipment.
- Read control schematics and test control circuits for malfunctions.
- Troubleshoot and repair gas/electric furnaces, fuel oil furnaces, split system air conditioners and heat pumps, humidifiers, and electronic air cleaners.

## Program Design and Availability

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

This program is taught in Xenia at the Greene County Career Technology Center (CTC) at 2960 West Enon Road. General education courses not offered at Greene

County CTC may be completed online or at one of Clark State's other campus sites in Springfield, Bellefontaine, or Beavercreek.

Course #	Course Title	Credit Hours
<b>Fall</b>		
HVC 1015	HVAC-R Fundamentals and Practices	3
HVC 1100	Basic Electricity and Motors for HVAC-R	4
HVC 1215	EPA Certifications	2
FYE 1100	College Success	1
MGT 1060	Organizational Behavior	3
<b>Spring</b>		
HVC 1315	Commercial Refrigeration	2
HVC 2010	Residential Gas Heating	4
HVC 2220	Residential Electric Heating	1
HVC 2030	Heat Pump Systems	2
INT 1000	OSHA 10-Hour General Safety	1
MTH 1115	Industrial Calculations	3
<b>Summer</b>		
HVC 2040	Oil and Hydronic Heat	2
HVC 2315	Air Conditioning	2
HVC 2415	Indoor Air Quality and Distribution	3
HVC 2700	HVAC-R Job Skills	2
<b>Fall</b>		
CAD 1101	Computer-Aided Design I	3
EBE 1000	Employability Skills	1
ENG 1111	English I	3
ITS 1105	Computer Concepts and Software Applications	3
--	Arts/Humanities <i>or</i> Social/Behavioral Science Elective	3
<b>Spring</b>		
COM 1170	Small Group Communication	3
ECO 2210	Principles of Macroeconomics <i>or</i>	
ECO 2220	Principles of Microeconomics	3
ENG 2211	Business Communication	3
--	Co-op <i>or</i> Technical Elective*	3
Total Credit Hours		60

\*The technical electives must total a minimum of 6 semester hours in any combination of co-op (EBE 2701 - EBE 2704, EBE 2801 - EBE 2804) or any course not already prescribed in the following areas: CAD, ENT, INT, or NTK 1110.

## Heating, Ventilation, Air Conditioning, and Refrigeration Certificates

### Heating, Ventilation, Air Conditioning, and Refrigeration Departmental Certificate (Clark County CTC) (5631D)

Students completing the Heating, Ventilating, Air Conditioning, and Refrigeration (HVAC-R) departmental certificate will have the essential skills sets to find employment with a variety of companies providing heating ventilating and air conditioning services. Beginning the HVAC-R course work in January, a student can complete the certificate within twelve months provided the student has no remedial education needs and is able to take the classes as prescribed.

This program is taught in Springfield at Springfield-Clark County Career Technology Center (CTC) at 1901 Selma Road near the Leffel Lane Campus. General education courses not offered at Springfield-Clark CTC or Greene County Career Center may be completed online or at one of Clark State's other campus sites in Springfield, Bellefontaine, or Beavercreek.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Spring</b>		
HVC 1015	HVAC-R Fundamentals and Practices	3
HVC 1100	Basic Electricity and Motors for HVAC-R	4
HVC 1215	EPA Certifications	2
HVC 1315	Commercial Refrigeration	2
<b>Summer</b>		
HVC 2010	Residential Gas Heating	4
HVC 2220	Residential Electric Heating	1
HVC 2030	Heat Pump Systems	2
INT 1000	OSHA 10-Hour General Safety	1
<b>Fall</b>		
HVC 2040	Oil and Hydronic Heat	2
HVC 2315	Air Conditioning	2
HVC 2415	Indoor Air Quality and Distribution	3
HVC 2700	HVAC-R Job Skills	2
Total Credit Hours		28

### Heating, Ventilation, Air Conditioning, and Refrigeration Departmental Certificate (Greene County CTC) (5631D)

Students completing the Heating, Ventilating, Air Conditioning, and Refrigeration (HVAC-R) departmental certificate will have the essential skills sets to find employment with a variety of companies providing heating ventilating and air conditioning services. Beginning the HVAC-R course work in January, a student can complete the certificate within twelve months provided the student has no remedial education needs and is able to take the classes as prescribed.

This program is taught in Xenia at the Greene County Career Technology Center at 2960 West Enon Road. General education courses not offered at Greene County CTC may be completed online or at one of Clark State's other campus sites in Springfield, Bellefontaine, or Beavercreek.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
<b>Fall</b>		
HVC 1015	HVAC-R Fundamentals and Practices	3
HVC 1100	Basic Electricity and Motors for HVAC-R	4
HVC 1215	EPA Certifications	2
<b>Spring</b>		
HVC 1315	Commercial Refrigeration	2
HVC 2010	Residential Gas Heating	4
HVC 2220	Residential Electric Heating	1
HVC 2030	Heat Pump Systems	2
INT 1000	OSHA 10-Hour General Safety	1
<b>Summer</b>		
HVC 2040	Oil and Hydronic Heat	2
HVC 2315	Air Conditioning	2
HVC 2415	Indoor Air Quality and Distribution	3
HVC 2700	HVAC-R Job Skills	2
Total Credit Hours		28

## Law Enforcement

### Criminal Justice Technology-Corrections Concentration (2500)

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.

#### Corrections Concentration

The Corrections Concentration 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.

#### Learning Outcomes

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

- Display an understanding of basic computer technology including hardware and software solutions as related to law enforcement.
- Implement effective communication techniques with citizens, families and co-workers.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with citizens, families and co-workers.
- Use critical thinking and problem-solving skills to make appropriate law enforcement decisions.
- Display professional behaviors within the ethical/legal framework of law enforcement.

#### 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

Other criminal convictions may prevent graduates from obtaining employment in some positions/facilities. Any questions should be directed to the Program Coordinator.

#### Curriculum Plan

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 developmental courses, will require additional semesters of study. Students should consult their academic advisors for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
CRJ 1100	Introduction to Criminal Justice	3
CRJ 1116	Systems Approach to Computer Technology *	3
ENG 1111	English I	3
FYE 1100	College Success	1
PSY 1111	Introduction to Psychology	3
SOC 1110	Introduction to Sociology	3
<b>Spring</b>		
COR 1105	Probation and Parole	3
COR 1130	Adult/Juvenile Corrections	3
COM 1110	Interpersonal Communication I	or
COM 1120	Public Speaking I	3
ENG 1112	English II	3
SWK 1105	Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances	3
<b>Fall</b>		
CRJ 2216	Community Relations	3
CRJ 2228	Criminal Investigation	3
CRJ 2250	Community Resources	3
MTH 1060	Business Mathematics	3
SOC 2220	Comparing Cultures	3
<b>Spring</b>		
CRJ 2235	Social Justice	3
CRJ 2240	Criminal Law	3
CRJ 2260	Constitutional Law	3
COR 2285	Corrections Practicum	3
PSY 2230	Abnormal Psychology	3
Total Credit Hours		61

\*ITS 1105 (including proficiency credit) may be substituted for CRJ 1116.

## Criminal Justice Technology- Law Enforcement Concentration (2200)

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.

### Law Enforcement Concentration

The law enforcement field is thriving. Advances in technology and an emphasis on homeland security have fueled a demand for a new breed of law enforcement professionals equipped to meet the changes in national security. Several rewarding law enforcement careers that are in demand in today's security-conscious society include FBI agent, homeland security, police officer, deputy sheriff, armed security, probation officers, court officers, U.S. Marshal, customs agent, Secret Service agent, and game warden.

### Learning Outcomes

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

- Display an understanding of basic computer technology including hardware and software solutions as related to law enforcement.
- Implement effective communication techniques with citizens, families and co-workers.
- Demonstrate behaviors that reflect respect for and sensitivity to individual differences while working with citizens, families and co-workers.
- Use critical thinking and problem-solving skills to make appropriate law enforcement decisions.
- Display professional behaviors within the ethical/legal framework of law enforcement.

### 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

Other criminal convictions may prevent graduates from obtaining employment in some positions/facilities.

Additional questions about criminal convictions should be directed to the Criminal Justice Program Coordinator.

### Curriculum Plan

The program schedule that follows 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 semesters of study. Students should consult their academic advisors for help in planning their schedules.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
CRJ 1100	Introduction to Criminal Justice	3
CRJ 1116	Systems Approach to Computer Technology *	3
ENG 1111	English I	3
FYE 1100	College Success	1
PSY 1111	Introduction to Psychology	3
SOC 1110	Introduction to Sociology	3
<b>Spring</b>		
CRJ 1120	Juvenile Procedures	3
CRJ 1123	Patrol Operations	3
COM 1110	Interpersonal Communication I <i>or</i>	
COM 1120	Public Speaking I	3
ENG 1112	English II	3
SWK 1105	Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances	3
<b>Fall</b>		
CRJ 2201	Police Administration	3
CRJ 2216	Community Relations	3
CRJ 2225	Forensic Science	4
CRJ 2228	Criminal Investigation	3
CRJ 2250	Community Resources	3
MTH 1060	Business Mathematics	3
<b>Spring</b>		
CRJ 2235	Social Justice	3
CRJ 2240	Criminal Law	3
CRJ 2260	Constitutional Law	3
CRJ 2280	Practicum	3
PSY 2230	Abnormal Psychology	3
Total Credit Hours		65

\*ITS 1105 (including proficiency credit) may be substituted for CRJ 1116.

## Law Enforcement Certificates

### Basic Peace Officer Academy (8020)

The law enforcement field is thriving. Advances in technology and an emphasis on homeland security have fueled a demand for a new breed of law enforcement professionals equipped to meet the changes in national security. Several rewarding law enforcement careers that are in demand in today's security-conscious society include FBI Agent, Homeland Security, Police Officer, Deputy Sheriff, Armed Security, Corrections Officers, Probation Officers, Court Officers, U.S. Marshal, Customs Agent, Secret Service Agent, and Game Warden.

The Clark State Basic Peace Officer Training Academy is designed to meet the requirements of the Ohio Police Officer Training Council (OPOTC) and is offered in cooperation with local law enforcement agencies, the State of Ohio, and OPOTC. Successful graduates of this program will be recommended to take the state certification examination. Successful graduates will also earn college credit towards Clark State's Criminal Justice Technology degree.

Basic Peace Officer Training topics include administration, legal, human relations, firearms, driving, traffic accidents, investigation, patrol, traffic enforcement, civil disorders, defensive tactics, first aid, homeland security, and physical conditioning. Additional certificates can be earned for pepper spray and taser.

Attendance at all classes is mandatory. Formal class meetings for these academies may be held on the Clark State Campus or at a satellite location. Firearms and driver trainings are conducted at off-campus locations. Day academies begin in March and August with classes from 8 am-5 pm, Monday through Friday. Evening academies begin January and June with classes from 5:30-10:30 pm, Monday through Friday. All academies include several weekends where some training events are held off-site.

If you are interested in attending the Basic Peace Officer Training Academy, please complete the online Student Enrollment Interest Form. You will be contacted with more information. Applicants must appear in person to enroll in the academy.

#### Learning Outcomes

The academy provides the recruit with the basic fundamentals of entry-level peace officer training. Upon successful completion of the program students will be eligible to take the state certification exam. Successful completion of the exam allows students to obtain a position in law enforcement.

#### Admission Requirement

Academy applicants must meet stringent entrance requirements as directed by the Attorney General of the State of Ohio before admitted to the program. Requirements that must be met are:

- High school diploma or its equivalent.
- Must be 21 years of age by completion of the academy.
- If no previous college experience, must take College placement tests in reading and writing. Students must test out of college preparatory (CPE) reading and writing or complete the appropriate college preparatory (CPE) courses before enrolling in the academy.

- Valid driver's license.
- Submit Livescan fingerprints at the Sheriff's Office for the State of Ohio Bureau of Criminal Identification & Investigation (BCI&I) and the FBI to determine any criminal or traffic convictions that would disqualify a student from the academy
- Complete and submit results of a drug screen
- Obtain a physical and return a signed medical release from a physician
- Complete physical fitness test and meet OPOTA's physical fitness standards

Applicants should contact Clark State's Police Academy to obtain an application packet which will have detailed information about when and how to complete these requirements.

#### Uniform Requirements

Uniforms are required for all police academy students. The uniform shall consist of a police academy shirt, uniform pants, black belt, black socks, and black shoes or boots. There are no exceptions to the uniform requirement.

#### Mandatory Attendance

The hours of instruction in the police academy are mandatory. There are no excused absences from the police academy. All classroom instruction is conducted at the Brinkman Educational Center. However, certain portions of skill training are conducted at other locations.

#### Equipment

The academy provides much of the needed equipment. During firearms training, the police academy will provide a firearm, ammunition, holster, duty belt, belt stays, ammo pouches and gun belt for the student's use.

#### Physical Fitness

All Basic Peace Officer Training Academy students must test and meet the physical fitness standards within the last 80 hours of the academy in order to be eligible to take the state exam.

#### Cost

The cost of the Basic Peace Officer Training Academy is approximately \$4500 for tuition and fees. Fees will include the required Ohio Criminal Code Handbook and many other items.

#### Graduation Requirements

Graduation is based on successful completion of OPOTA's requirements.

Course #	Course Title	Credit Hours
CRJ 1283	Basic Law Enforcement I	8
CRJ 1284	Basic Law Enforcement II	8
	Total Credit Hours	16

Must complete CRJ 1283 (Basic Law Enforcement I) before taking CRJ 1284 (Basic Law Enforcement II). Each course is 8 credit hours.



## Social Services

### Social Services Technology (7200)

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

#### Learning Outcomes

Upon completion of an Associate of Applied Science 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 1111 and SWK 1100 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.

#### Practicum Coursework

Students will be billed for liability insurance for the year of practicum courses. The student may be requested by the practicum site to complete a criminal background check and a drug screen. Students should contact the practicum instructor with any questions regarding practicum.

#### Graduation Requirements

Graduates must obtain a C or better in all SWK courses and 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.

#### Math Requirement

Students should speak with an advisor regarding whether MTH 1105 Mathematics and Today's World, or STT 2264 Elementary Statistics I, should be taken in order to meet the program's math requirement when considering transferring to a university setting to complete their bachelor's degree.

#### 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 bachelor's degree in Social Work. Some colleges and universities have designed bachelor's 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.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
SWK 1100	Introduction to Social Work *	3
SWK 1105	Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances	3
ENG 1111	English I *	3
FYE 1100	College Success	1
MTH 1060	Business Mathematics	3
SOC 1110	Introduction to Sociology	3
<b>Spring</b>		
SWK 1122	Social Work Methods and Procedures	3
SWK 1136	Affective Education and Group Treatment	3
ENG 1112	English II	3
PSY 1111	Introduction to Psychology	3
- -	Humanities Elective	3
<b>Fall</b>		
SWK 2205	Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies	3
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 ** <i>or</i>	
SWK 2272	Social Services Practicum II **	2
SWK 2291	Social Services Seminar I ** <i>or</i>	
SWK 2292	Social Services Seminar II **	1
<b>Spring</b>		
SWK 2215	Chemical Dependency III: Co-Occurring Disorders of Addiction and Mental Health	3
SWK 2232	Generalist Practice with Families	3
SWK 2272	Social Services Practicum II ** <i>or</i>	
SWK 2271	Social Services Practicum I **	2
SWK 2292	Social Services Seminar II ** <i>or</i>	
SWK 2291	Social Services Seminar I **	1
BIO 1410	Fundamentals of Biology	4
PSY 2223	Lifespan Human Growth and Development	3
- -	Humanities/Social Science Elective	3
	<b>Total Credit Hours</b>	<b>65</b>

\* ENG 1111 and SWK 1100 MUST be completed with a C or better before enrolling in additional social service (SWK) courses.

\*\* SWK 2271 Social Service Practicum I and SWK 2291 Social Service Seminar I must be taken together. SWK 2272 Social Service Practicum II and SWK 2292 Social Service Seminar II must be taken together. Students must attend Practicum orientation and have written approval from the field placement instructor in order to be admitted into a practicum course.

## Social Services Certificates

### Chemical Dependency Short-Term Technical Certificate (7201D)

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) Phase I and II state certifications.

The certificate will be issued for earning a minimum of 135 clock hours (9 credit hours). It will state the number of clock hours earned through taking the various courses listed below.

<i>Course #</i>	<i>Course Title</i>	<i>Credit Hours</i>
SWK 1105	Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances	3
SWK 2205	Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies	3
SWK 2215	Chemical Dependency III: Co-Occurring Disorders of Addiction and Mental Health	3
	Total Credit Hours	9

## Theatre Arts

### Performance (3110)

Clark State offers two associate of arts degrees in theatre, both developed in conjunction with Clark State's Performing Arts Center in downtown Springfield.

Performance Arts focuses on acting, voice, theatre history, etc. Performance students will most likely transfer to university programs with a performance focus.

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.

#### Learning Outcomes

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

- Demonstrate auditioning and performance skills and professionalism.
- 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.

#### Area 1 - English (6 credit hours)

Grades of C or better in ENG 1111 English I and ENG 1112 English II are required for graduation with the AA degree.

#### Area 2 - Communication (3 credit hours)

At least one class from COM 1100, 1120, 1170, 2220

#### Area 3 - Literature, the Arts, and Humanities (15 credit hours)

Five courses. Must include both THE 1130 and THE 1133. At least one is chosen from ENG 1600, 2250, 2300, 2500, 2610, 2620; at least one from HST or PHL, and at least one additional class from ART 1300, 1330, 1340; MUS 1300; SPN 1111, 1112, 2211, 2212; FRN 1111, 1112; HST; PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620

#### Area 4 - Social Sciences (9 credit hours)

Three courses. Must include PSY 1111 and two courses listed under Economics, Geography, Political Science, Psychology, Sociology or Regional Studies.

#### Area 5 - Mathematics & Computers (3 credit hours)

At least one course from those listed under Mathematics (in the Transfer Module). This includes MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530, STT 2640, STT 2650.

#### Area 6 - Natural Sciences (8-10 credit hours)

Many options are available; choose one most suited to your transfer institution. At least two classes from BIO, CHM, GLG, PHY; taken from those listed under Natural & Physical Sciences in the Transfer Module.

#### Foundations (1 credit hour)

Effective Fall 2012, all students pursuing an AA or AS degree must take FYE 1100 College Success or FYE 1000 College Success & Computer Basics. FYE 1100 or FYE 1000 should be taken as early as possible in a student's academic career.

#### Capstone Seminar (3 credit hours)

All students pursuing the AA are required to take the Capstone Seminar (HUM 2899). Students must have earned at least 40 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of specific AA program goals.

#### Concentration/Elective (12-25 credit hours)

Must include THE 1107, 1140, 2201, 2202 and THE 1151 (taken each semester for 4 total credit hours) and THE 2241 and 2242.

#### 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 four courses with significant international content. Courses meeting the requirement are identified in the College catalog. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

#### Advanced Courses

In addition to the Capstone Seminar, all students pursuing an AA degree are required to complete at least 6 credit hours in courses numbered 2000 or higher. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

Total Credit Hours 70\*

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

## Technical Theatre (3150)

Technical Theatre 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 Theatre Arts Technical, a graduate will be able to:

- Demonstrate theatre technology equipment skills including analyzing design packages and plots.
- 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 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.

### Area 1 - English (6 credit hours)

Grades of C or better in ENG 1111 English I and ENG 1112 English II are required for graduation with the AA degree.

### Area 2 - Communication (3 credit hours)

At least one class from COM 1100, 1120, 1170, 2220

### Area 3 - Literature, the Arts, and Humanities (15 credit hours)

Five courses. Must include both THE 1130 and THE 1133. At least one is chosen from ENG 1600, 2250, 2300, 2500, 2610, 2620; at least one from HST or PHL, and at least one additional class from ART 1300, 1330, 1340; MUS 1300; SPN 1111, 1112, 2211, 2212; FRN 1111, 1112; HST; PHL; or ENG 1600, 2250, 2300, 2500, 2610, 2620

### Area 4 - Social Sciences (9 credit hours)

Three courses. Must include PSY 1111 and two courses listed under Economics, Geography, Political Science, Psychology, Sociology or Regional Studies.

### Area 5 - Mathematics & Computers (3 credit hours)

At least one course from those listed under Mathematics (in the Transfer Module). This includes MTH 1050, 1280, 1340, 2100, 2200, 2220, 2240, 2330, 2530, STT 2640, STT 2650.

### Area 6 - Natural Sciences (8-10 credit hours)

Many options are available; choose one most suited to your transfer institution. At least two classes from BIO, CHM, GLG, PHY; taken from those listed under Natural & Physical Sciences in the Transfer Module.

### Foundations (1 credit hour)

Effective Fall 2012, all students pursuing an AA or AS degree must take FYE 1100, College Success or FYE 1000 College Success & Computer Basics. FYE 1100 or FYE 1000 should be taken as early as possible in a student's academic career.

### Capstone Seminar (3 credit hours)

All students pursuing the AA degree are required to take the Capstone Seminar (HUM 2899). Students must have earned at least 40 credit hours prior to taking the course and must take the course for graduation. The course will assess student achievement of specific AA program goals.

### Concentration/Elective (12-25 credit hours)

Must include THE 1111, 1112, 2210, 2220 and THE 1151 (taken each semester for 4 total credit hours) and THE 2241 and 2242.

### 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 four courses with significant international content. Courses meeting the requirement are identified in the College catalog. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

### Advanced Courses

In addition to the Capstone Seminar, all students pursuing an AA degree are required to complete at least 6 credit hours in courses numbered 2000 or higher. These classes will typically be in the Concentration/Elective area, but may also fulfill requirements in Areas 2 - 6 above.

Total Credit Hours 70\*

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

## Theatre Arts Certificates

### Arts Administration Departmental Certificate

The Arts Administration Certificate is designed to prepare students for entry-level positions in arts administration. General education courses in theatre, as well as arts administration, acting, and stagecraft provide a broad overview of the arts. Accounting, marketing, and management courses will give the students the business background they need to succeed in arts management. Many of the courses needed for this certificate overlap those required in Management and/or Theatre Arts, so students can apply many of the following classes to the requirements for those programs.

<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
<b>Fall</b>		
THE 1111	Stagecraft I	3
THE 2241	Theatre History I	or
THE 2242	Theatre History II	3
THE 2201	Acting I	3
ACC 1000	Accounting Concepts	3
MGT 1120	Principles of Management	3
<b>Spring</b>		
THE 1130	Theatre Appreciation	3
THE 2235	Stage Management	3
ACC 1100	Introduction to Financial Accounting	4
MGT 1060	Organizational Behavior	3
MKT 2000	Marketing Management	3
	Total Credit Hours	31

\* Humanities elective meeting Global Awareness requirement.



# Course Descriptions

## **(ACC) Accounting**

### **ACC 1000 Accounting Concepts (3)**

Contact hours (3 total): 3 lecture  
Survey of financial accounting for nonaccounting majors. 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 or Accuplacer math score of 35 or greater  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring

### **ACC 1100 Introduction to Financial Accounting (4)**

Contact hours (5 total): 3 lecture, 2 lab  
Fundamental accounting concepts, terms, and procedures. Emphasis on analyzing, classifying, and recording accounting data.  
Prerequisite(s): CPE 0200 and Accuplacer math score of 35 or greater  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **ACC 1200 Managerial Accounting (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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)**

Contact hours (2 total): 2 lecture  
Practical application of payroll tax laws and requirements. Use of manual and computerized systems; payroll registers, tax returns, and deposit coupons.  
Prerequisite(s): ACC 1000 or ACC 1100  
Terms Offered: Fall, Spring

### **ACC 1400 Computerized Accounting (3)**

Contact hours (3 total): 3 lecture  
Integrated accounting systems applications. Maintaining accounting records, financial statement generation using accounting software. Study of both service and merchandising businesses. Microsoft Excel is required software for the course. Students must use a PC. Software is not compatible with MAC computers.  
Prerequisite(s): ACC 1100  
Terms Offered: Spring

### **ACC 2000 Spreadsheet Accounting (3)**

Contact hours (3 total): 3 lecture  
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, Spring

### **ACC 2100 Intermediate Accounting I (4)**

Contact hours (4 total): 4 lecture  
Conceptual framework, standard-setting concepts and principles of both US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), balance sheet, income statement, statement of shareholders' equity, statement of cash flows, and disclosures.  
Prerequisite(s): ACC 1100  
Terms Offered: Fall

### **ACC 2200 Intermediate Accounting II (4)**

Contact hours (4 total): 4 lecture  
US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) applied to fixed assets, intangibles, investments, liabilities, income taxes, stockholders' equity, and statement of cash flows.  
Prerequisite(s): ACC 2100  
Terms Offered: Spring

### **ACC 2300 Cost Accounting (3)**

Contact hours (3 total): 3 lecture  
Cost accounting principles including job order cost, process cost, and standard cost accounting. Variance analysis and budgeting also covered.  
Prerequisite(s): ACC 1200 and ITS 1235  
Terms Offered: Spring

### **ACC 2400 Tax Accounting (4)**

Contact hours (4 total): 4 lecture  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall

## **(AGR) Agriculture**

### **AGR 1100 Ag Survey and Professional Development (4)**

Contact hours (4.5 total): 3.5 lecture, 1 lab  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$10.00  
Terms Offered: Fall, Spring

### **AGR 1250 Animal Agriculture (3)**

Contact hours (3 total): 3 lecture  
Animal science focusing on the economic importance of the animal production industry. Identification of species, breeds, and general production techniques. Feeds, nutrition, animal health, environmental concerns, and facility requirements.



Prerequisite(s): CPE 0100 and CPE 0300  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$10.00  
 Terms Offered: Fall

#### **AGR 1300 Soil Science (4)**

Contact hours (5 total): 3 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$30.00  
 Terms Offered: Fall

#### **AGR 1350 Soil Fertility (4)**

Contact hours (5 total): 3 lecture, 2 lab  
 Principles of soil fertility, plant nutrient requirements, nutrient sources, application methods, and environmental concerns.  
 Prerequisite(s): AGR 1300  
 Lab Fee: \$30.00  
 Terms Offered: Spring

#### **AGR 1400 Turfgrass Science (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$20.00  
 Terms Offered: Fall

#### **AGR 1500 Landscape Design (4)**

Contact hours (6 total): 2 lecture, 4 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$30.00  
 Terms Offered: Spring

#### **AGR 1600 Landscape Maintenance (4)**

Contact hours (5 total): 3 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$30.00  
 Terms Offered: Fall

#### **AGR 1700 Landscape Construction (4)**

Contact hours (5 total): 3 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$30.00  
 Terms Offered: Fall

#### **AGR 1750 Precision Agriculture (3)**

Contact hours (3 total): 3 lecture  
 Introduction to precision agriculture, including history, applications, terminology, platforms, data, software, and associated components. Exploration of precision agriculture career opportunities.  
 Prerequisite(s): CPE 0200 and CPE 0500  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$50.00  
 Terms Offered: Fall

#### **AGR 1800 Welding (4)**

Contact hours (5 total): 3 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$80.00  
 Terms Offered: Spring

#### **AGR 200B Co-op Experience in Ag Business (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.  
 Prerequisite(s): AGR 1100 with a grade C or better and a minimum of 10 technical hours.  
 Instructor Permission Required.  
 Terms Offered: Summer

#### **AGR 200E Co-op Experience in Ag Engineering (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.  
 Prerequisite(s): AGR 1100 with a grade of C or better and a minimum of 10 technical hours.  
 Instructor Permission Required.  
 Terms Offered: Summer

#### **AGR 200G Co-op Experience in Golf Course Ops (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.  
 Prerequisite(s): AGR 1100 with a grade C or better  
 Instructor Permission Required.  
 Terms Offered: Summer

**AGR 200L Co-op Experience in Landscape Design (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.

Prerequisite(s): AGR 1100 with a grade of C or better and a minimum of 10 technical hours

Instructor Permission Required.

