2024-2025
COURSE CATALOG

WASHINGTON STATE
COLLEGE OF OHIO

TABLE OF CONTENTS

Program Listing **6**
Degree Requirements **7**
What is the Bachelor Degree 7
What is the Associate Degree 8
General Education Goals 9
General Education Course Requirements for Applied Degrees 9
Catalog in Effect. 9
Associate of Applied Business Course Distribution Requirements. 10
Associate of Applied Science Course Distribution Requirements 10
Associate of Arts Degree Course Distribution Requirements 10
Associate of Individualized Studies Course Distribution Requirements . 11
Associate of Science Degree Course Distribution Requirements. 12
Associate of Technical Studies Course Distribution Requirements. 12
Advanced Placement. 13
Prior Learning Assessment 13
Other Program Requirements **14**
Certificate of Completion Requirements 14
One-Year Certificate Requirements 14
Requirements for a Second Major. 14
Requirements for a Second Degree 14
West Virginia Reciprocity Agreement 14
College Tech Prep 15
Transfer and Articulation **16**
Baccalaureate Transfer Programs 16
Articulation Agreements 16
Institutional Transfer 16
Acceptance of Transfer and Articulated Credit 16
Application of Transfer and Articulated Credit 16
Ohio Transfer 36 17
Transfer Assurance Guides. 17
Career-Technical Assurance Guides 17
Military Transfer Assurance Guides. 18
Apprenticeship Pathway Programs 18
Advanced Placement (AP) Exams 18
One-Year Option Credit Award 18
Industry Recognized Credential Transfer Assurance Guides 19
Conditions for Transfer Admission. 19
Appeals Process 20
Reverse Transfer 20
Washington State Transfer Module 20
Arts and Humanities 21
Communication Skills. 21
Mathematics. 21
Natural Sciences. 21
Social and Behavioral Science 22
Business & IT Technology Programs **23**
Engineering & Industrial Technology Programs **27**
Health Programs **33**
Law & Public Safety Programs **47**
Transfer Programs **52**
1-Year Certificate Programs **61**
Certificates of Completion **65**
Course Catalog **69**
WSCO Faculty **99**

Foreword

The college catalog is published by Washington State College of Ohio every year. This volume contains official information for the academic years 2024-25. The contents are presented for information only and are neither a contract nor an offer to contract.

Students are governed by the rules and regulations set forth in the college policy and procedures manual and published in the catalog and student handbook, including amendments, which are in effect at the time of the student's enrollment. Washington State reserves the right to repeal, change or amend rules, regulations and fees, as well as withdraw, add to or modify programs described herein without notice. Students are advised to consult with the academic advisor or appropriate college official for current official requirements and program requirements.

Statement of Non-Discrimination

Washington State College of Ohio embraces human diversity and is committed to equal employment opportunities, affirmative action, and eliminating discrimination. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited. Equal access to employment opportunities, admission, educational programs, and all other college activities is extended to all persons.

2024-2025 WSCO CATALOG

MISSION

Washington State College of Ohio responds to the education and workforce needs of our community by providing dynamic and affordable degree and certificate programs in an atmosphere that promotes student success.

VISION

Our vision is to inspire individual excellence and success.

WE VALUE

In creating an environment of trust and respect for faculty, staff, and students, the WSCO community strives to live by a set of values to be practiced each day and in each encounter.

- **Respect** - To acknowledge the humanity of all individuals through compassionate action.
- **Ethics** - To demonstrate honesty, integrity, responsibility, and accountability.
- **Inspiration** - To provide an atmosphere that encourages our campus community to develop, grow, and succeed as lifelong learners.
- **Inclusion** - To provide an atmosphere that fosters respect and acknowledges, explores, and embraces the diversity and uniqueness of all regional and global cultures.
- **Success** - To enable all students, faculty, and staff to be successful academically, personally, and professionally.
- **Excellence** - To reach our maximum potential as a community college through continuous improvement, institutional growth, excellence in teaching, and community engagement.
- **Teamwork** - To foster a culture of collaboration within the campus community that supports our mission, our students, our employees, and the surrounding area.
- **Stewardship** - To be responsible stewards of college resources: human, fiscal, natural, physical, and virtual.

SENIOR ADMINISTRATION

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President

Sarah Parker, Ed.D.
Vice President of Academic Affairs

Angela Lang, MA
Chief Financial Officer

Gary Barber, M.Ed.
Vice President of Organizational Effectiveness

David Hermann, MA
Vice President of Student Affairs

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Daniel Leffingwell
Dean of Engineering and Business

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Dean of Transfer & Public Services

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2024-2025 WSCO ACADEMIC CALENDAR

FALL SEMESTER 2024 - 16 WEEK TERM

Fall semester classes begin	August 19	Monday
Last day to register for 16-week courses	August 19	Monday
Labor Day - Campus closed	*September 2*	*Monday*
1st Attendance Reporting due by 8am	September 3	Tuesday
Mid-term exams for 16-week courses	October 7-11	Monday - Friday
Fall Break - no classes	October 14-15	Monday - Tuesday
Mid-term grades due for 16-week courses	October 15	Tuesday
Spring Advisement/Registration begins	October 28	Monday
2nd Attendance Reporting due by 8am	October 31	Thursday
Veteran's Day - Campus closed	*November 11*	*Monday*
Last day to withdraw	November 26	Tuesday
Thanksgiving Break - Campus closed	*November 28-29*	*Thursday - Friday*
Final exam period	Dec. 4 - Dec. 10	Wednesday - Tuesday
Fall semester ends	December 10	Tuesday
Final grades due by 8am	December 12	Thursday

FALL SEMESTER - FIRST 8-WEEK TERM

Fall semester First 8-Weeks begin	August 19	Monday
Last day to register	August 19	Monday
Labor Day - Campus closed	*September 2*	*Monday*
Attendance Reporting due by 8 am	September 3	Tuesday
Mid-term grades due	September 17	Tuesday
Last day to withdraw	September 27	Friday
First 8-Weeks ends	October 11	Friday
Final grades due by 8am	October 15	Tuesday

FALL SEMESTER - SECOND 8-WEEK TERM

Fall semester Second 8-Weeks begin	October 16	Wednesday
Last day to register	October 16	Wednesday
Attendance Reporting due by 8 am	October 31	Thursday
Veteran's Day observed - Campus closed	*November 11*	*Friday*
Mid-term grades due	November 12	Tuesday
Last day to withdraw	November 26	Tuesday
Thanksgiving Break - Campus closed	*November 28-29*	*Thursday - Friday*
Second 8-Weeks ends	December 10	Tuesday
Final grades due by 8am	December 12	Thursday

2024-2025 WSCO ACADEMIC CALENDAR

SPRING SEMESTER 2025

Spring semester classes begin	January 13	Monday
Last day to register	January 13	Monday
Martin Luther King Day - Campus closed	*January 20*	*Monday*
1st Attendance Reporting due by 8 am	January 28	Tuesday
President's Day Observed - Campus closed	*February 14*	*Friday*
Mid-term exams	Mar. 3 - Mar. 7	Monday - Friday
Spring Break - no classes	March 10-14	Monday - Friday
Mid-term grades due	March 18	Tuesday
Summer/Fall Advisement/Registration begins	March 31	Monday
2nd Attendance Reporting due by 8 am	April 1	Tuesday
Last day to withdraw	April 25	Friday
Final exam period	May 5-May 9	Monday - Friday
Spring semester ends	May 9	Friday
Final grades due by 8 am	May 13	Tuesday
College Commencement Ceremony	May 17	Saturday

SPRING SEMESTER - FIRST 8-WEEK TERM

Spring semester First 8-Weeks begin	January 13	Monday
Last day to register	January 13	Monday
Martin Luther King Day - Campus closed	*January 20*	*Monday*
Attendance Reporting due by 8 am	January 28	Tuesday
Mid-term grades due by 8 am	February 11	Tuesday
President's Day Observed - Campus closed	*February 14*	*Friday*
Last day to withdraw	February 21	Monday
First 8-Weeks ends	March 7	Friday
Final gradues due by 8 am	March 18	Tuesday

SPRING SEMESTER - SECOND 8-WEEK TERM

Spring semester Second 8-Weeks begin	March 17	Monday
Last day to register	March 17	Monday
Attendance Reporting due by 8 am	April 1	Tuesday
Mid-term grades due by 8 am	April 15	Tuesday
Last day to withdraw	April 25	Friday
Second 8-Weeks ends	May 9	Friday
Final gradues due by 8 am	May 13	Tuesday

An up-to-date Academic Calendar can always be found online at wsco.edu/academics/academic-calendar/

PROGRAM LISTING

AUTO/DIESEL

- Automotive Technology
  - Automotive Service
  - Automotive Technician *(1-Year Certificate)**
  - Diesel Truck Systems
  - Truck Maintenance *(1-Year Certificate)**

BUSINESS & IT

- Accounting Technology
  - Accounting
  - Accounting *(1-Year Certificate)**
- Business Management
  - On Campus
  - Online
  - Small Business Entrepreneurship *(1-Year Certificate)**
  - Administrative Assistant (Executive or Medical) *(1-Year Certificate)**
- Digital Technology
  - Cyber Security
  - Help Desk *(1-Year Certificate)**
  - Cyber Security *(1-Year Certificate)**

ENGINEERING AND INDUSTRIAL TECHNOLOGIES

- Advanced Manufacturing & Integration
  - Manufacturing Technician *(1-Year Certificate)**
- Electrical Engineering Technology -
  - Instrumentation Control & Electrical
- Industrial Technology
  - Chemical Operator Online *(1-Year Certificate)**
  - MultiCraft *(1-Year Certificate)**
  - Process Technician Online

HEALTH

- Health Information Management Technology
- Massage Therapy *(1-Year Certificate)**
- Medical Billing & Coding *(1-Year Certificate)**
- Medical Laboratory Technology
- Nursing
  - Associate Degree Nursing
  - Practical Nursing *(1-Year Certificate)**
  - RN to BSN
- Radiologic Technology
- Respiratory Therapy Technology

LAW & PUBLIC SAFETY

- Criminal Justice Technology
  - Criminal Justice
  - Peace Officer Basic Academy
  - Peace Officer Basic Academy *(1-Year Certificate)**
- Social Services Technology
  - Chemical Dependency Counseling
  - Social Services Technology

TRANSFER

Designed to transfer to a four-year college or university as the first two years of a baccalaureate degree.

- Associate of Science
- Business Administration Transfer
- Education Transfer
- Engineering Transfer
- Liberal Arts Transfer
- Social Services Transfer
- Associate of Individualized Studies

Programs lead to an Associates Degree unless otherwise noted.
A variety of certificates of completion (4 to 14 classes in a related area) can be earned – see details in the online catalog.
**Indicates a certificate program*

BACHELOR DEGREE REQUIREMENTS

WHAT IS THE BACHELOR DEGREE?

Students who complete a four-year program at Washington State are awarded a bachelor degree.

- Bachelor of Science in Nursing (B.S.N.) is awarded to graduates in Nursing.

The B.S.N. degree is designed for students who have obtained their Associate Degree in Nursing or completed a Diploma nursing program and want to complete their BSN. The program includes coursework in general education, transitions in professional nursing, health assessment and promotion, culturally competent nursing and health promotion, community and public health nursing, nursing informatics, collaborative healthcare, research and evidence-based practice, and nursing leadership and management.

COLLEGE-WIDE BACHELOR DEGREE GRADUATION REQUIREMENTS

A candidate for a bachelor degree from Washington State College of Ohio must have satisfied the following requirements, as well as have earned a minimum of 120 semester hours of credit together with at least a 2.0 grade point average.

A. Residency requirement: A student who wishes to apply credits earned at other colleges toward the degree must successfully complete a total of at least 30 semester hours of credit in graded courses (A, B, C, D) under the supervision of the college, with at least a 2.00 ("C") GPA.

B. Have completed the requirements of the degree program as outlined in the catalog, and its addenda in effect at the time of the beginning of the student's most recent period of continuous enrollment.

C. Have completed the same minimum number of semester credit hours in non-technical and general education studies as required for the degree of Associate of Applied Science.

D. Graduating students are expected to attend commencement exercises. Degrees may be conferred in absentia.

ASSOCIATE DEGREE REQUIREMENTS

WHAT IS THE ASSOCIATE DEGREE?

Students who complete two-year academic programs at Washington State are awarded an associate degree.

- Associate of Applied Business (A.A.B.) is awarded to Business Technologies graduates.
- Associate of Applied Science degree (A.A.S.) is awarded to graduates in Auto/Diesel Technologies, Law & Public Safety, Health, Engineering, Industrial and IT Technologies.
- Associate of Arts (A.A.) or Associate of Science (A.S.) is awarded to graduates planning to transfer to baccalaureate degree programs.
- Associate of Individualized Studies (A.I.S.) is awarded to graduates of a two-year program tailored to specific educational needs not met by other standard programs.
- Associate of Technical Studies (A.T.S.) is awarded to graduates of a two-year program tailored to an individually planned technical education to respond to needs for specialized technical education not available in the formal degree programs.

The A.A.S. and A.A.B. degrees are designed specifically to lead to career entry or advancement. Applied Degree programs offer courses directly related to the technology major. Students become quickly involved in technical courses and continue to receive advanced education in upper level courses throughout the second year.

New opportunities for transfer with A.A.S and A.A.B are constantly evolving. See an advisor in the Admissions Office for current information.

The A.A. and A.S. degrees are designed specifically for transfer to a four-year college or university. Degree programs are composed of courses normally required during the freshman and sophomore years of a baccalaureate program. Students complete most of the general education requirements during two years at Washington State, adding some program-specific courses during the second year.

The Associate of Individualized Studies (A.I.S.) allows students to tailor their studies to specific educational needs not met by standard programs. In this way, the student can gain up to 40 credit hours of the 60 required by using transfer college credit and life experience credit. Individuals who wish to develop an individualized program of study should contact the appropriate academic division for assistance.

The Associate of Technical Studies (A.T.S.) allows students to tailor their studies to respond to needs for specialized technical education not available in the formal degree programs. The program leading to an A.T.S. must have an area of concentration which is equivalent to 30 semester credit hours in technical studies and clearly identifiable with a career objective. Individuals who wish to develop an individualized technical program of study should contact the appropriate academic division for assistance.

COLLEGE-WIDE ASSOCIATE DEGREE GRADUATION REQUIREMENTS

A candidate for an associate degree from Washington State College of Ohio must have satisfied the following requirements, as well as have earned a minimum of 60 semester hours of credit together with at least a 2.0 grade point average:

A. Residency requirement: A student who wishes to apply credits earned at other colleges toward the degree must successfully complete a total of at least 20 semester hours of credit in graded courses (A,B,C,D) under the supervision of the college, with at least a 2.00 ("C") GPA.

B. Have completed the requirements of one of the degree program as outlined in the catalog, and its addenda in effect at the time of the beginning of the student's most recent period of continuous enrollment.

C. The Associate of Arts and Associate of Science degrees require completion of the Ohio Transfer 36 resulting in a substantial number of additional general education courses.

D. Graduating students are expected to attend commencement exercises. Degrees may be conferred in absentia.

DEGREE REQUIREMENTS

GENERAL EDUCATION GOALS

In addition to preparing graduates for careers or additional education, Washington State seeks to ensure a breadth of knowledge and promote intellectual inquiry for all students. Upon completion of a degree program, a Washington State graduate will demonstrate knowledge and skills in five key areas.

1. **Communication** represents a student's ability to utilize rhetorical approaches and appropriate tone, seek out and analyze appropriate information, adopt a logical structure and voice, and demonstrate proper conventions of writing/language.
2. **Critical Thinking** reflects a student's ability to identify a problem, gather relevant data and information to tackle the problem, evaluate and interpret the data and information to attain a solution, and formulate and demonstrate conclusions and related outcomes.
3. **Cultural Competency** reflects a student's ability to exhibit cultural self-awareness and awareness of other cultures, integrate knowledge of cultural worldviews, reflect attitudes of openness and curiosity, and illustrate empathy and understanding of own and other cultures.
4. **Professionalism** represents a student's ability to communicate maturely and thoroughly, exhibit timeliness in class and assignments, demonstrate respect to instructors and peers, and practice personal accountability for behaviors and actions.
5. **Scientific Inquiry** represents a student's ability to ask appropriate questions and formulate a hypothesis, acquire appropriate data, interpret data correctly, solve problems using technology, and summarize and communicate evidence.

These general education goals are integrated into the degree requirements of each program and achieved through completion of general education courses and courses in the technical major or major concentration.

CATALOG IN EFFECT

The curriculum requirements for graduation are those in effect at the time the student enrolls. Those requirements will govern the student's eligibility to graduate as long as the student remains in continuous enrollment. If the student does not attend class for one semester (excluding summer), the curriculum requirements in effect at the time of re-admission will govern graduation.

Students should save a .PDF copy of this catalog as a reference and guide while enrolled at Washington State College of Ohio.

GENERAL EDUCATION COURSE REQUIREMENTS FOR APPLIED DEGREES (A.A.B., A.A.S., A.I.S., & A.T.S.)

The AAB, AAS, AIS and ATS will be composed of not less than 30 credit hours of general education and applied general education studies and not more than 35 hours of technical courses. None of these degrees will be composed of less than 60 semester credit hours and will not exceed a total of 65 semester hours unless approved by the college's Vice President for Academic Affairs in order to meet a special requirement of the program's professional accrediting agency.

The General Education portion of the non-technical coursework must include at least 15 semester credit hours from the following minimum requirements:

ENGLISH COMPOSITION AND MATHEMATICS (minimum of 6 credit hours):

- English Composition — 3 hours
- Mathematics — 3 hours

SIX CREDIT HOURS IN TWO OF THE THREE AREAS:

- Social and Behavioral Sciences — 3 hours
  (economics, geography, history, political science, psychology, sociology)
- Arts and Humanities — 3 hours
  (art, literature, philosophy, humanities, music, theater)
- Natural Sciences — 3 hours
  (biology, chemistry, geology, physics, astronomy)

The same course cannot count toward both the social and behavioral sciences requirement and the arts and humanities requirement. Courses meeting the requirement in the arts or humanities may include studio courses and special topics courses.

APPLIED GENERAL EDUCATION:

- Remaining additional credit hours in applied general education coursework that emphasize the application of general education to an occupational or technical area appropriate to the degree.

DEGREE REQUIREMENTS

ASSOCIATE OF APPLIED BUSINESS COURSE DISTRIBUTION REQUIREMENTS

The Associate of Applied Business (A.A.B.) is awarded to students who successfully complete one of the prescribed curricula in business technologies. The degree is designed to prepare technicians and para-professionals for immediate entry into the workforce upon graduation. Both technical and non-technical courses are required for the A.A.B.

A.A.B. Non-technical Course Requirements

The A.A.B. degree requires 30 semester credits of non-technical studies. Courses may be in two categories:

1. General education requirements consisting of courses in written communication, oral communication, social and behavioral sciences, and arts and humanities. These requirements also include courses in the natural sciences and in mathematics.
2. Basic related courses include a core of courses basic to the technical field and closely related to the specialty.

Since the non-technical course requirements vary with each program, the student should check the courses required in each program or major.

A.A.B. Technical Course Requirements

For graduation, 30-35 credit hours in technical courses clearly identified with the technical skills, proficiency, and knowledge required for career competency, as prescribed by the academic program. A minimum of 60 up to a maximum of 65 total credit hours is required for graduation depending upon the specific requirements of each degree program.

ASSOCIATE OF APPLIED SCIENCE COURSE DISTRIBUTION REQUIREMENTS

The Associate of Applied Science (A.A.S.) is awarded to students who successfully complete one of the prescribed curricula in auto/diesel, industrial, engineering, health, law & public safety or IT. The degree is designed to prepare technicians and para-professionals for immediate entry into the workforce upon graduation. Both technical and non-technical courses are required for the A.A.S.

A.A.S. Non-technical Course Requirements

The A.A.S. requires a minimum 30 semester credits of non-technical studies. Courses may be in two categories:

1. General Education requirements consisting of courses in written communication, oral communication, social and behavioral sciences, and arts and humanities. These requirements also include courses in the natural sciences and in mathematics.
2. Basic Related Courses include a core of courses basic to the technical field and closely related to the specialty.

Since the non-technical course requirements vary with each program, the student should check the courses required in each program or major.

A.A.S. Technical Course Requirements

For graduation, 30-35 credit hours is required in technical courses clearly identified with the technical skills, proficiency, and knowledge required for career competency, as prescribed by the academic program. A minimum of 60 up to a maximum of 65 total credit hours is required for graduation depending upon the specific requirements of each degree program.