Terms Offered: Summer

**AGR 200N Co-op Experience in Nursery Ops (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.

Prerequisite(s): AGR 1100 with a grade of C or better and a minimum of 10 technical hours

Instructor Permission Required.

Terms Offered: Summer

**AGR 200P Co-op Experience in Natural Resources (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.

Prerequisite(s): AGR 1100 with a grade of C or better and a minimum of 10 technical hours

Instructor Permission Required.

Terms Offered: Summer

**AGR 200R Co-op Experience in Precision Agriculture (2)**

Co-op work experience in Precision Agriculture. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.

Prerequisite(s): AGR 1100 with grade C or better and a minimum of 10 technical hours.

Instructor Permission Required.

Terms Offered: Summer

**AGR 200T Co-op Experience in Turf & Landscape (2)**

Co-op work experience in the student program area. Minimum of 300 hours at an agribusiness selected by the student. Work plan and goals development. Oral and written reports.

Prerequisite(s): AGR 1100 with a grade of C or better and a minimum of 10 technical hours

Instructor Permission Required.

Terms Offered: Summer

**AGR 2100 Woody Plant Materials (4)**

Contact hours (5 total): 3 lecture, 2 lab

Identification of trees, shrubs, ground covers, and related woody plant materials commonly used in the green industry.

Prerequisite(s): CPE 0100 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Fall

**AGR 2150 Herbaceous Plant Materials (3)**

Contact hours (4 total): 2 lecture, 2 lab

Identification of annuals, biennials, perennials, bulbs, and monocots used in the green industry.

Prerequisite(s): CPE 0100 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Spring

**AGR 2200 Crop Production (3)**

Contact hours (3 total): 3 lecture

Adoption, utilization, cultural, and management practices of major agricultural field and forage crops. Product quality and commercial standards associated with crops and use of electronic equipment and software in approved management techniques.

Prerequisite(s): ENG 1111

Lab Fee: \$10.00

Terms Offered: Fall

**AGR 2300 Plant Propagation (4)**

Contact hours (5 total): 3 lecture, 2 lab

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Terms Offered: Spring

**AGR 2450 Irrigation Systems (3)**

Contact hours (4 total): 2 lecture, 2 lab

Irrigation system operation and design. Primary emphasis is on turfgrass, golf course, and commercial operations.

Prerequisite(s): ENG 1111 and MTH 1200

Lab Fee: \$20.00

Terms Offered: Spring

**AGR 2500 Advanced Landscape Design (4)**

Contact hours (6 total): 2 lecture, 4 lab

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

Lab Fee: \$30.00

Terms Offered: Spring

**AGR 2600 Plant Pests (4)**

Contact hours (5 total): 3 lecture, 2 lab

Identification of insects, diseases, and weeds important to the green industry. Pest life cycles, types of damage, and natural controls.

Prerequisite(s): CPE 0100 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$30.00

Terms Offered: Fall

**AGR 2650 Integrated Pest Management (4)**

Contact hours (5 total): 3 lecture, 2 lab

Management of pest problems utilizing approved control methods. Use of cultural, biological, 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  
Lab Fee: \$20.00  
Terms Offered: Spring

### **AGR 2700 Ag Business Management (4)**

Contact hours (4 total): 4 lecture  
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  
Lab Fee: \$10.00  
Terms Offered: Fall

### **AGR 2750 Applied GIS for Agriculture (4)**

Contact hours (5 total): 3 lecture, 2 lab  
Collect and analyze agricultural data with geospatial technologies. Utilize precision agriculture software. Create reports and develop prescription/application maps. Apply results to agricultural systems.

Prerequisite(s): AGR 1750 and GST 1500  
Lab Fee: \$50.00  
Terms Offered: Fall

### **AGR 2775 Ag Marketing and Trade (3)**

Contact hours (3 total): 3 lecture  
Fundamental principles, policies, problems, structure, and strategy of agricultural marketing and international trade. Development of a marketing plan. Implications of world trade and political aspects of world food production.

Prerequisite(s): AGR 2700  
Pre/Corequisite(s): ENG 1111  
Terms Offered: Spring

### **AGR 2800 Equipment Management, Maintenance & Repair (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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 1111 and MTH 1200  
Lab Fee: \$50.00  
Terms Offered: Spring

### **AGR 2850 Agricultural Capstone Seminar (3)**

Contact hours (3 total): 3 lecture  
Application of knowledge and skills. 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, AGR 1350, AGR 2700  
Lab Fee: \$10.00  
Terms Offered: Spring

## **(ART) Art**

### **ART 1001 Art History I (3)**

Contact hours (3 total): 3 lecture  
Survey of visual art from prehistoric times through the early Renaissance era.

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall

ART 1002 Art History II (3)

Contact hours (3 total): 3 lecture

Survey of visual art and architecture from the early Renaissance era to the Modern period.

Pre/Corequisite(s): ENG 1111

Terms Offered: Spring, Summer

### **ART 1111 Drawing I (3)**

Contact hours (4 total): 2 lecture, 2 lab

Line value, shape, and color in developing visual drawing skills. Two- and three-dimensional problems.

Study of location of forms in space, their proportion and structure with light and shade as well as perspective.

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. Line, value, shape, and color in developing visual drawing skills. Introduction to figure drawing.

Lab Fee: \$25.00

Terms Offered: Fall

### **ART 1121 Drawing II (3)**

Contact hours (4 total): 2 lecture, 2 lab

Interpretation of figure using wet/dry media, black and white, and complex color. For both fine and graphic design artists. Explores use of line value and shape and color in developing visual drawing skills. Two- and three-dimensional problems are given. Study of location of forms in space, their proportion and structure with light and shade as well as perspective. Representational and contemporary problems with complex composition arrangements, wet/dry media, and simple color drawing to develop visual skills. Still life, landscape, and introduction to some figure work. Explores the use of line, value, shape, and color in developing visual drawing skills.

Prerequisite(s): ART 1111

Lab Fee: \$80.00

Terms Offered: Spring

### **ART 1300 Appreciation of the Arts (3)**

Contact hours (3 total): 3 lecture

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): none

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring, Summer

## **(ASL) American Sign Language**

### **ASL 1111 Beginning American Sign Language, Course I (3)**

Contact hours (3 total): 3 lecture

Integration of Interpersonal, Interpretive, and Presentational Modes of Communication. Accomplish real-world communicative tasks in culturally appropriate ways while gaining familiarity with products, practices, and perspectives of American Deaf Culture. Use of grammar, vocabulary, structures, and spatial orientation to enable functional performance goals and to build a foundation for continued language learning. Generally perform in the Novice range on the American Council of Teachers of Foreign Languages (ACTFL) Performance Scale. College-level textbook/materials required.

Prerequisite(s): CPE 0100 and CPE 0300

Pre/Corequisite(s): ENG 1111

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall

### **ASL 1112 Beginning American Sign Language, Course II (3)**

Contact hours (3 total): 3 lecture

Integration of Interpersonal, Interpretive, and Presentational Modes of Communication. Accomplish real-world communicative tasks in culturally appropriate ways while gaining familiarity with products, practices, and perspectives of American Deaf Culture. Use of grammar, vocabulary, structures, and spatial orientation to meet functional performance goals and build a foundation for continued language learning. Perform better and stronger in the Novice range on the American Council of Teachers of Foreign Languages (ACTFL) Performance Scale. Some abilities emerge in the Intermediate range. College-level textbook/materials required.

Prerequisite(s): ASL 1111 (ASL 1111 or equivalent course with a C or higher or demonstrated proficiency in indicated area of study)

Pre/Corequisite(s): ENG 1111

Instructor Permission Required.

Global Awareness.

Terms Offered: Spring

## **(ATI) Advanced Technical Intelligence**

### **ATI 1100 Introduction to the Intelligence Community (3)**

Contact hours (4 total): 2 lecture, 2 lab

Overview of the Intelligence Community (IC). Origin and purpose of the IC, its current structure, and the diverse roles and missions of its members.

The intelligence cycle. Process used for creating intelligence. US citizenship required.

Prerequisite(s): CPE 0200, CPE 0400, US citizenship, and background check

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Other Fee: \$200.00

Terms Offered: Fall

### **ATI 1200 Fundamentals of Remote Sensing in Intelligence (3)**

Contact hours (4 total): 2 lecture, 2 lab

Science, technology, and applications of remote sensing and related information from materials, science, physics, optics, electronics, computer processing, and other disciplines. Phenomenology and practice of remote sensing for problem solving. Development of advanced technical intelligence work force skills.

Prerequisite(s): CPE 0200, CPE 0400, CPE 0700, US citizenship, and background check

Pre/Corequisite(s): ATI 1100 and ENG 1111

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Other Fee: \$200.00

Terms Offered: Fall

### **ATI 2100 Introduction to Spectral Sensing with Applications in Intelligence (3)**

Contact hours (4 total): 2 lecture, 2 lab

Concepts of spectral remote sensing as they are applied to military / intelligence applications with special emphasis on commercial sensors and solutions. Concrete knowledge of available unclassified spectral instruments. Basic spectral phenomenology, the spectral signature, sensor analysis, data products, and data fusion.

Prerequisite(s): ATI 1100, ATI 1200, and US citizenship

Other Fee: \$200.00

Terms Offered: Spring

### **ATI 2101 Introduction to Intelligence (4)**

Contact hours (4 total): 4 lecture

Overview of the Intelligence Community (IC). Origin and purpose of the IC, its current structure, and the diverse roles and missions of its members. The intelligence cycle. Process used for creating intelligence. Critical thinking and structured analysis. Briefing for the IC. Writing for the IC. Special topics in Human Intelligence (HUMINT), Open Source Intelligence (OSINT), Geospatial Intelligence (GEOINT), and Measurement and Signature Intelligence (MASINT). US citizenship required.

Prerequisite(s): CPE 0200, CPE 0400, and U.S. Citizenship and background check.

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Other Fee: \$200.00

Terms Offered: Spring

### **ATI 2102 Fundamentals of Remote Sensing in Intelligence (4)**

Contact hours (4 total): 4 lecture

Science, technology, and applications of remote sensing and related information from materials, science, physics, optics, electronics, computer processing, and other disciplines. Phenomenology and practice of remote sensing for problem solving. Multispectral/hyperspectral imaging: Concepts of spectral remote sensing as they are applied to military/intelligence applications with special emphasis on commercial sensors and solutions.

Concrete knowledge of available unclassified spectral instruments. Basic spectral phenomenology, the spectral signature, sensor analysis, data products, and

data fusion. Special topics in Geospatial Intelligence (GEOINT) and Measurement and Signature Intelligence (MASINT).

Prerequisite(s): CPE 0200, CPE 0400, CPE 0700, and U.S. Citizenship and background check.

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Other Fee: \$200.00

Terms Offered: Spring

### **ATI 2200 Introduction to Radar (3)**

Contact hours (4 total): 2 lecture, 2 lab

Concepts of practical application of radar phenomenology and technology needed to achieve the performance seen in modern radar. Capabilities and limitations of radar, the performance and implementation of its critical sub-systems, and the requirements particular radars must meet in order to perform common Measurement and Signature Intelligence (MASINT) and Advanced Geospatial Intelligence (AGI) missions, e.g., Synthetic Aperture Radar (SAR), Line of Sight, and Over the Horizon (OTHR). Understand radar and exploit its use in a variety of potential intelligence tasks. Predict the expected performance of a radar system.

Prerequisite(s): ATI 1100, ATI 1200, MTH 1280, and US citizenship

Pre/Corequisite(s): MTH 1340 or MTH 1200 or MTH 1115

Other Fee: \$200.00

Terms Offered: Spring

### **ATI 2201 Introduction to Radar and Synthetic Aperture Radar (4)**

Contact hours (4 total): 4 lecture

Concepts of practical application of radar phenomenology and technology needed to achieve the performance seen in modern radar. Capabilities and limitations of radar, the performance and implementation of its critical sub-systems, and the requirements particular radars must meet in order to perform common Measurement and Signature Intelligence (MASINT) and Geospatial Intelligence (GEOINT) missions, e.g., Synthetic Aperture Radar (SAR), Line of Sight, and Over the Horizon (OTHR). Understand radar and exploit its use in a variety of potential intelligence tasks. Predict the expected performance of a radar system. Special topics in GEOINT and MASINT.

Prerequisite(s): ATI 2101, ATI 2102, MTH 1280, and U.S. Citizenship and background check.

Pre/Corequisite(s): MTH 1340, MTH 1200, or MTH 1115

Other Fee: \$200.00

Terms Offered: Summer

### **ATI 2202 Introduction to Large-Area Surveillance (3)**

Contact hours (3 total): 3 lecture

Concepts of electro optical remote sensing of important objects, sometimes rapidly moving, that can appear anywhere in the world without warning for a limited period of time, including missiles and aircraft in powered flight, nuclear and conventional explosions, fires, and other military activity. The unique object signature and sensor characteristics that allow detection of these objects while continuously monitoring large

areas. Special topics in Geospatial Intelligence (GEOINT) and Measurement and Signature Intelligence (MASINT).

Prerequisite(s): ATI 2100, ATI 2200, and U.S. Citizenship and background check.

Other Fee: \$200.00

Terms Offered: Summer

### **ATI 2203 Advanced Technical Intelligence Capstone (1)**

Contact hours (3 total): 3 lab

Application of the science of remote sensing using all sources of technical intelligence to real-world Intelligence problems. Design of collection and analysis plan needed to answer Intelligence tasking. Briefing and writing skills needed to advocate for collection and analysis resources.

Prerequisite(s): U.S. Citizenship and background check.

Corequisite(s): ATI 2101 and ATI 2102

Other Fee: \$100.00

Terms Offered: Summer

### **ATI 2300 Introduction to Large-Area Surveillance (3)**

Contact hours (4 total): 2 lecture, 2 lab

Concepts of electro-optical remote sensing of important objects, sometimes rapidly moving, that can appear anywhere in the world without warning for a limited period of time, including missiles and aircraft in powered flight, nuclear and conventional explosions, fires, and other military activity. The unique object signature and sensor characteristics that allow detection of these objects while continuously monitoring large areas.

Prerequisite(s): ATI 2100, ATI 2200, US citizenship, and Secret clearance

Other Fee: \$200.00

Terms Offered: Summer

### **ATI 2400 Measurement and Signature Intelligence (3)**

Contact hours (4 total): 2 lecture, 2 lab

Overview of Measurement and Signature Intelligence (MASINT) and Advanced Geospatial Intelligence (AGI) disciplines to include the science behind geophysical signatures such as chemical, biological, radiological, and nuclear weapons. MASINT as it relates to seismic and acoustic phenomena, geophysical materials, and radio frequency spectrum. Different technologies used in lethal and non-lethal directed energy weapons. Identify strengths and vulnerabilities of electromagnetic and chemically powered artillery. Application of MASINT/AGI collection and processing techniques and capabilities. Develop a collection and analysis plan.

Prerequisite(s): ATI 2100, ATI 2200, US citizenship, and Secret clearance

Pre/Corequisite(s): ATI 2300

Other Fee: \$200.00

Terms Offered: Summer

### **ATI 2601 Wide Area Airborne Surveillance (3)**

Contact hours (5 total): 2 lecture, 3 lab

Wide Area Airborne Surveillance (WAAS). Civil and military applications. Investigative process and legal factors. Event location and WAAS imagery. Technical aspects of surveillance. WAAS analysis software and techniques. Verification of previously analyzed data. Management of WAAS data exploitation. Development and delivery of high-level briefings.

Prerequisite(s): 12 college-level credits  
Other Fee: \$200.00  
Terms Offered: Fall, Spring, Summer

## **(AVN) Aviation**

### **AVN 1001 Private Pilot Ground (3)**

Contact hours (3 total): 3 lecture  
Conduct flight training in a single engine land airplane. Preparation for compute-based private pilot knowledge test. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): Students must have a High School Diploma/GED and be at least 18 years of age  
Other Fee: \$150.00  
Terms Offered: Fall, Spring, Summer

### **AVN 1002 Private Pilot Flight Lab (2)**

Contact hours (4 total): 4 lab  
Aeronautical knowledge and experience. Develop the flight proficiency necessary to meet the requirements for a private pilot certificate. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): (FAA third class medical certificate required.)  
Pre/Corequisite(s): AVN 1001 and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$7765.00  
Terms Offered: Fall, Spring, Summer

### **AVN 1003 Supervised Flight I (2)**

Contact hours (4 total): 4 lab  
Development of cross country flight time requirements for an FAA instrument rating. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): AVN 1001, AVN 1002, or Private Pilot Certificate and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$5040.00  
Terms Offered: Fall, Spring, Summer

### **AVN 1011 Instrument Ground (3)**

Contact hours (3 total): 3 lecture  
Instrument flight rules and procedures, advanced flight planning and navigation, Federal Aviation Regulations, controlled airspace procedures, advanced communications. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): AVN 1001, AVN 1002, or Private Pilot Certificate  
Pre/Corequisite(s): AVN 1003  
Other Fee: \$150.00  
Terms Offered: Fall, Spring

### **AVN 1012 Instrument Flight Lab (1)**

Contact hours (3 total): 3 lab  
Aeronautical knowledge and experience. Develop flight proficiency necessary to meet the requirements for an instrument rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 1001, AVN 1002, or Private Pilot Certificate and Students must have a High School Diploma/GED and be at least 18 years of age  
Pre/Corequisite(s): AVN 1003  
Instructor Permission Required.  
Other Fee: \$8451.00  
Terms Offered: Fall, Spring, Summer

### **AVN 1013 Supervised Flight Lab II (2)**

Contact hours (4 total): 4 lab  
Flight time requirements for a commercial pilot certificate. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): Private Pilot Certificate, AVN 1003, AVN 1012, and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$5040.00  
Terms Offered: Fall, Spring, Summer

### **AVN 1014 Supervised Flight Lab III (2)**

Contact hours (4 total): 4 lab  
Development of flight time requirements for the commercial pilot certificate. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): AVN 1003, AVN 1013, Private Pilot Certificate, and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$5040.00  
Terms Offered: Fall, Spring, Summer

### **AVN 2001 Commercial Ground (3)**

Contact hours (3 total): 3 lecture  
Aeronautical knowledge necessary to conduct commercial pilot operations. Necessary aeronautical knowledge to pass the computer-based commercial pilot knowledge test. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): (Private Pilot Certificate) and AVN 1014 and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$150.00  
Terms Offered: Fall, Spring, Summer

### **AVN 2002 Commercial Flight Lab (1)**

Contact hours (2 total): 2 lab  
Aeronautical knowledge and experience necessary to meet the requirements of the commercial pilot certificate. Students must have a High School Diploma/GED and be at least 18 years of age.  
Prerequisite(s): AVN 1014, Private Pilot Certificate Instrument Rating, and Students must have a High School Diploma/GED and be at least 18 years of age  
Instructor Permission Required.  
Other Fee: \$3987.00  
Terms Offered: Fall, Spring, Summer

### **AVN 2011 Certified Flight Instructor Ground (2)**

Contact hours (2.5 total): 2.5 lecture  
Aeronautical knowledge required to conduct flight training as a certified flight instructor (CFI). Necessary aeronautical knowledge to pass the computer-based fundamentals of instructing (FOI), and the certified

flight instructor knowledge test. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2002 and Students must have a High School Diploma/GED and be at least 18 years of age

Instructor Permission Required.

Other Fee: \$300.00

Terms Offered: Fall, Spring, Summer

### **AVN 2012 Certified Flight Instructor Flight Lab (0)**

Contact hours (1.5 total): 1.5 lab

Aeronautical knowledge and experience necessary to meet the requirements of the certified flight instructor rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2002 and Students must have a High School Diploma/GED and be at least 18 years of age

Instructor Permission Required.

Other Fee: \$6503.00

Terms Offered: Fall, Spring, Summer

### **AVN 2021 Certified Flight Instructor Instrument Ground (2)**

Contact hours (2.5 total): 2.5 lecture

Aeronautical knowledge required to conduct flight training as a certified instrument flight instructor (CFII). Aeronautical knowledge to pass the computer-based certified flight instructor instrument knowledge test. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2012 and Students must have a High School Diploma/GED and be at least 18 years of age

Instructor Permission Required.

Other Fee: \$150.00

Terms Offered: Fall, Spring, Summer

### **AVN 2022 Certified Flight Instructor Instrument Flight Lab (0)**

Contact hours (1 total): 1 lab

Aeronautical skills and experience necessary to meet the requirements of the certified flight instructor instrument rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2021 and Students must have a High School Diploma/GED and be at least 18 years of age

Other Fee: \$3665.00

Terms Offered: Fall, Spring, Summer

### **AVN 2031 Multi-Engine Ground (2)**

Contact hours (2 total): 2 lecture

Aeronautical knowledge necessary to meet the requirements of the multi-engine commercial rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2002 and Students must have a High School Diploma/GED and be at least 18 years of age

Other Fee: \$150.00

Terms Offered: Fall, Spring, Summer

### **AVN 2032 Multi-Engine Commercial Flight Lab (0)**

Contact hours (1 total): 1 lab

Aeronautical skills and experience necessary to meet the requirements of the multi-engine commercial rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): Students must have a High School Diploma/GED and be at least 18 years of age

Pre/Corequisite(s): AVN 2031

Other Fee: \$6742.00

Terms Offered: Fall, Summer

### **AVN 2042 Multi-Engine Flight Instructor Flight Lab (0)**

Contact hours (0.66 total): 0.66 lab

Aeronautical skills and experience necessary to meet the requirements of the multi-engine instructor rating. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): AVN 2022 and Students must have a High School Diploma/GED and be at least 18 years of age

Other Fee: \$9216.00

Terms Offered: Fall, Spring, Summer

### **AVN 2101 Commercial Pilot Ground PH I (2)**

Contact hours (3 total): 3 lecture

Aeronautical knowledge necessary to conduct commercial pilot operations. Necessary aeronautical knowledge to pass the computer-based commercial pilot knowledge test. This is phase one of a two-phase program. You must complete AVN 2103 (Commercial Ground PH II) to earn all required ground instruction for the Commercial Pilot Certificate. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): Private Pilot Certificate, Instrument Rating, and Students must have a High School Diploma/GED and be at least 18 years of age

Other Fee: \$0.00

Terms Offered: Summer

### **AVN 2102 Commercial Pilot Flight Lab PH I (2)**

Contact hours (2 total): 2 lab

Aeronautical knowledge and experience necessary to meet the requirements of the Commercial Pilot Certificate. This is phase one of a two-phase program. You must complete AVN 2104 (Commercial Flight Lab PH II) to earn all required flight experience and instruction for the Commercial Pilot Certificate.

Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): Private Pilot Certificate, Instrument Rating, and Students must have a High School Diploma/GED and be at least 18 years of age

Pre/Corequisite(s): AVN 2101

Instructor Permission Required.

Other Fee: \$9265.00

Terms Offered: Summer

### **AVN 2103 Commercial Ground PH II (3)**

Contact hours (3 total): 3 lecture

Aeronautical knowledge necessary to conduct commercial pilot operations. Necessary aeronautical knowledge to pass the computer-based commercial pilot knowledge test. This is phase two of a two-phase

program. You must complete AVN 2101 (Commercial Ground PH I) to earn all required ground instruction for the Commercial Pilot Certificate. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): Private Pilot Certificate, Instrument Rating, and Students must have a High School Diploma/GED and be at least 18 years of age and AVN 2101  
Other Fee: \$150.00  
Terms Offered: Fall

### **AVN 2104 Commercial Flight Lab PH II (2)**

Contact hours (2 total): 2 lab

Aeronautical knowledge and experience necessary to meet the requirements of the Commercial Pilot Certificate. This is phase two of a two-phase program. You must complete AVN 2102 (Commercial Flight Lab PH I) to earn all required flight experience and instruction for the Commercial Pilot Certificate. Students must have a High School Diploma/GED and be at least 18 years of age.

Prerequisite(s): Private Pilot Certificate, Instrument Rating, and Students must have a High School Diploma/GED and be at least 18 years of age and AVN 2101 and AVN 2102

Pre/Corequisite(s): AVN 2103  
Instructor Permission Required.  
Other Fee: \$9265.00  
Terms Offered: Fall

## **(BIO) Biology**

### **BIO 1101 Fundamentals of Human Biology (4)**

Contact hours (5 total): 3 lecture, 2 lab

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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$85.00  
Terms Offered: Fall, Spring, Summer

### **BIO 1105 Fundamentals of Anatomy and Physiology (3)**

Contact hours (3 total): 3 lecture

Survey of the structure and function of the human body; special emphasis on the major body systems.

Prerequisite(s): CPE 0200 and CPE 0300  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **BIO 1119 Muscle Anatomy and Biomechanics (3)**

Contact hours (5.67 total): 1.67 lecture, 4 lab

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. Classroom component online.  
Prerequisite(s): PHY 1100, high school physics with C or better in last 5 years, or ATC

Pre/Corequisite(s): MST 1105, BIO 2121, ENG 1111, PTA 1110 or PTA 1112, and PTA 1120 or PTA 1122

Instructor Permission Required.

Lab Fee: \$75.00

Terms Offered: Fall

### **BIO 1131 Microbiology (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Study of infectious diseases of the body. Emphasis on the causes and effects of bacteria, fungi, virus, and parasites to health. Classroom component offered online and onsite.

Prerequisite(s): CPE 0200 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

### **BIO 1410 Fundamentals of Biology (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$60.00

Terms Offered: Fall, Spring

### **BIO 1420 Global Biology (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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; and mechanisms of evolution and biological aspects of current environmental issues.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Global Awareness.

Lab Fee: \$70.00

Terms Offered: Spring

### **BIO 1510 Biology I (5)**

Contact hours (7 total): 4 lecture, 3 lab

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$85.00

Terms Offered: Fall

### **BIO 1520 Biology II (5)**

Contact hours (7 total): 4 lecture, 3 lab

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 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement. Lab Fee: \$85.00  
Terms Offered: Spring

### **BIO 2121 Anatomy and Physiology I (4)**

Contact hours (5 total): 3 lecture, 2 lab  
Human cells, tissues, skin, bones, muscles, nervous system cells; central, peripheral, and autonomic nervous systems; special senses; endocrine system. Prerequisite(s): High school biology and chemistry within 5 years with a C or better, BIO 1410 with a C or better within 5 years, or currently practicing LPN or paramedic  
Lab Fee: \$35.00  
Terms Offered: Fall, Spring, Summer

### **BIO 2122 Anatomy and Physiology II (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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  
Lab Fee: \$35.00  
Terms Offered: Fall, Spring, Summer

### **BIO 2123 Human Cadaver Dissection Lab (1)**

Contact hours (3 total): 3 lab  
Human cadaver lab emphasizing hands-on study for the following areas; regional surface anatomy, compartments, anatomical and physiological relationships, musculoskeletal structures, vasculature, and nerve supply of the extremities. General organ systems will be explored: Cranium, thorax, abdomen, pelvis, and musculature of extremities. Collaborative work. Prerequisite(s): BIO 2121 (with a B or better final grade)  
Pre/Corequisite(s): BIO 2122  
Lab Fee: \$50.00  
Terms Offered: Fall, Spring

## **(CAD) Computer Aided Design**

### **CAD 1101 Computer-Aided Design I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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. Pre/Corequisite(s): ENT 1000, ENT 1050, FYE 1000, FYE 1100, and CPE 0200  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement. Lab Fee: \$20.00  
Terms Offered: Fall, Spring

### **CAD 1102 Computer-Aided Design II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 and ENT 1000  
Lab Fee: \$20.00  
Terms Offered: Spring

### **CAD 1301 Architecture I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Architectural design with the use of CAD. Research, use of space, preliminary design, formal presentation drawings, and design projects. Prerequisite(s): CAD 1101  
Lab Fee: \$15.00  
Terms Offered: Spring

### **CAD 2100 Solid Modeling (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Two-dimensional drafting (2D) and three-dimensional (3D) solid model assemblies. Generating 2D/3D elements, integrating 2D/3D elements, creating orthographic views from solid models, and parametric modeling. Inventor and AutoCAD used. Pre/Corequisite(s): ENT 1000 and ENT 1050  
Lab Fee: \$20.00  
Terms Offered: Fall

### **CAD 2200 Advanced Solid Modeling (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Advanced 3-D modeling techniques. Presentation files, animation, model analysis, piping systems, and assembly models. Prerequisite(s): CAD 2100  
Lab Fee: \$20.00  
Terms Offered: Spring

### **CAD 2302 Architecture II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Emphasis on architectural drawings, electrical, plumbing, and HVAC plans, building codes, cost estimation, and new building materials. Prerequisite(s): CAD 1301  
Instructor Permission Required. Lab Fee: \$20.00  
Terms Offered: Fall

## **(CHM) Chemistry**

### **CHM 1100 Chemistry and Society (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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 and CPE 0500 and CPE 0600 or CPE 0650

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Lab Fee: \$40.00

Terms Offered: Fall, Spring, Summer

#### **CHM 1150 Introduction to General Chemistry (4)**

Contact hours (5 total): 3 lecture, 2 lab

Intensive preparation (equivalent to a year of high school chemistry) for General Chemistry (CHM 1210). 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 and CPE 0600 with C or better or CPE 0650 with C or better and AS majors: CPE 0700

Global Awareness.

Lab Fee: \$65.00

Terms Offered: Fall, Spring, Summer

#### **CHM 1160 Introduction to Organic and Biological Chemistry (4)**

Contact hours (5 total): 3 lecture, 2 lab

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; and CPE 0600

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$70.00

Terms Offered: Fall

#### **CHM 1210 General Chemistry I (5)**

Contact hours (7 total): 4 lecture, 3 lab

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 with grade of C or better, CPE 0400, and CPE 0700

Pre/Corequisite(s): ENG 1111 and MTH 1280

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$85.00

Terms Offered: Fall, Spring

#### **CHM 1220 General Chemistry II (5)**

Contact hours (7 total): 4 lecture, 3 lab

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 with grade of C or better

Pre/Corequisite(s): ENG 1112

Lab Fee: \$85.00

Terms Offered: Spring

### **(COM) Communication**

#### **COM 1110 Interpersonal Communication I (3)**

Contact hours (3 total): 3 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall, Spring, Summer

#### **COM 1120 Public Speaking I (3)**

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): ENG 1111

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **COM 1130 Introduction to Mass Communication (3)**

Contact hours (3 total): 3 lecture

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, Summer

### **COM 1150 Introduction to Communication Theory (3)**

Contact hours (3 total): 3 lecture

Principles and foundational theories in the study of communication. Examination of various theories that attempt to describe, explain, and/or predict human communication behavior. Specific areas of study include: communication process, listening, conflict, gender, public speaking, mass communication, group communication, and intercultural communication.

Prerequisite(s): CPE 0100

Pre/Corequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

### **COM 1170 Small Group Communication (3)**

Contact hours (3 total): 3 lecture

An introduction to the basic terms, principles, and theories of small group communication, examining multi-cultural leadership, roles, goal achievement, conflict, decision making, and problem solving. Development of effective group decision making, leadership skills, emphasizing methods of expressing oneself, and understanding others.

Prerequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring

### **COM 2220 Public Speaking II (3)**

Contact hours (3 total): 3 lecture

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: 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. Participate at the internship placement for a minimum of 10 hours per week per co-op credit earned.

Prerequisite(s): ENG 1112 and 30 semester hours earned  
Instructor Permission Required.

Terms Offered: Fall, Spring, Summer

## **(COR) Corrections**

### **COR 1105 Probation and Parole (3)**

Contact hours (3 total): 3 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Spring

### **COR 1130 Adult/Juvenile Corrections (3)**

Contact hours (3 total): 3 lecture

Facilities, programs, and procedures for detention and incarceration.

Prerequisite(s): CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Spring

### **COR 2285 Corrections Practicum (3)**

Contact hours (2 total): 2 lecture

Field service training (day-time hours). Educational experience through appropriate observation and work assignment in jail and adult correction facilities. 2 hours of lecture/discussion and 7 hours of practicum per week. 105 hours of practicum per semester.

Prerequisite(s): CPE 0200 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Spring

## **(CPE) College Prep Education**

### **CPE 0100 Reading Comprehension I (3)**

Contact hours (3 total): 3 lecture

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 Placement score within CSCC standards)

Pre/Corequisite(s): FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000

Lab Fee: \$10.00

Terms Offered: Fall, Spring, Summer

### **CPE 0200 Reading Comprehension II (3)**

Contact hours (3 total): 3 lecture

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 reading score

Pre/Corequisite(s): FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000

Lab Fee: \$10.00

Terms Offered: Fall, Spring, Summer

### **CPE 0300 Writing Fundamentals I (3)**

Contact hours (3 total): 3 lecture  
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 Placement score within CSCC standards.  
Pre/Corequisite(s): FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000  
Terms Offered: Fall, Spring, Summer

### **CPE 0400 Writing Fundamentals II (3)**

Contact hours (3 total): 3 lecture  
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 or better  
Pre/Corequisite(s): ITS 0810 or equivalent and CPE 0200 and FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **CPE 0500 Pre-Algebra (4)**

Contact hours (4 total): 4 lecture  
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.  
Prerequisite(s): Math Placement score within CSCC standards.  
Pre/Corequisite(s): FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000  
Terms Offered: Fall, Spring, Summer

### **CPE 0600 Algebra I (4)**

Contact hours (4 total): 4 lecture  
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 with a grade of C or better  
Pre/Corequisite(s): FYE 1000, FYE 1100, AGR 1100, ENT 1000, or MGT 1000  
Terms Offered: Fall, Spring, Summer

### **CPE 0650 Algebra for Non-Science, Technology, Engineering and Math Majors (4)**

Contact hours (4 total): 4 lecture  
Solving various application/word problems involving linear equations; operations with polynomials; positive, negative, and fractional exponents; scientific notation; simplifying and rationalizing radicals, and operations with radicals; solving quadratic equations using the

quadratic formula; graphing linear equations; solving linear systems in two variables; introduction to functions and graphing. Institutional credit only.  
Prerequisite(s): CPE 0500 (or Academic Placement Test)  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **CPE 0700 Intermediate Algebra (3)**

Contact hours (3 total): 3 lecture  
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 with a grade of C or better  
Terms Offered: Fall, Spring, Summer

## **(CRJ) Criminal Justice**

### **CRJ 1100 Introduction to Criminal Justice (3)**

Contact hours (3 total): 3 lecture  
Overview of the criminal justice system's history, development, and evolution including subsystems of police, courts, and corrections.  
Prerequisite(s): CPE 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring

### **CRJ 1116 Systems Approach to Computer Technology (3)**

Contact hours (3 total): 3 lecture  
Management of police departments through computer applications, using data base, presentation, and other commercial software.  
Prerequisite(s): CPE 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$75.00  
Terms Offered: Fall, Summer

### **CRJ 1120 Juvenile Procedures (3)**

Contact hours (3 total): 3 lecture  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Spring, Summer

### **CRJ 1123 Patrol Operations (3)**

Contact hours (3 total): 3 lecture  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Spring

**CRJ 1283 Basic Law Enforcement I (8)**

Contact hours (22 total): 1 lecture, 21 lab  
 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): High school diploma or GED, CPE 0200, and CPE 0400  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Instructor Permission Required.  
 Lab Fee: \$1122.00  
 Terms Offered: Spring, Summer

**CRJ 1284 Basic Law Enforcement II (8)**

Contact hours (22 total): 1 lecture, 21 lab  
 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): CRJ 1283  
 Instructor Permission Required.  
 Lab Fee: \$1122.00  
 Terms Offered: Spring, Summer

**CRJ 2201 Police Administration (3)**

Contact hours (3 total): 3 lecture  
 Examination of administrative design, including personnel selection, training, advancement, discipline, and utilization of resources.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall

**CRJ 2216 Community Relations (3)**

Contact hours (3 total): 3 lecture  
 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): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall

**CRJ 2225 Forensic Science (4)**

Contact hours (4 total): 4 lecture  
 Search for, recognition, and preservation of physical evidence found at crime scenes.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Lab Fee: \$15.00  
 Terms Offered: Fall

**CRJ 2228 Criminal Investigation (3)**

Contact hours (3 total): 3 lecture  
 Reconstruction of the sequences of a criminal act, including searching, preserving, and evaluating physical evidence including interviewing witnesses and interrogating suspects.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall, Summer

**CRJ 2235 Social Justice (3)**

Contact hours (3 total): 3 lecture  
 Exploration of job stresses and the social value and ethics of the criminal justice process.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Spring, Summer

**CRJ 2240 Criminal Law (3)**

Contact hours (3 total): 3 lecture  
 Criminal procedures, criminal law, common defense, and prosecutorial processes.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Spring, Summer

**CRJ 2250 Community Resources (3)**

Contact hours (2 total): 2 lecture  
 Community resources available to police officers, such as homeless shelters, detoxification centers, and food pantries. 2 hours of lecture/discussion and 7 hours of practicum per week. 105 total practicum hours per semester.  
 Prerequisite(s): CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall

**CRJ 2260 Constitutional Law (3)**

Contact hours (3 total): 3 lecture  
 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

**CRJ 2280 Practicum (3)**

Contact hours (2 total): 2 lecture  
 Supervised work experience in criminal justice agencies. 2 hour of lecture/discussion and 7 hours of practicum per week. Total 105 hours practicum per semester. First day attendance is mandatory. Agencies will require students to submit to a criminal record check prior to the beginning of this course. Students who have a felony conviction or domestic violence conviction will not be accepted by agencies and should therefore not register for this course.  
 Prerequisite(s): CRJ 1100, CRJ 1120, CRJ 1123, CRJ 2201, CRJ 2216, CRJ 2225, CRJ 2228, CRJ 2250, and CRJ 1116 or ITS 1105  
 Pre/Corequisite(s): CRJ 2235 and CRJ 2240  
 Instructor Permission Required.  
 Terms Offered: Spring

**(CSD) Computer Software Development****CSD 1400 Database Management (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Concepts of database management. Relational databases, database design, normalization. Introduction to SQL (Structured Query Language).

Prerequisite(s): CPE 0200 and CPE 0500 and ITS 1105 or ITS 1245

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$10.00

Terms Offered: Fall, Spring

### **CSD 1500 Programming Fundamentals (3)**

Contact hours (5 total): 1 lecture, 4 lab

Fundamental programming constructs and concepts. Study of variables, constants, looping, strings, flowcharting basics, programming logic, and data validation techniques. Introduction to object-oriented programming. Use of a Windows PC is required.

Prerequisite(s): CPE 0200, CPE 0500, and ITS 0800

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Fall, Spring

### **CSD 2100 Systems Analysis and Design (3)**

Contact hours (4 total): 2 lecture, 2 lab

A structured approach to the analysis and design of computer-based information systems.

Prerequisite(s): CPE 0600, CSD 1400, and CSD 1500

Pre/Corequisite(s): ENG 2211 and MGT 2000

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Spring

### **CSD 2200 JavaScript (3)**

Contact hours (4 total): 2 lecture, 2 lab

Use JavaScript to create interactive web pages.

Prerequisite(s): CSD 1500 and ITS 1500

Lab Fee: \$10.00

Terms Offered: Fall

### **CSD 2510 Python Programming (3)**

Contact hours (4 total): 2 lecture, 2 lab

Python programming language, syntax, and implementation details. Programming concepts and techniques including expressions, strings, files, lists, functions, conditional processing, and iteration.

Prerequisite(s): CSD 1500

Terms Offered: Spring

### **CSD 2520 Java Programming (4)**

Contact hours (6 total): 2 lecture, 4 lab

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Fall

### **CSD 2540 C++ Programming (4)**

Contact hours (6 total): 2 lecture, 4 lab

C++ program structure, language, syntax, and

implementation details. Object-oriented programming language concepts.

Prerequisite(s): CPE 0600 and CSD 1500

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$20.00

Terms Offered: Spring

### **CSD 2600 Mobile Web Application Programming (2)**

Contact hours (3 total): 1 lecture, 2 lab

Use HTML and JavaScript to design and create applications for mobile devices.

Prerequisite(s): CSD 2200

Lab Fee: \$20.00

Terms Offered: Spring

### **CSD 2800 Advanced Topics (3)**

Contact hours (4 total): 2 lecture, 2 lab

Integration of programming, database, and web design. Project analysis, design, and solution implementation. Writing a final report. Presentation preparation and delivery. Weekly class attendance is required.

Prerequisite(s): CSD 1400 and ITS 1500 and CSD 2520 or CSD 2540

Pre/Corequisite(s): ENG 2211

Lab Fee: \$20.00

Terms Offered: Spring

## **(CSE) CyberSecurity**

### **CSE 1110 Introduction to CyberSecurity (3)**

Contact hours (4 total): 2 lecture, 2 lab

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): CPE 0200 and ITS 0800

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$75.00

Terms Offered: Spring

### **CSE 1120 CyberSecurity - Security + (3)**

Contact hours (4 total): 2 lecture, 2 lab

Security baselines, network infrastructure security, web security, cryptography, operations security, and security management. CompTIA Security+ certification objectives.

Pre/Corequisite(s): CSE 1110

Lab Fee: \$75.00

Terms Offered: Spring

### **CSE 2251 CyberSecurity - Security Professional I (3)**

Contact hours (4 total): 2 lecture, 2 lab

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

Lab Fee: \$75.00

Terms Offered: Fall

**CSE 2252 CyberSecurity - Security Professional II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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.  
 Pre/Corequisite(s): CSE 2251  
 Lab Fee: \$75.00  
 Terms Offered: Fall

**CSE 2902 Special Topics (2)**

Contact hours (2 total): 2 lecture  
 Overview of computer security and ethical hacking techniques. Discussion of perimeter defenses, escalation of privileges, intrusion detection, policy creation, social engineering, open source intelligence, incident handling, and log interpretation.  
 Instructor Permission Required.  
 Terms Offered: Summer

**(DAN) Dance****DAN 1100 Beginning Dance (1)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 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)**

Contact hours (3 total): 3 lab  
 Tap dance technique. Coordination, rhythmic variations, and performance skills through a series of tap combinations. Tap shoes required.  
 Terms Offered: Fall

**DAN 1150 Dance Composition (1)**

Contact hours (2 total): 2 lab  
 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.  
 Lab Fee: \$75.00  
 Terms Offered: Spring

**DAN 1160 Dance History (2)**

Contact hours (2 total): 2 lecture  
 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: Spring

**DAN 2215 Pointe Technique I (1)**

Contact hours (2 total): 2 lab  
 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

**(DSL) Diesel Technologies****DSL 1100 Hydraulic Theory and Operation (2)**

Contact hours (4 total): 1 lecture, 3 lab  
 Fundamental theory, application, and operation of mobile hydraulic systems. Hydraulic pumps, valves, control systems, cylinders, and accessories.  
 Lab Fee: \$100.00  
 Terms Offered: Spring

**DSL 1200 Fundamentals of Engines (3)**

Contact hours (7 total): 1 lecture, 6 lab  
 Internal combustion gasoline and diesel engines. Construction of the internal combustion engine, with primary focus on the individual systems. Engine maintenance and service, as well as associated tools, equipment, and procedures.

Pre/Corequisite(s): none  
Lab Fee: \$100.00  
Terms Offered: Spring

### **DSL 1300 Preventative Maintenance (2)**

Contact hours (4 total): 1 lecture, 3 lab  
Preventative maintenance (PM) and standard service procedures of a heavy duty truck. Familiarization with the heavy duty truck market and equipment, shop and material safety, standard shop equipment, basic hand tool usage and care, usage and care of precision measuring instruments, and shop safety precautions. Individual truck systems, their service and preventative maintenance procedures.  
Pre/Corequisite(s): ENT 1000  
Lab Fee: \$100.00  
Terms Offered: Fall, Spring

### **DSL 1500 Heavy Truck Drive Trains (3)**

Contact hours (5 total): 1 lecture, 4 lab  
Examine construction, operation, application, maintenance, and repair of class 6, 7, and 8 truck drive lines. Multi-speed manual transmissions, single and dual reduction differential assemblies, drive shafts, and clutches. Manual shift and auto-shift transmission models.  
Pre/Corequisite(s): none  
Lab Fee: \$100.00  
Terms Offered: Fall

### **DSL 1550 Truck Steering and Suspension (2)**

Contact hours (4 total): 1 lecture, 3 lab  
Highway truck steering systems, suspension systems, and vehicle chassis. Construction, operation, application, service, maintenance, and diagnostics of systems. Laws and regulations governing these areas.  
Prerequisite(s): DSL 1300  
Lab Fee: \$100.00  
Terms Offered: Spring

### **DSL 1600 Basic Electrical (3)**

Contact hours (5 total): 2 lecture, 3 lab  
Principles, operation, and applications of heavy duty truck electrical systems. Testing and diagnostics on batteries, starters, and alternators. Electrical circuit troubleshooting.  
Prerequisite(s): none  
Lab Fee: \$100.00  
Terms Offered: Fall, Summer

### **DSL 1650 Truck Brake Systems (3)**

Contact hours (7 total): 1 lecture, 6 lab  
Medium and heavy duty truck brake systems. Brake system construction, operation, maintenance, and troubleshooting. Anti-lock braking system (ABS) and anti-snaking system (ATC) technology and troubleshooting.  
Prerequisite(s): DSL 1100, DSL 1300, and DSL 1600  
Lab Fee: \$100.00  
Terms Offered: Summer

### **DSL 2300 Advanced Electrical / Electronics (3)**

Contact hours (5 total): 2 lecture, 3 lab  
Electrical/electronic systems except power train systems. Heavy duty truck electrical/electronic

accessory systems. Operation of individual systems, diagnostics, and troubleshooting.  
Prerequisite(s): DSL 1600 and MTH 1115  
Pre/Corequisite(s): ITS 1105  
Lab Fee: \$100.00  
Terms Offered: Fall

### **DSL 2500 Heavy Truck Automatic Transmissions (2)**

Contact hours (4 total): 1 lecture, 3 lab  
Medium and heavy duty truck automatic transmissions and torque converters. Planetary gearing, power flow, hydro-mechanical operation, electronic hydro-mechanical operation, terminology, service, testing, and troubleshooting. On-vehicle testing and troubleshooting.  
Prerequisite(s): DSL 1100, DSL 1300, DSL 1500, and DSL 1600  
Lab Fee: \$100.00  
Terms Offered: Spring

### **DSL 2600 Heavy Truck HVAC (2)**

Contact hours (3 total): 1.5 lecture, 1.5 lab  
Heavy duty truck heating, venting, and air conditioning systems (HVAC); operation, maintenance, service, and diagnostics. Air conditioning certifications through the Mobile Air Conditioning Society (MACS), the Institute of Mobile Air Conditioning (IMAC) or the National Institute of Automotive Service Excellence (ASE).  
Prerequisite(s): DSL 1300 and DSL 1600  
Lab Fee: \$100.00  
Terms Offered: Fall

## **(EBE) Experience Based Education**

### **EBE 1000 Employability Skills (1)**

Contact hours (1 total): 1 lecture  
Life, career, and educational goals; resume and cover letter; research organization; interviewing skills, discussion of professional image; follow-up letter; co-op/internship processes.  
Prerequisite(s): CPE 0200  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring

### **EBE 1100 Prior Learning Portfolio Development (2)**

Contact hours (2 total): 2 lecture  
Development of a portfolio of prior learning experiences to be assessed for credit for college courses. 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. Students enrolled in or having successfully completed EBE 1100 must pay a \$60 assessment fee per course-equivalent portfolio.  
Prerequisite(s): Approval of coordinator. This course is required if seeking more than 4 hours of experiential credit.  
Instructor Permission Required.  
Other Fee: \$60.00  
Terms Offered: Fall, Spring



**EBE 2500 Co-op/Internship Seminar (1)**

Contact hours (1 total): 1 lecture  
 Relate classroom theory and practice to the work environment. Discuss work place experiences. Develop possible solutions to work place issues. Taken concurrently with an internship or co-op experience.  
 Corequisite(s): EBE 2701, EBE 2702, EBE 2703, EBE 2704, EBE 2801, EBE 2802, EBE 2803, or EBE 2804  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring, Summer

**EBE 2601 Internship - Project Based (1)**

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 15 hours (1 hour per week for 15-week term) of on-site, supervised work in addition to a minimum of 2 hours per week of off-site activities required to complete the project.  
 Prerequisite(s): 6 hours of oral and written communication courses, 15 hours of course work relevant to the planned internship experience, Approved placement, Instructor permission, and EBE 1000  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring, Summer

**EBE 2602 Internship - Project Based (2)**

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 (2 hours per week for 15-week term) of on-site, supervised work in addition to a minimum of 4 hours per week of off-site activities required to complete the project.  
 Prerequisite(s): 6 hours of oral and written communication courses, 15 hours of course work relevant to the planned internship experience, Approved placement, Instructor permission, and EBE 1000  
 Terms Offered: Fall, Spring, Summer

**EBE 2603 Internship - Project Based (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 a minimum of 6 hours per week of off-site activities required to complete the project.  
 Prerequisite(s): 6 hours of oral and written communication courses, 15 hours of course work relevant to the planned internship experience, Approved placement, Instructor permission, and EBE 1000  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring, Summer

**EBE 2701 Co-op Education I (1)**

Relating academic studies to the world of work, establishing learning outcomes, 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, establishing learning outcomes, 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, establishing learning outcomes, 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, Summer

**EBE 2704 Co-op Education I (4)**

Relating academic studies to the world of work, establishing learning outcomes, 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, Summer

**EBE 2801 Co-op Education II (1)**

Continuation of valuable work experience. In addition to requirements of Co-op Education I, 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 Co-op Education I, 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 Co-op Education I, 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, Summer

### **EBE 2804 Co-op Education II (4)**

Continuation of valuable work experience. In addition to requirements of Co-op Education I, 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, Summer

## **(ECE) Early Childhood Education**

### **ECE 1101 Professional Development for Educators (1)**

Contact hours (1 total): 1 lecture

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. Criminal background check at approximate cost of \$60 must be obtained prior to course completion.

Prerequisite(s): CPE 0100

Pre/Corequisite(s): CPE 0200 and ECE 1102

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

### **ECE 1102 Child Development and Education (3)**

Contact hours (3 total): 3 lecture

Overview of developmental process in children aged birth through age eight. Theory, stages, and domains of development. Environmental factors, learning styles, and relationships and their impact on development. Strategies for early intervention.

Pre/Corequisite(s): CPE 0200 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Student Liability Fee: \$20.00

Terms Offered: Fall, Spring

### **ECE 1105 Language and Literacy in Education (3)**

Contact hours (3 total): 3 lecture

Language and literacy development 0-8. Foundational theories and practices enhancing language development, beginning reading and writing skills in young children. Study of children's literature, connecting language, phonemic awareness, and literacy activities to quality picture book titles, classroom use of different genres. Introduction to American Sign Language (ASL) for classroom use. Observations, methods, practical skills in Language Arts instructional methods and teacher-made materials.

Pre/Corequisite(s): CPE 0200 and ECE 1102

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Terms Offered: Fall

### **ECE 1108 Creative and Motor Development in Early Childhood (3)**

Contact hours (3 total): 3 lecture

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. Observation and resource portfolio.

Pre/Corequisite(s): CPE 0200 and ECE 1102

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$40.00

Terms Offered: Fall

### **ECE 1112 Cognitive Development in Early Childhood (3)**

Contact hours (3 total): 3 lecture

Cognitive development birth through eight. Brain development, foundational cognitive development learning theories, and Ohio Department of Education (ODE) 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.

Prerequisite(s): ENG 1111, CPE 0500, ECE 1102, and ECE 1101

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Terms Offered: Spring

### **ECE 1115 Observation and Assessment in Early Childhood (4)**

Contact hours (4 total): 4 lecture

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, ECE 1101, and CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$40.00

Student Liability Fee: \$20.00

Terms Offered: Spring

### **ECE 2100 Socioemotional Development in Early Childhood (3)**

Contact hours (3 total): 3 lecture

Social and emotional development birth through age 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 children. Observations required.

Prerequisite(s): ECE 1102, ECE 1115, and CPE 0200  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$35.00  
Terms Offered: Fall

### **ECE 2110 Family, Community, Schools (3)**

Contact hours (3 total): 3 lecture  
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.

Prerequisite(s): ECE 1102 and ENG 1111

Pre/Corequisite(s): ENG 1112

Lab Fee: \$35.00

Terms Offered: Spring

### **ECE 2120 Leadership, Management, Mentoring in Early Childhood Education (3)**

Contact hours (3 total): 3 lecture  
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

Lab Fee: \$25.00

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.

150 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.

Lab Fee: \$30.00

Student Liability Fee: \$20.00

Terms Offered: Fall

### **ECE 2133 Early Education Curriculum and Instruction (3)**

Contact hours (3 total): 3 lecture  
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.

Lab Fee: \$35.00

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.

Lab Fee: \$30.00

Student Liability Fee: \$20.00

Terms Offered: Spring

### **ECE 2137 Seminar II (2)**

Contact hours (2 total): 2 lecture  
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.

Lab Fee: \$30.00

Terms Offered: Spring

## **(ECO) Economics**

### **ECO 1100 General Economics (3)**

Contact hours (3 total): 3 lecture  
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)**

Contact hours (3 total): 3 lecture  
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, Summer

### **ECO 2220 Principles of Microeconomics (3)**

Contact hours (3 total): 3 lecture  
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, Summer

## **(EDU) Education**

### **EDU 1110 Introduction to Education (3)**

Contact hours (3 total): 3 lecture  
Purposes, organizations and outcomes of schooling grounded in social foundations of education. Critical inquiry into teaching as a profession, licensure requirements, teacher's legal rights and responsibilities, and accountability of public schools. Examine historical and philosophical foundations, demographic factors, and issues of culturally responsive teaching practice. Requires (4) hours of observation and completion of interviews.  
Pre/Corequisite(s): CPE 0200  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Student Liability Fee: \$25.00  
Lab Fee: \$20.00  
Terms Offered: Fall, Spring

### **EDU 2216 Technology for Educators (3)**

Contact hours (3 total): 3 lecture  
Application of educational technology. Develop classroom communication abilities.  
Prerequisite(s): ITS 0800 and ITS 0810  
Terms Offered: Spring

### **EDU 2217 Individuals with Exceptionalities (3)**

Contact hours (3 total): 3 lecture  
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  
Student Liability Fee: \$30.00  
Lab Fee: \$20.00  
Terms Offered: Spring

## **(EMS) Emergency Medical Services**

### **EMS 1100 EMT Theory & Practice (7)**

Contact hours (10 total): 6 lecture, 4 lab  
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. Clinical/field observations. Successful students eligible to take Ohio's EMT certification testing.  
Prerequisite(s): CPE 0200, CPE 0400, and Pre-Algebra score of 47 (COMPASS) or 77 (ACCUPLACER) or CPE 0500  
Corequisite(s): Criminal background check and EMS 1171  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$150.00  
Student Liability Fee: \$62.00  
Terms Offered: Fall, Spring, Summer

### **EMS 1106 EMT Advanced Theory & Practice I (4)**

Contact hours (6 total): 3 lecture, 3 lab  
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): CPE 0200, CPE 0400, Pre-algebra score of 47 (COMPASS) or 77 (ACCUPLACER) or CPE 0500, and Ohio EMT Basic certification  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$190.00  
Student Liability Fee: \$62.00  
Terms Offered: Fall

### **EMS 1108 EMT Advanced Theory & Practice II (4)**

Contact hours (6 total): 1.5 lecture, 4.5 lab  
Second 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): Ohio EMT Basic certification and EMS 1107

Instructor Permission Required.