ASSOCIATE OF ARTS DEGREE COURSE DISTRIBUTION REQUIREMENTS

The Associate of Arts (A.A.) degree is awarded to students who successfully complete the requirements for the degree with a concentration in arts, humanities, business or education, or other areas. The degree is designed for students wishing to complete the first two years of a Bachelor of Arts degree, as well as those desiring two years of a general education with emphasis in the arts, social sciences or humanities. To earn an A.A., a total of 60-65 credit hours of work must be completed, including the 36-40 hours earned in the Ohio Transfer 36.

General Education Course Requirements for the A.A. (includes Transfer Module)

- Communication Skills: Two Ohio Transfer 36 courses in English composition, plus a minimum of one course in speech communication for a total of 9 semester hours.
- Mathematics Statistics, and Logic: At least one course in mathematics that meets Ohio Transfer 36 criteria of building on three years of college preparatory or equivalent mathematics, for a total at least 3 semester hours
- Natural Sciences: A minimum of 6 Ohio Transfer 36 credit hours, including at least one laboratory course.
- Social and Behavioral Sciences: A minimum of 6 Ohio Transfer 36 credit hours.
- Arts and Humanities: A minimum of 6 Ohio Transfer 36 credit hours.
- Additional electives to make up 36-40 total hours of Ohio Transfer 36 Courses based on chosen curriculum, and/or Ohio Guided Pathway Transfer.

DEGREE REQUIREMENTS

ASSOCIATE OF ARTS DEGREE COURSE DISTRIBUTION REQUIREMENTS (CONTINUED)

Major Concentration Requirement for the A.A.

Students in an A.A. program must take at least 12 credit hours in an area of major concentration other than science, engineering, or mathematics, as prescribed by the chosen curriculum and approved by the student's academic advisor.

Recommended Electives for the A.A. Degree

The remaining courses to meet the 60-65 credit hours required for the degree should be selected based on the chosen curriculum, the academic requirements of the institution to which the student plans to transfer, and the approval of the academic advisor. One to three credits in physical activity/recreation courses may be applied to the degree.

Based on foreign language courses completed in high school and requirements of the chosen program at the transfer institution, students may choose to complete one year of foreign language at Washington State.

ASSOCIATE OF INDIVIDUALIZED STUDIES COURSE DISTRIBUTION REQUIREMENTS

The Associate of Individualized Study (A.I.S.) is awarded to students who successfully complete an individually designed curricula prescribed to meet specific career goals. Students must satisfactorily complete a minimum of 60 semester credit hours in a well-planned, unique program to serve an educational objective that could not be served through another degree program at the college.

General Education Requirements for the A.I.S.

The five general education goals will be included in each individually-designed curriculum, for a minimum of 30 semester credits of general and basic related course work including the general education course requirements.

Major Concentration Requirement for the A.I.S.

The program leading to the A.I.S. must contain an area of concentration consisting of a minimum of 30 up to a maximum of 35 semester credit hours formed either by:

1. An intra-college, interdisciplinary, but coherent combination of courses drawn from a minimum of two and a maximum of four instructional areas of study; or
2. Up to 45 semester credit hours awarded by the college for documentable educational experiences or courses completed at another college judged by Washington State to be of college level.

Upon petitioning for acceptance into the A.I.S. program, a representative of Enrollment Management, the student's committee, and the student will determine the remaining required courses. Once students are accepted into the program, they must complete at least 20 credit hours within the approved A.I.S. program with at least half in the area of the approved concentration. Students with less than 30 credit hours remaining toward a degree must have the approval of the Vice President for Academic Affairs to enroll in the program.

DEGREE REQUIREMENTS

ASSOCIATE OF SCIENCE DEGREE COURSE DISTRIBUTION REQUIREMENTS

The Associate of Science (A.S.) degree is awarded to students who successfully complete the requirements for the degree with a concentration in mathematics, science or engineering. The degree is designed for students wishing to complete the first two years of a Bachelor of Science degree, as well as those desiring two years of a general education with emphasis in natural science or mathematics. For a student to earn an A.S. degree, a total of 60-65 credit hours of work must be completed, including the 36-40 hours earned in the Ohio Transfer 36. Total course requirements for the A.S. degree are described below.

General Education Course Requirements for the A.S. Degree (includes Transfer Module)

- Communication Skills: Two Ohio Transfer 36 courses in English composition, plus a minimum of one course in speech communication for a total of 9 semester hours.
- Mathematics Statistics, and Logic: At least one course in mathematics that meets Ohio Transfer 36 criteria of building on three years of college preparatory or equivalent mathematics, for a total of at least 3 semester hours
- Natural Sciences: A minimum of 6 Ohio Transfer 36 credit hours, including at least one laboratory course.
- Social and Behavioral Sciences: A minimum of 6 Ohio Transfer 36 credit hours.
- Arts and Humanities: A minimum of 6 Ohio Transfer 36 credit hours.
- Additional electives to make up 36-40 total hours of Ohio Transfer 36 Courses based on chosen curriculum, and/or Ohio Guided Pathway Transfer.

Major Concentration Requirement for the A.S. Degree

Students in an A.S. program must take at least 12 credit hours in an area of major concentration in science, engineering, or mathematics, as prescribed by the chosen curriculum and approved by the student's academic advisor.

Recommended Electives for the A.S. Degree

The remaining courses to meet the 60-65 credit hours required for the degree should be selected based on the chosen curriculum, the academic requirements of the institution to which the student plans to transfer, and the approval of the academic advisor. One to three credits in physical activity/recreation courses may be applied to the degree.

Based on foreign language courses completed in high school and requirements of the chosen program at the transfer institution, students may choose to complete one year of foreign language at Washington State.

ASSOCIATE OF TECHNICAL STUDIES COURSE DISTRIBUTION REQUIREMENTS

The Associate of Technical Studies (A.T.S.) is awarded to students who successfully complete a minimum of 60 semester credit hours of an individually planned technical education program designed to respond to needs for specialized technical education not currently available in the formal degree programs available at the college. The program leading to an Associate of Technical Studies must have an area of concentration which is equivalent to 30 semester credit hours in technical studies and clearly identifiable with a career objective. The actual degree awarded must contain the name of the area of concentration, e.g., Associate of Technical Studies in Cyber Security and Investigation. Both technical and non-technical courses are required for the A.T.S.

A.T.S. Non-technical Course Requirements

The A.T.S. degree requires 30 semester credits of non-technical studies. Courses may be in two categories:

1. General education requirements consisting of courses in written communication, oral communication, social and behavioral sciences, and arts and humanities. These requirements also include courses in the natural sciences and in mathematics.
2. Basic related courses include a core of courses basic to the technical field and closely related to the specialty.

A.T.S. Technical Course Requirements

For graduation, 30-35 credit hours in two or more areas of technical studies clearly identified with skills, proficiency, and knowledge required for career competency, as prescribed by the academic program. A minimum of 60 up to a maximum of 65 total credit hours is required for graduation depending upon the specific requirements of each degree program.

Graduates of the A.T.S. program who wish to extend their studies to baccalaureate-level programs may need to complete a substantial amount of lower division coursework at the transfer institution. Students satisfactorily completing this degree must assume that four-year institutions may evaluate their credits on a course-by-course basis.

DEGREE REQUIREMENTS

ADVANCED PLACEMENT

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.

1. Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credit(s) for the AP exam area(s) successfully completed.
2. 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.
3. If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied towards graduation where such elective credit options exist within the academic major.
4. In academic disciplines containing highly dependent sequences (Mathematics, Sciences, etc.) 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.

A complete listing of credit awarded for an AP score of 3 or above for all University System of Ohio colleges and universities can be found at www.ohiohighered.org/transfer/ap

PRIOR LEARNING ASSESSMENT

CREDIT ALTERNATIVES

College Level Examination Program

Washington State College of Ohio participates in the nationally recognized College Level Examination Program (CLEP), offered by the College Entrance Examination Board, a testing program which permits students to earn college credits by demonstrating knowledge equal to a particular college-level course. CLEP alignments may be viewed by visiting www.ohiohighered.org/transfer/clep

Proficiency Testing

The faculty of the College offer proficiency credit by examination for some courses. Through testing, students may demonstrate proficiency in a course and receive appropriate credit. Specific information about proficiency credit can be obtained through the academic divisions of the College.

There are a number of procedures that should be followed when seeking proficiency credit.

1. The student must show evidence of successful completion of all prerequisites to the course for which the proficiency examination is being requested.
2. Proficiency examinations are conducted during the first five days of any academic term. An "Application for Proficiency," the proficiency fee according to the schedule of fees, and the examination must be completed and results submitted to the records office by the end of the fifth day in the academic term.
3. A proficiency examination can be administered only by departmental faculty specifically responsible for the course subject area requested for proficiency.
4. Failed proficiency exams may not be repeated.
5. A student may not request a proficiency examination for any course in which they have received an F or from which he or she has withdrawn.
6. A student who has taken a lower numbered course in a sequential series of courses will not be permitted to take a proficiency examination in a higher numbered course in that same series of courses.
7. A student who has received credit for a higher numbered course in a sequential series of courses will not be permitted to take a proficiency examination in a lower numbered course in that same series.

To apply for proficiency examination, the following procedures need to be followed.

1. Request proficiency examination from the academic department.
2. Obtain the Application for Proficiency form from the records office, fill out the form, and pay all fees.
3. Present the completed form to the academic department and arrange for a testing date. A score of 85 percent or more is required for successful proficiency.

Successful proficiency will result in transcript credit for the course, and the course will apply toward degree requirements. The records office will notify the student of the results. Students earning proficiency credit should be aware that credits earned by means of proficiency are seldom transferable to any other institution.

Assessment of Credit for Life/Work Experience

Students can receive credit for prior relevant college-level learning acquired either through formal schooling or some types of occupational experience. Each student works with

an advisor to define his or her program of study, giving careful consideration to high school background, test results, interests, talents, attitudes and goals.

Credit may be granted for satisfactory performance on examinations, and appropriate work experience. The student contacts the student services office, then meets with an advisor to determine if the life experience evaluation is appropriate to his or her educational program.

The student must submit a portfolio which consists of all documentation he or she considers relevant.

Required are:

1. A cover letter stating the number of credits requested, the areas in which the credit is being requested, and names, titles, addresses and phone numbers of persons to be consulted regarding each experience;
2. A detailed description of each experience for which credit is requested; and
3. A letter from on-site supervisors or employers confirming the nature, duration and quality of the work.
4. The student then has a personal interview with a committee of faculty/staff members consisting of the appropriate academic dean and faculty appropriate to the subject area, if needed.

As documentation, the applicant may be asked to:

1. Complete written and/or performance tests; up to 40 credit hours may be from outside sources such as National Auto Mechanics Tests, CLEP Examinations, or College Board Advanced Placement tests which can be utilized to demonstrate an appropriate level of ability or knowledge.
2. Complete in-house tests such as placement and/or proficiency examinations prepared by faculty members at WSCO.

In summary, the primary assessment techniques for life experience credit are documents, reports and testimony from external sources along with faculty evaluation at WSCO.

The committee will decide how many credits will be awarded and in what particular areas the credit will be granted. The student will be notified of the committee's decision as soon as possible; however, the credit is not actually awarded until the student has successfully completed a minimum of 12 semester hours at WSCO.

The cost to the student includes the cost of any tests from outside sources.

The transfer of Life Experience Credit to another college is determined by the receiving institution. Each college has a policy which determines the transfer of credit.

CERTIFICATE OF COMPLETION REQUIREMENTS

A candidate for a Certificate of Completion must have satisfactorily completed all courses required for the certificate with a C or better. At least 75% of the courses must be taken at Washington State.

ONE-YEAR CERTIFICATE REQUIREMENTS

A candidate for a one-year certificate from Washington State must have earned 30 credit hours or more based on the requirements listed in the student's certificate program. A transfer student must have earned at least 10 semester hours of credit with at least 2.00 (C) cumulative grade point average under the supervision of the college, and have been officially registered in the college during the final semester. One-year certificates that are Federal Financial Aid eligible are considered Gainful Employment Programs; and WSCO is required to disclose program information to all prospective students of these programs by visiting wsco.edu/academics/certificates.

REQUIREMENTS FOR A SECOND MAJOR

Students who wish to pursue more than one major in a degree program must consult with the appropriate department chair or dean and must meet the following requirements:

1. All degree requirements for both majors must be met.
2. A minimum of 12 semester hours of credit must differ the requirements for the first major.

REQUIREMENTS FOR A SECOND DEGREE

Students who have earned an associate degree from Washington State and wish to earn an associate degree in a second program must consult with the appropriate department chair or dean and must meet the following requirements:

1. A minimum of 18 semester hours of credit must differ to the total compiled for the first degree.
2. All requirements for the second degree must be met.
3. An additional degree will not be granted in the same program in which the first degree was earned, but an additional major may be earned in the same degree program.

WEST VIRGINIA RECIPROCITY AGREEMENT

Washington State and West Virginia University at Parkersburg have an agreement that permits some West Virginia residents to pay Ohio resident tuition fees, instead of the out-of-state charge. Residents West Virginia are eligible for this low in-state tuition when they enroll at Washington State in any degree or one-year certificate program.

OTHER PROGRAM REQUIREMENTS

COLLEGE TECH PREP

College Tech Prep is a nationally recognized program that partners two-year colleges with area high schools to prepare young people for the technical jobs of the future. College Tech Prep high school students:

1. Learn college preparatory academics in applied, real-world contexts that make the content more meaningful and accessible to them;
2. Develop technological literacy, including the basics of computer usage; and,
3. In grades 11 and 12, immerse themselves in the occupational skills needed to enter and succeed in a two-year college technical program.

At the end of high school, College Tech Prep graduates are ready to enter an advanced skills College Tech Prep associate degree program at a community or technical college. They also can enter the world of work with an array of stronger basic and occupational skills than graduates of general education programs.

Others who wish to enroll in a College Tech Prep associate degree program, but who did not participate in the high school program, may be required to complete several bridge courses first.

In our area, the Washington-Morgan-Meigs College Tech Prep Consortium works with the Washington County Career Center, Meigs High School, Morgan High School and their associate schools to prepare students for College Tech Prep associate degree programs at Washington State.

Current College Tech Prep associate degree programs at Washington State:

- Nursing: Associate Degree Nursing
- Automotive and Diesel Truck Systems
- Business Management Technology
- Electrical Engineering Technology
- Medical Laboratory Technology
- Nursing: Practical Nursing
- Radiologic Technology
- Respiratory Therapy Technology

Additional programs may be implemented. For information contact the college's Outreach Center or local high school counselors.

TRANSFER & ARTICULATION

BACCALAUREATE TRANSFER PROGRAMS

In many cases, the career needs of Washington State students can only be met by a four-year bachelor's degree. For these, the college offers transfer programs in addition to its career-oriented technical education programs. The transfer programs at Washington State enable the student to complete the majority of freshman and sophomore college course requirements close to home.

Degree programs designed for transfer to a baccalaureate program fall into two categories: Associate of Arts (AA) degree and Associate of Science (AS) degree.

ARTICULATION AGREEMENTS

To assist students in transfer, articulation agreements continue to be developed with nearby public and private colleges and universities. The articulation agreements clearly indicate which courses offered by Washington State will be accepted by the receiving institution.

INSTITUTIONAL TRANSFER

The Ohio Department of Higher Education in 1990, following a directive of the 118th 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. Additional legislation from the 125th Ohio General Assembly also initiated the development of a statewide system for articulation agreements among state institutions of higher education for transfer students pursuing teacher education programs.

Action by the 126th Ohio General Assembly led to the establishment of criteria, policies, and procedures for the transfer of technical courses completed through a career-technical education institution; and standards for the awarding of college credit based on Advanced Placement (AP) test scores.

Legislation from the 130th Ohio General Assembly required public institutions of higher education to: use baseline standards and procedures in the granting of college credit for military training, experience, and coursework; establish an appeals process for resolving disputes over the awarding of credit for military experience; provide specific assistance and support to veterans and service members; adopt a common definition of a *service member* and *veteran*; and establish a credit articulation system in which adult graduates of public career-technical institutions who complete a 900 clock-hour program of study and obtain an industry-recognized credential approved by the Chancellor shall receive 30 college technical credit hours toward a technical degree upon enrollment.

While all public 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 Department of Higher Education has established an articulation and transfer clearinghouse to receive, annotate, and convey transcripts among public 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.

ACCEPTANCE OF TRANSFER AND ARTICULATED CREDIT

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college-level courses completed in or after Fall 2005 from Ohio public institutions of higher education. Students who successfully completed Associate of Arts (AA) or Associate of Science (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. While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting.

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

APPLICATION OF TRANSFER AND ARTICULATED CREDIT

Application of credit is the decision process performed by the receiving institution to determine how the credits

it has accepted and recorded on the student's official academic transcript will or will not apply toward program and degree requirements. While the receiving institution makes this decision, it will do so within the parameters of this Policy.

The following guidelines and requirements shall govern the application of transfer and articulated credit:

OHIO TRANSFER 36

The Ohio Department of Higher Education's Articulation and Transfer Policy established the Ohio Transfer 36, which may be a subset or the entire set of a public higher education institution's general education curriculum in Associate of Arts (AA), Associate of Science (AS) and baccalaureate degree programs. Students in applied associate degree programs may complete some individual Ohio Transfer 36 courses within their degree program or continue beyond the degree program to complete the entire Ohio Transfer 36. The Ohio Transfer 36 contains 36-40 semester or 54-60 quarter hours of course credit in English composition (minimum of 3 semester or 5 quarter hours); mathematics, statistics and logic (minimum of 3 semester or 3 quarter hours); arts and humanities (minimum of 6 semester or 9 quarter hours); social and behavioral sciences (minimum of 6 semester or 9 quarter hours); and natural sciences (minimum of 6 semester or 9 quarter hours). Oral communication and interdisciplinary areas may be included as additional options. Additional elective hours from among these areas make up the total hours for a completed Ohio Transfer 36. Courses for the Ohio Transfer 36 should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each public university and technical and community college is required to establish and maintain an approved Ohio Transfer 36.

Ohio Transfer 36 course(s) or the full module completed at one college or university will automatically meet the requirements of individual Ohio Transfer 36 course(s) or the full Ohio Transfer 36 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 Ohio Transfer 36 at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Ohio Transfer 36 portion of Institution R's general education program. Institution R, however, may have general education courses that go beyond its Ohio Transfer 36. State policy initially required that all courses in the Ohio Transfer 36 be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Ohio Transfer 36 courses on a course-by-course basis.

TRANSFER ASSURANCE GUIDES

Transfer Assurance Guides (TAGs) comprise Ohio Transfer 36 courses and additional courses required for an academic major called TAG courses. A TAG is an advising tool to assist Ohio university and community and technical college students in planning for specific majors and making course selections that will ensure comparable, compatible, and equivalent learning experiences across Ohio's public higher education system. A number of area-specific TAG pathways in meta-majors including the arts, humanities, business, communication, education, health, mathematics, sciences, engineering, engineering technologies, social sciences, and foreign languages 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.

CAREER-TECHNICAL ASSURANCE GUIDES

Collaboration among the Ohio Department of Higher Education, the Ohio Department of Education, and other key stakeholders led to the development of policies and procedures to create statewide career-technical discipline specific articulation agreements and further ensure that students completing coursework at an adult or secondary career-technical institution can articulate and transfer agreed-upon technical courses/programs to any Ohio public institution of higher education and among Ohio public institutions of higher education "without unnecessary duplication or institutional barriers."

Career-Technical Assurance Guides (CTAGs) are statewide articulation agreements that guarantee the recognition of learning which occurs at public adult and secondary career-technical institutions and have the opportunity for the award of college credit toward technical courses/programs at any public higher education institution. CTAGs serve as advising tools, identifying the statewide content guarantee

and describing other conditions or obligations (e.g., program accreditation or industry credential) associated with the guarantee.

MILITARY TRANSFER ASSURANCE GUIDES

In response to the legislative requirement (Ohio Revised Code 3333.164) to create a military articulation and transfer assurance guide for college-level learning that took place through military training, experience, and coursework, college credit will be granted to students with military training, experience, and/or coursework that is recognized by the American Council on Education (ACE) or a regionally accredited military institution, such as Community College of the Air Force.

In order to streamline the awarding, transferability, and applicability of college credit, service members and veterans are guaranteed to earn certain types of credit(s) or course(s) as specified in the Military Transfer Assurance Guides (MTAGs), which are based on the endorsed baseline standards and procedures by the Chancellor. Equivalent course(s), credits for courses, or block of credit is to be awarded and applied towards general education and/or major course requirements at the receiving institution in accordance with the MTAG guarantee. There is some training, experience, and coursework that the receiving institution may be able to award college credit only toward general or free electives.