Lab Fee: \$100.00

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

Student Liability Fee: \$62.00

Other Fee: \$90.00

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

Terms Offered: Spring

### **EMS 1116 Paramedic Hospital Practice III (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 1114

Terms Offered: Summer

### **EMS 1122 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

Terms Offered: Fall

### **EMS 1124 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 1122

Corequisite(s): EMS 1133

Terms Offered: Spring

### **EMS 1126 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 1124

Terms Offered: Summer

### **EMS 1128 Paramedic Field Practice IV (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.

Pre/Corequisite(s): EMS 1126

Corequisite(s): EMS 1135

Student Liability Fee: \$62.00

Terms Offered: Fall, Summer

### **EMS 1131 Paramedic Theory I (6)**

Contact hours (6 total): 6 lecture

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 0400, and Pre-algebra score of 47 (COMPASS) or 77 (ACCUPLACER) or CPE 0500 and Ohio Basic EMT Certification, BIO 1105, and MST 1105

Corequisite(s): EMS 1112, EMS 1122, and EMS 1141

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

### **EMS 1133 Paramedic Theory II (6)**

Contact hours (6 total): 6 lecture

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

Corequisite(s): EMS 1114, EMS 1124, and EMS 1143

Terms Offered: Spring

### **EMS 1135 Paramedic Theory III (6)**

Contact hours (6 total): 6 lecture

Application of concepts from Paramedic Theory I and II. 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 1133  
Corequisite(s): EMS 1128 and EMS 1145  
Terms Offered: Fall, Summer

#### **EMS 1141 Paramedic Practical Skills Lab I (1.6)**

Contact hours (5 total): 5 lab  
Practical skills lab to support course outcomes and learning objectives of EMS 1131.  
Corequisite(s): EMS 1131  
Lab Fee: \$200.00  
Terms Offered: Fall

#### **EMS 1143 Paramedic Practical Skills Lab II (1.7)**

Contact hours (5 total): 5 lab  
Practical skills lab to support course outcomes and learning objectives of EMS 1133 and previously learned skills.  
Prerequisite(s): EMS 1141  
Corequisite(s): EMS 1133  
Lab Fee: \$200.00  
Terms Offered: Spring

#### **EMS 1145 Paramedic Practical Skills Lab III (1.7)**

Contact hours (5 total): 5 lab  
Practical skills lab to support course outcomes and learning objectives of EMS 1133 and EMS 1135 and previously learned skills.  
Prerequisite(s): EMS 1143  
Corequisite(s): EMS 1135  
Lab Fee: \$200.00  
Terms Offered: Fall, Summer

#### **EMS 1171 Basic Life Support: CPR (0.5)**

Contact hours (0.5 total): 0.5 lecture  
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  
Terms Offered: Fall, Spring, Summer

#### **EMS 2210 Community Paramedic (4)**

Contact hours (4 total): 4 lecture  
Survey of the role and function of the Community Paramedic (CP) as a member of the healthcare team functioning in the community under Ohio's paramedic scope of practice. Role of the CP as an advocate for clients in the community. Mapping of community healthcare services and determining demographic impact on the health of clients. Assessing patient healthcare needs and appraising healthcare conditions. Documentation of patient/client encounters.  
Prerequisite(s): (The Community Paramedic student must have at least two years experience as a certified paramedic and submit a program recommendation from a physician board-certified in Emergency Medicine.)  
Instructor Permission Required.  
Terms Offered: Fall

#### **EMS 2211 Community Paramedic Clinical (3)**

Contact hours (0.5 total): 0.5 lecture  
Community Paramedic (CP) clinical training under the supervision of a medical director, physician, nurse practitioner, physician's assistant, or public health provider. Determine appropriate health care intervention, provide patient advice and care, and recommend appropriate health and social care referrals.  
Prerequisite(s): EMS 2210  
Student Liability Fee: \$62.00  
Terms Offered: Spring

#### **EMS 2230 Critical Care Paramedic I (4)**

Contact hours (3 total): 3 lecture  
Prepares paramedic to function in the mobile intensive health care setting. Builds on standard paramedic practice and includes instruction in critical care assessment and management including pathophysiology, pharmacology, 12-lead ECG interpretation, interpretation of laboratory values, interpretation of routine diagnostic images, ventilator management, and aortic balloon pump management.  
Prerequisite(s): (Two years certified paramedic experience.)  
Instructor Permission Required.  
Lab Fee: \$150.00  
Student Liability Fee: \$62.00  
Terms Offered: Fall

#### **EMS 2232 Critical Care Paramedic II (4)**

Contact hours (3 total): 3 lecture  
Continued application of concepts and skills from Critical Care Paramedic I. Prepares the paramedic to function in the mobile intensive health care setting. Builds on standard paramedic practice and includes instruction in critical care assessment and management including pathophysiology, pharmacology, 12-lead ECG interpretation, interpretation of laboratory values, interpretation of routine diagnostic images, ventilator management, and aortic balloon pump management.  
Prerequisite(s): EMS 2230  
Instructor Permission Required.  
Terms Offered: Spring

#### **EMS 2288 Paramedic Theory/RNs (5)**

Contact hours (7 total): 4 lecture, 3 lab  
A complete paramedic curriculum, pre-hospital environment, preparatory, trauma, burns, medical emergencies, OBG/GYN neonatal, and behavioral emergencies for the registered nurse with 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.  
Prerequisite(s): RN, ACLS, PHTLS, BTLs, PALS, min 2 yrs critical care, TNCC, Ohio EMT-Basic Certification  
Instructor Permission Required.  
Lab Fee: \$200.00  
Student Liability Fee: \$62.00  
Terms Offered: Spring

## (ENG) English

### ENG 1111 English I (3)

Contact hours (3 total): 3 lecture

Writing and revising process, academic and argumentative essays; literary examples of descriptive, narrative, expository, and persuasive modes; language issues and library skills. Writing intensive. Primary focus on formal, written work, composed for a variety of audiences.

Prerequisite(s): CPE 0300 with a grade of B or better or CPE 0400 with a grade of C or better

Pre/Corequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### ENG 1112 English II (3)

Contact hours (3 total): 3 lecture

Critical thinking. Critical thinking, persuasive writing, research skills, and literary analysis. Writing intensive. Writing a variety of texts, including the researched essay. Opportunities for revision. Minimum of 5000 total words (20 pages). Electronic or other projects of academic rigor and substance considered. Primary focus on formal, written work.

Prerequisite(s): ENG 1111 with a grade of C or higher

Terms Offered: Fall, Spring, Summer

### ENG 1600 Introduction to Literature (3)

Contact hours (3 total): 3 lecture

Critical readings, discussion and analysis of poetry, fiction, and drama.

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Summer

### ENG 2211 Business Communication (3)

Contact hours (3 total): 3 lecture

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. 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, Summer

### ENG 2230 Technical Report Writing (3)

Contact hours (3 total): 3 lecture

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: Summer

### ENG 2250 Creative Writing (3)

Contact hours (3 total): 3 lecture

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)

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall, Spring, Summer

### ENG 2500 American Literature (3)

Contact hours (3 total): 3 lecture

Themes, ideas, and periods in American literature from its beginning through modern times.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Terms Offered: Fall

### ENG 2610 British Literature to 1800 (3)

Contact hours (3 total): 3 lecture

Survey of the major works and periods of British literature from 700 to 1800.

Prerequisite(s): ENG 1111

Pre/Corequisite(s): ENG 1112

Global Awareness.

Terms Offered: Fall, Summer

### ENG 2620 British Literature from 1800 to the Present (3)

Contact hours (3 total): 3 lecture

Survey of major works, themes ideas, and periods of British literature from 1800 to the present time.

Prerequisite(s): ENG 1111 and ENG 1112

Terms Offered: Spring

## (ENT) Engineering Technology

### ENT 1000 Introduction to Industrial and Engineering Technology (3)

Contact hours (4 total): 2 lecture, 2 lab

Exploration of industrial and engineering technology careers. Introduction to sketching, critical thinking, design, and project management skills. Introduction to campus resources and computer services. Time management, study skills, communication skills.

Using electronic media for information gathering, presentations, communication and data management.

Prerequisite(s): ABLE test scores must meet/exceed the following categories: Reading 46+ | Writing 21+ | PreAlgebra/Math 23+

Lab Fee: \$25.00

Terms Offered: Fall, Spring, Summer

**ENT 1050 Manufacturing Foundations (4)**

Contact hours (6 total): 2 lecture, 4 lab

Instruction in print reading and part visualization from drawings, including sketching multi-view drawings and three-dimensional models, location of key features and dimensioning specifications. Beginning concepts in using precision measurement tools including, but not limited to: scales, calipers, micrometers, dial indicators, coordinate measurement machines. The use of computer interfaces in metrology and basic statistical process control. Topics in lean manufacturing.

Pre/Corequisite(s): ENT 1000 and ABLE test scores must meet/exceed the following categories: Reading 46+ | Writing 21+ | PreAlgebra/Math 23+

Lab Fee: \$25.00

Terms Offered: Fall, Spring

**ENT 1300 Dimensional Metrology (3)**

Contact hours (4 total): 2 lecture, 2 lab

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 and ITS 0800

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$15.00

Terms Offered: Fall, Spring, Summer

**ENT 1310 Computer Numerical Control (CNC) Machine Operator - Turning (3)**

Contact hours (4 total): 2 lecture, 2 lab

Focuses on the Computer Numerical Control (CNC) lathe machine operator, including such tasks as maintaining machines, recording Statistical Process Control (SPC) data, tool identification and set-up, machining processes and quality inspection.

Pre/Corequisite(s): ENT 1000 and ENT 1050

Lab Fee: \$25.00

Terms Offered: Fall, Spring

**ENT 1320 Computer Numerical Control (CNC) Machine Operator - Milling (3)**

Contact hours (4 total): 2 lecture, 2 lab

Focuses on the Computer Numerical Control (CNC) milling machine operator, including such tasks as maintaining machines, recording Statistical Process Control (SPC) data, tool identification and set-up, machining processes and quality inspection.

Pre/Corequisite(s): ENT 1000 and ENT 1050

Lab Fee: \$25.00

Terms Offered: Fall, Spring

**ENT 1330 Fundamentals of Computer Numerical Control (CNC) (3)**

Contact hours (4 total): 2 lecture, 2 lab

An introduction to G and M codes necessary to program Computer Numerical Controlled (CNC) machines with an emphasis on programming and operations of machining and turning centers. Emphasis on tool geometry, tool selection, and the tool library. Instruction in Computer-Aided Manufacturing (CAM) software.

Prerequisite(s): ENT 1310 and ENT 1320

Lab Fee: \$50.00

Terms Offered: Fall, Spring

**ENT 1400 Circuit Analysis (3)**

Contact hours (4 total): 2 lecture, 2 lab

Principals 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

Pre/Corequisite(s): ENT 1100 and MTH 1280

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$25.00

Terms Offered: Fall

**ENT 1410 Introduction to Additive Manufacturing (3)**

Contact hours (4 total): 2 lecture, 2 lab

Principles of the applications of Additive Manufacturing.

Advantages of using Additive Manufacturing over traditional Subtractive Manufacturing processes.

An overview of the most widely used technologies, materials and applications. Create files, select appropriate technology, build settings and parameters, and print complex three-dimensional parts.

Prerequisite(s): CAD 2100

Lab Fee: \$100.00

Terms Offered: Fall, Spring

**ENT 1420 Rapid Prototyping Model Design and Fabrication (3)**

Contact hours (4 total): 2 lecture, 2 lab

Examines the key elements of product development from the concept through design to production.

Provides knowledge of the theory of Rapid Prototyping and enables critical thinking in new product development, process building, sustainability, and innovation theories. Engineering parts inspection and reverse engineering processes employing 3 Dimensional (3D) printing, scanning, and Coordinate Measuring.

Prerequisite(s): ENT 1410

Lab Fee: \$100.00

Terms Offered: Fall, Spring

**ENT 1450 Direct Current (DC) Circuits (3)**

Contact hours (4 total): 2 lecture, 2 lab

Examine series, parallel, and series-parallel circuits.

Apply circuits laws and theorems including Kirchhoff's Law, Thevenin's Theorem, Norton's Theorem, and superposition theorem. Analyze electrical components and determine their role in an electrical circuit.

Discussion of capacitors and inductance.

Pre/Corequisite(s): MTH 1280 and ENT 1000

Lab Fee: \$25.00

Terms Offered: Fall, Spring



**ENT 1460 Alternating Current (AC) Circuits (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Examine Alternating Current (AC) fundamentals including complex numbers, impedance concepts, resonance, transformers, superposition theorem, Thevenin's Theorem, Norton's Theorem, and power transfer theorems.

Prerequisite(s): ENT 1450 and MTH 1340

Lab Fee: \$25.00

Terms Offered: Spring

**ENT 1500 Engineering Materials (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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): ENT 1000 and ENT 1050

Lab Fee: \$20.00

Terms Offered: Spring

**ENT 1510 Fundamentals of Metals (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Structural and mechanical ferrous and non-ferrous materials and alloys and how they compare to other industrial materials.

Prerequisite(s): CPE 0100

Pre/Corequisite(s): CPE 0500

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Instructor Permission Required.

Lab Fee: \$20.00

Terms Offered: Fall, Spring

**ENT 2100 Manufacturing Processes (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 1000 and ENT 1050

Lab Fee: \$40.00

Terms Offered: Fall

**ENT 2200 Statics (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 and MTH 1340

Pre/Corequisite(s): PHY 1501

Lab Fee: \$10.00

Terms Offered: Fall

**ENT 2300 Strength of Materials (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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.

Pre/Corequisite(s): ENT 2200

Lab Fee: \$15.00

Terms Offered: Spring

**ENT 2400 Computer Numerical Control (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Theory and practice of numerical control (NC) and computer numerical control (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

Lab Fee: \$15.00

Terms Offered: Fall, Spring, Summer

**ENT 2500 Digital Switching (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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): ENT 1100 and INT 1500

Pre/Corequisite(s): MTH 1340

Lab Fee: \$15.00

Terms Offered: Spring

**ENT 2600 Engineering Design (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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): ENT 1000 or ENT 1100 and ENT 1050 or ENT 1300

Pre/Corequisite(s): ENT 2100

Lab Fee: \$20.00

Terms Offered: Fall

**ENT 2700 Engineering Technology Project (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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

Lab Fee: \$20.00

Terms Offered: Spring

**(FFC) Fire Fighter Certificate****FFC 1010 Volunteer Firefighter (1)**

Contact hours (2.70 total): 0.20 lecture, 2.5 lab  
Basic firefighter course used by volunteer fire departments. Minimum training, State of Ohio defined as Awareness level only. (SCBA) self contained breathing apparatus, hose streams, fire behavior. (Financial aid is not available for this course.)

Prerequisite(s): CPE 0100 and NIMS 100, 700  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$155.00  
Terms Offered: Fall, Spring, Summer

### **FFC 1020 Firefighter I Transition (5)**

Contact hours (8 total): 3.5 lecture, 4.5 lab  
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. (Financial aid is not available for this course.)  
Prerequisite(s): CPE 0100 and FFC 1010 (valid 36-hour volunteer certification) and NIMS 100, 700  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$254.00  
Terms Offered: Fall, Spring, Summer

### **FFC 1070 Firefighter I (7)**

Contact hours (11 total): 3 lecture, 8 lab  
Expanded initial firefighter training. Basic and intermediate level training in all aspects of firefighting for those beginning a career path as a firefighter. (Financial aid not available for this course.)  
Prerequisite(s): CPE 0100 and NIMS 100, 700  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$125.00  
Terms Offered: Fall, Spring, Summer

### **FFC 2020 Firefighter II (4)**

Contact hours (7 total): 1 lecture, 6 lab  
Instruction in advanced techniques of fire behavior, hazardous material, and rescue. This course meets the National Fire Protection Association (NFPA) 1001 standard for career firefighter with instruction in advanced techniques. (Financial aid not available for this course.)  
Prerequisite(s): FFC 1060 or FFC 1070  
Lab Fee: \$475.00  
Terms Offered: Fall, Spring, Summer

### **FFC 2050 Firefighter I & II (11)**

Contact hours (17.5 total): 4.5 lecture, 13 lab  
Firefighter training program. 260-hour course encompasses all aspects of fire, rescue, hazardous materials, and extrication. Meets all NFPA 1001 standards. (Financial aid is not available for this course.)  
Prerequisite(s): CPE 0100 and NIMS 100, 700  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$325.00  
Terms Offered: Fall, Spring, Summer

### **FFC 2070 PSI (Public Safety Instructor) (3)**

Contact hours (5 total): 2 lecture, 3 lab  
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. (Financial aid is not available for this course.)  
Prerequisite(s): State of Ohio Level II Firefighter Card  
Instructor Permission Required.  
Terms Offered: Fall, Spring

### **FFC 2080 FSI (Fire Safety Inspector) (3)**

Contact hours (5 total): 2 lecture, 3 lab  
Meets the requirements for the fire safety inspector as required by H.B. 590 and (NFPA) National Fire Protection Association 1031. Fundamental knowledge and skills necessary to conduct fire safety inspections. Various codes needed to develop a working knowledge of the inspection process. (Financial aid is not available for this course.)  
Prerequisite(s): Firefighter certification and Other (Check with College's Fire Training Coordinator)  
Instructor Permission Required.  
Terms Offered: Fall, Spring

## **(FRN) French**

### **FRN 1111 French I (3)**

Contact hours (3 total): 3 lecture  
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  
Pre/Corequisite(s): ENG 1111  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Global Awareness.

### **FRN 1112 French II (3)**

Contact hours (3 total): 3 lecture  
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.

### **FRN 2111 FRENCH III (3)**

Grammar review. Reading and discussion of selected texts with practice in speaking and writing the language.  
Prerequisite(s): FRN 1112 with a C or higher, equivalent course at accredited institution, or instructor permission  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall

## (FST) Food Science Technologies

### FST 1100 Introduction to Food Science (3)

Contact hours (4 total): 2 lecture, 2 lab

Fundamental concepts in food science including food processing, food chemistry, human nutrition, food safety, and sanitation. Students will be handling and processing food.

Prerequisite(s): CPE 0200, CPE 0400, CPE 0500, CPE 0300, and must receive a grade of B or higher in CPE 0300

Pre/Corequisite(s): CHM 1150 or CHM 1210

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$50.00

Certification Fee: \$85.00

Terms Offered: Fall

### FST 1200 Introduction to Food Processing (3)

Contact hours (4 total): 2 lecture, 2 lab

Fundamental concepts in food processing, including unit operations, food formulations, identification of major processing equipment, and basic quality assurance techniques.

Prerequisite(s): FST 1100

Pre/Corequisite(s): AGR 1100 and ENG 1111

Lab Fee: \$50.00

Certification Fee: \$90.00

Terms Offered: Spring

### FST 2000 Food Marketing (3)

Contact hours (4 total): 2 lecture, 2 lab

Management of marketing functions in food industry, focusing on stages of research processes including planning, gathering, analyzing, and interpreting data related to food marketing management.

Prerequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

### FST 2300 Hazard Analysis and Critical Control Points (HACCP) (3)

Contact hours (4 total): 2 lecture, 2 lab

Introduction to relationship of Good Manufacturing Practices (GMPs), Sanitation Standard Operating Procedures (SSOPs), the seven principles of Hazard Analysis and Critical Control Points (HACCP), and proper control of physical, chemical, and biological hazards.

Prerequisite(s): FST 1200

Lab Fee: \$50.00

Certification Fee: \$65.00

Terms Offered: Fall

### FST 2400 Food Laws and Regulations (3)

Contact hours (3 total): 3 lecture

Introduction to laws, regulations, history, and policies that govern food regulation in the United States.

Prerequisite(s): FST 2300

Terms Offered: Spring

### FST 2700 Advanced Topics in Food Science (4)

Contact hours (6 total): 2 lecture, 4 lab

Development of strategy and policy, industry analysis of product development, and process implementation. Coordination of food science, food processing, marketing, Hazard Analysis and Critical Control Points (HACCP), and food law and regulation.

Prerequisite(s): FST 2000 and FST 2300

Corequisite(s): FST 2400

Lab Fee: \$50.00

Terms Offered: Spring

## (FYE) First Year Experience

### FYE 1000 College Success & Computer Basics (2)

Contact hours (2 total): 2 lecture

Demonstrate effective studying, note-taking, and test-taking techniques; apply critical thinking skills to coursework and college and career planning; and examine college culture and resources and personal skills and behaviors related to successful academic performance. Recognize and operate basic computer devices, softwares, and applications and the Internet. Prerequisite(s): (Placement in two or more CPE-level courses. CPE 0700 excluded.)

Terms Offered: Fall, Spring, Summer

### FYE 1100 College Success (1)

Contact hours (1 total): 1 lecture

Demonstrate effective studying, note-taking, and test-taking techniques; apply critical thinking skills to coursework and college and career planning; and examine college culture and resources and personal skills and behaviors related to successful academic performance.

Prerequisite(s): (Placement in one or fewer CPE-level courses. CPE 0700 excluded.)

Terms Offered: Fall, Spring, Summer

## (GEN) General Studies

### GEN 1100 College Readiness (1)

Contact hours (1 total): 1 lecture

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.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

## (GEO) Geography

### GEO 1000 Introduction to GIS and Cartography (3)

Contact hours (4 total): 2 lecture, 2 lab

Geographic Information Systems (GIS), their capabilities, uses, and limitations. Basic cartographic concepts including manipulation, analysis, and graphic representation of spatial information. Emphasis on technology of map design principles with GIS and desktop mapping programs.

Prerequisite(s): CPE 0200 and CPE 0500  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Global Awareness.  
Lab Fee: \$50.00  
Terms Offered: Fall, Spring

### **GEO 1100 World Human Geography (3)**

Contact hours (3 total): 3 lecture  
Survey 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, links between culture and politics, culture and religion, economic development, and natural resources; rural and urban settlements and patterns of population growth.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring

### **GEO 2200 World Regional Geography (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

## **(GLG) Geology**

### **GLG 1114 Ohio Field Geology (2)**

Contact hours (3 total): 1 lecture, 2 lab  
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.  
Pre/Corequisite(s): GLG 1130 and GLG 1131  
Instructor Permission Required.  
Lab Fee: \$0.00  
Terms Offered: Spring, Summer

### **GLG 1130 Earth and Space Science (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$45.00  
Terms Offered: Fall, Spring, Summer

### **GLG 1131 Physical Geology (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$45.00  
Terms Offered: Fall, Summer

### **GLG 1132 Historical Geology (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$45.00  
Terms Offered: Spring, Summer

### **GLG 1133 Environmental Geology (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$45.00  
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  
Pre/Corequisite(s): CPE 0500  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$45.00  
Terms Offered: Fall, Spring, Summer

## **(GPH) Graphic Design**

### **GPH 1000 Intro to Graphic Design (4)**

Contact hours (5 total): 3 lecture, 2 lab  
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 Adobe InDesign, Adobe Illustrator, and Adobe Photoshop.  
Lab Fee: \$85.00  
Terms Offered: Fall

**GPH 1110 Digital Illustration I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Use of Adobe Illustrator for technical illustration.  
 Generating professional quality technical drawings and information graphics.  
 Prerequisite(s): GPH 1000 and ART 1111  
 Lab Fee: \$85.00  
 Terms Offered: Spring

**GPH 1112 Typography Seminar (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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.  
 Lab Fee: \$85.00  
 Terms Offered: Spring

**GPH 1201 Electronic Imagery I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Basic to intermediate image editing, including: scanning, retouching, selections, layers, type, and composite imagery. Adobe Photoshop utilized.  
 Lab Fee: \$85.00  
 Terms Offered: Fall, Spring

**GPH 2011 Computer Layout I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 Lab Fee: \$85.00  
 Terms Offered: Fall

**GPH 2012 Computer Layout II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 Lab Fee: \$85.00  
 Terms Offered: Spring

**GPH 2051 Professional Development (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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, GPH 2111, GPH 2202, and GPH 2120  
 Lab Fee: \$150.00  
 Terms Offered: Spring

**GPH 2085 Service Learning Capstone (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Assemble a design studio, creating work for “real-world” clients. Application of principles, theories, and experiences, establishing learning outcomes, preparing related reports.  
 Prerequisite(s): GPH 2011, GPH 2111, GPH 2202, and GPH 2120  
 Lab Fee: \$80.00  
 Terms Offered: Spring

**GPH 2111 Digital Illustration II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 Lab Fee: \$85.00  
 Terms Offered: Fall

**GPH 2120 Logo, Symbol, Corporate I.D. (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 Lab Fee: \$85.00  
 Terms Offered: Fall

**GPH 2202 Electronic Imagery II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Advanced image editing from scanning and retouching images to working with selections, layers, type, and composite imagery. Adobe Photoshop utilized.  
 Prerequisite(s): GPH 1201  
 Lab Fee: \$85.00  
 Terms Offered: Fall

**(GST) Geospatial Technologies****GST 1000 Geospatial Program Orientation (1)**

Contact hours (1.5 total): 0.5 lecture, 1 lab  
 Overview of the Geospatial Technologies Program. Introduction to campus resources and time-management, study, and communication skills.  
 Prerequisite(s): CPE 0200 and CPE 0300  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall

**GST 1300 Introduction to UAS (3)**

Contact hours (3 total): 3 lecture  
 Introduction to Unmanned Aerial Systems (UAS) platforms, their history, commercial applications. Special emphasis in precision agriculture, Federal Aviation Administration (FAA) regulatory framework, data collection, privacy issues, and navigation concepts.  
 Prerequisite(s): CPE 0200  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$25.00  
 Terms Offered: Fall, Spring

### **GST 1400 Georeferencing and Mapping (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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. Metadata creation and editing.  
Prerequisite(s): GEO 1000, ITS 1105, and CPE 0700  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$50.00  
Terms Offered: Spring

### **GST 1500 Remote Sensing (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Collection and processing of aerial data; interpretation of aerial photography data. Map analysis. Current technology and Geographic Information Systems (GIS) relationship highlighted.  
Prerequisite(s): GEO 1000 and CPE 0500  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$100.00  
Terms Offered: Spring

### **GST 2100 Intermediate GIS & Data Management (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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.  
Prerequisite(s): GST 1400  
Pre/Corequisite(s): CSD 1400 and STT 2640  
Lab Fee: \$50.00  
Terms Offered: Fall

### **GST 2350 Programming for GIS (3)**

Contact hours (4.5 total): 1.5 lecture, 3 lab  
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.  
Prerequisite(s): CSD 1500 and GST 2100  
Lab Fee: \$25.00  
Terms Offered: Spring

### **GST 2550 Photogrammetry (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 georeferenced data.  
Prerequisite(s): GST 1500  
Pre/Corequisite(s): STT 2640  
Lab Fee: \$25.00  
Terms Offered: Fall

### **GST 2700 Advanced Topics in Geospatial Technology (4)**

Contact hours (6 total): 2 lecture, 4 lab  
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 1500  
Lab Fee: \$25.00  
Terms Offered: Spring

### **GST 2750 GIS Analysis for Intelligence (3)**

Contact hours (4 total): 2 lecture, 2 lab  
The intelligence process. Use of GIS to solve geospatial problems and shape military and civilian operations.  
Prerequisite(s): GST 2100  
Lab Fee: \$50.00  
Terms Offered: Spring

## **(HRM) Human Resource Management**

### **HRM 1725 Human Resource Management (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): MGT 1060 or MGT 1120  
Terms Offered: Fall, Spring, Summer  
HRM 2300 Training and Development (3)  
Contact hours (3 total): 3 lecture  
Comprehensive study of training and organization development. Includes needs assessment, learning theories, training methods, and evaluation. Application through training program creation and presentation. This is a hybrid course that typically meets the 1, 2, 12, 13, 14 weeks of the semester.  
Pre/Corequisite(s): HRM 1725  
Terms Offered: Fall

### **HRM 2350 Employment Law (3)**

Contact hours (3 total): 3 lecture  
Thorough examination of laws regulating employment relationship, discrimination, and employment environment. Includes legal concepts and forums, laws pertaining to employment benefits, and employment discrimination.  
Pre/Corequisite(s): HRM 1725  
Terms Offered: Fall, Spring

### **HRM 2400 Staffing (3)**

Contact hours (3 total): 3 lecture  
Staffing models, recruitment strategies, legal compliance, equal opportunity laws, assessment methods, selection process, and staffing management. This is a hybrid course that typically meets weeks 1, 13, 14, and 15 of the semester.  
Prerequisite(s): HRM 1725  
Terms Offered: Spring

**HRM 2450 Compensation and Benefits (3)**

Contact hours (3 total): 3 lecture

Broad study of organizational compensation systems, including legal issues, bases for pay, pay structures, executive compensation, and required and discretionary benefits.

Prerequisite(s): HRM 1725

Terms Offered: Spring

**(HST) History****HST 1110 Western Civilization to 1600 (3)**

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall, Spring, Summer

**HST 1120 Western Civilization Since 1600 (3)**

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall, Spring, Summer

**HST 1210 American History to 1865 (3)**

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

**HST 1220 American History Since 1865 (3)**

Contact hours (3 total): 3 lecture

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

Pre/Corequisite(s): CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall, Spring, Summer

**HST 2200 Topics in African American History and Culture (3)**

Contact hours (3 total): 3 lecture

The history of African Americans 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)**

Contact hours (3 total): 3 lecture

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, Summer

**(HVC) Heating, Ventilation, and Cooling****HVC 1015 HVAC-R Fundamentals and Practices (3)**

Contact hours (7 total): 1 lecture, 6 lab

Refrigeration process, changes in state, pressure, temperature, and heat content. Mechanical cycle, absorption refrigeration cycle, systems components, proper selection and use of Heating, Ventilation, Air Conditioning & Refrigeration (HVAC-R) tools and accessories, proper use and testing of electrical components circuits and various electronic instruments. Brazing, soldering, and welding principles including safety, testing brazed joints, oxyacetylene torches, electrical resistance soldering, torch soldering, resistance welding, and plastic fusion welding. Principles of piping and tubing, refrigerant piping materials, copper tubing, and tube sizes for different HVAC-R application.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$100.00

Terms Offered: Fall, Spring

**HVC 1100 Basic Electricity and Motors for HVAC-R (4)**

Contact hours (8 total): 2 lecture, 6 lab

Static electricity, current electricity, direct current, alternating current, power formula, power sources, loads, electrical circuits, control devices and switches, phase shift, power distribution, electric meters, AC induction motors, induction motor principles, capacitor principles, single phase motors, three phase motors, motor protection, start relays, and principles of motor operation. Design and operation of Electronically Commutated Motors (ECM). Electrical HVAC Excellence Certificate preparation.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$25.00

Certification Fee: \$15.00

Terms Offered: Fall

### **HVC 1215 EPA Certifications (2)**

Contact hours (3 total): 1 lecture, 2 lab

EPA mandated educational material in preparation for the EPA 608 and EPA refrigerant exam.

Lab Fee: \$85.00

Certification Fee: \$25.00

Terms Offered: Fall, Spring, Summer

### **HVC 1315 Commercial Refrigeration (2)**

Contact hours (2.5 total): 1.5 lecture, 1 lab

Commercial refrigeration evaporators, condensers, expansion devices, and compressors. Describe special refrigeration components, applications of refrigerant systems. Describe the operation of a commercial ice machine. State special refrigeration applications.

Prerequisite(s): HVC 1015

Lab Fee: \$50.00

Terms Offered: Fall, Spring

### **HVC 1600 Air Conditioning and Refrigeration Systems (1)**

Contact hours (3 total): 3 lab

Air conditioning and refrigeration systems, compressors, evaporators, condensers, metering devices, and refrigerant piping.

Pre/Corequisite(s): HVC 1400

Lab Fee: \$110.00

Terms Offered: Spring

### **HVC 2010 Residential Gas Heating (4)**

Contact hours (8 total): 2 lecture, 6 lab

Combustion, fuel installation, startup, checkout, operation and controls in the HVAC-R industry. Control system components, sensing devices, operators, fuel controls, gas valves, and regulators. Troubleshooting heating systems, gas furnaces, electrical or mechanical problems. Gas Heat, Heating, Ventilation, Air Conditioning (HVAC) Excellence Certificate preparation. Remedial action to place system in operating condition.

Prerequisite(s): HVC 1100

Lab Fee: \$30.00

Certification Fee: \$15.00

Terms Offered: Fall, Spring

### **HVC 2030 Heat Pump Systems (2)**

Contact hours (3 total): 3 lab

History of heat pumps, heat pump cycles, air source systems, water source systems, air-to-water systems, and heat pump efficiency ratings. Troubleshooting of air system problems, refrigeration system problems, problem analysis.

Prerequisite(s): HVC 1015, HVC 1100, and HVC 1315

Lab Fee: \$25.00

Terms Offered: Fall, Spring

### **HVC 2040 Oil and Hydronic Heat (2)**

Contact hours (2.5 total): 1.5 lecture, 1 lab

Oil-fired forced air systems. Types of furnaces, ratings and efficiencies. Oil storage. Primary oil burner controls and oil valves. Oil service: startup, sequence operation, efficiency testing, over-fire draft, smoke testing, efficiency calculations, routine maintenance, and soot management. Troubleshooting oil heating systems.

Air handling units, water chillers used in the Heating, Ventilation, Air Conditioning, Refrigeration (HVAC-R) industry, hydronic heating, boilers and cooling towers.

Prerequisite(s): HVC 1015 and HVC 1100

Lab Fee: \$25.00

Terms Offered: Fall, Spring

### **HVC 2220 Residential Electric Heating (1)**

Contact hours (3 total): 3 lab

Electric furnaces: applications, air handling units, duct heaters, system components, safety, and heating elements. Troubleshooting components of an electric furnace.

Prerequisite(s): HVC 1015 and HVC 1100

Lab Fee: \$25.00

Terms Offered: Fall

### **HVC 2230 Residential Heat Pump Systems (1)**

Contact hours (3 total): 3 lab

History of heat pumps, heat pump cycles, air source systems, water source systems, air-to-water systems, and heat pump efficiency ratings. Troubleshooting of air system problems, refrigeration system problems, problem analysis.

Prerequisite(s): HVC 1000, HVC 1200, HVC 1300, and HVC 1700

Lab Fee: \$25.00

Terms Offered: Fall

### **HVC 2315 Air Conditioning (2)**

Contact hours (4 total): 1 lecture, 3 lab

Air conditioning systems: types of unitary equipment, room air conditioners, construction and installation, performance and operation, controls, dehumidifier units, single package conditioners, horizontal conditioners, vertical conditioners, rooftop conditioners, and desiccant cooling systems. Air handling units: types of air handling units, fan coil units, and central station air handling units. Package unit electrical systems: mixing dampers, mixed air control, face and bypass control, variable air volume control system, multi-zone unit and fans and motors. Central air conditioning: adjusting airflow, determining system capacity, split system conditioners, add-on coils, air cooled condensing units, outdoor installation, refrigerant piping, condensing units and evaporators. Troubleshooting air conditioning systems. Heating, Ventilation, Air Conditioning (HVAC) Excellence certification preparation.

Prerequisite(s): HVC 1015 and HVC 1315

Lab Fee: \$150.00

Certification Fee: \$15.00

Terms Offered: Fall, Spring

### **HVC 2415 Indoor Air Quality and Distribution (3)**

Contact hours (3 total): 3 lecture

Duct system types, extended plenum, air distribution and balancing, and air quality. Zoning, types of zone



dampers, and types of zoning systems. Testing general requirements, report forms, instruments for testing, and balancing the complete system. Refrigeration and residential heating load calculations. Air conditioning, indoor air quality, filters, and humidifiers. Role of the Heating, Ventilation, Air Conditioning (HVAC) technician.

Prerequisite(s): HVC 1015 and HVC 1100

Lab Fee: \$10.00

Terms Offered: Fall, Spring

### **HVC 2700 HVAC-R Job Skills (2)**

Contact hours (4 total): 4 lab

Advanced installation techniques; codes, ordinances, and standards; international residential code; equipment placement; refrigerant charging; oil charging. Customer service and planned maintenance.

Pre/Corequisite(s): HVC 1015, HVC 1100, and HVC 2010

Certification Fee: \$310.00

Terms Offered: Fall, Summer

## **(INS) Insurance**

### **INS 1050 Property and Liability Insurance Principles (3)**

Contact hours (4 total): 2 lecture, 2 lab

Insurance characteristics and purposes. Types of insurance. Underwriting, determining rates, marketing. Insurance company financial performance, risk management, loss exposure, and insurance contracts.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

### **INS 1100 Insurance Claims Handling Principles/Practices (3)**

Contact hours (4 total): 2 lecture, 2 lab

Develop and enhance professionalism and skills in handling property-casualty insurance claims. Investigate cause of loss, liability, and damages. Negotiation and litigation techniques in claim settlements. Ability to recognize insurance fraud and ethical situations.

Prerequisite(s): CPE 0200, CPE 0300, and CPE 0500

Pre/Corequisite(s): INS 1050

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$0.00

Terms Offered: Fall, Spring

### **INS 1115 Customer Service for the Insurance Industry (2)**

Contact hours (2 total): 2 lecture

Develop and enhance professionalism and skills in handling insurance claims. Provide proper customer service to clients and claimants.

Prerequisite(s): CPE 0200 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

### **INS 1200 Software for the Insurance Claims Industry (1)**

Contact hours (2 total): 0.5 lecture, 1.5 lab

Review of computer fundamentals. Use of specialized software for the insurance-claims industry.

Prerequisite(s): CPE 0200 and CPE 0500

Pre/Corequisite(s): INS 1050

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$50.00

Terms Offered: Fall, Spring

### **INS 1325 Property Coverages (3)**

Contact hours (4 total): 2 lecture, 2 lab

Property loss exposure and coverages. Specialized property coverages. Commercial property and business income insurance. Commercial crime and equipment breakdown insurance. Inland, ocean marine, farm, and other specialty coverages.

Prerequisite(s): CPE 0200

Pre/Corequisite(s): INS 1050

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

### **INS 1400 Property Loss Adjusting (5)**

Contact hours (7 total): 3 lecture, 4 lab

Property loss adjusting with special emphasis on persons/property insurance coverage, causes of loss, loss adjusting process and procedures, fraud, residential construction, preparing estimates (cost estimating software), merchandise/time element loss, auto physical damage, and contractor equipment.

Prerequisite(s): CPE 0200, CPE 0300, and CPE 0500

Pre/Corequisite(s): INS 1050

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$0.00

Terms Offered: Fall, Spring

## **(INT) Industrial Technology**

### **INT 1000 OSHA 10-Hour General Safety (1)**

Contact hours (1 total): 1 lecture

Training program for general industry. Provides training for workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in work place settings. (10-Hour General Industry Certificate)

Certification Fee: \$25.00

Terms Offered: Fall, Spring, Summer

### **INT 1050 Blueprint Reading and Schematics (3)**

Contact hours (5 total): 2 lecture, 3 lab

Part visualization from drawings, location of key features, drawing dimensioning methods, geometric dimensioning and tolerancing symbols. Electrical, Heating, Ventilation, Air Conditioning and Refrigeration (HVAC-R), pneumatic and hydraulic, and wiring schematics, symbols, and diagrams. Interpretation of drawing specifications.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$10.00

Terms Offered: Fall, Spring, Summer

**INT 1100 Industrial Safety (3)**

Contact hours (3 total): 3 lecture

An introduction to industrial regulatory safety terminology and requirements. (OSHA general industry 30-hour course)

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Terms Offered: Fall, Spring

**INT 1201 Hydraulics and Pneumatics I (3)**

Contact hours (5 total): 2 lecture, 3 lab

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): AGR 1100 or ENT 1000

Lab Fee: \$20.00

Terms Offered: Fall, Spring, Summer

**INT 1202 Hydraulics and Pneumatics II (3)**

Contact hours (5 total): 2 lecture, 3 lab

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

Lab Fee: \$35.00

Terms Offered: Fall, Spring, Summer

**INT 1300 Electrical Systems (3)**

Contact hours (5 total): 2 lecture, 3 lab

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.

Pre/Corequisite(s): ENT 1000 or ENT 1050

Lab Fee: \$40.00

Terms Offered: Fall, Spring, Summer

**INT 1350 Motor and Motor Controls (3)**

Contact hours (5 total): 2 lecture, 3 lab

Direct and alternating current motors including their performance characteristics and application. Motor control concepts and selection of motors for specific applications. Speed, torque, and power and their effects on motor performance. Industrial mechanical power transmission devices.

Prerequisite(s): INT 1300

Lab Fee: \$40.00

Terms Offered: Fall, Spring, Summer

**INT 1400 Mechanical Maintenance (3)**

Contact hours (5 total): 2 lecture, 3 lab

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): ENT 1000 and ENT 1050

Lab Fee: \$30.00

Terms Offered: Fall, Spring, Summer

**INT 1500 Electronic Systems (3)**

Contact hours (4 total): 2 lecture, 2 lab

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$30.00

Terms Offered: Fall, Spring, Summer

**INT 2200 Hydraulic and Pneumatic Troubleshooting (3)**

Contact hours (7 total): 1 lecture, 6 lab

Location, identification, and correction of various inserted faults in industrial quality electro-hydraulic and electro-pneumatic systems.

Prerequisite(s): INT 1201

Lab Fee: \$40.00

Terms Offered: Fall, Spring, Summer

**INT 2300 Electrical Troubleshooting (3)**

Contact hours (5 total): 2 lecture, 3 lab

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 (CIMS).

Prerequisite(s): INT 1350

Lab Fee: \$35.00

Terms Offered: Fall, Spring, Summer

**INT 2325 Alternating Current/ Direct Current (AC/DC) Servos (3)**

Contact hours (5 total): 2 lecture, 3 lab

Examine Alternating Current (AC) and Direct Current (DC) servomotor drives including silicon controlled rectifier, spindle drives, modulation drives, and vector drives. Troubleshoot AC and DC motors.

Prerequisite(s): INT 1350

Lab Fee: \$25.00

Terms Offered: Fall, Spring, Summer

**INT 2350 Electrical Distribution (3)**

Contact hours (5 total): 2 lecture, 3 lab

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

Lab Fee: \$40.00

Terms Offered: Fall, Spring, Summer

**INT 2400 Industrial Machine Maintenance (3)**

Contact hours (5 total): 2 lecture, 3 lab

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 and INT 1400  
 Lab Fee: \$35.00  
 Terms Offered: Fall, Spring, Summer

### **INT 2500 Programmable Logic Control (3)**

Contact hours (5 total): 2 lecture, 3 lab  
 Programmable Logic Controllers (PLCs). Programming, connecting, and testing PLCs for control of industrial/commercial processes. Interfacing with sensors, using PLCs in a variety of process applications.  
 Prerequisite(s): INT 1300  
 Lab Fee: \$40.00  
 Terms Offered: Fall, Spring, Summer

### **INT 2550 Automated Systems (3)**

Contact hours (5 total): 2 lecture, 3 lab  
 Fixed automation using transfer lines controlled by relay logic and flexible automation using proportional-integral-derivative (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 Computer-Integrated Manufacturing (CIM) System.  
 Prerequisite(s): INT 2500  
 Lab Fee: \$40.00  
 Terms Offered: Fall, Spring, Summer

### **INT 2800 Industrial Technology Projects (3)**

Contact hours (5 total): 2 lecture, 3 lab  
 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): INT 2300  
 Pre/Corequisite(s): ENG 2211 or ENG 1112  
 Lab Fee: \$40.00  
 Terms Offered: Fall, Spring, Summer

## **(ITS) Information Technology Systems**

### **ITS 0800 Computer Fundamentals (1)**

Contact hours (2 total): 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 0810 Keyboarding (1)**

Contact hours (2 total): 2 lab  
 Keyboarding techniques, Fingering techniques, development of speed and accuracy on the keyboard. Office ergonomics and basic electronic file management.

Prerequisite(s): CPE 0200  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 1105 Computer Concepts and Software Applications (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Overview of basic computer concepts, basic word processing, spreadsheets, databases, and presentation graphics using Microsoft Office 2016.  
 Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 1110 Software Applications II (1)**

Contact hours (2 total): 2 lab  
 Prelude to intermediate software applications using word processing, spreadsheet, and database software. Creating and formatting tables and illustrating documents with graphics using Word 2016. Analyzing data using formulas and managing workbook data using Excel 2016. Modifying the database structure and improving queries using Access 2016.  
 Prerequisite(s): ITS 1105  
 Terms Offered: Fall, Spring, Summer

### **ITS 1205 Windows Concepts (1)**

Contact hours (2 total): 0 lecture, 2 lab  
 Familiarization with the mouse and a Graphical User Interface (GUI) operating environment. Major aspects of Microsoft Windows 7 and usage of Microsoft 2016. Knowledge of a personal computer keyboard strongly recommended.  
 Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 1210 Keyboarding/Word Processing (2)**

Contact hours (3 total): 1 lecture, 2 lab  
 Keyboarding techniques. Development of speed and accuracy. Creating and editing documents using packaged word processing software (Word 2016). Strongly recommended for students who have few or no keyboarding skills. Can be used as a substitute for ITS 1215.  
 Prerequisite(s): CPE 0200 and ITS 0800  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 1215 Beginning Word Processing (1)**

Contact hours (2 total): 2 lab  
 Creation and editing of documents using packaged word processing software (Word 2016). 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring, Summer

### **ITS 1216 Intermediate Word Processing (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Intermediate and advanced formatting; automating procedures such as mail-merge and macros; exchanging data between applications. (Word 2016)  
Prerequisite(s): ITS 1215, ITS 1210, or ITS 1110  
Terms Offered: Fall, Spring, Summer

### **ITS 1220 Presentation Graphics (1)**

Contact hours (2 total): 2 lab  
Basic and advanced PowerPoint applications. Creating, formatting, and enhancing presentations using Microsoft 2016.  
Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **ITS 1235 Beginning Spreadsheet (1)**

Contact hours (2 total): 2 lab  
Creation and manipulation of data within an electronic spreadsheet including planning and creating workbooks, using formulas and functions, creating charts, and formatting spreadsheet objects using Microsoft 2016. Students with minimal computer skills will take longer in completing the assigned tasks.  
Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **ITS 1236 Intermediate Spreadsheet (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Spreadsheet manipulation techniques using packaged Excel 2016 software managing files and memory, graphing, database functions, functions, programming, and formulas.  
Prerequisite(s): ITS 1110 or ITS 1235  
Terms Offered: Fall, Spring, Summer

### **ITS 1245 Beginning Database (1)**

Contact hours (2 total): 2 lab  
Database manipulation: creating, updating, and generating reports using packaged Access 2016 software. Keyboarding skills strongly recommended.  
Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer

### **ITS 1246 Intermediate Database (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Intermediate and advanced formatting; automating procedures like mail merge and macros; exchanging data between applications using Microsoft 2016.  
Prerequisite(s): ITS 1245 or ITS 1110  
Terms Offered: Fall, Spring, Summer

### **ITS 1300 Introduction to Computers and Networks (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Computer and Internet basics. Overview of computer hardware, software, and networks.  
Prerequisite(s): CPE 0200, CPE 0400, and ITS 0800  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring

### **ITS 1500 HTML and CSS (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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, CPE 0500, ITS 0800, and ITS 0810  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$20.00  
Terms Offered: Fall, Spring

### **ITS 2500 XML (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Structure and programming techniques of XML (Extensible Markup Language).  
Prerequisite(s): CPE 0600 and ITS 1500  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$10.00  
Terms Offered: Fall

## **(JCR) Judicial Court Reporting**

### **JCR 1001 Realtime Theory I (3)**

Contact hours (5 total): 2 lecture, 3 lab  
Writing, reading, and translating the written and spoken word by means of a National Court Reporters Association (NCRA) approved, conflict-free realtime theory. Emphasis on mastery of beginning machine shorthand principles, speed development of 40 words per minute (wpm) on dictation of familiar material, and rapid and accurate reading of steno notes. Introduction to realtime career opportunities, professional organizations, ethics of the realtime profession, the National Court Reporters Association (NCRA) code of Professional Ethics, certifications, and life-long learning.  
Prerequisite(s): CPE 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$80.00  
Terms Offered: Fall, Spring

### **JCR 1002 Realtime Theory II (3)**

Contact hours (5 total): 2 lecture, 3 lab  
Advanced writing, reading, and translating the written and spoken word by means of a National Court Reporters Association (NCRA) approved, conflict-free realtime theory. Emphasis on mastery of advanced machine shorthand principles, speed development of 60 words (wpm) on dictation of familiar material, and rapid and accurate reading of steno notes.  
Prerequisite(s): CPE 0100, JCR 1001, or IRT 121S  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$80.00  
Terms Offered: Fall, Spring

### **JCR 1003 Realtime Theory Applications (3)**

Contact hours (7 total): 1 lecture, 6 lab  
Application of realtime theory foundation. Emphasis on mastery of brief forms, phrases, basic realtime editing functions, speed development of 60 words per minute

(wpm) on dictation of unfamiliar material, and rapid and accurate reading of steno notes.

Prerequisite(s): JCR 1002 or RCR 1201 or (IRT 121 and IRT 122)

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Spring, Summer

### **JCR 1101 Skill Building I (3)**

Contact hours (7 total): 1 lecture, 6 lab

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 50-100 words per minute (wpm). Monitored realtime transcription of speed dictation tests in each of the areas of dictation completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Prerequisite(s): JCR 1003, RCR 1201, or (IRT 121 and IRT 122)

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

### **JCR 1102 Skill Building II (3)**

Contact hours (7 total): 1 lecture, 6 lab

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 70-120 words per minute (wpm). Introduction to multivoice dictation, use of speaker IDs, and computer-integrated courtroom setup. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of one-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Prerequisite(s): JCR 1101, RCR 1202, or IRT 129S

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

### **JCR 2103 Skill Building III (3)**

Contact hours (7 total): 1 lecture, 6 lab

Application 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 90-160 words per minute (wpm). Development of writing skill in multivoice dictation and use of speaker IDs. Application of computer-integrated courtroom setup knowledge. Monitored transcription of speed dictation tests in each

of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation.

Student analysis of vocabulary, grammar, spelling, and punctuation. Production of two-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Prerequisite(s): JCR 1102, RCR 1202, or IRT 129S

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

### **JCR 2104 Skill building IV (3)**

Contact hours (7 total): 1 lecture, 6 lab

Further application 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 110-180 words per minute (wpm). Application of writing skill in multivoice dictation and use of speaker IDs. Demonstrate knowledge of computer-integrated courtroom setup. Exposure to current events tools. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of three-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Prerequisite(s): JCR 2103, RCR 1203, or IRT 129S

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

### **JCR 2105 Skill Building V (3)**

Contact hours (7 total): 1 lecture, 6 lab

Implementation 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 130-200 words per minute (wpm). Development of writing skill in medical terminology. Execution of writing skill in multivoice dictation and use of speaker IDs. Application of current events tools. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of four-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.

Prerequisite(s): JCR 2104, RCR 2201, or IRT 130S

Instructor Permission Required.

Lab Fee: \$100.00

Terms Offered: Fall, Spring, Summer

**JCR 2106 Skill Building VI (3)**

Contact hours (7 total): 1 lecture, 6 lab  
 Demonstrate quality writing skills, readback and analysis of shorthand notes, proofreading skills, strong practice habits, and knowledge of current events tools. Dictation in literary, jury charge, and two-voice testimony material for development of skill and accuracy in speeds ranging from 150-225 words per minute (wpm), with course completion goal of required graduation speeds at 225 wpm testimony, 200 wpm jury charge, and 180 wpm literary at a minimum of 95 percent accuracy. Application of writing skill in medical terminology, multivoice dictation, and use of speaker IDs. Monitored transcription of speed dictation tests in each of the areas of dictation concentration completed within 70 minutes immediately following recorded dictation. Student analysis of vocabulary, grammar, spelling, and punctuation. Production of five-page unedited realtime transcript of unfamiliar material with accuracy rate of 96 percent. Use of online, computer-aided transcription technology with teacher interaction. Designed for competency-based modular instruction.  
 Prerequisite(s): JCR 2105, RCR 2201, or IRT 130S  
 Instructor Permission Required.  
 Lab Fee: \$100.00  
 Terms Offered: Fall, Spring, Summer

**JCR 2200 Realtime Business Procedures (3)**

Contact hours (5 total): 1 lecture, 4 lab  
 Role of the realtime court reporter in trials, depositions, and administrative hearings with application of the National Court Reporters Association (NCRA) Guidelines for Professional Practice for Court Reporters; overview of transcript preparation and production; development of office management skills; overview of broadcast captioning and Communication Access Realtime Translation (CART) including the psychology of on-air captions, Federal Communications Commission (FCC) regulations, broadcast news production, pre-scripting, the NCRA CART Provider's Manual, NCRA Guidelines for Professional Practice for Captioners and CART Providers, and the Americans with Disabilities Act (ADA); overview of interview process; professional development in dress and conduct; involvement in professional associations and appreciation of continuing education.  
 Prerequisite(s): JCR 1102, RCR 1203, IRT 129S, or MTH 1060  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring

**JCR 2300 CAT Transcript Production (2)**

Contact hours (4 total): 1 lecture, 3 lab  
 Application of principles of transcript editing and production techniques using computer-aided transcription (CAT) software with a focus on CAT terminology, proper scoping and proofreading skills, applying correct grammar rules, dictionary management, parenthetical creation and application, and template file usage in preparation for employment.  
 Prerequisite(s): JCR 2200 and JCR 2103; or RCR 2245 and RCR 2201; or IRT 231 and IRT 130  
 Instructor Permission Required.  
 Terms Offered: Spring, Summer

**JCR 2400 JCR Internship (2)**

Contact hours (6 total): 6 lab  
 Judicial court reporting practice in both the official and freelance areas, with a minimum of 60 writing hours and 15 observation hours under the supervision of a practicing court reporter using machine technology. Dictation in literary, jury charge, and two-voice testimony material for demonstration of required graduation skill speeds of 180 words per minute (wpm) literary, 200 wpm jury charge, and 225 wpm two-voice testimony at a minimum of 95-percent accuracy. Simulated Registered Professional Reporter (RPR) examination. Upon graduation, students should be prepared to pass the National Court Reporters Association's (NCRA) RPR examination.  
 Prerequisite(s): RCR 2201 or IRT 130S  
 Pre/Corequisite(s): JCR 2106  
 Instructor Permission Required.  
 Lab Fee: \$100.00  
 Terms Offered: Fall, Spring, Summer

**JCR 2500 Deaf Culture for Captioners (3)**

Contact hours (3 total): 2 lecture, 1 lab  
 Overview of some aspects of the Deaf, deaf, and hard-of-hearing communities and their social, cultural, and educational experiences, including myths and misconceptions and types of accommodations, introduction to some aspects of 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 Captioners and current Communication Access Realtime Translation (CART) Provider's Manual.  
 Prerequisite(s): JCR 2400 or a court reporting degree from an institution of higher learning and an appropriate placement score, ACT, or SAT score. and an appropriate placement score, ACT, or SAT score.  
 Terms Offered: Fall, Summer

**JCR 2501 Basic Captioning (3)**

Contact hours (3 total): 1 lecture, 2 lab  
 Introduction to captioning/Communication Access Realtime Translation (CART) skills, including a broad-based vocabulary content specific to the captioning/CART environments and the National Court Reporters Association's (NCRA) Code of Professional Ethics, Guidelines for Professional Practice for Broadcast Captioners, Guidelines for Professional CART Providers, CART Provider's Manual, and Recommended Style and Format Guidelines. Setup and maintenance of equipment and application of Computer-aided Transcription (CAT) functions for captioning/CART technologies, including on-site, remote, and legal software applications for text transmission and audio acquisition; obtaining software and system support; use and editing of phonetic translator; guidelines to display captions for broadcast captioning and CART captioning; building, managing, and loading dictionaries for proper translation; pre-scripting to include text preparation, format, and software functions; on-air captioning and finger spelling; necessary prefixes, suffixes, environmental and sound descriptors, number translation, and web site and Internet addresses; and screen setup and display. Build captioning/CART-specific writing endurance.