In addition, public institutions of higher education shall ensure that appropriate equivalent credit is awarded for military training, experience, and coursework that meet the baseline standards and procedures according to the Ohio Revised Code 3333.164. This requirement goes beyond credit/course awarded based on the MTAG alignment process.

APPRENTICESHIP PATHWAY PROGRAMS

The Apprenticeship Pathways initiative advocates for individuals completing apprenticeships by incorporating their learning into academic credit, thereby saving them time and money and encouraging them to advance their academic credentials to contribute to a strong, educated workforce.

Ohio apprenticeship programs partner with public two-year institutions to provide technology-specific statewide articulation agreements that recognize non-traditional prior learning. College credit is awarded toward a technical associate degree. Each agreement simplifies student advising by outlining how apprenticeship training in a certain pathway applies to an applied associate degree and lists remaining courses required to complete the degree. The application of the credit toward a technical associate degree in these agreements is guaranteed at the participating receiving institutions.

ADVANCED PLACEMENT (AP) EXAMS

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

Beginning in the Fall term 2009:

1. Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed.
2. 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(s) a requirement.
3. If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied towards graduation where such elective credit options exist within the academic major.
4. Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values varies depending on the institution and academic discipline.

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

ONE-YEAR OPTION CREDIT AWARD

The One-Year Option builds upon Ohio's articulation and transfer system to help more adults accelerate their preparation for work by earning a technical associate degree. Consistent with the philosophy of the Career-Technical Assurance Guides (CTAGs), the One-Year Option guarantees that college credit will be awarded for college-level learning that occurs through adult programs at public career-technical institutions.

TRANSFER & ARTICULATION

Adults who complete a career-technical education program of study consisting of a minimum of 900 clock-hours and achieve an industry-recognized credential approved by the Chancellor shall receive thirty (30) semester hours of technical course credit toward a standardized Associate of Technical Study Degree (ATS) upon matriculation at a public institution of higher education that confers such a degree. The 30 semester hours will be awarded as a block of credit rather than credit for specific courses. Proportional credit is to be awarded toward the ATS degree for adults who complete a program of study between 600 and 899 clock hours and achieved an industry-recognized credential approved by the Chancellor.

The credit earned through the One-Year Option will be applied to ATS degrees bearing the following standardized degree titles:

1. Associate of Technical Study in Building and Industrial Technology
2. Associate of Technical Study in Business Technology
3. Associate of Technical Study in Health and Allied Health Technology
4. Associate of Technical Study in Information Technology
5. Associate of Technical Study in Services Technology

INDUSTRY RECOGNIZED CREDENTIAL TRANSFER ASSURANCE GUIDES

ITAGs (Industry-Recognized Credential Transfer Assurance Guides) are a statewide transfer initiative that guarantees the award of college level credit to students earning agreed upon industry-recognized credentials. Students meeting credentialing requirements, regardless of where the learning was achieved, will be eligible to earn credit for specified courses deemed equivalent by faculty and endorsed by Ohio's public institutions of higher education to the stated industry-recognized credential. ITAGs are not meant to replace Career-Technical Assurance Guides (CTAGs). Knowing some CTAGs use credentials to align with college credit, ITAGs expand the concept of the value of credentials.

To reduce variability in the transfer credit evaluation and application process, a set of college level learning outcomes will be established for each ITAG. The set of learning outcomes, which will be aligned with applicable third-party program accreditation, credentialing, and/or other industry standards, will be vetted by faculty and industry as needed.

The goal of ITAGs is to recognize that learning can be validated by an industry-recognized credential and to provide a framework for the application of that learning at Ohio's public colleges and universities, Ohio Technical Centers, plus Ohio independent institutions.

CONDITIONS FOR TRANSFER ADMISSION

1. Graduates with associate degrees from Ohio's public institutions of higher education and a completed, approved Ohio Transfer 36 shall be admitted to a public 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 graduates with an out-of-state associate degree and other transfer students with transferable and/or articulated college credit.

2. Associate degree holders who have not completed the Ohio Transfer 36 from an Ohio public institution of higher education will be eligible for preferential consideration for admission as transfer students as long as the institution's admission criteria, such as the minimum academic standards, space availability, adherence to deadlines, and payment of fees, are fairly and equally applied to all undergraduate students.

3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in or who have not earned an degree but have earned 60 semester/90 quarter hours or more of credit toward a baccalaureate degree with a cumulative 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 as long as the institution's admission criteria, such as the minimum academic standards, space availability, adherence to deadlines, and payment of fees, are fairly and equally applied to all undergraduate students.

4. Students who have not earned an associate degree or who have not earned 60 semester/90 quarter hours of credit with a grade-point average of at least a 2.0 for all previous college-level courses will be eligible for admission as transfer students on a competitive basis.

5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

The admission of transfer students by an institution, however,

does not guarantee admission to any majors, minors, or fields of concentration at the institution. Some programs have additional academic and non-academic requirements beyond those for general admission to the institution (e.g., background check, a grade-point average higher than a 2.0, or a grade-point average higher than the average required for admission to 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.

Responsibilities of Students

To maximize transfer credit application, prospective transfer students must take responsibility for planning their course of study to meet both the academic and non-academic requirements of the institution to which they desire to articulate or transfer credit as early as possible. The student is responsible to investigate and use the information, advising, and other available resources to develop such a plan. Students should actively seek program, degree, and transfer information; meet with an advisor from both the current and receiving institutions to assist them in preparing a course of study that meets the academic requirements for the program/degree to which they plan to transfer; use the various electronic course/program transfer and applicability database systems, including Ohio Transfer to Degree Guarantee web resources; and select courses/programs at their current institution that satisfy requirements at the receiving institution to maximize the application of transfer credit. 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 foreign 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 better articulate with the receiving institution's major.

APPEALS PROCESS

Following the evaluation of a student transcript from another institution, the receiving college institution will provide the student with a Statement of Transfer and Articulated Credit Applicability (Degree Audit Report). A student disagreeing with the application of transfer and/or articulated credit by the receiving institution must file his/her appeal in writing within ninety (90) days of receipt of the Statement of Transfer and Articulated Credit Applicability. The institution shall respond to the appeal within thirty (30) days of the receipt of the appeal at each appeal level.

STUDENT COMPLAINTS FOLLOWING TRANSFER APPEALS AT THE RECEIVING INSTITUTION

After a student exhausts the appeals process at the receiving institution and chooses to pursue further action, the Ohio Department of Higher Education (ODHE) responds to formal written complaints related to Ohio Articulation and Transfer Policy against public, independent non-profit, and proprietary institutions of higher education in Ohio. While the ODHE has limited authority over colleges and universities and cannot offer legal advice or initiate civil court cases, staff will review written complaints submitted through its established process and work with student complainants and institutions.

REVERSE TRANSFER

Reverse Transfer is a process to award associate degrees to students who earned credits that satisfied residency and graduation requirements at Washington State College of Ohio, did not earn their associate degree, and transferred to a four-year institution where they are currently enrolled, regardless if the four-year institution is public, private, or across state lines. Eligible students can receive a first associate degree that accurately reflects their educational attainment and allows them to compete more successfully in higher education and the workforce. The process is standardized, streamlined, and technologically enhanced to enable four and two-year institutions to transfer student credits more efficiently, securely, and successfully through the National Student Clearinghouse. For more information on Reverse Transfer, visit studentclearinghouse.org/colleges/reverse-transfer/.

WASHINGTON STATE TRANSFER MODULE

The Washington State transfer curricula are designed around the Ohio Transfer 36. This module provides the foundation of the Ohio Articulation and Transfer Policy adopted by the Ohio Department of Higher Education. All colleges and universities have a general education requirement which comprises much of the freshman and sophomore years. The college's Transfer Module contains courses which satisfy many of these requirements at any state university in Ohio.

The purpose of this module is to ease transfer to any of Ohio's state universities if the student takes the courses as prescribed in the module. The OTM at Washington State consists of a core of 36-40 credit hours in English composition, mathematics, natural sciences, arts and humanities, and social and behavioral sciences.

TRANSFER & ARTICULATION

Responsibilities of Students

Washington State offers the courses to fulfill the requirements of the Ohio Transfer 36. It is the responsibility of the student to be familiar with the requirements of the module and to follow them exactly. Any deviation from the requirements of the Transfer Module will require that the student's transfer take place on a course–by–course basis at the discretion of the receiving institution.

It is also the responsibility of the student to make choices about baccalaureate majors and four-year institutions to which he or she wishes to transfer.

Academic advising decisions concerning course selections are made based on the student's anticipated major and the institution he or she will attend. Therefore, it is important that the student make these decisions and communicate them to his or her academic advisor as early as possible.

The following distribution of courses will fulfill the requirements of the Ohio Transfer 36. Descriptions, including credit hours and prerequisites, are included in the course descriptions section of this catalog.

- English Composition – a minimum of 6 credit hours is required in English composition.
- Mathematics – a minimum of 3 credit hours is required in mathematics.
- Natural Sciences – a minimum of 6 credit hours is required in biology, geology, chemistry, or physics. One course must include a lab component.
- Arts and Humanities – a minimum of 6 credit hours is required in art, music, literature, philosophy, humanities, or theatre.
- Social and Behavioral Sciences – a minimum of 6 credit hours is required in anthropology, geography, sociology, political science, psychology, economics, or specified history courses.
- Transfer Module Electives – additional semester hours based on chosen curriculum, and/or Ohio Guided Pathway Transfer.

Each of these requirements is detailed in the following sections. Credit hours for each course are in parentheses.

ARTS AND HUMANITIES

Six credit hours are required in Arts and Humanities.

Art

- ARTS 1000 Art Appreciation (3)
- ARTS 2010 Art History I (3)

Humanities

- HUMN 1200 Introduction to Film (3)
- HUMN 1300 Survey of Mythology (3)
- HUMN 2480 Science of Science Fiction (3)

Literature

- LITR 1300 Introduction to the Literature (3)
- LITR 2100 Survey of American Literature I (3)
- LITR 2110 Survey of American Literature II (3)
- LITR 2200 Survey of British Literature I (3)
- LITR 2210 Survey of British Literature II (3)

Music

- MUSC 1200 Music Appreciation (3)

Philosophy

- PHIL 1010 Introduction to Philosophy (3)
- PHIL 1300 Introduction to Ethics (3)

Theatre

- THEA 1200 Introduction to the Theatre (3)

COMMUNICATION SKILLS

The student should place an emphasis on written composition. At a minimum, a student must complete English Composition I plus one course from the approved list. Speech (SPCH 1510) may not count as a written communication course but may serve as a Ohio Transfer 36 elective.

- ENGL 1515 Technical Writing (3)
- ENGL 1510 English Composition I (3)
- ENGL 1520 English Composition II (3)
- SPCH 1510 Speech (3)

MATHEMATICS

At least one course in mathematics must be taken. Mathematics courses for the Ohio Transfer 36 build on three years of college preparatory mathematics or the equivalent.

- MATH 1104 Technical Math (4)
- MATH 2110 Principles of Statistics (4)
- MATH 2130 College Algebra (4)
- MATH 2140 Quantitative Reasoning (3)
- MATH 2150 Precalculus (5)
- MATH 2263 Calculus I (4)
- MATH 2264 Calculus II (4)

NATURAL SCIENCES

Six credits or more should be taken in the natural sciences. One course must be a laboratory course which includes at least one laboratory per week.

Biology

- BIOL 1010 Principles of Biology (3)
- BIOL 101L Principles of Biology Lab (1)
- BIOL 1100 General Biology I (3)
- BIOL 110L General Biology I Lab (1)
- BIOL 1110 General Biology II (3)

- BIOL 111L General Biology II Lab (1)
- BIOL 2010 Basic Microbiology (2)
- BIOL 201L Basic Microbiology Lab (1)
- BIOL 2110 Environmental Science (3)
- BIOL 211L Environmental Science Lab (1)
- BIOL 2310 Human Anatomy & Physiology I (3)
- BIOL 231L Human Anatomy & Physiology I Lab (1)
- BIOL 2320 Human Anatomy & Physiology II (3)
- BIOL 232L Human Anatomy & Physiology II Lab (1)
- BIOL 2600 Introduction to Ecology (3)
- BIOL 260L Introduction to Ecology Lab (1)

Chemistry

- CHEM 1210 Principles of Chemistry I* (3)
- CHEM 121L Principles of Chemistry I Lab* (1)
- CHEM 1510 Fundamentals of Chemistry I** (3)
- CHEM 151L Fundamentals of Chemistry I Lab** (1)
- CHEM 1520 Fundamentals of Chemistry II (3)
- CHEM 152L Fundamentals of Chemistry II Lab (1)

**Principles of Chemistry is for technical education students and others pursuing programs requiring only one year of chemistry.*

***Fundamentals of Chemistry series is for students planning to pursue a major in biological sciences, chemistry, physics, pre-professional studies, or mechanical and chemical engineering.*

Geology

- GEOL 2310 Environmental Geology (3)
- GEOL 231L Environmental Geology Lab (1)

Physics

- PHYS 2510 General Physics I** (4)
- PHYS 251L General Physics I Lab** (1)
- PHYS 2530 General Physics II (4)
- PHYS 253L General Physics II Lab (1)

SOCIAL AND BEHAVIORAL SCIENCE

Six credit hours are required in the social and behavioral sciences.

Economics

- ECON 2120 Principles of Macroeconomics (3)
- ECON 2130 Principles of Microeconomics (3)

History

- HIST 1010 Civilization I Early World Culture (3)
- HIST 1020 Civilization II Early Modern Period (3)
- HIST 2110 American History to 1865 (3)
- HIST 2120 American History 1865 to Present (3)

Political Science

- POLS 1020 American National Government (3)
- POLS 1030 State and Local Government (3)

Psychology

- PSYC 1010 General Psychology (3)
- PSYC 2320 Abnormal Psychology (3)
- PSYC 2700 Developmental Psychology (3)
- PSYC 2750 Educational Psychology (3)

Sociology

- SOCI 1010 Introduction to Sociology (3)
- SOCI 2010 Social Problems (3)
- SOCI 2250 The Sociology of Race and Ethnic Relations in America (3)

BUSINESS & IT

Accounting Technology 24

Business Management Technology 25

Cyber Security 26

Updated March 2024

ACCOUNTING TECHNOLOGY

FALL SEMESTER

First 8-Weeks

ACCT 1550	Introduction to Financial Accounting	4
BUSM 1600[1]	PC Applications	3
ENGL 1510	English Composition I	3

Second 8 Weeks

ACCT 1610	Payroll Accounting	3
BUSM 1550	Business Management	3
Credit Hours		16

SPRING SEMESTER

MATH 2110	Principles of Statistics	4

First 8 Weeks

ACCT 2550	Advanced Financial Accounting	4
BUSM 2220[2]	Business Excel	3

Second 8 Weeks

ACCT 2920	QuickBooks for Accountants	3
BUSM 1660	Business Law	3
Credit Hours		17

FALL SEMESTER

First 8 Weeks

ACCT 2190	Principles of Federal Income Tax	3
ACCT 2710	Intermediate Accounting	4
ENGL 1520	English Composition II *or*	3
ENGL 1515	Technical Writing	

Second 8 Weeks

ACCT 2210	Cost Accounting	4
PHIL 1300	Introduction to Ethics	3
Credit Hours		17

SPRING SEMESTER

First 8 Weeks

ACCT 2320	Managerial Accounting	3
SPCH 1510	Speech	3

Second 8 Weeks

ACCT 2730	Auditing	3
ECON 2120	Principles of Macroeconomics	3
Credit Hours		12

Total Credit Hours **62**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
[2]Microsoft Office Specialist: Excel Associate

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ASSOCIATE OF APPLIED BUSINESS DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Junior Financial Analyst
Payroll Specialist
Accounts Receivable/Payable Clerk
Tax Preparer
Cost Accounting Clerk
Staff Accountant

Entry level positions perform data entry and reconciliations for many areas including accounts payable and receivable, payroll, taxation and inventory. Starting salary ranges from $40,000 to $50,000 per year.

The Accounting program provides students with the opportunity to earn their degree with maximum schedule flexibility. All accounting classes are offered in a hi-flex format allowing students to attend classes on campus or via zoom. Students also have the ability to learn asynchronously to accommodate busy work and life schedules.

Partnerships with 4-year colleges and universities make transferring for continuing education seamless!

Students will be prepared for the following credentials:

- QuickBooks Certified User Online Certification
- Microsoft Office Specialist- Excel

Program Learning Outcomes:

- Analyze and record business transactions in appropriate journals and ledgers, preparation of trial balance and worksheets with adjustments and the closing process including reversing entries.
- Prepare and analyze financial statements and other supporting accounting documents to provide stakeholders with usable financial information for decision making.
- Calculate and prepare payroll including all federal and state mandated payroll reports and accounting records.
- Utilize the Cost Accounting cycle and the concepts of perpetual and periodic inventory methods, and standard costing to determine manufacturing costs, produce manufacturing specific financial statements, and aid in managerial accounting decision making.
- Prepare individual, partnership, and corporate federal income tax returns including common types of income, adjustments, deductions, credits and additional taxes.
- Apply Auditing concepts including internal control, risk, audit trail, sampling, tests of controls and substantive processes to determine potential risk.
- Utilize current accounting software to record, analyze, and report financial data.

BUSINESS MANAGEMENT TECHNOLOGY

FALL SEMESTER

First 8 Weeks

BUSM 1550	Business Management	3
ENGL 1510	English Composition I	3

Second 8 Weeks

BUSM 1600[1]	PC Applications	3
BUSM 1660	Business Law	3
SPCH 1510	Speech	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

ACCT 1550	Introduction to Financial Accounting	4
BUSM 2130[2]	Customer Service & Sales	3

Second 8 Weeks

BUSM 1570	Small Business Entrepreneurship	3
BUSM 2560	Human Resource Management	3
MATH 2130	College Algebra	4
Credit Hours		17

FALL SEMESTER

First 8 Weeks

BUSM 2220[3]	Microsoft Excel	3
PSYC 1010	General Psychology	3

Second 8 Weeks

BUSM 2510	Marketing	3
ECON 2120	Principles of Macroeconomics	3
ENGL 1515	Technical Writing	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

ACCT 2320	Managerial Accounting	3
BUSM 2300	Introduction to Finance	3
PHIL 1300	Introduction to Ethics	3

Second 8 Weeks

BUSM 1000	Internship *or*	3
BUSM 2610	Business Leadership	
ECON 2130	Principles of Microeconomics	3
Credit Hours		15

Total Credit Hours **62**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
[2]NCSA Certified Customer Service
[3]Microsoft Office Specialist: Excel Associate

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ASSOCIATE OF APPLIED BUSINESS DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Project Manager
Banker/Mortgage Lende
Financial Analyst
Human Resources Specialist
Customer Service Manage
Financial Planner
Marketing Specialist
Office Manager
Small Business Owner

The Business Management program provides an ideal foundation for students wishing to enter the workforce as well as transferable classes that will count towards a Bachelor's degree. The program emphasizes preparation for a wide variety of management-related positions. It is designed to provide a balance between technical business education and general education courses and prepares students for careers in business by developing in-demand job skills.

Students will be prepared for the following credentials:

- Microsoft Office Specialist- Word
- Microsoft Office Specialist- Excel
- National Customer Service Association- Certified Customer Service Professional

Program Learning Outcomes:

- Demonstrate technologies basic to the field of business management including: Management, Accounting, Computer Applications, Quantitative Methods of Analysis, Principles of Economics, Marketing, Entrepreneurship, Finance, and Business Ethics.
- Know applicable federal and state laws.
- Demonstrate, through role play, the ability to take the text and lecture information and apply it to management areas: job selection, interview, discipline, and discharge.
- Write and produce product advertisements and advertisements for company job openings.
- Gather, organize, interpret, write, and present research on a current topic related to marketing.
- Be aware of the importance of confidentiality that is necessary for the field of management.
- Demonstrate effective written, oral, and nonverbal communication with employees, co-workers, and the public.
- Think independently, clarify values, understand fundamental theory, and develop critical thinking skills.
- Interact with co-workers, subordinates, and customers in a manner that provides the desired psychological and social support including the recognition of cultural and socioeconomic differences.
- Demonstrate awareness in the importance of international understanding in an increasingly interdependent global community.

CYBER SECURITY

ASSOCIATE OF APPLIED SCIENCE FOR DIRECT EMPLOYMENT

FALL SEMESTER		
MATH 2110	Principles of Statistics	4
First 8 Weeks		
CYBS 1010[1]	Introduction to Cyber Security	3
CYBS 1020[2]	Operating Systems & Computing Fundamentals	3
Second 8 Weeks		
CRJU 1110	Criminal Evidence & Procedures	3
CYBS 1030[3]	Fundamentals of Hacking & IT Psychology	3
Credit Hours		16
SPRING SEMESTER		
First 8 Weeks		
CYBS 1210[4]	A+ Hardware and Software	3
CYBS 1220[5]	Unix/Linux	3
ENGL 1510	English Composition I	3
Second 8 Weeks		
CRJU 1120	Criminal Law	3
CYBS 1230[6]	Network+	3
CYBS 1240[7]	Ethical Protocols of Cyber Security	3
Credit Hours		18
FALL SEMESTER		
First 8 Weeks		
DTCS 2100	Database Management	3
PHIL 1300	Introduction to Ethics	3
Second 8 Weeks		
ELEC 1950[9]	Cisco I	3
PSYC 1010	General Psychology	3
Credit Hours		12
SPRING SEMESTER		
CYBS 2800	Cyber Security Practicum and Capstone	4
First 8 Weeks		
ELEC 2050[10]	Cisco II	3
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	
Second 8 Weeks		
CYBS 2100[8]	Tactical Perimeter Defense in Cyber Security	3
SOCI 1010	Introduction to Sociology	3
Credit Hours		16
Total Credit Hours		**62**

Industry Credentials: [1]TestOut Security Pro & CompTIA Security+
[2]TestOut IT Fundamentals Pro & CompTIA ITF+
[3]TestOut Security Pro & CompTIA A+
[4]TestOut PC Pro & CompTIA A+
[5]TestOut Linux Pro & CompTIA Linux+
[6]TestOut Network Pro & CompTIA Network+
[7]TestOut Ethical Hacker Pro & EC-Council's Ethical Certified Hacker
[8]TestOut CyberDefense Pro & CompTIA CySa+
[9]Cisco Certified Entry Network Technician (CCENT)
[10]Cisco Certified Network Associate (CCNA)

Career Opportunities:

Cybersecurity Analyst
Network Analyst
Security Analyst

Analysts work in organizations to analyze security logs, monitor network traffic, engage in vulnerability testing, investigate suspicious data activities, or conduct employee training and security awareness.

Students will be prepared for the following credentials:

- CompTIA A+
- CompTIA Network+
- CompTIA Linux+
- CompTIA Security+
- CompTIA Server+
- CompTIA PenTest+
- Cisco Certified Network Associate

Program Learning Outcomes:

- Students will understand the functionality of operating systems and its software.
- Students will develop information security essential technology skill sets.
- Students will develop coding projects using current computer languages.
- Students will develop business continuity and disaster recovery planning.
- Students will develop methods towards preventing and responding to cyber security attacks.
- Students will understand the practice and implementation of morals, ethics, and social responsibility as it pertains to cyber security practices.
- Students will obtain an understanding of the compliance with laws and regulations as it pertains to cyber security
- Students will obtain an understanding of various cultures, their technology usage, and how their usage relates to the criminal justice system.

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ENGINEERING & INDUSTRIAL

Advanced Manufacturing and Integration 28
Automotive Service 29
Diesel Truck Systems 30
Electrical Engineering Technology (ICE) 31
Industrial Technology - Process Technician (Online) . . . 32

ADVANCED MANUFACTURING AND INTEGRATION

FALL SEMESTER

First 8 Weeks

AMIT 1510[4][13]	Non-Collaborative Robot Operator	2
ENGR 1010	Fundamentals of Engineering	3
INDT 1220[2][11][12]	OSHA Safety with CPT 4.0	2

Second 8 Weeks

AMIT 1170[1][7][8]	Computer Numerical Control	3
INDT 1340[11]	Quality Practices & Measurement CPT 4.0	3
MATH 2130	College Algebra	4
Credit Hours		17

SPRING SEMESTER

First 8 Weeks

AMIT 1800[14][15][16]	Collaborative Robot Operator	2
AMIT 2530[3][20]	Solid Modeling with Additive Manufacturing	3
INDT 2180[11]	Manufacturing Processes & Prod CPT 4.0	3

Second 8 Weeks

ENGL 1510	English Composition I	3
INDT 1100[11]	Industrial Main. Awareness CPT 4.0	3
AMIT 2170[1][9][10][17]	Computer Aided Manufacturing	3
Credit Hours		17

FALL SEMESTER

First 8 Weeks

CYBS 1010	Introduction to Cyber Security	3
ELET 2410[6]	Programmable Logic Controllers	3
SPCH 1510	Speech	3

Second 8 Weeks

AMIT 2510[5][18][19]	Robot Technician	3
PHIL 1300	Introduction to Ethics	3
WELD 1232	Industrial Welding	3
Credit Hours		17

SPRING SEMESTER

AMIT 2800	AMIT Capstone or	1
AMIT 1000	Internship	
CHEM 1210	Principles of Chemistry I	3
CHEM 121L	Principles of Chemistry I Lab	1

First 8 Weeks

ECON 2130	Principles of Microeconomics	3
ELET 1340	Embedded Systems	3

Second 8 Weeks

AMIT 2600	Integration and Cell Design	3
Credit Hours		14

Total Credit Hours **65**

Industry Credentials: [1]NIMS
[2]OSHA10
[3]Solid Modeling
[4]FANUC Handling Tool Operation and Programming
[5]FANUC IR Vission
[6]Rockwell PLC
[7]Haas
[8]Fanuc
[9]Autodesk
[10]Mastercam
[11]CPT 4.0
[12]Authorized Fork Truck Operator
[13]FANUC Robot Operations
[14]FANUC Collaborative Robot Operations
[15]CRX Operation and Programming
[16]Universal Robotics Core
[17]ACE
[18]Fanuc Robot Technician
[19]FANUC ArcTool Operation and Programming
[20]Additive Manufacturing

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities: Robotics Technician and Specialist

Design, install, test, and maintain robotic equipment and related automated production systems, equipment, and programming.

The Advanced Manufacturing & Integration Technology (AMIT) associate degree program blends mechanical and electrical engineering with robotics and control systems to form an interdisciplinary program that maximizes transferable skills.

The AMIT program at WSCO is endorsed by the ARM Institute. The ARM Endorsement is awarded to institutions that are the most effective at preparing students for careers in manufacturing working with robotics. This credential identifies WSCO as one of the nation's most effective training programs for robotics careers in manufacturing.

Students will earn the following credentials:

- NIMS
- Fanuc
- SolidWorks Associate (CSWA)
- Manufacturing Skill Standards Council Certified Production Technician 4.0
- OSHA
- Rockwell
- TestOut/CompTIA
- Arduino

Program Learning Outcomes:

- Construct solid models, assemblies, and drawings using design software.
- Create prototypes and final parts using different manufacturing processes.
- Understand and operate CAM software to program CNC machines
- Program and operate industrial robots
- Use advanced computer-controlled technology for process automation

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

AUTOMOTIVE TECHNOLOGY—AUTOMOTIVE SERVICE

FALL SEMESTER

First 8 Weeks

AUTO 1100[9]	Vehicle Service & Maintenance	3
AUTO 1110[6][9]	Electronic Circuitry	3
AUTO 1120[5]	Automotive Brakes	3

Second 8 Weeks

AUTO 1130[9]	Electrical Components	3
AUTO 2100[2]	Automatic Drive Trains	3
ENGL 1510	English Composition I	3
Credit Hours		18

SPRING SEMESTER

First 8 Weeks

AUTO 1140[4]	Automotive Chassis	3
AUTO 1150[3]	Manual Drive Trains	3
AUTO 1160	Fuel & Emission Controls	3

Second 8 Weeks

MATH 1104	Technical Math	4
WELD 1232	Industrial Welding	3
Credit Hours		16

FALL SEMESTER

First 8 Weeks

AUTO 2110[8]	Computerized Engine Controls	3
AUTO 2130	Cylinder Block & Lower Engine	3
BUSM 1710	Auto/Diesel Business Computer Apps	3

Second 8 Weeks

BUSM 2130[11]	Customer Service & Sales	3
PHYS 1010	Applied Physics	2
PHYS 101L	Applied Physics Lab	1
PSYC 1010	General Psychology	3
Credit Hours		18

SPRING SEMESTER

TRCK 2140	Practicum AUTO/TRCK	2

First 8 Weeks

AUTO 2150[7]	Principles of Air Conditioning	3
PHIL 1300	Introduction to Ethics	3

Second 8 Weeks

INDT 1220[1][12][13]	OSHA Safety with CPT 4.0	2
TRCK 2150[10]	ASE Technician Preparation	3
Credit Hours		13

Total Credit Hours **65**

Industry Credentials: [1]OSHA10
[2]A2 - Automatic Transmission
[3]A3 - Manual Transmission
[4]A4 - Steering & Suspension
[5]A5 - Brakes
[6]A6 - Electrical and Electronics
[7]A7 - HVAC
[8]A8 - Engine Performance
[9]T6 - Electric
[10]T7 - HVAC
[11]NCSA Certified Customer Service
[12]CPT 4.0
[13]Authorized Fork Truck Operator

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Automotive Technician
Service Technician
Parts Manager
Service Manager
Technical Trainer

Program Accreditation:

NATEF

Students will earn the following credentials:

Automotive Service Excellence (ASE) certification and MACS-AC certification

Program Learning Outcomes:

- Demonstrate professional work habits such as punctuality, productivity, verbal and written communication skills, cooperation with co-workers and customers, and perform operations in a safe manner.
- Diagnose and repair electrical and mechanical problems using the appropriate service information.
- Diagnose, repair, and rebuild automatic transmissions, manual transmissions, and drive lines with a live chassis dyno.
- Measure engine parts using proper measuring instruments.
- Perform complete brake service, including anti-lock brake systems.
- Diagnose and repair steering and suspension problems, including alignment procedures.
- Perform duties of a service writer and service technician.
- Disassemble, inspect, and rebuild gas engines using the appropriate service information.
- Adapt to new technology and pass Student Automotive Service Excellence (ASE) certification tests.
- Emphasis on electrical training.
- Diagnosis using DVOM and scan tools.
- Perform duties in a 100-hour practicum experience.

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

AUTOMOTIVE TECHNOLOGY—DIESEL TRUCK SYSTEMS

FALL SEMESTER

First 8 Weeks

AUTO 1110[2][9]	Electrical Circuitry	3
TRCK 1100[11]	Introduction to Truck Systems	3
TRCK 1120[7]	Medium & Heavy Brakes	3

Second 8 Weeks

AUTO 1130[9]	Electrical Components	3
TRCK 2120[6]	Diesel Truck Drive Trains	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

AUTO 2150[3]	Principles of Air Conditioning	3
ENGL 1510	English Composition I	3
TRCK 1130	Medium & Heavy Truck Chassis	3

Second 8 Weeks

MATH 1104	Technical Math	4
WELD 1232	Industrial Welding	3
Credit Hours		16

FALL SEMESTER

First 8 Weeks

BUSM 1710	Auto/Diesel Business Computer Apps	3
TRCK 2100[5]	Diesel Engine Tune Up & Maintenance	3
TRCK 2110	Diesel Fuel Systems & Hydraulics	3

Second 8 Weeks

BUSM 2130[12]	Customer Service and Sales	3
PHYS 1010	Applied Physics	2
PHYS 101L	Applied Physics Lab	1
PSYC 1010	General Psychology	3
Credit Hours		18

SPRING SEMESTER

TRCK 2140	Practicum TRCK/AUTO	2

First 8 Weeks

PHIL 1300	Introduction to Ethics	3
TRCK 1140[4]	Diesel Engine Design & Service	3
TRCK 2130	Electronic Diesel Engines	3

Second 8 Weeks

INDT 1220[1][13][14]	OSHA Safety with CPT 4.0	2
TRCK 2150[10]	ASE Technician Preparation	3
Credit Hours		16
Total Credit Hours		**65**

Industry Credentials: [1]OSHA10
[2]A6 - Electrical and Electronics
[3]A7 - HVAC
[4]A9 - Light Diesel Engine
[5]T2 - Diesel Engines
[6]T3 - Drive Train
[7]T4 - Brakes
[8]T5 - Steering and Suspension
[9]T6 - Electric
[10]T7 - HVAC
[11]T8 - Preventive Maintenance
[12]NCSA Certified Customer Service
[13]CPT 4.0
[14]Authorized Fork Truck Operator

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Diesel Technician
Field Test Technician
Service Technician
Parts Manager
Service Manager
Technical Trainer

Program Accreditation:

NATEF

Students will earn the following credentials:

Bendix Air Brake Inspector

Automotive Service Excellence (ASE) certification and MACS-AC certification

Graduates of the program will be able to:

- Demonstrate professional work habits such as punctuality, productivity, verbal and written communication skills, cooperation with co-workers and customers, and perform operations in a safe manner.
- Diagnose and repair electrical and mechanical problems using the appropriate service information.
- Diagnose and repair manual transmissions and drive lines.
- Measure engine parts using proper measuring instruments.
- Perform complete brake service, including anti-lock brake systems.
- Diagnose and repair steering and suspension problems.
- Perform duties of a service writer and service technician.
- Disassemble and inspect diesel engines using the appropriate service information.
- Adapt to new technology and pass Student Automotive Service Excellence (ASE) certification tests.
- Emphasis on electrical training.
- Diagnosis using DVOM and scan tools.
- Perform duties in a 100-hour practicum experience.

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ELECTRICAL ENGINEERING TECHNOLOGY (ICE) INSTRUMENTATION, CONTROL, and ELECTRICAL

FALL SEMESTER

First 8 Weeks

ELET 1310	Digital I	3
ENGR 1010	Fundamentals of Engineering	3
MATH 1104	Technical Math	4

Second 8 Weeks

ELET 1110	DC Circuits	3
ELET 2160	Instrumentation I	3
INDT 1220[1][3][4]	OSHA Safety with CPT 4.0	2
Credit Hours		18

SPRING SEMESTER

First 8 Weeks

ELET 1130	AC Circuits	3
ELET 1340	Embedded Systems	3
ENGL 1510	English Composition I	3

Second 8 Weeks

ELET 1360	Commercial Wiring & Prints	3
ELET 2180	Advanced Automation Control	3
Credit Hours		15

FALL SEMESTER

First 8 Weeks

ELET 2110	Rotating Machinery	3
ELET 2410[2]	Programmable Logic Controllers	3
SPCH 2060	Interpersonal Communication	3

Second 8 Weeks

ELET 2210	Electronics I	3
PHIL 1300	Introduction to Ethics	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

ELET 1430	Advanced CAD	3
ELET 2230	Electronics II	3
PHYS 1010	Applied Physics	2
PHYS 101L	Applied Physics Lab	1

Second 8 Weeks

ELET 2130	Motor Control	3
INDT 1120	Fluid Power	3
ELET 1000	Internship	1
Credit Hours		16

Total Credit Hours **64**

Industry Credentials: [1]OSHA10
[2]Rockwell PLC
[3]CPT 4.0
[4]Authorized Fork Truck Operator

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Instrumentation
Power Plant Operation
Quality Control
Electrical Maintenance
Engineering Design
Electronic Troubleshooting.

The Electrical Engineering – Instrumentation, Control, & Electrical (ICE) program is equipped with state-of-the art equipment, technology, and lab spaces with which students learn to design, operate, and maintain power and control systems as they relate to local industries.

Students will be earning for the following credentials:

Certificates of completion:

- Advanced CAD
- Programming Logic Controllers
- Instrumentation I

Program Learning Outcomes:

- Apply circuit analysis methods to solve D.C. and A.C. networks.
- Use multimeters and oscilloscopes to measure various D.C. and A.C. circuit parameters.
- Design and troubleshoot basic analog and digital electronic devices and circuits.
- Design, test, install, and troubleshoot single phase and three phase motor control circuits.
- Determine A.C. single phase and three phase line characteristics (voltages, current, average, apparent, and reactive power).
- Read, and interpret piping and instrumentation diagrams (P&IDs).
- Read, and create on CAD, the major types of electrical drawings and schematics.
- Describe the major process control instruments and explain their operation.
- Explain the concepts of process dynamics and feedback control.
- Tune simple control loops and document actions and results.
- Set up an instrument calibration and complete a five-point check.
- Apply computer software including word processing, spreadsheet, and presentation applications.
- Produce and present both oral and written technical reports.
- Work and brainstorm in a team environment.

INDUSTRIAL TECHNOLOGY—PROCESS TECHNICIAN (ONLINE)

FALL SEMESTER

INDT 1010	Intro to Chemical Operator	3
CHEM 1210	Principles of Chemistry I	3
First 8 Weeks		
INDT 1221[1]	CPT 4.0 Safety	2
MATH 1104	Technical Mathematics	4
Second 8 Weeks		
ENGL 1510	English Composition I	3
Credit Hours		15

SPRING SEMESTER

ENGR 1100	Engineering Materials	4
INDT 2210	Process Control	4
First 8 Weeks		
ELET 2410	Programmable Logic Controls	3
Second 8 Weeks		
INDT 1330	Industrial Electricity	2
INDT 1340	Quality Practices & Measurements CPT 4.0	3
Credit Hours		16

FALL SEMESTER

INDT 2300	Process Troubleshooting	3
First 8 Weeks		
BUSM 1600[2]	PC Applications	3
PHIL 1300	Introduction to Ethics	3
Second 8 Weeks		
INDT 1100	Industrial Maintenance Awareness CPT 4.0	3
SPCH 1510	Speech	3
Credit Hours		16

SPRING SEMESTER

First 8 Weeks		
BUSM 1550	Business Management	3
POLS 2050	Global Issues	3
PHYS 1010	Applied Physics	2
PHYS 101L	Applied Physics Lab	1
Second 8 Weeks		
INDT 2180	Manufacturing Process & Prod. CPT. 4.0	3
INDT 2800	Industrial Capstone	3
Credit Hours		15

Total Credit Hours **61**

Industry Credentials: [1]OSHA10
[2]Microsoft Office Specialist: Word Associate

Prerequisites are required for some courses. Evening and/or online courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Plastics
Pharmaceutical
Petroleum
Paint
Electrical Power Plants
Cosmetics

The Process Technician associate degree program combines science and technology with teamwork and troubleshooting skills to guide learners in the skills desired in the chemical processing industry. The Process Technician program utilizes the curriculum from MSSC (Manufacturing Skills Standards Council) for Certified Production Technician 4.0. This credential is a nationally portable, industry-led program that prepares and certifies individuals for career pathways in advanced manufacturing. This online training program delivers the 21st Century, in-demand skills that today's employers need.

CPT® Certified Production Technician 4.0®
Training & Certification

Students will be earning for the following credentials:

- Certified Production Technician 4.0 Safety
- Certified Production Technician 4.0 Quality Practices and Measurement
- Certified Production Technician 4.0 Manufacturing Processes and Production
- Certified Production Technician 4.0 Maintenance Awareness
- Full Certification of Certified Production Technician 4.0

Program Learning Outcomes:

- Work effectively with engineering and production personnel in the operation of a chemical plant.
- Working in a team environment to develop a collective hypothesis on the causes of problems and meet project deadlines.
- Assist in the design and implementation of a comprehensive Safety Program.
- Be computer literate and accomplished on word processing and PowerPoint programs to produce technical reports and present results.

HEALTH SCIENCES

Health Information Management Technology 35
Massage Therapy 36
Medical Laboratory Technology 37
Nursing - Associate Degree Nursing 38
Nursing - Practical Nursing 40
Nursing - RN to BSN 42
Radiologic Technology 44
Respiratory Therapy Technology 45

Updated March 2024

ADMISSIONS REQUIREMENTS

Because of the accreditation and licensing requirements and limited enrollment capacities, admission to health science programs at Washington State College of Ohio is on a selective basis. Prospective students are encouraged to review all admissions requirements to the program they are interested in and apply early for acceptance.

Always contact the Admissions Office at 740.568.1900 for the most up-to-date and detailed information for applying to WSCO Health Sciences programs.

PROGRAM ACCREDITATIONS

The Medical Laboratory Technology program is fully accredited by:

National Accrediting Agency
for Clinical Laboratory Sciences
(NAACLS)
5600 N. River Road
Suite 720
Rosemont, IL 60018-5119
PHONE: 773.714.8880

The Radiologic Technology program is fully accredited by:

Joint Review Committee on
Education in Radiologic
Technology
(JRCERT)
20 North Wacker Drive
Suite 2850
Chicago, IL 60606-3182
PHONE: 312.704.5300
mail@jrcert.org
www.jrcert.org

The Respiratory Therapy Technology program is fully accredited by:

Commission on Accreditation for
Respiratory Care
264 Precision Blvd.
Telford, TN 37690
PHONE: 817.283.2835
www.coarc.com
WSCO Program Data:
https://coarc.com/students/
programmatic-outcomes-data/

The Associate Degree Nursing program has been granted full approval by:

Ohio Board of Nursing
17 South High Street, Suite 660
Columbus, OH 43215-3466
PHONE: 614.466.3947

The Practical Nursing Program has been granted full approval by:

Ohio Board of Nursing
17 South High Street, Suite 660
Columbus, OH 43215-3466
PHONE: 614.466.3947

The Massage Therapy program is recognized by the State of Ohio and a "school of good standing" with the Ohio Medical Board.