Prerequisite(s): JCR 2400 or a court reporting degree from an institution of higher learning.  
Instructor Permission Required.  
Lab Fee: \$100.00  
Terms Offered: Fall, Summer

## (LPN) Practical Nursing

### LPN 1101 Nursing Fundamentals (9)

Contact hours (17 total): 5 lecture, 5 lab, 7 clinical  
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. Introduction to IV therapy.  
Prerequisite(s): ENG 1111, BIO 1105, and MST 1105  
Pre/Corequisite(s): PSY 1111, LPN 1201, and LPN 1301  
Instructor Permission Required.  
Lab Fee: \$275.00  
Student Liability Fee: \$20.00  
Terms Offered: Fall, Spring

### LPN 1201 Disease Process and Diet Therapy (4)

Contact hours (4 total): 4 lecture  
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.  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring

### LPN 1301 Pharmacology (3)

Contact hours (3 total): 3 lecture  
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 and IV antibiotic administration. Ohio Board of Nursing laws and rules related to LPN practice and IV therapy.  
Prerequisite(s): BIO 1105, ENG 1111, MST 1105, and CPE 0600  
Pre/Corequisite(s): LPN 1201  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Instructor Permission Required.  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring

### LPN 1401 Nursing Care of Adults (9)

Contact hours (17 total): 5 lecture, 1 lab, 11 clinical  
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  
Lab Fee: \$300.00  
Student Liability Fee: \$20.00  
Terms Offered: Fall, Spring

### LPN 1501 Nursing Care of Women, Infants & Children (5)

Contact hours (7 total): 4 lecture, 2 lab, 1 clinical  
Holistic approach to women's healthcare 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.  
Prerequisite(s): PSY 1111, LPN 1101, LPN 1301, and LPN 1201  
Pre/Corequisite(s): PSY 2223 and LPN 1401  
Lab Fee: \$300.00  
Terms Offered: Fall, Spring, Summer

## (LSC) Logistics and Supply Chain Management

### LSC 1100 Introduction to Supply Chain Management (3)

Contact hours (3 total): 3 lecture  
Basic concepts of logistics, warehousing, transportation, purchasing, inventory management, supplier relationships, strategic sourcing, quality process management, globalization, and customer relationship management  
Terms Offered: Fall

### LSC 2100 Purchasing and Supply Management (3)

Contact hours (3 total): 3 lecture  
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 1060 or MGT 1105 or MGT 1120  
Terms Offered: Spring

### LSC 2220 Logistics and Physical Distribution (3)

Contact hours (3 total): 3 lecture  
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 1060 or MGT 1105 or MGT 1120  
Terms Offered: Fall

### LSC 2270 Operations Management (3)

Contact hours (3 total): 3 lecture  
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

### **LSC 2275 Inventory and Materials Management (3)**

Contact hours (3 total): 3 lecture

Customer-driven process strategies companies use to purchase, make, and deliver products and services successfully. Integration of the processes within a supply-chain framework.

Prerequisite(s): MGT 1120 and MTH 1060

Terms Offered: Summer

## **(MAS) Medical Assisting**

### **MAS 1103 Medical Administrative Office I (2)**

Contact hours (4 total): 1 lecture, 3 lab

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. Ethical and legal issues relevant to the medical office employee.

Prerequisite(s): Acceptance to the Medical Assisting Program

Pre/Corequisite(s): BIO 1105, ENG 1111, MST 1105, and MST 1101

Instructor Permission Required.

Lab Fee: \$40.00

Terms Offered: Fall, Spring

### **MAS 1104 Exam Room Procedures I (2)**

Contact hours (4 total): 1 lecture, 3 lab

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. Specialties of pediatrics, otolaryngology, ophthalmology, orthopedics, and dermatology.

Prerequisite(s): Acceptance to Medical Assisting Program

Pre/Corequisite(s): BIO 1105, ENG 1111, MST 1105, and MST 1101

Instructor Permission Required.

Lab Fee: \$75.00

Terms Offered: Fall, Spring

### **MAS 1105 Medical Administrative Office II (3)**

Contact hours (5 total): 2 lecture, 3 lab

Financial aspects of the office, ICD-9 and CPT coding, managed care, medical insurance, reimbursement procedures, and managing patient accounts.

Professional etiquette and job search skills.

Prerequisite(s): MAS 1103, ENG 1111, BIO 1105, MST 1101, and MST 1105

Instructor Permission Required.

Lab Fee: \$40.00

Terms Offered: Spring, Summer

### **MAS 1106 Exam Room Procedures II (3)**

Contact hours (5 total): 2 lecture, 3 lab

Medication administration and medical office emergencies. Review ECG skills. Specialties of pediatrics, obstetrics and gynecology, otolaryngology, ophthalmology, orthopedics, cardiology, pulmonary medicine, urology, gastroenterology, and dermatology. Prerequisite(s): MAS 1104, CPE 0500, BIO 1105, MST 1101, and MST 1105

Pre/Corequisite(s): MAS 1112

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Instructor Permission Required.

Lab Fee: \$75.00

Terms Offered: Fall, Spring

### **MAS 1112 Pharmacology for the Medical Office (3)**

Contact hours (3 total): 3 lecture

Principles of pharmacology for the medical assistant: sources of drugs, drug classifications, actions, and interactions. Dosage calculations.

Prerequisite(s): BIO 1105, MST 1105, CPE 0500, and Acceptance to Medical Assisting Program

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Instructor Permission Required.

Terms Offered: Spring, Summer

### **MAS 1115 Laboratory Procedures for the Medical Office (2)**

Contact hours (3 total): 1 lecture, 2 lab

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): MST 1160, MST 1161, BIO 1105, and MST 1105

Instructor Permission Required.

Lab Fee: \$75.00

Terms Offered: Fall, Spring

### **MAS 1117 Medical Assisting Directed Practice (2)**

Integration of content and competencies covered in the Medical Assistant certificate program. Two hundred (200) clinical hours.

Prerequisite(s): MST 1171, MST 1160, MST 1161, MAS 1105, MAS 1106, MAS 1112, and MAS 1115

Pre/Corequisite(s): PSY 1111

Corequisite(s): MAS 1118

Instructor Permission Required.

Student Liability Fee: \$20.00

Terms Offered: Spring, Summer

### **MAS 1118 Clinical Perspectives Seminar (1)**

Contact hours (1 total): 1 lecture

Forum for shared learning and problem solving of directed practice experiences.

Prerequisite(s): MST 1171, MST 1160, MST 1161, MAS 1105, MAS 1106, MAS 1112, and MAS 1115

Pre/Corequisite(s): PSY 1111

Corequisite(s): MAS 1117

Instructor Permission Required.

Certification Fee: \$125.00

Terms Offered: Spring, Summer



**MAS 2100 Medical Assisting Certification Review (2)**

Contact hours (2 total): 2 lecture

Preparation for the American Association of Medical Assistants (AAMA) national certification examination. Pre/Corequisite(s): MAS 1105, MAS 1106, MAS 1112, and MAS 1115 or Instructor Permission  
Terms Offered: Fall, Summer

**(MGT) Management****MGT 1000 Management Program Orientation (1)**

Contact hours (1 total): 1 lecture

Exploration of Management technology career fields. Emphasize skills and resources necessary to succeed in personal, academic and career-related pursuits. Introduction to campus resources and computer services. Assessment and development of professional skills, including employability skills, student responsibilities, time management, and study skills. Apply critical thinking skills to coursework and college and career planning.

Prerequisite(s): Placement in one or fewer CPE-level courses, CPE 0700 excluded.

Terms Offered: Fall, Spring, Summer

**MGT 1060 Organizational Behavior (3)**

Contact hours (3 total): 3 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement. Global Awareness.

Terms Offered: Fall, Spring, Summer

**MGT 1100 Personal Finance (3)**

Contact hours (3 total): 3 lecture

Financial decision-making in personal budgeting, credit, insurance, medical care, investment, home ownership, retirement planning, and income taxes

Terms Offered: Fall, Spring

**MGT 1105 Contemporary American Business (2)**

Contact hours (2 total): 2 lecture

Current concepts of American business encompassing social and ethical responsibilities, global markets, government regulation, and taxation. Forms of business, administration, management, organized labor, and other basic business concepts.

Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

**MGT 1115 Customer Relations (2)**

Contact hours (2 total): 2 lecture

Philosophy, purpose, techniques, and principles of management and customer service and relations. Communication skills. Customer-related complaints and customer-relations technologies. Problem-solving skills. Prerequisite(s): CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

**MGT 1120 Principles of Management (3)**

Contact hours (3 total): 3 lecture

Role of the manager in today's global business environment and its impact on organizations and society. Theory and fundamental concepts of management including planning, organization, leadership, and control. Use of the case study method and self-assessment exercises to gain an understanding of personal strengths and weaknesses as they relate to managing effectively. Ethics and social responsibility.

Decision making, power and authority, delegation, leadership, and teamwork. Worldwide business paradigm shifts. Diversity of the workforce.

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall, Spring, Summer

**MGT 2000 Introduction to Project Management (3)**

Contact hours (3 total): 3 lecture

Business, interpersonal, and technical skills required to successfully manage business and system development projects. Project integration. Scope, time, cost, quality, human resource, communications, risk, and procurement management. Microsoft Project software. Use of Windows PC is required.

Prerequisite(s): CPE 0200 and ITS 0800

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$15.00

Terms Offered: Fall, Spring

**MGT 2020 Quality Management (3)**

Contact hours (3 total): 3 lecture

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 or MGT 1105 or MGT 1120

Terms Offered: Fall, Spring

**MGT 2140 Small Business Management (3)**

Contact hours (3 total): 3 lecture

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 MGT 1120)

Terms Offered: Spring

**MGT 2250 Leadership in Organizations (3)**

Contact hours (3 total): 3 lecture  
 Development of leadership skills, integrating personal philosophy, concepts, and practice required to become an effective leader.  
 Pre/Corequisite(s): CPE 0200  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Spring, Summer

**MGT 2255 Community Leadership (4)**

Contact hours (4 total): 4 lecture  
 Development of leadership skills, especially as they relate to community leadership. Credit/No Credit course.  
 Prerequisite(s): Acceptance into Leadership Clark County Community Leadership Academy  
 Instructor Permission Required.  
 Terms Offered: Spring

**MGT 2270 Business Finance (3)**

Contact hours (3 total): 3 lecture  
 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 2450 Data Analytics (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Data mining, analysis, and reporting. Interpretation of results using examples from various industries.  
 Prerequisite(s): CPE 0500 and [AGR 1100 or ITS 1105 or (ITS 1235 and ITS 1245)]  
 Lab Fee: \$20.00  
 Terms Offered: Fall

**MGT 2600 Legal Environment of Business (3)**

Contact hours (3 total): 3 lecture  
 History of the law, law of contracts, agency, sales, and personal property. The law of negotiable instruments, partnership, corporations, and real property.  
 Pre/Corequisite(s): ENG 1112 or ENG 2211  
 Terms Offered: Fall, Spring

**MGT 2650 Negotiation Skills (3)**

Contact hours (3 total): 3 lecture  
 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 1060, MGT 1105, or MGT 1120  
 Terms Offered: Spring

**MGT 2680 Introduction to International Business (3)**

Contact hours (3 total): 3 lecture  
 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 1060, MGT 1105, or MGT 1120  
 Global Awareness.  
 Terms Offered: Spring

**MGT 2800 Business Strategy/Policy Seminar (Capstone) (3)**

Contact hours (3 total): 3 lecture  
 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, MKT 2000, and Students must have a minimum of 45 semester credit hours.  
 Terms Offered: Fall, Spring

**(MKT) Marketing****MKT 2000 Marketing Management (3)**

Contact hours (3 total): 3 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Global Awareness.  
 Terms Offered: Fall, Spring

**MKT 2100 Pricing Strategies (3)**

Contact hours (3 total): 3 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall

**MKT 2150 Product Management (3)**

Contact hours (3 total): 3 lecture  
 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)**

Contact hours (3 total): 3 lecture  
 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 1105 or MGT 1120) and (ITS 1100 or ITS 1105)  
Global Awareness.  
Terms Offered: Fall

### **MKT 2450 Sales and Sales Management (3)**

Contact hours (3 total): 3 lecture  
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 Pre/co-req: AGR 2700  
Terms Offered: Fall

### **MKT 2550 Promotion & IMC Strategies (3)**

Contact hours (3 total): 3 lecture  
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)**

Contact hours (2 total): 2 lecture  
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): CPE 0200, CPE 0400, and CPE 0600  
Corequisite(s): MLT 1125  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall

### **MLT 1125 Medical Laboratory Orientation and Phlebotomy Laboratory (1)**

Contact hours (3 total): 3 lab  
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): CPE 0200, CPE 0400, and CPE 0600  
Corequisite(s): MLT 1120  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$100.00  
Terms Offered: Fall

### **MLT 1130 Basic and Clinical Chemistry (3)**

Contact hours (3 total): 3 lecture  
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): CHM 1150, MLT 1120, and MLT 1125  
Corequisite(s): MLT 1135  
Instructor Permission Required.  
Terms Offered: Spring

### **MLT 1135 Basic and Clinical Chemistry Lab (2)**

Contact hours (6 total): 6 lab  
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): CHM 1150, MLT 1120, and MLT 1125  
Corequisite(s): MLT 1130  
Instructor Permission Required.  
Lab Fee: \$115.00  
Terms Offered: Spring

### **MLT 1140 Medical Microbiology I (2)**

Contact hours (2 total): 2 lecture  
Identification of bacteria by microscope, media, inoculation, biochemical activities, and sensitivity testing. Basic disease processes.  
Prerequisite(s): MLT 1120 and MLT 1125  
Corequisite(s): MLT 1145  
Instructor Permission Required.  
Terms Offered: Spring

### **MLT 1145 Medical Microbiology I Lab (2)**

Contact hours (6 total): 6 lab  
Basic microbiology concepts. Identification of bacteria by microscope, media, inoculation, biochemical activities, and sensitivity testing.  
Prerequisite(s): MLT 1120 and MLT 1125  
Corequisite(s): MLT 1140  
Instructor Permission Required.  
Lab Fee: \$105.00  
Terms Offered: Spring

### **MLT 1150 Hematology I (2)**

Contact hours (2 total): 2 lecture  
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, BIO 1105, and ENG 1111  
Corequisite(s): MLT 1155  
Instructor Permission Required.  
Terms Offered: Fall

### **MLT 1155 Hematology I Laboratory (2)**

Contact hours (6 total): 6 lab  
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, BIO 1105, and ENG 1111  
Corequisite(s): MLT 1150  
Instructor Permission Required.  
Lab Fee: \$100.00  
Terms Offered: Fall

**MLT 1160 Urinalysis & Body Fluids (2)**

Contact hours (2 total): 2 lecture  
 Urinalysis principles including physical and chemical characteristics and microscopic analysis of urinary sediment. Body fluids: synovial, cerebrospinal, serous, amniotic, and seminal fluids.  
 Prerequisite(s): Acceptance to Medical Laboratory Technology program  
 Corequisite(s): MLT 1165  
 Instructor Permission Required.  
 Terms Offered: Fall

**MLT 1165 Urinalysis & Body Fluids Laboratory (1)**

Contact hours (3 total): 3 lab  
 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): Acceptance to Medical Laboratory Technology program  
 Corequisite(s): MLT 1160  
 Instructor Permission Required.  
 Lab Fee: \$85.00  
 Terms Offered: Fall

**MLT 2122 Immunology & Blood Banking (3)**

Contact hours (3 total): 3 lecture  
 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): ENG 1111 and BIO 1105  
 Pre/Corequisite(s): MLT 1150 and MLT 1155  
 Corequisite(s): MLT 2125  
 Instructor Permission Required.  
 Terms Offered: Fall

**MLT 2125 Immunology & Blood Banking Lab (4)**

Contact hours (12 total): 12 lab  
 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): ENG 1111 and BIO 1105  
 Pre/Corequisite(s): MLT 1150 and MLT 1155  
 Corequisite(s): MLT 2120 or MLT 2122  
 Instructor Permission Required.  
 Lab Fee: \$175.00  
 Terms Offered: Fall

**MLT 2130 Medical Microbiology II (2)**

Contact hours (2 total): 2 lecture  
 Identification of microbial agents associated with disease in man including bacteria, viruses, and parasites. Specimen collection. Quality control.  
 Prerequisite(s): BIO 1105  
 Pre/Corequisite(s): MLT 1140 and MLT 1145  
 Corequisite(s): MLT 2135  
 Instructor Permission Required.  
 Terms Offered: Spring

**MLT 2135 Medical Microbiology II Lab (2)**

Contact hours (6 total): 6 lab  
 Techniques to isolate, identify, and evaluate the presence of clinically significant microorganisms.  
 Prerequisite(s): BIO 1105  
 Pre/Corequisite(s): MLT 1140 and MLT 1145  
 Corequisite(s): MLT 2130  
 Instructor Permission Required.  
 Lab Fee: \$150.00  
 Terms Offered: Spring

**MLT 2140 Hematology II (2)**

Contact hours (2 total): 2 lecture  
 Disorders of blood cells and platelets including biochemistry of the red blood cell, anemias, leukemias. Principles and procedures of coagulation.  
 Prerequisite(s): ENG 1111 and BIO 1105  
 Pre/Corequisite(s): MLT 1150 and MLT 1155  
 Corequisite(s): MLT 2145  
 Instructor Permission Required.  
 Terms Offered: Fall

**MLT 2145 Hematology II Lab (2)**

Contact hours (6 total): 6 lab  
 Manual and automated instrumentation techniques used within a hematology department. Differential counting of abnormal cells. Coagulation.  
 Prerequisite(s): ENG 1111 and BIO 1105  
 Pre/Corequisite(s): MLT 1150 and MLT 1155  
 Corequisite(s): MLT 2140  
 Instructor Permission Required.  
 Lab Fee: \$110.00  
 Terms Offered: Fall

**MLT 2156 Directed Practice /Seminar (5)**

Four hundred (400) hours at assigned clinical site; departmental rotation; application of principles and techniques under supervision of clinical staff and college faculty. Includes directed reflection on the clinical experience.  
 Prerequisite(s): All prior MLT coursework with a grade of C or better  
 Instructor Permission Required.  
 Terms Offered: Spring

**MLT 2160 MLT Review and Update (2)**

Contact hours (2 total): 2 lecture  
 Review and update of urinalysis, hematology, clinical chemistry, medical microbiology, immunology, immunohematology.  
 Prerequisite(s): All prior MLT coursework with a grade of C or better  
 Instructor Permission Required.  
 Terms Offered: Spring

**(MST) Multi-Skilled Health Care****MST 1101 Introduction to Health Care (3)**

Contact hours (3 total): 3 lecture  
 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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MST 1105 Medical Terminology (2)**

Contact hours (2 total): 2 lecture

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. TAG OHLO20 approved course.

Prerequisite(s): CPE 0100

Pre/Corequisite(s): CPE 0200 and CPE 0300

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MST 1140 Human Disease (3)**

Contact hours (3 total): 3 lecture

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: Fall, Spring, Summer

### **MST 1160 Phlebotomy (2)**

Contact hours (2 total): 2 lecture

Comprehensive background in the theory and principles of phlebotomy. Quality assurance and total quality management.

Prerequisite(s): CPE 0200

Corequisite(s): MST 1161

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MST 1161 Phlebotomy Lab (1)**

Contact hours (2 total): 2 lab

Application of principles of phlebotomy. Performance of phlebotomy procedures.

Prerequisite(s): CPE 0200

Corequisite(s): MST 1160

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$50.00

Terms Offered: Fall, Spring, Summer

### **MST 1171 Introduction to Electrocardiography (2)**

Contact hours (2.5 total): 1.5 lecture, 1 lab

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.

Pre/Corequisite(s): BIO 1105 or BIO 2122 and MST 1105

Lab Fee: \$20.00

Terms Offered: Fall, Spring, Summer

### **MST 1181 Nurse Aide Training (4)**

Contact hours (6 total): 3 lecture, 1.5 lab, 1.5 clinical Introduction to basic patient/resident care. Classroom, skills lab practice, and clinical experiences. Successful completion meets the requirements to apply for the Ohio Nurse Aide State Test.

Prerequisite(s): CPE 0100

Corequisite(s): Criminal background check

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$25.00

Student Liability Fee: \$20.00

Terms Offered: Fall, Spring, Summer

## **(MTH) Math**

### **MTH 1050 Mathematics and Today's World (3)**

Contact hours (3 total): 3 lecture

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 with a grade of C or better or CPE 0650 with a grade of C or better and CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

### **MTH 1060 Business Mathematics (3)**

Contact hours (3 total): 3 lecture

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 0200 and Accuplacer math score of 35 or greater

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MTH 1115 Industrial Calculations (3)**

Contact hours (4 total): 2 lecture, 2 lab

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.

Pre/Corequisite(s): ENT 1000, ENT 1050, FYE 1000, or FYE 1100 and CPE 0200

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MTH 1200 Technical Math for Agriculture (3)**

Contact hours (3 total): 3 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Spring

### **MTH 1280 College Algebra (4)**

Contact hours (4 total): 4 lecture

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 and CPE 0700 with a grade of C or better

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring, Summer

### **MTH 1340 Pre-Calculus (5)**

Contact hours (5 total): 5 lecture

Transformation and composition of functions, inverse functions, polynomial and rational functions, synthetic and long division, remainder and factor theorem, exponential and logarithmic functions, systems of equations and inequalities, analytic geometry, matrices and determinants, Gauss-Jordan, sequences and series, 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): appropriate COMPASS score or MTH 1280 with a grade of C or higher

Terms Offered: Fall, Spring, Summer

### **MTH 2100 Calculus for the Management, Life and Social Sciences (5)**

Contact hours (5 total): 5 lecture

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 with a grade of C or better or equivalent COMPASS score

Terms Offered: Spring, Summer

### **MTH 2200 Calculus I (5)**

Contact hours (5 total): 5 lecture

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 with a grade of C or better or equivalent COMPASS score

Terms Offered: Fall, Spring

### **MTH 2220 Calculus II (5)**

Contact hours (5 total): 5 lecture

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.

Prerequisite(s): MTH 2200 with a grade of C or better

Terms Offered: Spring, Summer

### **MTH 2240 Multivariable Calculus (4)**

Contact hours (4 total): 4 lecture

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, Stokes', and The Divergence Theorems, volume, and other applications.

Prerequisite(s): MTH 2220 with a grade of C or better

Terms Offered: Fall

### **MTH 2330 Differential Equations (3)**

Contact hours (3 total): 3 lecture

Ordinary differential equations of first order, higher order linear equations, uniqueness and existence of solutions, Laplace transform methods, and series methods.

Prerequisite(s): MTH 2220 with a grade of C or better

Terms Offered: Spring

### **MTH 2530 Matrix Algebra (4)**

Contact hours (4 total): 4 lecture

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 with a grade of C or better

Terms Offered: Summer

## **(MUS) Music**

### **MUS 1001 Music Theory I (3)**

Contact hours (3 total): 3 lecture

Conventions of musical notation. Introduction to the elements of tonal music. Melodic organization, texture reduction, and voice-leading practices for four voices.

Terms Offered: Fall

**MUS 1002 Music Theory II (3)**

Contact hours (3 total): 3 lecture  
 Chord progressions. Creating and harmonizing melodies. Using non-harmonic tones in melodies and chords. Seventh chords and leading-tone chords. Methods for changing keys. Two and three-part forms.  
 Prerequisite(s): MUS 1001  
 Terms Offered: Spring

**MUS 1011 Sight Singing & Dictation I (2)**

Contact hours (6 total): 6 lab  
 Aural singing skills: interval, key/modality, chord and meter recognition. Rhythmic and melodic notation.  
 Pre/Corequisite(s): MUS 1001  
 Terms Offered: Fall

**MUS 1012 Sight Singing & Dictation II (2)**

Contact hours (3 total): 1 lecture, 2 lab  
 Aural and singing skills: compound intervals, tonic, dominant and sub-dominant chord structures. Compound meter recognition. Rhythm up to the subdivision level. Melodies involving tonic and dominant outlines.  
 Pre/Corequisite(s): MUS 1002  
 Terms Offered: Spring

**MUS 1130 Music Appreciation (3)**

Contact hours (3 total): 3 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Global Awareness.  
 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. May be taken up to 4 terms.  
 Other Fee: \$100.00  
 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. May be taken up to 4 terms.  
 Other Fee: \$150.00  
 Terms Offered: Fall, Spring

**MUS 1161 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. May be taken up to 4 terms.  
 Prerequisite(s): none  
 Lab Fee: \$100.00  
 Terms Offered: Fall, Spring, Summer

**MUS 1171 Applied Piano (1)**

Individual piano instruction focusing on the fundamentals of piano performance skills. May be taken up to 4 terms.  
 Other Fee: \$100.00  
 Terms Offered: Fall, Spring, Summer

**MUS 2001 Music Theory III (3)**

Contact hours (3 total): 3 lecture  
 Analysis of late Renaissance and Baroque polyphony. Analysis of primary Classical period forms. Study of chromatic harmony.  
 Prerequisite(s): MUS 1002  
 Terms Offered: Fall

**MUS 2002 Music Theory IV (3)**

Contact hours (3 total): 3 lecture  
 Advanced study of structures and compositional styles of Romanticism, Post-Romanticism, Impressionism, and 20th Century music.  
 Prerequisite(s): MUS 2001  
 Terms Offered: Spring

**(NTK) Networking****NTK 1110 PC Hardware Essentials (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Lab Fee: \$75.00  
 Terms Offered: Fall

**NTK 1120 PC Operating Systems Essentials (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 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.  
 Pre/Corequisite(s): NTK 1110  
 Lab Fee: \$75.00  
 Terms Offered: Fall

**NTK 1211 Convergence Technology I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Convergence technology terms and concepts. Networking fundamentals, TCP/IP networking basics, and merging of voice, and data traffic. 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. First course, in a two-course sequence covering industry certification topics.  
 Prerequisite(s): NTK 176 or NTK 1110  
 Lab Fee: \$75.00  
 Terms Offered: Spring

### **NTK 2100 Cisco - Introduction to Networks (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 CCENT and CCNA certification exams.