Ohio State Medical Board
30 East Broad St., 3rd Floor
Columbus, OH 43215
PHONE: 614.466.3934

HEALTH INFORMATION MANAGEMENT TECHNOLOGY

FALL SEMESTER

BIOL 1300	The Human Body	4
HLTH 1420	Introduction to Human Disease *or*	3
BIOL 2450	Pathophysiology	
HIMT 1100	Legal Aspects	2
HIMT 1200	Health Record Management I	3
HLTH 1800	Medical Terminology	3
Credit Hours		15

SPRING SEMESTER

BUSM 1600[1]	PC Applications	3
HIMT 1301	Clinical Classifications ICD10-CM/PCS	3
HIMT 1302	Current Procedural Terminology	3
MATH 2110	Statistics	4
Credit Hours		13

SUMMER SEMESTER

ENGL 1510	English Composition I	3
HIMT 1400	Healthcare Reimbursement	3
HIMT 1500	Advanced Clinical Classification Systems	3
HIMT 1700	Revenue Cycle and Coding	3
Credit Hours		12

FALL SEMESTER

HIMT 2100	Health Record Management II	3
HIMT 2200	Health Information Technology Systems	3
PSYC 1010	General Psychology *or*	3
SOCI 1010	Introduction to Sociology	
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	
Credit Hours		12

SPRING SEMESTER

BUSM 1550	Business Management	3
HIMT 2301	Statistics Analysis	2
HIMT 2400	Quality Management	2
HIMT 2500	Info Management & Data Governance	3
HIMT 2900	Professional Practice	2
Credit Hours		12

Total Credit Hours **64**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
Upon successful completion of the first three semesters students are eligible to sit for the following external certification exams: HFMA CRCR, AHIMA's CCA, CCS, CCS-P coding credential, AAPC's CPC and CPB credential, and the AMB CMRS credential.

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Medical Biller
Medical Coder
Patient Service Representative
Medical Records Technician
Community Health Worker
Chargemaster Analyst
Master Patient Index Specialist
Clinical Documentation Improvement Specialist
Health Equity Manager
Data Quality Analyst

Health Information Management (HIM) professionals manage patient health information behind the scenes by acquiring, analyzing, and protecting patient information which is vital to patient quality care. HIM professionals often work in bridge roles connecting clinical, operational, and administrative functions.

Board/Certification/Licensing Exam:

AHIMA RHIT Certification Exam + AAPC CPC Certification Exam + AAPC CPB Certification Exam + AHIMA CCS Certification Exam

Accreditation/Approval:

CAHIIM (Conditional Acceptance- Going through Initial accreditation)

Program Learning Outcomes:

- Demonstrate proficiency in determining diagnosis and procedure codes according to official guidelines.
- Demonstrate proficiency in meeting compliance and regulatory requirements in reimbursement technologies.
- Demonstrate proficiency in utilization of data driven-performance improvement techniques for decision making.
- Demonstrate the ability to apply policies, regulations, and standards of the management of information.
- Apply various forms of communication effectively as a communicator and an observer.
- Demonstrate the ability to use current technology and scientific principles to adapt to a changing world.

MASSAGE THERAPY

FALL SEMESTER

BIOL 1350	Anatomy & Physiology I for Massage Therapists	4

First 8 Weeks

HLTH 1800	Medical Terminology	3
MAST 1510	Massage Techniques I	3
MAST 1516	Business for Massage Therapists	2

Second 8 Weeks

MAST 1520	Massage Techniques II	3
MAST 2850	Building an Ethical Massage Therapy Practice	2
Credit Hours		17

SPRING SEMESTER

MAST 1370	Functional Anatomy & Kinesiology	3
MAST 137L	Functional Anatomy & Kinesiology Lab	1
BIOL 2450	Pathophysiology *or*	3
HLTH 1420	Introduction to Human Disease	

First 8 Weeks

MAST 2480	Orthopedic Assessment & Documentation	4

Second 8 Weeks

MAST 2550	Massage Therapy Directed Practice I	2
MAST 2840	Massage Therapy Capstone	4
Credit Hours		17

Total Credit Hours **34**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ONE-YEAR FULL-TIME CERTIFICATE FOR DIRECT EMPLOYMENT

Career Opportunities:

Massage Clinics
Spas
Day Spas
Physical Therapy/Rehabilitation Centers
Doctors'/Chiropractors' Offices
Hospital/Hospice Setting
Cruise Ships/Vacation Resorts
Private Practice

Licensed Massage Therapist provide relief from all types of pain, including headaches, muscular-skeletal pain, arthritis, fibromyalgia, and injuries from sports or car accidents. They also can reduce a person's stress level, which will help a person improve in many aspects of their life, from home to work. Stress contributes to a multitude of diseases including high blood pressure, heart disease, higher blood sugar levels, and anxiety, just to name a few. Massage compliments many other forms of health care, including chiropractic, physical therapy, and modern medicine in all settings from cancer centers, to outpatient surgeries.

Board/Certification/Licensing Exam:

MBlex, Federation of State Boards of Massage Therapy

Accreditation/Approval:

The massage therapy program is in good standing with the Ohio Medical Board.
Members of the AMTA, ABMP, NCBTMB.

Program Learning Outcomes:

- Provide safe, competent, intentional, and systematic manipulation of the soft tissues of the human body to treat disorders as deemed in the Ohio Practice Act for Massage Therapy and to promote a more holistic, rounded approach to wellness.
- Demonstrate appropriate and effective written, verbal, and non-verbal communication, which will reflect your sensitivity to your patient's individual and cultural differences.
- Perform data collection techniques including health history, observation, and palpation of soft tissues of the human body to provide a basis for soft tissue mobilization of the human body.
- Demonstrate personal and professional development, reflecting competencies and conduct expectations as outlined by the American Massage Therapy Association (AMTA), and the Ohio Medical Board's Code of Ethics.

MEDICAL LABORATORY TECHNOLOGY

FALL SEMESTER

BIOL 1100	General Biology I	3
BIOL 110L/112L	General Biology I Lab *or*	1
BIOL 2310	Human Anatomy & Physiology I	
BIOL 231L	Human Anatomy & Physiology I Lab	
CHEM 1510	Fundamentals of Chemistry I	3
CHEM 151L/153L	Fundamentals of Chemistry I Lab	1
MMLT 1010	MLT Orientation	2
MMLT 1210	Urinalysis & Body Fluid Analysis	2
MMLT 1310	Hematology I	3
Credit Hours		15

SPRING SEMESTER

BIOL 1110	General Biology II	3
BIOL 111L/113L	General Biology II Lab *or*	1
BIOL 2320	Human Anatomy & Physiology II	
BIOL 232L	Human Anatomy & Physiology II Lab	
CHEM 1520	Fundamentals of Chemistry II	3
CHEM 152L/154L	Fundamentals of Chemistry II Lab	1
MMLT 1320	Hematology II	2
MMLT 1510	Diagnostic Microbiology	5
Credit Hours		15

SUMMER SEMESTER

ENGL 1510	English Composition I	3
MMLT 1410	Immunology and Serology	3
MMLT 1420	Immunohematology	3
_____	Social/Behavioral Science Elective	3
Credit Hours		12

FALL SEMESTER

HUMN 1200	Introduction to Film	3
MATH 2110	Principles of Statistics	4
MMLT 1610	Clinical Chemistry	4
MMLT 2210	Instrumentation & Lab Skills	2
Credit Hours		13

SPRING SEMESTER

MMLT 2310	MLT Seminar	1
MMLT 2410	MLT Directed Practice	6
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	
Credit Hours		10

Total Credit Hours **65**

Prerequisites are required for some courses. Evening courses may be required to complete this program. Students may take either the BIOL 1100/1110 series with labs or the BIOL 2310/2320 series with labs.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Hospital Labs
Clinics
Independent Labs
Industrial and Environmental Labs
Manufacturers of Medical and Laboratory Equipment

Medical Laboratory Technicians (MLT) are primarily responsible for routine laboratory testing that assist doctors in patient diagnosis, treatment, monitoring medical conditions, or disease prevention. As an MLT you will perform tests on blood and other body fluids using various laboratory equipment in accordance with established laboratory procedures.

Board/Certification/Licensing Exam:

American Society for Clinical Pathology (ASCP)

Accreditation/Approval:

The Medical Laboratory Technology program is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). 5600 North River Road, Suite 720, Rosemont, IL 60018, phone 773-714-8880

Program Learning Outcomes:

- Apply their knowledge in laboratory medicine to real-life situations
- Completely perform diagnostic laboratory tests according to established procedures
- Accept and react appropriately to the responsibilities of their profession
- Effectively use various forms of communication with patients, laboratory personnel, other health care professionals, and with the public
- Think critically as demonstrated by evaluating information from multiple perspectives, drawing reasonable conclusions, and defending them rationally
- Behave in a manner which reflects positively upon their profession

NURSING — ASSOCIATE DEGREE NURSING

PROGRAM PREREQUISITES:
High School Chemistry or CHEM 1210 & CHEM 121L with "C" or better

BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
MATH 2110	Principles of Statistics	4
Credit Hours		8

FALL SEMESTER

BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
NADN 1110	Foundations of Med/Surgical Nursing	5
NADN 1115	Foundations of Clinical NP	2
PSYC 1010	General Psychology	3
PSYC 2700	Developmental Psychology	3
Credit Hours		14

SPRING SEMESTER

NADN 2120	Cl Nursing Judgment Across the Lifespan	7
NADN 2150	Nursing Pharmacology	3
Credit Hours		10

SUMMER SEMESTER

BIOL 1510	Introduction to Nutrition	3
BIOL 2010	Basic Microbiology	2
BIOL 201L	Basic Microbiology Lab	1
ENGL 1510	English Composition I	3
Credit Hours		9

FALL SEMESTER

NADN 2240	Concepts in Behavioral Health Nursing	3
NADN 2350	Cl Nursing Judgment-Complex Patients	6
Credit Hours		9

SPRING SEMESTER

NADN 2370	Cl Nursing Judgment-Maternal/Child	6
NADN 2400	Cl Nursing Judgment-Groups of Patients	5
Credit Hours		11

Total Credit Hours **64**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

Visit www.wsco.edu/nursing for more information about the multiple nursing pathways to meet individual career goals.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunites:

Acute Care
Long Term Care

Graduates of the Associate Degree Nursing program at Washington State College of Ohio are prepared to meet the health care needs of individuals throughout their lifespans. The Registered Nurse (RN) is responsible to assess, diagnose, and treat human responses to actual or potential physical and emotional health problems. The ADN-prepared nurse's role is characterized by evidence-based clinical practice for individuals and families in structured settings, and demonstrates the clinical competencies defined by the National League of Nursing (2010). In addition to knowledge gained in nursing courses, graduates of an Associate Degree Nursing program gain valuable career skills for the healthcare environment. The graduate will demonstrate competence, caring and clinical judgment skills in providing safe, effective nursing care. The graduate will also demonstrate personal behaviors consistent with professional and employer expectations for the registered nurse.

Board/Certification/Licensing Exam:

NCLEX-RN

Accreditation/Approval:

The Associate Degree Nursing program has full approval by the Ohio Board of Nursing. The program is in the process of seeking accreditation from the (ACEN) Accreditation Commission for Education in Nursing.

Program Learning Outcomes:

Human Flourishing

- Identify values and beliefs that express the human experience.
- Provide a safe caring environment and make decisions concerning nursing care based upon patient values, as well as cultural and spiritual beliefs.
- Advocate for patients and families in ways that

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promote their self-determination, integrity, and ongoing growth as human beings.

Nursing Judgment

- Make judgments in practice, substantiated with evidence, that integrate nursing science in the provision of safe, quality care and promote the heath of patients within a family and community context.
- Integrate evidence-based practice to prioritize nursing care in the promotion of optimal health outcomes for patients, families, and communities.

Professional Identity

- Demonstrate a code of behavior based on ethical principles and an understanding of the legal scope of practice of the Registered Nurse.
- Utilize evidence-based practice, caring, advocacy, and safe quality care in diverse patients within a family and community context.

Spirit of Inquiry

- Examine the evidence that underlies clinical nursing practice to challenge the status quo, question underlying assumptions, and offer new insights to improve the quality of care for patients, families, and communities.
- Collaborate with health team members to offer creative solutions in the promotion of patient, family, and community health.

NURSING — PRACTICAL NURSING

PROGRAM PREREQUISITES:

High School Algebra II or MATH 0106 with "C" or better
High School Biology with "C" or better
High School Chemistry with "C" or better

ENGL 1510	English Composition I	3
Credit Hours		3

SUMMER SEMESTER

BIOL 1510	Introduction to Nutrition	3
BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
NPNT 1800	Practical Nursing Concepts	2
PSYC 1010	General Psychology	3
Credit Hours		12

FALL SEMESTER

BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
NPNT 1810	Essential Clinical Nursing Skills	2
NPNT 1820	Health Alterations I	5
NPNT 2150	Nursing Pharmacology	3
Credit Hours		14

SPRING SEMESTER

NPNT 1830	Health Alterations II	8
NPNT 1910	Maternal Child Health	3
NPNT 2240	Concepts in Behavioral Health Nursing	3
Credit Hours		14

Total Credit Hours **43**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

Visit www.wsco.edu/nursing for more information about the multiple nursing pathways to meet individual career goals.

ONE-YEAR FULL TIME DAY CERTIFICATE FOR DIRECT EMPLOYMENT

Career Opportunities:

Acute Care
Long Term Care

Practical Nurses are concerned with basic therapeutic, rehabilitative and preventative care for people of all ages and cultures. The Practical Nurse (PN) participates in assessing, planning, implementing and evaluating the client's response to health care interventions, and demonstrates competencies identified by the National League of Nursing (2010). In addition to knowledge gained in nursing courses, graduates of a Practical Nursing Program gain valuable career skills for the healthcare environment. The graduate will demonstrate competence, caring and clinical judgment skills in providing safe, effective nursing care. The graduate will also demonstrate personal behaviors consistent with professional and employer expectations for the practical nurse.

Board/Certification/Licensing Exam:

NCLEX-PN

Accreditation/Approval:

The Practical Nursing Program has full approval by the Ohio Board of Nursing.

Program Learning Outcomes

Human Flourishing

- Identify values and beliefs that express the human experience.
- Provide a safe caring environment where individual's ideas are valued.
- Advocate for culturally and developmentally appropriate patient care.

Nursing Judgment

- Provide a rationale for judgments used in the provision of safe, quality care and for decisions that promote the health of patients within a family context.
- Utilize critical thinking in the promotion of patient health to achieve optimal outcomes.

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Professional Identity

- Demonstrate a code of behavior based on ethical principles and an understanding of the legal scope of practice of the Practical Nurse.
- Utilize evidence-based practice to effectively communicate patient needs with members of the health care team.

Spirit of Inquiry

- Question the basis for nursing actions, considering research, evidence, tradition, and patient preferences.
- Collaborate with health team members to offer creative solutions in the promotion of patient health.

NURSING—RN TO BSN

PROGRAM PREREQUISITES:

Program Prerequisites:

BIOL 1510	Introduction to Nutrition	3
BIOL 2010	Basic Microbiology	2
BIOL 201L	Basic Microbiology Lab	1
BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
ENGL 1510	English Composition I	3
MATH 2110	Principles of Statistics	4
PSYC 1010	General Psychology	3
PSYC 2700	Developmental Psychology	3
Credit Hours		27

SPRING SEMESTER

Second 8 Weeks

CHEM 1210	Principles of Chemistry	3
CHEM 121L	Principles of Chemistry I Lab	1
SOCI 1010	Introduction to Sociology	3
Credit Hours		7

SUMMER SEMESTER

ENGL 1520	English Composition II	3
SPCH 1510	Speech	3
Credit Hours		6

FALL SEMESTER

First 8 Weeks

NURS 3400	Transitions in Professional Nursing	3
PHIL 1300	Introduction to Ethics	3

Second 8 Weeks

NURS 3450	Health Assessment and Promotion	3
SPCH 2500	Cross Cultural Communication	3
Credit Hours		12

SPRING SEMESTER

First 8 Weeks

NURS 3480	Culturally Competent Nursing & Health Promotion	3
_____	General Education Elective	3

Second 8 Weeks

NURS 4100	Community and Public Health Nursing	3
SOCI 2250	Sociology of Race & Ethnic Relations	3
Credit Hours		12

Prerequisites are required for some courses. Evening courses may be required to complete this program.

Visit www.wsco.edu/nursing for more information about the multiple nursing pathways to meet individual career goals.

SUMMER SEMESTER

NURS 4110	Nursing Informatics	3
_____	General Education Elective	3
Credit Hours		6

FALL SEMESTER

First 8 Weeks

NURS 4120	Collaborative Healthcare	3
NURS 4150	Research and Evidence-Based Practice	3

Second 8 Weeks

NURS 4180	Nursing Leadership and Management	4
_____	General Education Elective	3
Credit Hours		13

Technical Credits Transferred from ADN or Diploma Program	**37**
Total Credit Hours	**120**

BACHELOR OF SCIENCE IN NURSING DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Hospitals, clinics, physician's offices, nursing leadership, case management, public health, and quality improvement

The RN to BSN program is designed to enhance the education and professional growth of registered nurses with a diploma or an associate degree in nursing (ADN) as they earn their Bachelor of Science in Nursing (BSN). In combination with support courses, the curriculum will focus on nursing leadership, community health, nursing research, collaborative healthcare, and healthcare policy. Baccalaureate-prepared nurses are linked to improved patient outcomes, and are positioned for career advancement. Upon program completion, graduates may choose to continue their education to graduate-level nursing degrees such as a Master's of Science in Nursing (MSN) or a Doctor of Nursing Practice (DNP).

A current, active, unrestricted multi-state license as a Registered Nurse (RN) ***or*** an unrestricted single-state license in Ohio or West Virginia.

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NURSING — RN TO BSN (CONT.)

Accreditation/Approval:

The program is in the process of seeking accreditation from the (ACEN) Accreditation Commission for Education in Nursing.

Program Learning Outcomes:

Utilizing the NLN program completion competencies of Human Flourishing, Nursing Judgment, Professional Identity, and Spirit of Inquiry, the graduate of the Washington State College of Ohio RN to BSN Program will be able to:

Human Flourishing

- Identify values and beliefs that express the human experience.
- Incorporate knowledge and skills from nursing curricula to help patients, families, and communities continually progress toward fulfillment of human capacities.
- Advocate for vulnerable patients, families, groups, and communities as recipients of nursing care.

Nursing Judgment

- Make judgments in practice, substantiated with evidence, that synthesize nursing science and knowledge from other disciplines in the provision of safe, quality care and promote the health of patients, families, and communities.
- Recommend changes in nursing practice for self and others based one's evaluation of nursing research.

Professional Identity

- Demonstrate a code of behavior based on ethical principles and an understanding of the legal scope of practice of the bachelor's-prepared Registered Nurse in a variety of settings.
- Express one's identity as a nurse through actions that reflect integrity, a commitment to evidence-based practice, and a willingness to provide leadership in improving care for diverse patients, families, and communities.

Spirit of Inquiry

- Act as an evolving scholar who contributes to the development of the science of nursing practice by identifying questions in need of study, critiquing published research, and using evidence as a foundation to promote creative solutions to clinical practice problems.
- Collaborate with the interprofessional healthcare team to offer creative solutions in the promotion of care for diverse patients, families, and communities.

RADIOLOGIC TECHNOLOGY

FALL SEMESTER

BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
HLTH 1800	Medical Terminology	3
RADT 1010	Intro to Rad Tech Procedures I	2
RADT 1110	Radiographic Exposure I	3
RADT 1310	Applied Radiography I	2
Credit Hours		14

SPRING SEMESTER

BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
RADT 1120	Radiographic Exposure II	3
RADT 1220	Radiographic Procedures II	3
RADT 1320	Applied Radiography II	2
Credit Hours		12

SUMMER SEMESTER

MATH 1104	Technical Math	4
RADT 1330	Applied Radiography III	1
RADT 1230	Radiographic Procedures III	2
Credit Hours		7

FALL SEMESTER

ENGL 1510	English Composition I	3
RADT 2170	Radiographic Physics	4
RADT 2190	Special Procedures/Imaging	2
RADT 2310	Applied Radiography IV	3
Credit Hours		12

SPRING SEMESTER

RADT 2320	Applied Radiography V	3
RADT 2510	Radiobiology/Rad. Prot./Pathology	3
SPCH 2060	Interpersonal Communication	3
_____	Social/Behavioral Science Elective	3
Credit Hours		12

SUMMER SEMESTER

RADT 2330	Applied Radiography VI	1.5
RADT 2420	Selected Topics	3
Credit Hours		4.5

Total Credit Hours **61.5**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunities:

Hospitals, clinics, industry and manufacturing, medical travel agencies, travel mobile imaging, cross-training into other modalities such as computed tomography, ultrasound, mammography, and magnetic resonance imaging.

Radiologic Technologists are primarily responsible for performing diagnostic images that assist in patient diagnosis and treatment. This includes work in radiology departments and the operating room.

Board/Certification/Licensing Exam:

American Registry of Radiologic Technologists (ARRT)

Accreditation/Approval:

Joint Review Committee on Education in Radiologic Technology (JRCERT) 20 N. Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182

Program Learning Outcomes:

Students will:

- apply positioning skills
- select technical factors
- utilize radiation protection
- demonstrate written and oral communication skills
- demonstrate soft skills
- adapt standard procedures for non-routine patients
- critique images to determine diagnostic quality
- demonstrate adherence to code of ethics and code of conduct
- adjust performance and methods of operation for cultural difference
- be successful in the classroom
- be satisfied with the program

RESPIRATORY THERAPY TECHNOLOGY

FALL SEMESTER		
BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
ENGL 1510	English Composition I	3
HLTH 1040	Basic Health Science	3
MATH 1104	Technical Math *or*	4
MATH 2110	Principles of Statistics *or*	
MATH 2130	College Algebra	
PSYC 1010	General Psychology	3
Credit Hours		17
SPRING SEMESTER		
BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
RESP 1100	Introduction to Respiratory Care	2
RESP 1210	Cardiopulmonary Pharmacology	2
RESP 1250	Medical Gas Administration & Therapeutics	4
RESP 1330	Cardiopulmonary Anatomy & Physiology	2
RESP 1350	Clinical Practice I	1
Credit Hours		15
SUMMER SEMESTER		
HLTH 2400	EKG/Cardiovascular Technician	2
RESP 2450	Clinical Practice II	1
RESP 2500	Respiratory Critical Care I	2
RESP 2630	Respiratory Pediatrics & Neonatology	3
Credit Hours		8
FALL SEMESTER		
BIOL 2010	Basic Microbiology	2
BIOL 201L	Basic Microbiology Lab	1
RESP 1360	Adv. Cardiopulmonary Resuscitation	1
RESP 2460	Arterial Blood Gases	1
RESP 2510	Cardiopulmonary Pathology I	3
RESP 2550	Clinical Practice III	2
RESP 2600	Respiratory Critical Care II	3
Credit Hours		13
SPRING SEMESTER		
RESP 2520	Cardiopulmonary Pathology II	1
RESP 2700	Assessment of Pul. Functions	2
RESP 2730	Pulmonary Rehab & Subspecialties	2
RESP 2750	Clinical Practice IV	2
RESP 2800	Cardiology & Hemodynamic Monitoring	2
RESP 2990	Respiratory Capstone	3
Credit Hours		12
Total Credit Hours		**65**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

PREREQUISITES

At minimum, a C in High School (or higher) Biology

At minimum, a C in High School (or higher) Chemistry

At minimum, a C in High School (or higher) Algebra within the last 6 years

GPA of at least 2.75

ASSOCIATE OF APPLIED SCIENCE DEGREE FOR DIRECT EMPLOYMENT

Career Opportunites:

Hospitals
Skilled Nursing Facilities
Medical Sales
Home Care
Sleep Labs
Outpatient Testing

Respiratory Therapists are a crucial part of the health care team, treating and caring for a variety of cardiopulmonary illnesses. The profession continues to become more specialized and technical, while demand for respiratory services is increasing. Respiratory Therapists perform important life support functions in consultation with physicians. At Washington State, you will learn critical thinking, patient/environment assessment skills, and evidence-based clinical practice guidelines that will enable you to develop and implement effective care plans, protocols, and disease management programs.

Board/Certification/Licensing Exam:

National Board for Respiratory Care (NBRC)

Accreditation/Approval:

The Respiratory Therapy Program, (CoARC #200436) awards a two-year Associate of Applied Science degree from Washington State College of Ohio, 710 Colegate Drive, Marietta, OH 45750, and is accredited by the Commission on Accreditation for Respiratory Care (www.coarc.com), 264 Precision Blvd. Telford, TN 37690, phone number (817)283-2835. For program outcomes data: https://coarc.com/students/programmaticic-outcomes-data/

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RESPIRATORY THERAPY TECHNOLOGY (CONT.)

Program Learning Outcomes:

Program Goal: To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

Additional Program Goals:

Goal 1: Communicate effectively with patients, physicians, and other members of the healthcare team.

Goal 2: Continue as an independent learner by demonstrating upgraded job skills and keeping pace with the changing healthcare field

Goal 3: Demonstrate a knowledge of human behavior, diversity, value systems, ethics, and cultures in healthcare.

Goal 4: Use critical thinking skills to provide appropriate treatment, assessment, and care of patients with cardiopulmonary problems using knowledge of cardiopulmonary anatomy, physiology, and pathology.

Goal 5: Problem solve and troubleshoot respiratory therapy equipment and the patient-equipment system using knowledge of the function and design of that equipment.

LAW & PUBLIC SAFETY

Chemical Dependency Counseling 48
Criminal Justice Technology 49
Criminal Justice—Peace Officer Basic Academy 50
Social Services Technology 51

CHEMICAL DEPENDENCY COUNSELING

FALL SEMESTER

First 8 Weeks

SOSV 1005	First Year Experience Seminar	1
SOSV 1110	Introduction to Social Work & Welfare	3
SOSV 1150	Introduction to Theories of Addiction	3

Second 8 Weeks

SOSV 1140	American Social Welfare Institution	3
PSYC 1010	General Psychology	3
ENGL 1510	English Composition I	3
Credit Hours		16

SPRING SEMESTER

First 8 Weeks

CHDE 2320	Theories of Addiction	3
SOSV 1130	Generalist Practice	3

Second 8 Weeks

MATH 2140	Quantitative Reasoning	3
SOSV 2150	Domestic Violence	3
SOSV 2120	Gerontology	3
Credit Hours		15

SUMMER SEMESTER

PHIL 1300	Introduction to Ethics	3
Credit Hours		3

FALL SEMESTER

CHDE 2160	Chemical Dependency Practicum & Seminar I	2

First 8 Weeks

SOSV 2100	Crisis Intervention	3
BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology Lab	1

Second 8 Weeks

CHDE 2330	Advanced Theories of Addiction	3
EDUC 1020	Early Childhood Development *or*	3
PSYC 2700	Developmental Psychology	
Credit Hours		15

SPRING SEMESTER

CHDE 2170	Chemical Dependency Practicum & Seminar II	2

First 8 Weeks

SOSV 2110	Family Interventions	3
ENGL 1520	English Composition II	3

Second 8 Weeks

CHDE 2340	Substance Abuse Counseling	3
SOCI 1010	Introduction to Sociology	3
Credit Hours		14
Total Credit Hours		**63**

ASSOCIATE OF APPLIED SCIENCE DEGREE

Career Opportunities:

Work in both inpatient and outpatient rehab programs. Jails, prisons and juvenile detention centers. Chemical Dependency Counselor, Substance Abuse Counselor, Mental Health Counselor Assistant, Social work and human service agencies.

The Associate of Applied Science in Chemical Dependency Counseling Program is designed to blend classroom instruction with real-world learning experiences. Students examine matters of professional ethics, major counseling theories and principles, psychopharmacology and chemical dependency in individuals, families, groups and communities. Graduates of this program will emerge fully prepared to pursue licensure and work opportunities in various settings including the following:

Program Learning Outcomes:

- Demonstrate and implement knowledge of counseling theories and techniques to diverse populations
- Demonstrate and apply addiction theories to the clinical setting
- Maintain professional standards and ethical boundaries
- Gather clinical information to assess and support diagnosis and ongoing treatment
- Practice respectful communication and interpersonal awareness
- Collaborate with community support and prevention services

Prerequisites are required for some courses. Evening courses may be required to complete this program.

CRIMINAL JUSTICE TECHNOLOGY

FALL SEMESTER

First 8 Weeks

CRJU 1010[1]	Introduction to Criminal Justice	3
ENGL 1510	English Composition I	3
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	

Second 8 Weeks

MATH 2140	Quantitative Reasoning	3
CRJU 1110	Criminal Evidence & Procedures	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

BUSM 1600[3]	PC Applications	3
CRJU 1310	Police Operations	3
ENGL 1515	Technical Writing	3

Second 8 Weeks

CRJU 1120	Criminal Law	3
CRJU 1510[2]	Corrections in the Criminal Justice System	3
Credit Hours		15

FALL SEMESTER

First 8 Weeks

CRJU 1210	Criminal Investigation	3
CRJU 2850	Criminal Justice Careers	3

Second 8 Weeks

BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology I Lab	1
CRJU 2550	Juvenile Justice Procedures	3
PSYC 1010	General Psychology *or*	3
SOCI 1010	Introduction to Sociology	
Credit Hours		16

SPRING SEMESTER

CRJU 2600	Criminal Justice Practicum & Seminar	2
CRJU 2530	Criminal Justice Administration	3

First 8 Weeks

CRJU 2570	Crisis & Incident Response	4

Second 8 Weeks

PHIL 1300	Introduction to Ethics	3
SOCI 2300	Introduction to Criminology	3
Credit Hours		15

Total Credit Hours **61**

Industry Credentials: [1]NIMS 100 / NIMS 700
[2]NIMS 200 / NIMS 800
[3]Microsoft Office Specialist: Word Associate

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Career Opportunities:

The Associates of Applied Science degree in Criminal Justice allows you to work in Law enforcement as a Bailiff, Paralegal, Investigative Assistant, Legal Aids, Dispatch Officer, Fish and Game Warden, Technician, Private Investigator or Security Guard. This degree will also help if you decided to go one step further and enter a POBA academy, or other Law enforcement agency academy like the Highway Patrol.

The Criminal Justice associate degree provides preparation for a variety of careers in state or local law enforcement agencies. The program provides the necessary background for positions with police, private security, and other related criminal justice work, or for transfer to a baccalaureate program. The curriculum leads to the Associate of Applied Science degree. Federal, state and local law enforcement and correctional agencies generally have requirements and/or guidelines for individuals seeking employment. These may include, but not be limited to: physical fitness standards, medical, and/or psychological requirements. In addition, individuals seeking employment in the law enforcement or correctional fields are subjected to a thorough background and criminal records check prior to being considered for employment.

Program Learning Outcomes:

- Develop a knowledge base of the three elements of the criminal justice system (courts, corrections, and law enforcement) and the ability to effectively collaborate with each of the respective elements for society's benefit.
- Apply issues of criminal law and constitutional law to situations and events in employment to ensure that the civil and constitutional rights of citizens are preserved.
- Effectively communicate with individuals from various racial, cultural, ethnic, and socioeconomic groups.
- Recognize emergency situations that necessitate law enforcement intervention, medical intervention, or intervention by social services agencies.
- Analyze information, evidence, or clues received from various sources and develop theories for the prevention or solving of crimes.
- Maximize the effectiveness of the criminal justice agency through the use of technological advances (i.e. computers/forensic science).

CRIMINAL JUSTICE TECHNOLOGY - POBA

PEACE OFFICER BASIC ACADEMY

FALL SEMESTER

First 8 Weeks

CRJU 1010[2]	Introduction to Criminal Justice	3
ENGL 1510	English Composition I	3
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	

Second 8 Weeks

CRJU 1110	Criminal Evidence and Procedures	3
MATH 2140	Quantitative Reasoning	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

BUSM 1600[1]	PC Applications	3
CRJU 1310	Police Operations	3
ENGL 1515	Technical Writing	3

Second 8 Weeks

PHIL 1300	Introduction to Ethics	3
SOCI 2300	Introduction to Criminology	3
Credit Hours		15

FALL SEMESTER

CRJU 2140	Peace Officer Basic Academy I (POBA)	13

Second 8 Weeks

PSYC 1010	General Psychology	
Credit Hours		16

SPRING SEMESTER

CRJU 2150	Peace Officer Basic Academy II (POBA)	13
CRJU 2530	Criminal Justice Administration	3
Credit Hours		16

Total Credit Hours **62**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate [2]NIMS 100 / NIMS 700

Prerequisites are required for some courses. Evening and/or weekend courses may be required to complete this program.

OHIO PEACE OFFICER BASIC ACADEMY

The Peace Officer Basic Academy (POBA) major, under the associate degree in Criminal Justice, provides preparation for careers in law enforcement. POBA also helps students prepare for the Ohio Peace Officer Training Commission (OPOTC) examination. All certified law enforcement officers in the State of Ohio are required to possess an OPOTC certification.

Washington State's POBA program is sanctioned and governed under the Office of the Ohio Attorney General and the Ohio Peace Officer Training Commission (OPOTC). The commission establishes uniform courses of training for law enforcement officers and private security throughout Ohio, and regulates the basic training curriculum for prospective officers.

All individuals seeking to participate as cadets in the Academy must pass a criminal background investigation to the satisfaction of the Ohio Attorney General's office. In addition to the background check, all cadets must take and pass the Pre-Academy Physical Training test based on the "Cooper Standard." Cadets must also pass a 9-panel drug screen and physical. Failure to pass any of these prerequisites will disqualify you from the academy.

Program Learning Outcomes:

- Successfully complete the Ohio Peace Officer Basic Academy assessments and be awarded certification as a law enforcement officer from the Ohio Attorney General's Office.
- Develop a knowledge base of the three elements of the criminal justice system (courts, corrections and law enforcement) and the ability to effectively collaborate with each of the respective elements for the benefit of society.
- Apply issues of criminal law and constitutional law to situations and events in employment to ensure that the civil and constitutional rights of citizens are preserved.
- Effectively communicate with individuals from various racial, cultural, ethnic and socioeconomic groups.
- Recognize emergency situations that necessitate law enforcement intervention by social services agencies.
- Analyze information, evidence or clues received from various sources and develop theories for the prevention or solving of crimes.
- Maximize effectiveness for the criminal justice agency through the use of technological advances (i.e. computers/forensic science).

SOCIAL SERVICES TECHNOLOGY

FALL SEMESTER

First 8 Weeks

SOSV 1005	SOSV First Year Experience Seminar	1
SOSV 1110	Intro to Social Work & Social Welfare	3
SOSV 1150	Introduction to Theories of Addiction	3

Second 8 Weeks

ENGL 1510	English Composition I	3
SOSV 1140	American Social Welfare Institution	3
PSYC 1010	General Psychology	3
Credit Hours		16

SPRING SEMESTER

First 8 Weeks

BUSM 1600[1]	PC Applications	3
SOSV 1130	Generalist Practice	3
SPCH 1510	Speech	3

Second 8 Weeks

MATH 2140	Quantitative Reasoning	3
SOSV 2150	Domestic Violence	3
Credit Hours		15

SUMMER SEMESTER

PHIL 1300	Introduction to Ethics	3
SOCI 1010	Introduction to Sociology	3
Credit Hours		6

FALL SEMESTER

SOSV 2160	Social Services Practicum & Seminar I	2

First 8 Weeks

BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology Lab	1
SOSV 2100	Crisis Intervention	3

Second 8 Weeks

SOSV 1680	Social Service & Law	3
Credit Hours		12

SPRING SEMESTER

SOSV 2170	Social Services Practicum & Seminar II	2

First 8 Weeks

SOCI 2010	Social Problems	3
SOSV 2110	Family Intervention	3

Second 8 Weeks

ENGL 1520	English Composition II	3
SOSV 2120	Gerontology	3
Credit Hours		14
Total Credit Hours		**63**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Career Opportunities:

Caseworker, Services Assistant, Advocate, Patient Assistant, Peer Support Coach, Service Aide, Support Worker, Rehab Aide, Counselor Assist, Behavior Tech, Case Manager

Social Work Assistants work with social workers, counselors, and other health and human services professionals to provide support to individuals, groups, families, organizations, and communities. Students that graduate this program may hold the title of Social Work Assistant, Counselor Assistant, Case Work Aide, Social Services Assistant, or Human Services Worker. The job duties of a Social Work Assistant vary according to the setting in which they work, but commonly these professionals are responsible for assisting clients in finding and accessing mental health and community resources. Washington State's Social Services Technology program combines classroom theory with actual field experience. Part of the second year will be spent with various local agencies, applying what has been learned to client populations. Successful completion of the program leads to the Associate of Applied Science degree.

Program Learning Outcomes:

- Distinguish oneself as a professional social worker and conduct oneself accordingly.
- Engage diversity and multiculturalism in practice.
- Combat human rights and social and economic injustice.
- Apply knowledge of human behavior and the social environment.
- Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
- Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.
- Consistently perform work habits such as: punctuality, productivity, verbal and written communication skills, cooperation with staff and clients and working within the policies, structures, and functions of social service agencies.
- Apply the National Association of Social Workers (NASW) Code of Ethics and values consistent with the profession, to ethical situations.
- Demonstrate effective interpersonal communication skills needed as a helping professional such as active listening, critical thinking, appropriate verbal and non-verbal responses and written communication.
- Collect, organize and prioritize client assessment information needed to develop progress reports, social histories, case treatment plans and closing summaries.
- Identify client needs and link them to available community resources.
- Monitor and evaluate clients' success toward individualized goal attainment.
- Identify historical and current social welfare policy issues that impact professional agencies.

TRANSFER

Associate of Science 53
Associate of Science Engineering Transfer 54
Business Administration Transfer 55
Education Transfer 56
Associate of Individualized Studies 57
Liberal Arts Transfer 58
Social Services Transfer 59

Updated March 2024

ASSOCIATE OF SCIENCE

FALL SEMESTER		
BIOL 1100	General Biology I	3
BIOL 110L	General Biology I Lab *or*	1
BIOL 2310	Human Anatomy & Physiology I	
BIOL 231L	Human Anatomy & Physiology I Lab	3
BIOL 1300	The Human Body (HIMT)	4
MATH 2110	Introduction to Statistics *or*	4
First 8 Weeks		
MATH ____	Elective OT36	
ENGL 1510	English Composition I	3
Second 8 Weeks		
PHIL 1300	Introduction to Ethics	3
Credit Hours		14
SPRING SEMESTER		
BIOL 1110	General Biology II	3
BIOL 111L	General Biology II Lab *or*	1
BIOL 2320	Human Anatomy & Physiology II	
BIOL 232L	Human Anatomy & Physiology II Lab	
First 8 Weeks		
ENGL ____	Elective OT36	3
PSYC 1010	General Psychology	3
Second 8 Weeks		
_____	Natural Science Elective	4
SOCI 1010	Introduction to Sociology	3
Credit Hours		17
FALL SEMESTER		
CHEM 1510	Fundamentals of Chemistry I	3
CHEM 151L	Fundamentals of Chemistry I Lab	1
First 8 Weeks		
_____	General Education Elective	3
_____	Natural Science Elective OT36	4
Second 8 Weeks		
SPCH 1510	Speech	3
_____	Arts & Humanities Elective OT36	3
Credit Hours		17
SPRING SEMESTER		
CHEM 1520	Fundamentals of Chemistry II	3
CHEM 152L	Fundamentals of Chemistry II Lab	1
First 8 Weeks		
_____	General Education Elective	3
_____	Natural Science Elective OT36	3
Second 8 Weeks		
_____	General Education Elective	3
_____	General Education Elective	3
Credit Hours		16
Total Credit Hours		**64**

ASSOCIATE OF SCIENCE DEGREE FOR TRANSFER

If a career in medicine, veterinary medicine, dentistry or zoology is in your future, then Washington State's Associate of Science might be the right option for you. This program meets the Transfer Module requirements for transfer to any Ohio state college or university.

If prerequisite courses in mathematics and science are not already completed, the necessary courses may be taken at Washington State, but more time may be required to complete the degree.

The Associate of Science program curriculum leads to the Associate of Science degree and meets the Transfer Module requirements for transfer to Ohio state colleges and universities. This program provides the foundation courses needed to transfer into a four-year program in science and science-related fields such as medicine, dentistry, pharmacy, astronomy, meteorology, and environmental science.