Prerequisite(s): NTK 1120  
Lab Fee: \$75.00  
Terms Offered: Fall

### **NTK 2110 Cisco - Routing and Switching (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 CCENT and CCNA certification exams.

Pre/Corequisite(s): NTK 2100  
Lab Fee: \$75.00  
Terms Offered: Fall

### **NTK 2120 Cisco - Scaling Networks (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Overview of local area networking (LAN) concepts and theory. Discussion of LAN redundancy and aggregation, wireless technologies and advanced routing protocols. Hands-on experience with switch and router setup, configuration, and monitoring. Part of a set of courses covering material for the CCNA certification exam.

Prerequisite(s): NTK 2110  
Lab Fee: \$75.00  
Terms Offered: Spring

### **NTK 2130 Cisco - Connecting Networks (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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 CCNA certification.

Pre/Corequisite(s): NTK 2120  
Lab Fee: \$75.00  
Terms Offered: Spring

### **NTK 2212 Linux Server Administration (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Hands-on experience with Linux server operating systems. Planning, installing, configuring, managing, optimizing, and troubleshooting.

Pre/Corequisite(s): NTK 1110  
Lab Fee: \$75.00  
Terms Offered: Spring

### **NTK 2220 Microsoft Client Administration (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Hands-on experience with the Microsoft Client operating system. Installing, configuring, optimizing, and troubleshooting. Course covers Microsoft certification objectives.

Pre/Corequisite(s): NTK 1120  
Lab Fee: \$75.00  
Terms Offered: Fall

### **NTK 2222 Administering Microsoft Server (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Hands-on experience with the Microsoft Server operating system. Planning, installing, configuring, managing, optimizing, and troubleshooting. Course covers Microsoft certification objectives.

Prerequisite(s): NTK 2220  
Lab Fee: \$75.00  
Terms Offered: Fall

### **NTK 2710 Introduction to High Performance/Clustered Computing (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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  
Lab Fee: \$75.00  
Terms Offered: Spring

### **NTK 2712 High Performance/Clustered Computing Design (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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.

Pre/Corequisite(s): NTK 2710  
Lab Fee: \$75.00  
Terms Offered: Spring

### **NTK 2890 Computer Networking Capstone (3)**

Contact hours (3 total): 3 lecture  
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): CSE 1120, MGT 2000, ENG 1111, ENG 2211, and NTK 2100  
Lab Fee: \$75.00  
Terms Offered: Spring

## **(NUR) Nursing**

### **NUR 1110 Dosage Calculation (1)**

Contact hours (1 total): 1 lecture  
Systems of measurement and calculation of drug dosage.

Prerequisite(s): CPE 0600 or CPE 0650  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Fall, Spring, Summer



**NUR 1130 Basic Nursing Concepts (6.5)**

Contact hours (11.5 total): 4 lecture, 3.5 lab, 4 clinical  
Introduces basic nursing concepts, psychomotor skills, assessment techniques, nursing process, and study skills. Applies concepts of ethics and safety in the care of adults undergoing surgery, experiencing problems of mobility, and experiencing endocrine disorders.

Incorporates the principles of evidence-based care, advocacy, caring and learning to promote health in adults within the context of environment.

Prerequisite(s): Current Ohio Nurse Aide certification or MST 1181 within 2 years

Pre/Corequisite(s): BIO 2121 and NUR 1110

Instructor Permission Required.

Lab Fee: \$400.00

Student Liability Fee: \$20.00

Terms Offered: Fall, Spring

**NUR 1132 Adult Nursing I (6.5)**

Contact hours (12.5 total): 3.5 lecture, 9 clinical  
Applies principles of ethics, safety, and nursing process in the care of adults with fluid and electrolyte, acid/base balance, respiratory, and renal disorders; hypertension; and congestive heart failure. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote health in adults within the context of environment.

Prerequisite(s): NUR 1110, NUR 1130, ENG 1111, PSY 1111, and BIO 2121

Pre/Corequisite(s): BIO 2122

Lab Fee: \$175.00

Terms Offered: Fall, Spring

**NUR 1134 Behavioral Health Nursing (2.5)**

Contact hours (3.5 total): 2 lecture, 1.5 clinical  
Introduces concepts of behavioral health and psychosocial assessment across the lifespan in a variety of settings. Applies concepts of ethics and safety in the care of patients experiencing commonly occurring psychiatric, emotional, and developmental disorders, substance abuse, family violence, difficult life transitions, and challenging behaviors. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote behavioral health within the context of the environment.

Prerequisite(s): ENG 1111, PSY 1111, and BIO 2121

Pre/Corequisite(s): BIO 2122 and NUR 1132, NUR 1135, or NUR 1138

Lab Fee: \$160.00

Terms Offered: Fall, Spring

**NUR 1135 LPN to RN Transition (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Assists in the transition of the LPN to the role of RN. Refines and updates previous learning of basic nursing concepts, psychomotor skills, assessment techniques, and study skills. Applies principles of ethics, safety, and nursing process in the care of adults. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote and maintain health. Follows the Ohio Nursing Articulation Model.

Prerequisite(s): BIO 2122 and ENG 1111

Pre/Corequisite(s): NUR 1136 and NUR 1110

Instructor Permission Required.

Lab Fee: \$245.00

Student Liability Fee: \$20.00

Terms Offered: Fall, Spring

**NUR 1136 Adult Nursing for LPNs (2)**

Contact hours (2 total): 2 lecture  
Applies principles of ethics, safety, and nursing process in the care of adults with mobility, fluid and electrolyte, acid/base balance, respiratory, endocrine, and renal disorders; hypertension; and congestive heart failure. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote health in adults within the context of environment.

Prerequisite(s): BIO 2122 and ENG 1111

Corequisite(s): NUR 1135

Instructor Permission Required.

Lab Fee: \$200.00

Terms Offered: Fall, Spring

**NUR 1137 Paramedic to RN Transition (2.5)**

Contact hours (3.5 total): 3.5 lecture  
Assists in the transition of the paramedic to the role of RN. Refines and updates previous learning of assessment techniques, psychomotor skills, and study skills. Introduces basic nursing concepts and nursing process. Applies principles of ethics, safety, and nursing process in the care of adults undergoing surgery, experiencing problems of mobility, and experiencing endocrine disorders. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote and maintain health.

Prerequisite(s): BIO 2122, PSY 1111, and ENG 1111 and MST 1181 (or current STNA certificate or proficiency testing)

Pre/Corequisite(s): NUR 1110

Instructor Permission Required.

Terms Offered: Fall

**NUR 1138 Adult Nursing for Paramedics (4.5)**

Contact hours (8.5 total): 2.5 lecture, 6 clinical  
Applies principles of ethics, safety, and nursing process in the care of adults with fluid and electrolyte, acid/base balance, respiratory, and renal disorders; hypertension; and congestive heart failure. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote health in adults within the context of environment.

Prerequisite(s): NUR 1110, NUR 1137, BIO 2122, PSY 1111, and ENG 1111

Instructor Permission Required.

Terms Offered: Fall

**NUR 1177 Paramedic to RN Transition (2)**

Contact hours (3.5 total): 2 lecture, 1.5 lab  
Introduction of health care system, role of nurse, standards of care, nursing process, functional health patterns, health promotion and maintenance, and perioperative nursing. All nursing skills taught. Offered in eight-week session.

Prerequisite(s): BIO 2122, NUR 1120, Nurse Aide skills (Current STNA Certificate, proficiency testing, or completion of MST 1181), ENG 1112, and PSY 1111 Instructor Permission Required.  
Lab Fee: \$250.00  
Terms Offered: Fall

### **NUR 2232 Children-Family Nursing (2.5)**

Contact hours (3.5 total): 2 lecture, 1.5 clinical  
Applies principles of ethics, safety, and nursing process in the care of children and families experiencing common childhood and developmental disorders. Incorporates the principles of evidence-based care, advocacy, caring, and learning to promote and maintain health within the context of family.  
Prerequisite(s): BIO 2122, PSY 2223, ENG 1112, and NUR 1132 or NUR 1138, or NUR 1135 and NUR 1136  
Pre/Corequisite(s): BIO 1131  
Terms Offered: Fall, Spring

### **NUR 2234 Maternal-Newborn Nursing (2.5)**

Contact hours (3.5 total): 2 lecture, 1.5 clinical  
Applies principles of ethics, safety, and nursing process in the context of female reproduction and newborn health. Emphasis on physiological changes of pregnancy, prevention of complications, conditions of the high-risk newborn, and common gynecological disorders. Incorporates the principles of evidence-based care, advocacy, caring, and learning using a family-centered approach.  
Prerequisite(s): ENG 1112, PSY 2223, BIO 2122, and NUR 1132 or NUR 1138 or NUR 1135 and NUR 1136  
Pre/Corequisite(s): BIO 1131  
Terms Offered: Fall, Spring

### **NUR 2236 Adult Nursing II (6.5)**

Contact hours (11.5 total): 4 lecture, 0.5 lab, 7 clinical  
Applies the nursing process utilizing evidence-based, patient-centered nursing care of adult patients with cardiovascular, neurological, gastrointestinal, immunological, and hematological disorders. Demonstrates appropriate nursing judgment skills in the clinical setting, providing safe, quality care. Utilizes technology to communicate and function effectively within the inter-professional team.  
Prerequisite(s): BIO 2122, ENG 1112, PSY 2223, and NUR 1132 or NUR 1138 or NUR 1135 and NUR 1136  
Pre/Corequisite(s): BIO 1131  
Terms Offered: Fall, Spring

### **NUR 2238 Adult Nursing III (7.5)**

Contact hours (14.5 total): 4 lecture, 0.5 lab, 10 clinical  
Applies the nursing process utilizing evidence-based, patient-centered nursing care of adult patients with complex cardiovascular, respiratory, neurological, multi-system, oncological disorders, and burns. Professional leadership and management utilizing teamwork and collaboration, integrating quality improvement methodologies to improve safety in the delivery of nursing care. Utilizes appropriate nursing judgments in the clinical setting; identifies appropriate care for communities during emergency, disaster, and bio-terrorism events.  
Prerequisite(s): NUR 2236 and BIO 1131  
Terms Offered: Fall, Spring

### **NUR 2240 Nursing Review (0.5)**

Contact hours (1.5 total): 1.5 lab  
Review of nursing knowledge and behaviors with emphasis on utilizing nursing judgment to address a variety of health needs. Emphasis on current NCLEX-RN test plan.  
Prerequisite(s): NUR 2232, NUR 2238, and NUR 2234  
Terms Offered: Fall, Spring

## **(NWM) New Media**

### **NWM 1000 Introduction to New Media (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Introduction to technology, theory, practice, and basic principles of new media. Portfolio development. Survey of new media professions.  
Lab Fee: \$75.00  
Terms Offered: Fall

### **NWM 1005 Digital Aesthetics and User Experience (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Aesthetic online design and layout including design elements and principles, color theory, and typography. User experience design and usability testing.  
Lab Fee: \$55.00  
Terms Offered: Spring

### **NWM 1010 Social Media and Digital Interactivity (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Social media vocabulary. Social media as a marketing and promotional tool. Online tools that encourage interactivity. "Viral" phenomenon and online advertising.  
Lab Fee: \$55.00  
Terms Offered: Spring

### **NWM 1020 Adobe for Web Professionals (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Use Adobe products to enhance web designs and online media. Create eBook. Software: Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.  
Prerequisite(s): GPH 1000 (or instructor permission)  
Lab Fee: \$55.00  
Terms Offered: Spring

### **NWM 1600 Web Design (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Web Page design and publishing. Use of Content Management Systems.  
Prerequisite(s): ITS 1500  
Lab Fee: \$50.00  
Terms Offered: Spring

### **NWM 2000 Digital Multimedia I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Digital video and audio. Post and share projects online.  
Prerequisite(s): NWM 1000 or GPH 1000 (or Instructor Permission)  
Lab Fee: \$175.00  
Terms Offered: Fall

**NWM 2010 Digital Multimedia II (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Digital photography. Stop motion animation, and 2D computer animation. Software: Adobe Photoshop and Adobe Flash Professional.  
 Prerequisite(s): NWM 2000  
 Lab Fee: \$130.00  
 Terms Offered: Spring

**NWM 2100 Web Programming, Scripting, and Database (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 PHP scripting language and MySQL, open source database. Ruby on Rails for web programming. Dynamic web pages and interactive elements.  
 Prerequisite(s): CSD 1500 and NWM 1600  
 Lab Fee: \$55.00  
 Terms Offered: Fall

**NWM 2200 New Media Internship (2)**

Contact hours (1 total): 1 lecture  
 New media solutions for local companies or community organizations.  
 Prerequisite(s): NWM 1010, NWM 2000, and ITS 2310  
 Lab Fee: \$30.00  
 Terms Offered: Spring

**NWM 2210 New Media Capstone (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 New media solutions for local companies or community organizations. Portfolio evaluation and preparation.  
 Prerequisite(s): NWM 1010, NWM 2000, and NWM 1600  
 Lab Fee: \$175.00  
 Terms Offered: Spring

**NWM 2400 Advanced Web Design (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Open source content management systems, websites with advanced functionality, including e-commerce and search engine optimization techniques.  
 Prerequisite(s): NWM 1005, NWM 1600, and CSD 2200  
 Lab Fee: \$55.00  
 Terms Offered: Spring

**(OAD) Office Administration****OAD 1101 Document Production I (3)**

Contact hours (5 total): 1 lecture, 4 lab  
 Production of common business correspondence, simple reports, and basic tables, using Microsoft Word 2016 software; emphasis on accuracy. Minimum typing speed of 35 gwpm required.  
 Prerequisite(s): CPE 0200, ITS 0800, and ITS 0810 with a grade of A  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring, Summer

**OAD 1102 Document Production II (3)**

Contact hours (5 total): 1 lecture, 4 lab  
 Production of complex business correspondence, reports and tables, using Microsoft Word 2016 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, Summer

**OAD 1105 Business English (4)**

Contact hours (4 total): 4 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring

**OAD 1205 Office Procedures (3)**

Contact hours (3 total): 3 lecture  
 Basic office administrative skills and concepts, including the work environment; ethics; stress, anger, and time management; workplace technologies; information processing; telecommunications; written communication; presentations; the workplace team; customer service; workplace mail and copiers; travel arrangements; meetings and conferences; and leadership. Also included is a comprehensive overview of records management procedures including alphabetic indexing rules, electronic file management, alphabetic records management, equipment, and procedures, and storing, retrieving, and transferring records.  
 Prerequisite(s): CPE 0200  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall

**OAD 2105 Medical Machine Transcription (3)**

Contact hours (5 total): 1 lecture, 4 lab  
 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 transcriptionist responsibilities. Strong proofreading skills required.  
 Prerequisite(s): OAD 1101, BIO 1105, and MST 1105  
 Terms Offered: Fall

**OAD 2205 Electronic Health Records (3)**

Contact hours (5 total): 1 lecture, 4 lab  
 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 using Microsoft 2016.

Pre/Corequisite(s): MST 1105

Terms Offered: Fall

### **OAD 2218 Office Simulation (3)**

Contact hours (8 total): 8 lab

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 1105, ITS 1110, and ITS 1236

Terms Offered: Spring

### **OAD 2301 CPT/ICD-10-PCS Coding (3)**

Contact hours (3 total): 3 lecture

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. This course is offered in a hybrid format that is required to meet every week.

Prerequisite(s): BIO 1105 and MST 1105

Terms Offered: Fall, Spring

### **OAD 2302 ICD-10-CM Coding (3)**

Contact hours (3 total): 3 lecture

Introduction to ICD-10-CM codes for insurance billing and reimbursement. Coding manuals, recent code updates and guidelines. Coding steps. Diagnostic classification system. This course is offered in a hybrid format that is required to meet every week.

Prerequisite(s): BIO 1105 and MST 1105

Terms Offered: Fall, Spring

### **OAD 2312 Advanced Medical Coding (3)**

Contact hours (3 total): 3 lecture

Coding experience using ICD-10-CM, CPT/ICD-10-PCS and HCPCS numeric representation. Specialized areas of coding. Certification related to specialty areas. Policies, forms, technology, and processes associated with medical billing protocol. Medicare information. Reimbursement. This course is offered in a hybrid format that is required to meet every other week.

Prerequisite(s): OAD 2301 and OAD 2302

Terms Offered: Fall, Spring

### **OAD 2320 Medical Office Certification Review (1)**

Contact hours (1 total): 1 lecture

Review of electronic health records, medical ethics, and medical coding requirements for credentialing exam. Emphasis on Certified Coding Associate (CCA) and Certified Electronic Health Records Specialist (CEHRS). Certification exams administered within course. This course is offered in a hybrid format that is required to meet every other week.

Prerequisite(s): OAD 2301 and OAD 2302

Pre/Corequisite(s): MST 1140

Certification Fee: \$404.00

Terms Offered: Fall, Spring

### **OAD 2703 Co-op Education/Internship (3)**

Contact hours (1.5 total): 1.5 lecture

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. Workplace learning equal to fifteen (15) hours per week for a fifteen (15) week term as well as a minimum of 225 documented hours.

Prerequisite(s): EBE 1000 and co-op placement

Instructor Permission Required.

Terms Offered: Spring

## **(PED) Physical Education**

### **PED 1001 Beginning Pilates Mat Science (1)**

Contact hours (2 total): 2 lab

Proper breathing. Principles of mat science.

Components of fitness. Pilates equipment.

Terms Offered: Fall, Spring

### **PED 1002 Step Aerobics (1)**

Contact hours (2 total): 2 lab

Warm-up exercises, strength and flexibility exercises, and cool down exercises. Knowledge of safe fitness techniques and benefits.

Terms Offered: Fall, Spring

### **PED 1003 Beginning Weight Training (1)**

Contact hours (2 total): 2 lab

Correct weight training procedures, proper handling of equipment, training principles, composition of an individual total workout program, and dietary effects.

Terms Offered: Fall, Spring

### **PED 1004 Intermediate Weight Training (1)**

Contact hours (2 total): 2 lab

Intermediate level of free weight training. Setting up a personal program. Safety and nutrition information.

Terms Offered: Fall, Spring

### **PED 1005 Beginning Tennis (1)**

Contact hours (2 total): 2 lab

Forehand drive, backhand drive, volleying, serving, and footwork. History, rules, terms, scoring, simple strategies, and the etiquette of tennis.

Terms Offered: Fall, Spring, Summer

### **PED 1006 General Physical Conditioning (1)**

Contact hours (2 total): 2 lab

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.

Terms Offered: Fall, Spring

**PED 1007 Yoga for Beginners (1)**

Contact hours (2 total): 2 lab  
 Reducing stress through focused breathing and relaxation exercises using meditation techniques.  
 Terms Offered: Fall, Spring

**PED 1008 Beginning Basketball (1)**

Contact hours (2 total): 2 lab  
 Shooting, passing, dribbling, and defense along with game play. Includes equipment, rules, terms scoring, and etiquette of basketball.  
 Terms Offered: Fall, Spring

**PED 1009 Intermediate Basketball (1)**

Contact hours (2 total): 2 lab  
 Intermediate phase of shooting, passing, dribbling, and defense along with game play. Includes equipment, rules, terms, scoring, and etiquette of basketball.  
 Terms Offered: Fall, Spring

**PED 1010 Beginning Golf (1)**

Contact hours (2 total): 2 lab  
 Driving, putting, chipping, and pitching along with fair play. Also includes the history, equipment, rules, terms, scoring, and etiquette of golf.  
 Prerequisite(s): none  
 Lab Fee: \$20.00  
 Terms Offered: Fall, Spring

**PED 1011 Pilates II Mat Stability Ball (1)**

Contact hours (2 total): 2 lab  
 Advanced study of breathing techniques, progressive mat science, detailed practice in core stability, Pilates equipment.  
 Terms Offered: Spring

**PED 1012 Continuing Yoga (1)**

Contact hours (2 total): 2 lab  
 Using yoga and meditation techniques to reduce stress.  
 Terms Offered: Fall, Spring

**PED 1013 Karate Self Defense for Beginners (1)**

Contact hours (2 total): 2 lab  
 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.  
 Terms Offered: Fall

**PED 1014 Intermediate Karate Self Defense (1)**

Contact hours (2 total): 2 lab  
 Intermediate level kicks, hand techniques, hand trapping, and escapes. Belt rank in karate optional at additional cost.  
 Prerequisite(s): PED 1013 (or equivalent experience as determined by instructor)  
 Instructor Permission Required.  
 Terms Offered: Fall, Spring

**(PGR) Personal Growth****PGR 1210 Stress Management (1)**

Contact hours (1 total): 1 lecture  
 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 1300 Reading for Speed and Comprehension (1)**

Contact hours (1 total): 1 lecture  
 Reading speed and comprehension improvement. Intended for students of average or above average reading ability. Uses a variety of methods, including computer-based instruction.  
 Prerequisite(s): none  
 Terms Offered: Fall, Spring

**PGR 1500 Personal Growth (2)**

Contact hours (2 total): 2 lecture  
 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 1600 College Survival Skills (2)**

Contact hours (2 total): 2 lecture  
 Provide students with an understanding of the characteristics of a successful student; identify and practice skills necessary to be an active, independent learner such as time, stress, and procrastination management; acquire skills to promote active learning in reading, listening, and critical thinking; understand the responsibilities of a college student.  
 Terms Offered: Fall, Spring

**(PHL) Philosophy****PHL 2000 Critical Thinking (3)**

Contact hours (3 total): 3 lecture  
 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.  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall

**PHL 2050 Deductive Logic (3)**

Contact hours (3 total): 3 lecture  
 Formal methods for determining the validity of deductive arguments; construction of truth tables, sentential proofs, and categorical syllogisms.  
 Pre/Corequisite(s): ENG 1111  
 Terms Offered: Fall

**PHL 2100 Ethics (3)**

Contact hours (3 total): 3 lecture  
 Philosophical analysis and critique of predominant ethical perspectives from Western philosophy and religion. Application of these perspectives to contemporary moral problems such as abortion, drug use, the death penalty, racism, war and terrorism, animal

rights, and the moral status of the natural environment. [Note: The online sections require that exams be taken at selected proctoring sites.]  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

### **PHL 2300 Medical Ethics (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Terms Offered: Spring

### **PHL 2400 Philosophy of World Religions (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

## **(PHO) Photography**

### **PHO 1100 Photography I: Fundamentals (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$35.00  
Terms Offered: Fall

### **PHO 1102 Image Workflow/Basic Editing (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Effective imaging workflow procedures using multiple computer software programs. Upload, convert, process, manipulate, output, and archive photographic image files.  
Prerequisite(s): CPE 0100  
Corequisite(s): PHO 1100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$50.00  
Terms Offered: Fall

### **PHO 1103 Camera Skills: The Digital Camera (2)**

Contact hours (3 total): 1 lecture, 2 lab  
Features, advantages, and disadvantages of the digital camera. Meter usage and exposure control, lens selection and file types. Similarities and differences between the digital single-lens reflex cameras, film cameras, and hybrid.  
Prerequisite(s): CPE 0100  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$25.00  
Terms Offered: Fall

### **PHO 1124 Photography II: Applied Photography (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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  
Lab Fee: \$30.00  
Terms Offered: Spring

### **PHO 1125 Imaging Editing/Digital Darkroom (2)**

Contact hours (3 total): 1 lecture, 2 lab  
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  
Lab Fee: \$50.00  
Terms Offered: Spring

### **PHO 1126 Lighting Techniques (2)**

Contact hours (3 total): 1 lecture, 2 lab  
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  
Lab Fee: \$25.00  
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)**

Contact hours (3 total): 1 lecture, 2 lab  
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  
Lab Fee: \$65.00  
Terms Offered: Summer

## (PHY) Physics

### PHY 1000 Fundamentals of Scientific Methods and Problem Solving (4)

Contact hours (5 total): 3 lecture, 2 lab

Foundational concepts in the physical sciences using an interdisciplinary approach. Includes physics and chemistry (matter and energy, force and motion, heat and thermodynamics, waves and optics, electricity and magnetism and an introduction to inorganic chemistry). Emphasizes development of science process methods, critical thinking skills, practical skills, and problem solving skills needed to perform scientific inquiry.

Prerequisite(s): CPE 0100 and CPE 0600 or CPE 0650

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$40.00

Terms Offered: Spring, Summer

### PHY 1100 Fundamentals of Physics (4)

Contact hours (5 total): 3 lecture, 2 lab

Concepts and applications of physics for non-science majors to include: one and two dimensional motion, forces, work and conservation of energy, properties of matter, heat and thermodynamics, waves and sound, electricity, electromagnetism (EM) and EM waves, optics, modern physics. Collection, analysis, and reporting of data, problem-solving concepts, and methods of physics.

Prerequisite(s): CPE 0400 and CPE 0600 with a grade of C or better or CPE 0650 with a grade of C or better

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$48.00

Terms Offered: Fall, Spring, Summer

### PHY 1200 Introduction to Astronomy (4)

Contact hours (5 total): 3 lecture, 2 lab

Introduction to astronomy; astronomical terminology, origins and composition of our universe and solar system, planetary features; the quest to find other life forms in our universe.

Prerequisite(s): CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$40.00

Terms Offered: Summer

### PHY 1501 General Physics I with Algebra (5)

Contact hours (6 total): 4 lecture, 2 lab

College algebra based physics to include: kinematics in one and two dimensions; vector arithmetic; force and Newton's Laws of Motion and Gravitation; work, energy, and conservation of energy; linear momentum and collisions; rotational kinematics and dynamics, including angular momentum and rotational energy; simple harmonic motion; waves and sound; fluids and elasticity; heat and thermodynamics; kinetic theory of gases; collection, analysis and reporting of data; problem-solving using college algebra concepts and methods.

Prerequisite(s): MTH 1280 or equivalent COMPASS score  
Pre/Corequisite(s): ENG 1111 and MTH 1340 or equivalent COMPASS

Lab Fee: \$55.00

Terms Offered: Fall

### PHY 1502 General Physics II with Algebra (5)

Contact hours (6 total): 4 lecture, 2 lab

College algebra 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 algebra concepts and methods.

Prerequisite(s): MTH 1280 or equivalent COMPASS score  
Pre/Corequisite(s): ENG 1111 and MTH 1340 or equivalent COMPASS score

Lab Fee: \$65.00

Terms Offered: Spring

### PHY 2501 College Physics I with Calculus (5)

Contact hours (6 total): 4 lecture, 2 lab

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

Lab Fee: \$55.00

Terms Offered: Fall

### PHY 2502 College Physics II with Calculus (5)

Contact hours (6 total): 4 lecture, 2 lab

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 2220

Lab Fee: \$65.00

Terms Offered: Spring

## (PLS) Political Science

### PLS 1100 Introduction to American Politics (3)

Contact hours (3 total): 3 lecture

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.