Program Learning Outcomes:

- Transfer to an accredited college or university with junior status.
- Propose, consider, analyze, and evaluate alternative explanation to scientific phenomena.
- Conduct scientific investigations, formulate questions, and design approaches that incorporate appropriate variables and controls.
- Implement solutions, collect and record qualitative and quantitative data, and communicate the results.
- Know and apply the concepts, principles, and processes of technological design.

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF SCIENCE ENGINEERING TRANSFER

FALL SEMESTER		
CHEM 1510	Fundamentals of Chemistry I	3
CHEM 151L	Fundamentals of Chemistry I Lab	1
First 8 Weeks		
ENGL 1510	English Composition I	3
ENGR 1010	Fundamentals of Engineering	3
Second 8 Weeks		
Math 2130	College Algebra	4
_____	Social & Behavioral OT36 Elective	3
Credit Hours		17
SPRING SEMESTER		
ENGR 1100	Engineering Materials	4
First 8 Weeks		
MATH 2150	Pre-Calculus	5
Second 8 Weeks		
_____	Arts & Humanities OT36 Elective	3
_____	Social & Behavioral OT36 Elective	3
Credit Hours		15
FALL SEMESTER		
MATH 2263	Calculus I	4
PHYS 2510	General Physics I	4
PHYS 251L	General Physics I Lab	1
First 8 Weeks		
SPCH 1510	Speech	3
Second 8 Weeks		
ENGR 2210	Statics	4
Credit Hours		16
SPRING SEMESTER		
MATH 2264	Calculus II	4
First 8 Weeks		
AMIT 2530[1][2]	Solid Modeling with Additive Manufacturing	3
_____	English OT36 Elective	3
Second 8 Weeks		
ENGR 2220	Strength of Materials	3
_____	Arts & Humanities OT36 Elective	3
Credit Hours		16
Total Credit Hours		**64**

Industry Credentials: [1]Solid Modeling
[2]Additive Manufacturing

ASSOCIATE OF SCIENCE DEGREE
ENGINEERING TRANSFER

The Engineering Transfer program provides the basic core requirements for transfer into a university or college engineering baccalaureate program. Program emphasis is on completion of mathematics and science sequences, as well as humanities, social, and behavioral electives. In order to facilitate the transfer process to a four-year college or university, consultation with an advisor, department chair or the director of advising and transfer is recommended during the first academic year. Seeking the necessary information and advice from both the transfer and the prospective receiving institution is encouraged. Prerequisite courses in mathematics or science may need to be completed before attempting prescribed courses required for the transfer degree. This coursework is necessary for success and may increase the time required to earn the associate's degree. Completion of the Associate of Science Degree in Engineering Transfer meets the requirements in completing the OT36.

Program Learning Outcomes:

Graduates of the program will be able to:

- Apply mathematics, physics, and reasoning skills to solve problems.
- Analyze and adopt a defensible position on historical or current issues.
- Articulate into a Bachelor of Science Degree in Engineering.
- Successfully apply methods of engineering mechanics.

Prerequisites are required for some courses. Evening courses may be required to complete this program.

BUSINESS ADMINISTRATION TRANSFER

FALL SEMESTER

First 8 Weeks

ENGL 1510	English Composition I	3
BUSM 1550	Business Management	3

Second 8 Weeks

BUSM 1600[1]	PC Applications	3
BUSM 1660	Business Law	3
SPCH 1510	Speech	3
Credit Hours		15

SPRING SEMESTER

MATH 2110	Principles of Statistics	4

First 8 Weeks

ACCT 1550	Introduction to Financial Accounting	4
ARTS 1000	Art Appreciation	3

Second 8 Weeks

BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology Lab	1
Credit Hours		15

FALL SEMESTER

First 8 Weeks

_____	General or OTM Elective	3
PSYC 1010	General Psychology	3

Second 8 Weeks

ECON 2120	Principles of Macroeconomics	3
ENGL 1515	Technical Writing	3
BUSM 2510	Marketing	3
Credit Hours		14

SPRING SEMESTER

First 8 Weeks

ACCT 2320	Managerial Accounting	3
PHIL 1300	Introduction to Ethics	3

Second 8 Weeks

BIOL 2110	Environmental Science	3
ECON 2130	Principles of Microeconomics	3
_____	General or OTM Elective	3
Credit Hours		16

Total Credit Hours **60**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF ARTS DEGREE FOR TRANSFER

Career Opportunities:

Project Manager, Administrative Assistant, Accountant, Sales Manager, Office Manager, Customer Service Manager, Specialist Human Resources, Store Manager

The Business Administration Transfer program is designed to provide basic coursework that will enable transfer to baccalaureate programs in business administration, accounting, finance, management, and marketing. The program allows the flexibility needed to transfer into the four-year institution of their choice. The emphasis is on completion of general education requirements and courses in economics, accounting, and mathematics to prepare for work in a chosen major at the four-year institution. If you plan to transfer to a baccalaureate program in business (including accounting, management, marketing, finance and other related areas) you should be aware of significant differences between course requirements and the application of transfer credits at the various institutions in this region. Students should work closely with an academic advisor, department chair and/or the director of advising and transfer to tailor the academic programs for transfer to the institution of choice. The Business Administration Transfer curriculum leads to the Associate of Arts degree and meets the transfer module requirements for transfer to Ohio state colleges and universities.

Program Learning Outcomes:

- Demonstrate that basic requirements for transferring to a bachelor's program have been met.
- Problem solve, think critically and communicate effectively through the use of accounting practice sets, business simulations, and presentations.
- Communicate an understanding of basic economic events that occurred during US history.
- Analyze business data and forecasts through the use of technology.

EDUCATION TRANSFER

FALL SEMESTER

First 8 Weeks

EDUC 1000	Introduction to Education	3
ENGL 1510	English Composition I	3
SPCH 1510	Speech	3

Second 8 Weeks

HIST 2110	American History to 1865	3
PSYC 1010	General Psychology	3
Credit Hours		15

SPRING SEMESTER

EDUC 1560	Education Seminar & Field Work	1
MATH 2110	Principles of Statistics *or*	4
MATH 2130	College Algebra (8-week course)	

First 8 Weeks

ENGL 1520	English Composition II	3
HIST 2120	American History 1865-present	3

Second 8 Weeks

EDUC 1700	Educational Technology	3
LITR 2110	Survey of American Literature II	3
Credit Hours		17

FALL SEMESTER

EDUC 2110	Exceptional Learners Seminar and Field Work	1

First 8 Weeks

BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology Lab	1
EDUC 2100	Exceptional Learners	3

Second 8 Weeks

EDUC 1020	Early Childhood Development	3
PSYC 2700	Developmental Psychology	3
Credit Hours		14

SPRING SEMESTER

First 8 Weeks

EDUC 2950	Education Capstone	1
_____	Natural Sciences Elective	4
PSYC 2750	Education Psychology	3

Second 8 Weeks

ARTS 1000	Art Appreciation *or*	3
MUSC 1200	Music Appreciation *or*	
THEA 1200	Introduction to Theater	
EDUC 2300	Families, Communities, & Schools	3
POLS 1020	American National Government	3
Credit Hours		17

Total Credit Hours **63**

Electives should be selected with help from your advisor to ensure it will transfer to the school you plan to attend.
*Students transferring to Marietta College should take MATH*2110 and a class in ECON or SOCI. WVU-P transfers should take MATH 2130.*
Prerequisites are required for some courses.

ASSOCIATE OF ARTS DEGREE FOR TRANSFER

Career Opportunities:

Teacher's Assistant, Childcare Worker, Substitute teacher, Special Education Assistant, Counselor Assistant, Library Technician, Preschool Teacher.

As an aspiring teacher, you have lots of options for college. Washington State College of Ohio offers an affordable start to your foundation in the career of education with classes that transfer to public and private institutions. With our strong partnerships and articulation agreements, it is possible to transfer and complete your bachelors degree after earning an Associate of Arts in Education. A few colleges in which our graduates transfer with ease are Marietta College, West Virginia University of Parkersburg, Muskingum University and Ohio University. Students looking to finish their four year degree fully online have the ability to transfer articulated credits to Franklin University. Getting a foundational start at Washington State makes economic sense, while also building connections with many of the local school districts in which we partner. Get started on your path to becoming a teacher by enrolling at WSCO.

Program Learning Outcomes:

- Meet the general education requirements of the college in preparation for the Praxis CORE exam.
- Gain knowledge of the historical and philosophical foundations of education, and of school structure, government, and effective school operation in a pluralistic society.
- Investigate career expectations and current educational issues.
- Successfully complete in-school practicum experiences with typical, exceptional, and diverse learners to gain experience developing and executing instructional plans, working effectively with students, developing collaborative relationships and exploring the appropriateness of a career in education.
- Demonstrate the ability to develop and execute a detailed lesson plan.
- Gain knowledge about the characteristics, identification, and needs of exceptional individuals and how to adapt instruction to meet their needs.
- Effectively utilize technology both with students in the classroom as well as in instructional planning.

ASSOCIATE OF INDIVIDUALIZED STUDIES

GENERAL & BASIC COURSES

_____	English Elective	3
_____	English Elective	3
_____	Speech Elective	3
_____	Social/Behavioral Science Elective	3
_____	Arts & Humanities Elective	3
_____	Computer Applications Elective	3
_____	Math Elective	3
_____	Natural Science Elective	3
_____	General Education Elective	3
_____	General Education Elective	3
Credit Hours		30

MAJOR CONCENTRATION COURSES

_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
_____	Major Concentration Elective	3
Credit Hours		30

Total Credit Hours **60-65**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

The Associate of Individualized Studies (A.I.S.) is awarded to students who successfully complete an individually designed curricula prescribed to meet specific career goals. Students must satisfactorily complete a minimum of 60 semester credit hours in a well-planned, unique program to serve an educational objective that could not be served through another degree program at the college. Five general education goals will be included in each individually-designed curriculum, for a minimum of 30 semester credits of general and basic related course requirements. The program leading to the A.I.S. must contain an area of concentration consisting of a minimum of 30 to maximum of 35 semester credit hours formed either by:

- An intra-college, interdisciplinary, but coherent combination of courses drawn from a minimum of two and maximum of four instructional areas of study; or
- Up to 35 semester credit hours awarded by the college for documentable educational experiences or courses completed at another college judged by WSCO to be of college level; or
- An unusual but academically coherent

Upon petitioning for acceptance into the A.I.S. program, a representative of Enrollment Management, the student's committee, and the student will determine the remaining required courses. Once students are accepted into the program, they must complete at least 20 credit hours within the approved A.I.S. program with at least half in the area of the approved concentration. Students with less than 30 credit hours remaining toward a degree must have the approval of the Dean of Business, Engineering, Public Service, and Liberal Arts to enroll in the program.

LIBERAL ARTS TRANSFER

FALL SEMESTER

MATH 2110	Principles of Statistics *or*	4
MATH 2130	College Algebra	
First 8 Weeks		
ENGL 1510	English Composition I	3
SPCH 1510	Speech	3
Second 8 Weeks		
PSYC 1010	General Psychology	3
_____	Elective	3
Credit Hours		16

SPRING SEMESTER

CHEM 1210	Principles of Chemistry I	3
CHEM 121L	Principles of Chemistry I Lab	1
First 8 Weeks		
ENGL 1520	English Composition II	3
_____	Elective	3
Second 8 Weeks		
PHIL 1300	Introduction to Ethics	3
_____	Elective	3
Credit Hours		16

FALL SEMESTER

First 8 Weeks		
BIOL 1010	Principles of Biology	3
BIOL 101L	Principles of Biology Lab	1
_____	Elective	3
Second 8 Weeks		
_____	Arts & Humanities OT36 Elective	3
POLS 1020	American National Government	3
Credit Hours		13

SPRING SEMESTER

First 8 Weeks		
LITR 1300	Introduction to Literature	3
SOCI 1010	Introduction to Sociology	3
_____	Elective	3
Second 8 Weeks		
_____	Arts & Humanities OT36 Elective	3
_____	Elective	3
Credit Hours		15

Total Credit Hours **60**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF ARTS DEGREE FOR TRANSFER

Career Opportunities:

Technical Writer, Human Resource Specialist, Graphic Designer, Mediator, Public Relations Specialist, Event Planner, Social Media Manager, Public Relations, Journalist

Employers today demand workers who can integrate knowledge from a variety of areas and communicate complex ideas effectively. As a result they are looking more and more for candidates with strong liberal arts backgrounds. Businesses, industries, and public and private agencies are hiring liberal arts graduates because these graduates learn quickly, think critically and independently, communicate effectively, and easily adapt to the global workplace. A Liberal Arts Transfer degree is so diverse that graduates can fill positions from finance to public administration, government to recreation, administration to education and beyond. The Liberal Arts Transfer program leads to the Associate of Arts degree in Liberal Arts with pathways specializing in Fine Arts, English, Math, Social Humanities. Washington State Liberal Arts graduates have successfully transferred to Marietta College, West Virginia University at Parkersburg, Ohio University, The Ohio State University, Muskingum University, and many other institutions. Visit wsco.edu/transfer for more information about our partners. You should work closely with an academic advisor to tailor an academic program for transfer to the institution of your choice. For transfer to many bachelors programs, four years of the same foreign language in high school or two semesters of the same foreign language in college is recommended or required for graduation. The liberal arts transfer curriculum meets the Transfer Module requirements for transfer to Ohio state colleges and universities.

Program Learning Outcomes:

- Meet the general education requirements of Washington State College of Ohio and be prepared to transfer to a four-year institution as a junior.
- Demonstrate specific knowledge of Liberal Arts through analysis, evaluation, and communication of information.
- Demonstrate methods for critically acquiring and evaluating information, drawing conclusions, and defending those conclusions rationally in effective oral and written communications.
- Apply decision-making processes by synthesizing ideas data collection, research, and analysis.
- Demonstrate an understanding of the world beyond their immediate experience.

SOCIAL SERVICES TRANSFER

FALL SEMESTER

First 8 Weeks

SOSV 1005	SOSV First Year Experience Seminar	1
SOSV 1110	Introduction to Social Work and Welfare	3
SOSV 1150	Introduction to Theories of Addiction	3

Second 8 Weeks

ENGL 1510	English Composition I	3
PSYC 1010	General Psychology	3
SOSV 1140	American Social Welfare Institution	3
Credit Hours		16

SPRING SEMESTER

MATH 2110	Principles of Statistics	4

First 8 Weeks

SOSV 1130	Generalist Practice	3
SPCH 1510	Speech	3

Second 8 Weeks

SOSV 2150	Domestic Violence	3
Credit Hours		13

SUMMER SEMESTER

PHIL 1300	Introduction to Ethics	3
SOCI 1010	Introduction to Sociology	3
Credit Hours		6

FALL SEMESTER

BIOL 1100	General Biology I	3
BIOL 110L	General Biology I Lab	1

First 8 Weeks

POLS 1020	American National Government	3
_____	Arts and Humanities Elective	3

Second 8 Weeks

EDUC 1020	Early Childhood Development	3
Credit Hours		13

SPRING SEMESTER

First 8 Weeks

PSYC 2320	Abnormal Psychology	3
SOCI 2010	Social Problems	3

Second 8 Weeks

ENGL 1520	English Composition II	3
_____	Natural Sciences Elective	3
Credit Hours		12

Total Credit Hours **60**

Prerequisites are required for some courses. Evening courses may be required to complete this program.

ASSOCIATE OF ARTS DEGREE FOR TRANSFER

Career Opportunities:

Patient Advocate, Student Aide, Rehabilitation Aide, Counselor Assistant, Preschool Teacher, Case Manager, Service Administrator, Social Services Assistant, Behavior Technician, Intake Coordinator

The Social Services Transfer program provides students with introductory courses and a foundation for social work practice. Courses include topics like psychology and sociology with 16 credit hours in core social work classes. This degree prepares students for a bachelor's degree in social work and it also helps students obtain employment in line with their career aspirations.

Program Learning Outcomes:

- Meet the general education requirements of Washington State College of Ohio and be prepared to transfer to a four-year institution.
- Distinguish oneself as a professional social worker and conduct oneself accordingly.
- Engage diversity and multiculturalism in practice.
- Combat human rights and social and economic injustice.
- Apply knowledge of human behavior and the social environment.
- Engage in policy practice to advance social and economic well-being and to deliver effective social work services.
- Engage, assess, intervene, and evaluate with individuals, families, groups, organizations, and communities.
- Consistently perform work habits such as: punctuality, productivity, verbal and written communication skills, cooperation with staff and clients and working within the policies, structures, and functions of social service agencies.
- Apply the National Association of Social Workers (NASW) Code of Ethics and values consistent with the profession, to ethical situations.
- Demonstrate effective interpersonal communication skills needed as a helping professional such as active listening, critical thinking, appropriate verbal and non-verbal responses and written communication.
- Collect, organize and prioritize client assessment information needed to develop progress reports, social histories, case treatment plans and closing summaries.
- Monitor and evaluate clients' success toward individualized goal attainment.
- Identify historical and current social welfare policy issues that impact professional agencies

PROGRAM INDEX

Certificate Programs 61
Certificates of Completion. 65
Course Catalog. 66
Faculty 99

CERTIFICATE PROGRAMS

ACCOUNTING CERTIFICATE

FALL SEMESTER

First 8 Weeks

ACCT 1550	Introduction to Financial Accounting	4
BUSM 1600[1]	PC Applications	3
ENGL 1510	English Composition I	3

Second 8 Weeks

ACCT 1610	Payroll Accounting	3
BUSM 1550	Business Management	3
Credit Hours		16

SPRING SEMESTER

MATH 2110	Principles of Statistics	4

First 8 Weeks

ACCT 2550	Advanced Financial Accounting	4
BUSM 2220[2]	Business Excel	3

Second 8 Weeks

ACCT 2920	QuickBooks for Accountants	3
BUSM 1660	Business Law	3
Credit Hours		17
Total Credit Hours		**33**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
[2]Microsoft Office Specialist: Excel Associate

MANUFACTURING TECHNICIAN

FALL SEMESTER

First 8 Weeks

AMIT 1510[4][9]	Non-Collaborative Robot Operator	2
ENGR 1010	Fundamentals of Engineering	3
INDT 1220[2][7][8]	OSHA Safety with CPT 4.0	2

Second 8 Weeks

AMIT 1170	Computer Numerical Control	3
INDT 1340	Quality Practices & Measurement CPT4.0	3
MATH 2130	College Algebra	4
Credit Hours		18

SPRING SEMESTER

First 8 Weeks

AMIT 1800 [10][11][12]	Collaborative Robot Operator	2
AMIT 2530[3][14]	Solid Modeling with Additive Manufacturing	3
INDT 2180 [7]	Manufacturing Processes & Prod CPT4.0	3

Second 8 Weeks

AMIT 2170[1][5][6][13]	Computer Aided Manufacturing	3
INDT 1100	Industrial Maintenance Awareness CPT4.0	3
Credit Hours		14
Total Credit Hours		**33**

Industry Credentials: [1]NIMS
[2]OSHA10
[3]Solid Modeling
[4]FANUC Handling Tool and Operation and Programming
[5]Autodesk
[6]Mastercam
[7]CPT4.0
[8]Authorized Fork Truck Operator
[9]FANUC Robot Operations
[10]FANUC Collaborative Robot Operations
[11]CRX Operation and Programming
[12]Universal Robotics Core
[13]ACE
[14]Additive Manufacturing

ADMINISTRATIVE ASSISTANT

FALL SEMESTER

First 8 Weeks

ENGL 1510	English Composition I	3
BUSM 1550	Business Management	3

Second 8 Weeks

BUSM 1600[1]	PC Applications	3
BUSM 2130[2]	Customer Service & Sales	3
PHIL 1300	Introduction to Ethics	3
Credit Hours		15

SPRING SEMESTER

First 8 Weeks

ENGL 1515	Technical Writing	3
SPCH 1510	Speech	3

Second 8 Weeks

BUSM 2510	Marketing	3
HLTH 1800	Medical Terminology *or*	3
BUSM 1660	Business Law	
HLTH 1420	Introduction to Human Diseases *or*	3
BUSM 2220[3]	Business Excel	
Credit Hours		15
Total Credit Hours		**30**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
[2]NCSA Certified Customer Service
[3]Microsoft Office Specialist: Excel Associate

AUTOMOTIVE TECHNICIAN

FALL SEMESTER

First 8 Weeks

AUTO 1100	Vehicle Service & Maintenance	3
AUTO 1110[5][6]	Electrical Circuitry	3
AUTO 1120[4]	Automotive Brakes	3