Pre/Corequisite(s): ENG 1111  
Terms Offered: Fall, Spring, Summer

### **PLS 1300 Introduction to Comparative Politics (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

### **PLS 2300 Introduction to International Relations (3)**

Contact hours (3 total): 3 lecture  
Evolution of world system, state and nonstate actors, intergovernmental organizations, nation-states, multinational 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.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring

## **(PSY) Psychology**

### **PSY 1111 Introduction to Psychology (3)**

Contact hours (3 total): 3 lecture  
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  
Pre/Corequisite(s): CPE 0300  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

### **PSY 2218 Introduction to Educational Psychology (3)**

Contact hours (3 total): 3 lecture  
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: Fall

### **PSY 2223 Lifespan Human Growth and Development (3)**

Contact hours (3 total): 3 lecture  
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 to daily life throughout the lifespan.  
Prerequisite(s): ENG 1111 and PSY 1111  
Pre/Corequisite(s): ENG 1112  
Terms Offered: Fall, Spring, Summer

### **PSY 2230 Abnormal Psychology (3)**

Contact hours (3 total): 3 lecture  
Clinical picture and assessment of suicide, major psychological disorders: anxiety, stress, dissociative, somatoform, mood, eating, substance, sexual, schizophrenia, personality, childhood, and aging disorders. Diagnosis, etiology, prognosis, and treatment of psychological disorders. Evaluate research, historical and cultural viewpoints, current theoretical views of psychological disorders.  
Prerequisite(s): ENG 1111 and PSY 1111  
Pre/Corequisite(s): ENG 1112  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

## **(PTA) Physical Therapist Assistant**

### **PTA 1112 PTA Survey (1)**

Contact hours (1 total): 1 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Terms Offered: Fall, Spring

### **PTA 1122 PTA Procedures I (3)**

Contact hours (5.67 total): 1.67 lecture, 4 lab  
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. The classroom component is online.  
Pre/Corequisite(s): ENG 1111, BIO 2121, MST 1105, and PTA 1112 or PTA 1110  
Lab Fee: \$95.00  
Terms Offered: Fall

### **PTA 1148 PTA Procedures II (5)**

Contact hours (9 total): 3 lecture, 6 lab  
Pathology, data collection, and physical therapy interventions 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. Classroom component is online.  
Prerequisite(s): BIO 2121, MST 1105, BIO 1118 or BIO 1119, PTA 1110 or PTA 1112, and PTA 1120 or PTA 1122  
Pre/Corequisite(s): ENG 1112, BIO 2122, and PTA 1160 or PTA 1162  
Lab Fee: \$100.00  
Terms Offered: Spring

#### **PTA 1162 PTA Rehabilitation I (5)**

Contact hours (9 total): 3 lecture, 6 lab  
Pathology, data collection, and PT intervention for orthopedic conditions, musculoskeletal disorders and amputations. Positioning, bed mobility, transfers, and gait training application to course-related diagnoses; massage, traction, orthotics and prosthetics, and detailed study of therapeutic exercise and exercise design. Professional behavioral development. Laboratory practice. Classroom component is online.  
Prerequisite(s): BIO 2121, MST 1105, BIO 1119 or BIO 1118, PTA 1112 or PTA 1110, and PTA 1120 or PTA 1122  
Pre/Corequisite(s): ENG 1112 and BIO 2122  
Lab Fee: \$75.00  
Terms Offered: Spring

#### **PTA 2243 PTA Procedures III (4)**

Contact hours (6 total): 3 lecture, 3 lab  
Physical agents including E-stim, hydrotherapy, diathermy, ultrasound, TENS, MENS, phonophoresis, iontophoresis. Theories of pain. Professional behavioral development. Classroom component is online.  
Prerequisite(s): PTA 1146 or PTA 1148, PTA 1160 or PTA 1162, and BIO 2122  
Corequisite(s): none  
Lab Fee: \$90.00  
Terms Offered: Summer

#### **PTA 2245 PTA First Year Capstone (1)**

Contact hours (1 total): 1 lecture  
Goniometry, manual muscle testing, wheelchair mobility, transfers, gait training, exercise design, clinical reasoning, communication. Professional behavior development. Classroom component is online.  
Prerequisite(s): BIO 2122, PTA 1146 or PTA 1148, and PTA 1160 or PTA 1162  
Pre/Corequisite(s): PTA 2241 or PTA 2243  
Terms Offered: Summer

#### **PTA 2262 PTA Rehabilitation II (5)**

Contact hours (9 total): 3 lecture, 6 lab  
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. Classroom component is online.  
Prerequisite(s): PTA 2241 or PTA 2243 and PTA 2245  
Lab Fee: \$95.00  
Terms Offered: Fall

#### **PTA 2270 PTA Trends and Issues (1)**

Contact hours (1 total): 1 lecture  
Current trends in practice. Healthcare financing. Interpersonal communications. Contracts. Supervisory/management skills. Ethical issues. Professional behavioral development.  
Prerequisite(s): ENG 1112, PTA 2241 or PTA 2243, and PTA 2245  
Pre/Corequisite(s): PTA 2260 or PTA 2262  
Terms Offered: Fall

#### **PTA 2275 PTA Special Topics (1)**

Contact hours (1 total): 1 lecture  
Special topics related to the field of physical therapy including women's health, health promotion, mental health, emergency medicine, occupational work hardening, and common diagnostic procedures. Offered in an 8-week session.  
Prerequisite(s): PTA 2270, PTA 2281, PTA 2291, and PTA 2260 or PTA 2262  
Terms Offered: Spring

#### **PTA 2281 PTA 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 for eight weeks; total 160 hours.  
Prerequisite(s): PTA 2245 and PTA 2241 or PTA 2243  
Corequisite(s): PTA 2291  
Student Liability Fee: \$20.00  
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 for eight weeks; total 160 hours.  
Prerequisite(s): PTA 2270, PTA 2281, PTA 2291, and PTA 2260 or PTA 2262  
Pre/Corequisite(s): PSY 2223  
Corequisite(s): PTA 2292  
Terms Offered: Spring

#### **PTA 2283 PTA Directed Practice III (3)**

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 for seven weeks; total 280 hours.  
Prerequisite(s): PTA 2270 and PTA 2260 or PTA 2262  
Pre/Corequisite(s): PSY 2223, PTA 2282, and PTA 2292  
Corequisite(s): PTA 2293  
Terms Offered: Spring

### **PTA 2291 PTA Seminar I (1)**

Contact hours (1 total): 1 lecture  
Companion course to PTA 2281. 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. Development of capstone portfolio that encompasses didactic and clinical information collected throughout clinical experiences. Offered in an 8-week session.

Prerequisite(s): PTA 2245 and PTA 2241 or PTA 2243

Corequisite(s): PTA 2281

Terms Offered: Fall

### **PTA 2292 PTA Seminar II (1)**

Contact hours (1 total): 1 lecture  
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 2270, PTA 2281, PTA 2291, and PTA 2260 or PTA 2262

Pre/Corequisite(s): PSY 2223

Corequisite(s): PTA 2282

Terms Offered: Spring

### **PTA 2293 PTA Seminar III (1)**

Contact hours (1 total): 1 lecture  
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 2270 and PTA 2260 or PTA 2262

Pre/Corequisite(s): PSY 2223, PTA 2282, and PTA 2292

Corequisite(s): PTA 2283

Lab Fee: \$40.00

Terms Offered: Spring

## **(RCR) Realtime Court Reporting**

### **RCR 1200 Survey of Realtime Reporting (1)**

Contact hours (1 total): 1 lecture  
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 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

### **RCR 1201 Realtime Theory (6)**

Contact hours (7 total): 5 lecture, 2 lab  
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 0100

Corequisite(s): RCR 1211

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$0.00

Terms Offered: Fall

### **RCR 1202 Beginning Speed Building (5)**

Contact hours (12 total): 12 lab  
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. Monitored transcription of speed dictation tests in each of the areas of dictation concentration 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 1201 and RCR 1211 (C or better in RCR 1201 required)

Pre/Corequisite(s): RCR 1212

Lab Fee: \$0.00

Terms Offered: Spring

### **RCR 1203 Intermediate Speed Building (5)**

Contact hours (12 total): 12 lab  
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 multivoice dictation, use of speaker IDs, and computer-integrated courtroom setup. Monitored transcription of speed dictation tests in each of the areas of dictation concentration 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 1202 and RCR 1212 (C or better in RCR 1202 required)

Pre/Corequisite(s): RCR 1213

Lab Fee: \$0.00

Terms Offered: Summer

**RCR 1211 Introduction to Realtime Writing (1)**

Contact hours (2 total): 2 lab

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)**

Contact hours (2 total): 2 lab

Realtime dictionary building with emphasis on incorporating jury charge and testimony brief forms 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)**

Contact hours (2 total): 2 lab

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)**

Contact hours (2 total): 2 lecture

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

Lab Fee: \$0.00

Terms Offered: Spring

**RCR 1225 Vocabulary and Reference Use (1)**

Contact hours (1 total): 1 lecture

Techniques for using the dictionary, thesaurus, online references, prefixes, suffixes, synonyms, possessives, and word pairs.

Prerequisite(s): CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

**RCR 1231 Fundamentals of CAT (2)**

Contact hours (3 total): 1 lecture, 2 lab

Principles of transcript production using computer-aided transcription software (CATalyst4).

Prerequisite(s): RCR 1200, RCR 1211, and ITS 1105

Lab Fee: \$0.00

Terms Offered: Spring

**RCR 1250 Transcription (2)**

Contact hours (6 total): 6 lab

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, Summer

**RCR 2020 Transcript Production (2)**

Contact hours (3 total): 1 lecture, 2 lab

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 2032 Advanced CAT Concepts (2)**

Contact hours (3 total): 1 lecture, 2 lab

Advanced principles of transcript production using CaseCATalyst4 computer-assisted translation software.

Prerequisite(s): RCR 1231

Lab Fee: \$0.00

Terms Offered: Fall

**RCR 2045 Judicial Reporting Techniques (2)**

Contact hours (3 total): 1 lecture, 2 lab

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)**

Contact hours (3 total): 1 lecture, 2 lab

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

Lab Fee: \$0.00

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, Summer

**RCR 2100 Introduction to the Deaf Community (2)**

Contact hours (2 total): 2 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall

### **RCR 2101 Captioning /CART I (2)**

Contact hours (3 total): 1 lecture, 2 lab

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

Lab Fee: \$0.00

Terms Offered: Fall

### **RCR 2102 Captioning/CART II (1)**

Contact hours (3 total): 3 lab

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

Lab Fee: \$0.00

Terms Offered: Spring

### **RCR 2145 Captioning/CART Business Practices (2)**

Contact hours (2 total): 2 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

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 (5)**

Contact hours (12 total): 12 lab

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 multivoice testimony material for development of skill and accuracy in speeds ranging from 160-200 words per minute. Expanded application of multivoice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup. Monitored transcription of speed dictation tests in each of the areas of dictation concentration 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 1203 and RCR 1213 (Grade of C or higher in RCR 1203 required)

Pre/Corequisite(s): RCR 2211

Lab Fee: \$200.00

Terms Offered: Fall

### **RCR 2202 Terminal Speed Building (5)**

Contact hours (12 total): 12 lab

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 multivoice testimony material for development of skills and accuracy in speeds ranging from 180-225 words per minute. Expanded application of multivoice dictation using speaker IDs and demonstrating knowledge of computer-integrated courtroom setup. Monitored transcription of speed dictation tests in each of the areas of dictation concentration 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. 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 (Grade of C or higher in RCR 2201 required)  
 Pre/Corequisite(s): RCR 2212  
 Lab Fee: \$200.00  
 Terms Offered: Spring

### **RCR 2211 Advanced Realtime Writing (1)**

Contact hours (2 total): 2 lab  
 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)**

Contact hours (2 total): 2 lab  
 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

### **RCR 2245 Realtime Business Practices (3)**

Contact hours (4 total): 2 lecture, 2 lab  
 Role of the realtime court reporter in trials, depositions, and administrative hearings with application of the National Court Reporters Association (NCRA) Guidelines for Professional Practice for Court Reporters; overview of transcript preparation and production; development of office management skills; overview of broadcast captioning and Communication Access Realtime Translation (CART) including the psychology of on-air captions, Federal Communications Commission (FCC) regulations, broadcast news production, pre-scripting, the NCRA CART Provider's Manual, NCRA Guidelines for Professional Practice for Captioners and CART Providers, and the Americans with Disabilities Act (ADA); overview of interview process; professional development in dress and conduct; involvement in professional associations and appreciation of continuing education.  
 Prerequisite(s): CPE 0500, RCR 1203, and RCR 1231  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall

## **(RES) Real Estate**

### **RES 1100 Real Estate Principles (3)**

Contact hours (3 total): 3 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring

### **RES 1200 Real Estate Law (3)**

Contact hours (3 total): 3 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring

### **RES 1300 Real Estate Appraisal (2)**

Contact hours (2 total): 2 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring

### **RES 1400 Real Estate Finance (2)**

Contact hours (2 total): 2 lecture  
 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  
 An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
 Terms Offered: Fall, Spring

## **(RST) Regional Studies**

### **RST 2600 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 1111  
 Pre/Corequisite(s): ENG 1112  
 Global Awareness.  
 Terms Offered: Spring

### **RST 2700 Regional Studies: Africa (3)**

Contact hours (3 total): 3 lecture  
 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)**

Contact hours (3 total): 3 lecture  
Survey course of the land, people, history, politics, social institutions, economic development, literature, and the arts of Latin America.  
Prerequisite(s): ENG 1111  
Pre/Corequisite(s): ENG 1112  
Global Awareness.  
Terms Offered: Fall, Spring

## **(SOC) Sociology**

### **SOC 1110 Introduction to Sociology (3)**

Contact hours (3 total): 3 lecture  
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 and economic and cultural traditions.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall, Spring, Summer

### **SOC 2220 Comparing Cultures (3)**

Contact hours (3 total): 3 lecture  
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, Summer

### **SOC 2230 Social Problems (3)**

Contact hours (3 total): 3 lecture  
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, Summer

### **SOC 2240 Racial and Cultural Minorities (3)**

Contact hours (3 total): 3 lecture  
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)**

Contact hours (3 total): 3 lecture  
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

### **SOC 2260 Sociology of Sex and Gender (3)**

Contact hours (3 total): 3 lecture  
Analysis of the impact of social and cultural values and norms on human sexuality and gender.  
Prerequisite(s): SOC 1110 and ENG 1111

## **(SPN) Spanish**

### **SPN 1100 Survival Spanish (3)**

Contact hours (3 total): 3 lecture  
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 0100 (True Beginners Level only)  
Global Awareness.  
Terms Offered: Fall, Spring

### **SPN 1111 Beginning Spanish, Course I (3)**

Contact hours (3 total): 3 lecture  
Integration of Interpersonal, Interpretive, and Presentational Modes of Communication. Practice real-world communicative tasks in culturally appropriate ways. Identify products, practices, and perspectives of the target culture(s). Use grammar, vocabulary, and structures to meet functional performance goals to build a foundation for continued language learning. Perform in the Novice range on the American Council of Teachers of Foreign Languages (ACTFL) Performance Scale. College-level textbook required.  
Prerequisite(s): CPE 0100 and CPE 0300  
Pre/Corequisite(s): ENG 1111  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Global Awareness.  
Terms Offered: Fall

### **SPN 1112 Beginning Spanish, Course II (3)**

Contact hours (3 total): 3 lecture  
Integration of Interpersonal, Interpretive, and Presentational Modes of Communication. Practice real-world communicative tasks in culturally appropriate ways. Identify products, practices, and perspectives of the target culture(s). Use grammar, vocabulary, and structures to meet functional performance goals to build a foundation for continued language learning. Perform better and stronger in the Novice range on the American Council of Teachers of Foreign Languages (ACTFL) Performance Scale. Some abilities developing in Intermediate range. College-level textbook required.  
Prerequisite(s): Beginning Foreign Language Course I (SPN 1111 or equivalent course with a C or higher) or demonstrated proficiency in indicated area of study  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Spring

**SPN 2111 Intermediate Spanish, Course I (3)**

Contact hours (3 total): 3 lecture

Integration of learning outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication. Accomplish real-world communicative tasks in culturally appropriate ways and gain familiarity with products, practices, and perspectives of the target culture(s). Use grammar, vocabulary, and structures for meeting functional performance goals at this level and to build a foundation for continued language learning. Consistently perform in the Novice range. More abilities emerge and develop in the Intermediate range. College-level textbook required.

Prerequisite(s): SPN 1112 with a C or higher (or equivalent course at accredited institution or instructor permission)

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Fall

**SPN 2112 Intermediate Spanish, Course II (3)**

Contact hours (3 total): 3 lecture

Integration of learning outcomes across Interpersonal, Interpretive, and Presentational Modes of Communication. Accomplish real-world communicative tasks in culturally appropriate ways and gain familiarity with products, practices, and perspectives of the target culture(s). Use grammar, vocabulary, and structures for meeting functional performance goals at this level and to build a foundation for continued language learning. Perform better and stronger in the Intermediate range. A few abilities emerge in the Advanced range. College-level textbook required.

Prerequisite(s): SPN 2111 with a C or higher (or equivalent at another accredited institution or instructor permission)

Pre/Corequisite(s): ENG 1111

Global Awareness.

Terms Offered: Spring

**(STT) Statistics****STT 2640 Elementary Statistics I (3)**

Contact hours (3.60 total): 2.40 lecture, 1.20 lab

Introduction to statistical techniques and methodology, including terminology, sample methods, descriptive statistics, data analysis, data relationships, elementary set theory, elementary probability, random variables, 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 with a grade of C or better or CPE 0650 with a grade of C or better and CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$0.00

Terms Offered: Fall, Spring, Summer

**STT 2650 Elementary Statistics II (2)**

Contact hours (2.40 total): 1.60 lecture, 0.80 lab

Application of statistical techniques and methodology, 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 with a grade of C or better

Lab Fee: \$0.00

Terms Offered: Fall, Spring

**(SWK) Social Work****SWK 1100 Introduction to Social Work (3)**

Contact hours (3 total): 3 lecture

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, Spring

**SWK 1105 Chemical Dependency I: Pharmacology and Physiology of Psychoactive Substances (3)**

Contact hours (3 total): 3 lecture

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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Fall, Spring

**SWK 1122 Social Work Methods and Procedures (3)**

Contact hours (3 total): 3 lecture

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. Motivational interviewing techniques.

Prerequisite(s): SWK 1100

Terms Offered: Fall, Spring

**SWK 1136 Affective Education and Group Treatment (3)**

Contact hours (3 total): 3 lecture

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 and SWK 1100 or Instructor Permission

Terms Offered: Spring

**SWK 2205 Chemical Dependency II: Assessment, Diagnosis, and Treatment Strategies (3)**

Contact hours (3 total): 3 lecture

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)**

Contact hours (3 total): 3 lecture  
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): ENG 1111 and SWK 1105 and SWK 2205 or instructor permission  
Terms Offered: Spring

### **SWK 2218 Social Work and Mental Health (3)**

Contact hours (3 total): 3 lecture  
Social work practice serving individuals with mental health issues. Overview of the service systems and treatment approaches.  
Pre/Corequisite(s): SWK 1122 or instructor permission  
Terms Offered: Fall

### **SWK 2230 Introduction to Social Welfare (3)**

Contact hours (3 total): 3 lecture  
Social welfare policy process through history, development, and organization of social welfare and social work.  
Pre/Corequisite(s): ENG 1112 and SWK 1100 or Instructor Permission  
Terms Offered: Fall

### **SWK 2231 Introduction to Social Welfare (3)**

Contact hours (3 total): 3 lecture  
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 and SWK 1100 or Instructor Permission  
Terms Offered: Fall

### **SWK 2232 Generalist Practice with Families (3)**

Contact hours (3 total): 3 lecture  
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 1122 or Instructor permission  
Terms Offered: Spring

### **SWK 2260 Multicultural Competence in a Diverse World (3)**

Contact hours (3 total): 3 lecture  
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): ENG 1111 and SWK 1100 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 1122  
Corequisite(s): SWK 2291  
Instructor Permission Required.  
Student Liability Fee: \$20.00  
Terms Offered: Fall, Spring

### **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 1122  
Corequisite(s): SWK 2292  
Instructor Permission Required.  
Student Liability Fee: \$20.00  
Terms Offered: Fall, Spring

### **SWK 2291 Social Services Seminar I (1)**

Contact hours (1 total): 1 lecture  
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 1122  
Corequisite(s): SWK 2271  
Instructor Permission Required.  
Terms Offered: Fall, Spring

### **SWK 2292 Social Services Seminar II (1)**

Contact hours (1 total): 1 lecture  
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 1122  
Corequisite(s): SWK 2272  
Instructor Permission Required.  
Terms Offered: Fall, Spring

## **(THE) Theatre**

### **THE 1107 Voice and Speech for the Actor (3)**

Contact hours (4 total): 2 lecture, 2 lab  
Basic training and practice in the actor's use of voice and speech for the stage.  
Terms Offered: Fall

### **THE 1111 Stagecraft I (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Lab Fee: \$35.00

Terms Offered: Fall, Spring

### **THE 1112 Stagecraft II (3)**

Contact hours (4 total): 2 lecture, 2 lab

Continuation of Stagecraft I 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

Lab Fee: \$35.00

Terms Offered: Fall, Spring

### **THE 1115 Props, Wardrobe, and Makeup (3)**

Contact hours (3 total): 3 lecture

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.

Lab Fee: \$70.00

Terms Offered: Spring

### **THE 1130 Theatre Appreciation (3)**

Contact hours (3 total): 3 lecture

Exploration of the artists, the plays, and the history that has shaped today's theatre.

Prerequisite(s): CPE 0100

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Global Awareness.

Terms Offered: Fall, Spring

### **THE 1133 Script Analysis (3)**

Contact hours (3 total): 3 lecture

Introduction to script analysis: identifying plot, structure, action, themes, and application to the stage.

Prerequisite(s): grade of B or better in CPE 0300 or a grade of C or better in CPE 0400

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall, Spring

### **THE 1140 Movement for Actors (3)**

Contact hours (4 total): 2 lecture, 2 lab

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 1151 Acting Practicum I (1)**

Contact hours (3 total): 3 lab

Experience in acting. Meets graduation requirements for AA in Theatre Arts Performance. May be repeated for a maximum of 4 credit hours.

Terms Offered: Fall, Spring

### **THE 1152 Acting Practicum II (2)**

Contact hours (4 total): 4 lab

Experience in acting. Meets graduation requirements for AA in Theatre Arts Performance. May be repeated for a maximum of 4 credit hours.

Instructor Permission Required.

Terms Offered: Fall, Spring

### **THE 1161 Technical Practicum I (1)**

Contact hours (3 total): 3 lab

Experience in technical production. Meets graduation requirements for AA in Theatre Arts Technical. May be repeated for a maximum 4 credit hours.

Instructor Permission Required.

Terms Offered: Fall, Spring

### **THE 1162 Technical Practicum II (2)**

Contact hours (4 total): 4 lab

Experience in technical production. Meets graduation requirements for AA in Theatre Arts Technical. May be repeated for a maximum 4 credit hours.

Instructor Permission Required.

Terms Offered: Fall, Spring

### **THE 2201 Acting I (3)**

Contact hours (4 total): 2 lecture, 2 lab

Basic training and practice in vocal, physical, and creative processes used by the actor for the stage, emphasis on character development and scoring techniques.

Pre/Corequisite(s): ENG 1111

Terms Offered: Fall, Spring

### **THE 2202 Acting II (3)**

Contact hours (4 total): 2 lecture, 2 lab

Continuation of actor training for the stage. Increased emphasis on character development, scoring, and styles.

Prerequisite(s): THE 2201

Terms Offered: Fall

### **THE 2210 Stage Lighting (3)**

Contact hours (3 total): 3 lecture

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. Offered Spring, odd numbered years

Prerequisite(s): CPE 0100

Pre/Corequisite(s): THE 1111

An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.

Terms Offered: Spring

### **THE 2220 Sound (3)**

Contact hours (4 total): 2 lecture, 2 lab

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. Offered Spring, even numbered years

Prerequisite(s): CPE 0100  
Pre/Corequisite(s): THE 1111  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Terms Offered: Spring

### **THE 2230 Theatre Management (3)**

Contact hours (3 total): 3 lecture  
Organization and operation of the theatre including staff, funding, ticket sales, marketing, and grant writing.  
Offered Fall, even numbered years.  
Prerequisite(s): THE 1130  
Terms Offered: Fall

### **THE 2235 Stage Management (3)**

Contact hours (3 total): 3 lecture  
Stage management responsibilities including; rehearsal and performance document preparation; and the development of organizational skills. Offered Fall, odd numbered years.  
Prerequisite(s): THE 1130  
Terms Offered: Fall

### **THE 2240 Basics of Theatre Design (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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: Spring

### **THE 2241 Theatre History I (3)**

Contact hours (3 total): 3 lecture  
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.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Fall

### **THE 2242 Theatre History II (3)**

Contact hours (3 total): 3 lecture  
Survey of the history and development of theatrical production from Restoration through the present. Emphasis on play production rather than literature. Representative plays studied.  
Pre/Corequisite(s): ENG 1111  
Global Awareness.  
Terms Offered: Spring

### **THE 2280 Directing (3)**

Contact hours (4 total): 2 lecture, 2 lab  
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)**

Contact hours (1 total): 1 lecture  
Apply classroom studies in a technical theatre workplace.

Prerequisite(s): THE 1111 and THE 1112  
Terms Offered: Fall, Spring, Summer

## **(WLD) Welding**

### **WLD 1000 Introduction to Welding Processes (3)**

Contact hours (5 total): 2 lecture, 3 lab  
An introduction to the fundamentals of equipment used in oxyacetylene and arc welding, including welding and cutting safety. Skill development in oxyacetylene brazing, cutting, and plasma cutting.  
Prerequisite(s): CPE 0100  
Pre/Corequisite(s): AGR 1100 or ENT 1000  
An appropriate college placement test, ACT, or SAT score will satisfy the respective CPE requirement.  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring, Summer

### **WLD 1010 Gas Metal Arc Welding (GMAW) (3)**

Contact hours (7 total): 1 lecture, 6 lab  
An introduction to the Gas Metal Arc Welding (GMAW) process. Perform GMAW in the flat, horizontal, vertical, and overhead position. Discuss power source, electrode wire selection, various joint designs, and troubleshooting techniques. Instruction provided in GMAW fillet welds in various positions.  
Prerequisite(s): WLD 1000  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring

### **WLD 1020 Shielded Metal Arc Welding (SMAW) (3)**

Contact hours (7 total): 1 lecture, 6 lab  
An introduction to the Shielded Metal Arc Welding (SMAW) process. Perform SMAW in the flat, horizontal, vertical, and overhead position. Emphasis placed on power sources, electrode selection, various joint designs, and troubleshooting techniques. Instruction provided in SMAW fillet welds in various positions.  
Prerequisite(s): WLD 1000  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring

### **WLD 1030 Gas Tungsten Arc Welding (GTAW) (3)**

Contact hours (7 total): 1 lecture, 6 lab  
An introduction to the principles of Gas Tungsten Arc Welding (GTAW), setup and use of GTAW equipment and safe use of tools and equipment. Welding in various positions and joint designs.  
Prerequisite(s): WLD 1000  
Lab Fee: \$150.00  
Terms Offered: Fall, Spring