Second 8 Weeks

AUTO 1130[6]	Electrical Components	3
AUTO 2100[1]	Automatic Drive Trains	3
ENGL 1510	English Composition I	3
Credit Hours		18

SPRING SEMESTER

First 8 Weeks

AUTO 1140[3]	Automotive Chassis	3
AUTO 1150[2]	Manual Drive Trains	3
AUTO 1160	Fuel & Emissions Controls	3

Second 8 Weeks

MATH 1104	Technical Mathematics	4
WELD 1232	Industrial Welding	3
Credit Hours		16
Total Credit Hours		**34**

Industry Credentials: [1]A2 - Automatic Transmission
[2]A3 - Manual Transmission
[3]A4 - Steering & Suspension
[4]A5 - Brakes
[5]A6 - Electrical and Electronics
[6]T6 - Electric

CERTIFICATE PROGRAMS

HELP DESK

FALL SEMESTER

MATH 2110	Principles of Statistics	4
First 8 Weeks		
CYBS 1010[1]	Introduction to Cybersecurity	3
CYBS 1020[2]	Operating System and Computing Fund	3
Second 8 Weeks		
DTCS 1020[5]	Desktop Applications	3
PHIL 1300	Introduction to Ethics	3
Credit Hours		16

SPRING SEMESTER

First 8 Weeks		
CYBS 1210[3]	A+ Hardware and Software	3
DTCS 2010[6]	Microsoft Organizational Implementations	3
ENGL 1510	English Composition I	3
Second 8 Weeks		
CYBS 1230[4]	Network+	3
DTCS 2610[7]	Microsoft Domain Controllers	3
SPCH 1510	Speech *or*	3
SPCH 2060	Interpersonal Communication	
Credit Hours		18
Total Credit Hours		**34**

Industry Credentials: [1]TestOut Security Pro & CompTIA Security+
[2]TestOut IT Fundamentals Pro & CompTIA ITF+
[3]TestOut PC Pro & CompTIA A+
[4]TestOut Network Pro & CompTIA Network+
[5]TestOut Desktop Pro & Microsoft Office Specialist (MOS)
[6]TestOut Client Pro & Microsoft Destktop Administrator Associate
[7]TestOut Server Pro & Microsoft Certified Systems Associate (MCSA)

INDUSTRIAL TECHNOLOGY - CHEMICAL OPERATOR

FALL SEMESTER

INDT 1010	Introduction to Chemical Operator	3
CHEM 1210	Principles of Chemistry I	3
First 8 Weeks		
INDT 1221[1]	CPT 4.0 Safety	2
MATH 1104	Technical Mathematics	4
Second 8 Weeks		
PHYS 1010	Applied Physics	2
PHYS 101L	Applied Physics Lab	1
Credit Hours		15

SPRING SEMESTER

MECH 1100	Engineering Materials	4
INDT 2210	Process Control	4
First 8 Weeks		
ELET 2410[2]	Programmable Logic Controllers	3
Second 8 Weeks		
INDT 1330	Industrial Electricity	2
INDT 1340	Quality Practices & Measurement CPT 4.0	3
Credit Hours		16
Total Credit Hours		**31**

Industry Credentials: [1]CPT4.0
[2]Rockwell PLC

CYBER SECURITY

FALL SEMESTER

MATH 2110	Principles of Statistics	4
First 8 Weeks		
CYBS 1010[1]	Introduction to Cybersecurity	3
CYBS 1020[2]	OS and Computing Fundamentals	3
Second 8 Weeks		
CYBS 1030[3]	Fundamentals of Hacking & IT Psychology	3
Credit Hours		13

SPRING SEMESTER

First 8 Weeks		
CYBS 1210[4]	A+ Hardware and Software	3
CYBS 1220[5]	Unix/Linux	3
ENGL 1510	English Composition I	3
Second 8 Weeks		
CRJU 1120	Criminal Law	3
CYBS 1230[6]	Network+	3
CYBS 1240[7]	Ethical Protocols of Cybersecurity	3
Credit Hours		18
Total Credit Hours		**31**

Industry Credentials: [1]TestOut Security Pro & CompTIA Security+
[2]TestOut IT Fundamentals Pro & CompTIA ITF+
[3]TestOut Security Pro & CompTIA Security+
[4]TestOut PC Pro & CompTIA A+
[5]TestOut Linux Pro & CompTIA Linux+
[6]TestOut Network Pro & CompTIA Network+
[7]TestOut Ethical Hacker Pro & EC-Council's Ethical Certified Hacker

MULTI-CRAFT FOR INDUSTRY

FALL SEMESTER

First 8 Weeks		
ENGR 1010	Fundamentals of Engineering	3
ELET 2410[3]	Programmable Logic Controllers	3
INDT 1220[1][7][8]	OSHA Safety with CPT 4.0	2
Second 8 Weeks		
AMIT 1170[2][5][6]	Computer Numerical Control	3
INDT 1340	Quality Practices & Measurement CPT 4.0	3
Credit Hours		14

SPRING SEMESTER

First 8 Weeks		
AMIT 2530[4][9]	Solid Modeling with Additive Manufacturing	3
INDT 2180	Manufacturing Processes & Prod CPT 4.0	3
MATH 1104	Technical Mathematics	4
Second 8 Weeks		
INDT 1100	Industrial Maintenance Awareness CPT 4.0	3
INDT 1330	Industrial Electricity	2
WELD 1232	Industrial Welding	3
Credit Hours		18
Total Credit Hours		**32**

Industry Credentials: [1]OSHA10
[2]NIMS
[3]Rockwell PLC
[4]Solid Modeling
[5]Haas
[6]Fanuc
[7]CPT4.0
[8]Authorized Fork Truck Operator
[9]Additive Manufacturing

MASSAGE THERAPY

FALL SEMESTER

BIOL 1350	Anatomy & Physiology I for Massage Therapists	4
First 8-Weeks		
HLTH 1800	Medical Terminology	3
MAST 1510	Massage Techniques I	3
MAST 1516	Business for Massage Therapists	2
Second 8-Weeks		
MAST 1520	Massage Techniques II	3
MAST 2850	Building an Ethical Massage Therapy Practice	2
Credit Hours		17

SPRING SEMESTER

MAST 1370	Functional Anatomy & Kinesiology	3
MAST 137L	Functional Anatomy & Kinesiology Lab	1
BIOL 2450	Pathophysiology *or*	3
HLTH 1420	Introduction to Human Disease	
First 8-Weeks		
MAST 2480	Orthopedic Assessment & Documentation	4
Second 8-Weeks		
MAST 2550	Massage Therapy Directed Practice I	2
MAST 2840	Massage Therapy Capstone	4
Credit Hours		17

Total Credit Hours **34**

MEDICAL BILLING & CODING

FALL SEMESTER

BIOL 1300	The Human Body	4
HLTH 1420	Introduction to Human Disease *or*	3
BIOL 2450	Pathophysiology	
HIMT 1100	Legal Aspects	2
HIMT 1200	Health Record Management I	3
HLTH 1800	Medical Terminology	3
Credit Hours		15

SPRING SEMESTER

BUSM 1600[1]	PC Applications	3
ENGL 1510	English Composition I	3
HIMT 1301	Clinical Classifications ICD10-CM/PCS	3
HIMT 1302	Current Procedural Terminology	3
Credit Hours		12

SUMMER SEMESTER

HIMT 1400	Healthcare Reimbursement	3
HIMT 1500	Advanced Clinical Classification Systems	3
HIMT 1700	Revenue Cycle and Coding	3
Credit Hours		9

Total Credit Hours **36**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
Upon successful completion students are eligible to sit for the following external certification exams: HFMA, CRCR, AHIMA's CCA, CCS, CCS-P coding credential, AAPC's CPC and CPB credential, and the AMB CMRS credential.

CERTIFICATE PROGRAMS

PRACTICAL NURSING

PROGRAM PREREQUISITES:

High School Algebra II or MATH 0106 with "C" or better
High School Biology with "C" or better
High School Chemistry with "C" or better

ENGL 1510	English Composition I	3
Credit Hours		3

SUMMER SEMESTER

BIOL 1510	Introduction to Nutrition	3
BIOL 2310	Human Anatomy & Physiology I	3
BIOL 231L	Human Anatomy & Physiology I Lab	1
NPNT 1800	Practical Nursing Concepts	2
PSYC 1010	General Psychology	3
Credit Hours		12

FALL SEMESTER

BIOL 2320	Human Anatomy & Physiology II	3
BIOL 232L	Human Anatomy & Physiology II Lab	1
NPNT 1810	Essential Clinical Nursing Skills	2
NPNT 1820	Health Alterations I	5
NPNT 2150	Nursing Pharmacology	3
Credit Hours		14

SPRING SEMESTER

NPNT 1830	Health Alterations II	8
NPNT 1910	Maternal Child Health	3
NPNT 2240	Concepts in Behavioral Health Nursing	3
Credit Hours		14

Total Credit Hours **43**

PEACE OFFICER BASIC ACADEMY

FALL SEMESTER

CRJU 2140	POBA I	13
First 8 Weeks		
ENGL 1510	English Composition I	3
Credit Hours		16

SPRING SEMESTER

CRJU 2150	POBA II	13
Second 8 Weeks		
ENGL 1515	Technical Writing	3
Credit Hours		16

Total Credit Hours **32**

SMALL BUSINESS ENTREPRENEURSHIP

FALL SEMESTER

First 8 Weeks

BUSM 1550	Business Management	3
ENGL 1510	English Composition I	3

Second 8 Weeks

BUSM 1600[1]	PC Applications	3
BUSM 1660	Business Law	3
SPCH 1510	Speech	3
Credit Hours		15

SECOND SEMESTER

First 8 Weeks

ACCT 1550	Introduction to Financial Accounting	4
BUSM 2130[2]	Customer Service & Sales	3

Second 8 Weeks

BUSM 1570	Small Business Entrepreneurship	3
BUSM 2560	Human Resources Management	3
MATH 2130	College Algebra	4
Credit Hours		17

Total Credit Hours **32**

Industry Credentials: [1]Microsoft Office Specialist: Word Associate
[2]NCSA Certified Customer Service

TRUCK MAINTENANCE

FIRST SEMESTER

First 8 Weeks

AUTO 1110[1][6]	Electrical Circuitry	3
TRCK 1100[7]	Introduction to Truck Systems	3
TRCK 1120[4]	Medium and Heavy Brakes	3

Second 8 Weeks

AUTO 1130[6]	Electrical Components	3
TRCK 2120[3]	Diesel Truck Drive Trains	3
Credit Hours		15

SECOND SEMESTER

First 8 Weeks

AUTO 2150[2]	Principles of Air Conditioning	3
ENGL 1510	English Composition I	3
TRCK 1130[5]	Medium and Heavy Truck Chassis	3

Second 8 Weeks

MATH 1104	Technical Mathematics	4
WELD 1232	Industrial Welding	3
Credit Hours		16

Total Credit Hours **31**

Industry Credentials: [1]A6 - Electrical and Electronics
[2]A7 - HVAC
[3]T3 - Drive Train
[4]T4 - Brakes
[5]T5 - Steering and Suspension
[6]T6 - Electric
[7]T8 - Preventive Maintenance

CERTIFICATES OF COMPLETION

The Certificate of Completion is awarded for the successful completion of a series of courses that relate directly to an identifiable area of skills or knowledge. The series can provide individuals who are not available for full-time study an opportunity to gain marketable skills and knowledge. Should an individual decide to enroll in an associate degree program, these courses will apply toward it, if it is in the same area of study.

All courses for a Certificate of Completion must be taken at Washington State. Successful completion means at least a 2.0 GPA for courses counting toward a certificate of completion.

Automotive Electricity

AUTO 1100 Vehicle Service & Maintenance
AUTO 1110[(1)(3)] Electrical Circuitry
AUTO 1130[(3)] Electrical Components
AUTO 2110[(2)] Computerized Engine Controls

Industry Credentials: [1]A6 - Electrical and Electronics
[2]A8 - Engine Performance
[3]T6 - Electric

Automotive Service & Maintenance

AUTO 1120[(4)] Automotive Brakes
AUTO 1140[(3)] Automotive Chassis
AUTO 1150[(2)] Manual Drive Trains
AUTO 1160 Fuel & Emission Control
AUTO 2100[(1)] Automatic Drive Trains

Industry Credentials: [1]A2 - Automatic Transmission
[2]A3 - Manual Transmission
[3]A4 - Steering & Suspension
[4]A5 - Brakes

Certified Production Technician

INDT 1100[(2)] Industrial Maintenance Awareness CPT 4.0
INDT 1220[(1)(2)(3)] OSHA Safety with CPT 4.0 or
INDT 1221[(2)] CPT 4.0 Safety
INDT 1340[(2)] Quality Practices and Measurements CPT 4.0
INDT 2180[(2)] Manufacturing Processes and Production CPT 4.0

Industry Credentials: [1]OSHA10
[2]CPT4.0
[3]Authorized Fork Truck Operator

Corrections Academy

CRJU 2130[1)] Corrections Academy

Industry Credentials:
[1]OPOTC-Full Service Faculty Corrections Officer Basic Training

Diesel Engines

TRCK 1140[(1)] Diesel Engine Design & Service
TRCK 2100[(2)] Diesel Engine Tune Up & Maintenance
TRCK 2130 Electronic Diesel Engines
TRCK 2110 Diesel Fuel Systems & Hydraulics

Industry Credentials: [1]A9 - Light Diesel Engine
[2]T2 - Diesel Engines

EKG Technician

HLTH 2400 EKG Technician
HLTH 1800 Medical Terminology *or*
BIOL 2310 Human Anatomy & Physiology I
BIOL 2320 Human Anatomy & Physiology II

Gasoline Engines

AUTO 1100 Vehicle Service & Maintenance
AUTO 2130 Cylinder Block & Lower Engine
WELD 1232 Industrial Welding

Instrumentation

ELET 2410[(1)] Programmable Logic Controllers
ELET 2160 Instrumentation I
INDT 1220[(2)] OSHA Safety with CPT 4.0

Industry Credentials: [1]Rockwell PLC
[2]OSHA10

Precision Machining

INDT 1150[(1)] Machining Processes
AMIT 1170[(2)(3)(4)] Computer Numerical Control
AMIT 2530[(2)(8)] Solid Modeling with Additive Manufacturing
AMIT 2170[(1)(5)(6)(7)] Computer Aided Manufacturing

Industry Credentials: [1]NIMS
[2]Solid Modeling
[3]Haas
[4]Fanuc
[5]Autodesk
[6]Mastercam
[7]ACE
[8]Additive Manufacturing

Peace Officer Basic Academy (POBA)

CRJU 2140 POBA I
CRJU 2150 POBA II

Private Security Academy

CRJU 1600 Private Security Academy
CRJU 1601 Firearms Academy (optional)

Programmable Logic Controllers

ELET 1110 DC Circuits
ELET 2410[(1)] Programmable Logic Controllers
INDT 2210 Process Control *or*
ELET 2160 Instrumentation I

Industry Credentials: [1]Rockwell PLC

Small Business Entrepreneurship

BUSM 1570 Small Business Entrepreneurship
BUSM 1660 Business Law
BUSM 2510 Marketing
ACCT 1550 Introduction to Financial Accounting
ACCT 1610 Payroll Accounting

COURSE CATALOG

COURSE NUMBERING SYSTEM

The four-letter course identifier indicates the department and the four numbers indicate the specific course within each department.

The various departments are listed in alphabetical order.

Accounting	ACCT	Massage Therapy	MAST
Advanced Manufacturing & Integration	AMIT	Mathematics	MATH
Art	ARTS	Medical Lab Tech	MMLT
Automotive Service Tech	AUTO	Music	MUSC
Biology	BIOL	Nursing - Associate Degree	NADN
Business Management	BUSM	Nursing - Practical	NPNT
Chemical Dependency Counseling	CHDE	Nursing - RN to BSN	NURS
Chemistry	CHEM	Philosophy	PHIL
Criminal Justice	CRJU	Physical Therapist Assistant	PTAT
Cyber Security	CYBS	Physics	PHYS
Diesel Truck Systems	TRCK	Political Science	POLS
Digital Tech - Computer Support	DTCS	Psychology	PSYC
Economics	ECON	Radiologic Tech	RADT
Education Transfer	EDUC	Respiratory Therapy Tech	RESP
Electrical Engineering Tech	ELET	Social Services Tech	SOSV
Electronics	ELEC	Sociology	SOCI
Engineering, General	ENGR	Spanish	SPAN
English Composition	ENGL	Speech	SPCH
Geology	GEOL	Theatre	THEA
Health Information Management	HIMT	Welding	WELD
Health Science	HLTH		
History	HIST		
Humanities	HUMN		
Industrial Tech	INDT		
Literature	LITR		

EXPLANATION OF COURSE DESCRIPTION CODES

Prerequisite: any coursework that must be completed before the student is eligible to enroll for the course.

Co-requisite: any coursework that must be completed during the same semester as the course in which you are enrolling.

cr.: the number of credits to be awarded to students who successfully complete the course.

Lecture: the number of hours per week a particular course meets in a lecture classroom.

Lab: the number of hours per week a particular class meets in a laboratory situation. This is usually in addition to lecture hours.

Fee- ♦: indicates course has additional fees.

TM-*: indicates a course covered by the Ohio Transfer 36. The final letter indicates the section of the Ohio Transfer 36 in which the course is included.

TAG: indicates a course covered by the Transfer Assurance Guide.

ACCOUNTING (ACCT)

ACCT 1550 Introduction to Financial Accounting 4 cr.
This is a course of study that introduces financial accounting and financial reporting for business entities. Students will explore both accounting theory and practice to form a broad foundation upon which to build other accounting principles, processes, and systems. Prerequisite: None. Co-Requisite: None. Lecture: 4, Lab: 0. TAG: OBU010. ♦

ACCT 1610 Payroll Accounting 3 cr.
Study of payroll accounting, the computing of wages, the calculation of deductions, the reporting of data to the respective Federal and State agencies. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ACCT 2190 Principles of Federal Income Tax 3 cr.
Introduces federal taxes on income for individuals and businesses. Emphasizes tax return preparation; limited coverage of partnership and corporate returns. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ACCT 2210 Cost Accounting 4 cr.
Introduction to cost accounting systems and methods. Covers cost concepts, classification, and measurement techniques in relation to their importance in income determination, planning and control. Emphasis on job order cost, process cost, standard cost, and activity-based accounting methods. Prerequisite: ACCT 2550 and ACCT 1610. Co-Requisite: None. Lecture: 4, Lab: 0. ♦

ACCT 2320 Managerial Accounting 3 cr.
Advanced application of financial and cost accounting information to problems facing business managers. Emphasis on the nature and role of management control systems, showing the inter-relationships among the processes of strategic planning, management control, operational control, and information handling. Prerequisite: ACCT*1550. Co-Requisite: None. Lecture: 2, Lab: 2. TAG: OBU011. ♦

ACCT 2550 Advanced Financial Accounting 4 cr.
This is a course of study that explores advanced topics and detailed application of financial accounting, recording, and reporting beyond an introductory course. Topics are covered in a framework of the accounting cycle. Prerequisite: ACCT 1550. Co-Requisite: Lecture: 4, Lab: 0.

ACCT 2710 Intermediate Accounting 4 cr.
Study of theoretical and practical application of basic accounting principles. Covers Accounting Principles Board and Financial Accounting Standards Board pronouncements and opinions. Prerequisite: ACCT 2550. Co-Requisite: None. Lecture: 4, Lab: 0 ♦

ACCT 2730 Auditing I 3 cr.
Introduction to auditing, professional ethics, legal liability, internal control, working papers, evidential matters, and beginning audit procedures. Prerequisite: ACCT 2210, and ACCT 2550. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ACCT 2920 QuickBooks for Accountants 3 cr.
This is a course of study that explores the microcomputer accounting environment and accounting information systems through QuickBooks software program. Exploration to efficiently and effectively account for business activity from an accountant's perspective is stressed. Prerequisite: ACCT 1550 and ACCT 1610. Lecture: 2, Lab: 2. ♦

ADVANCED MANUFACTURING & INTEGRATION (AMIT)

AMIT 1000 Internship 1-6 cr.
Provides the opportunity to put classroom knowledge to practical use. Student's position is selected and/or approved by the college; student is evaluated periodically by the organization and is supervised by a college instructor/coordinator. Prerequisite: None. Co-Requisite: None. Lecture: TBD, Lab: TBD.

AMIT 1170 Computer Numerical Control 3 cr.
Emphasis on advanced machining processes and an introduction to computerized numerical equipment (CNC). Basic alpha-numeric control codes taught along with programming skills using machine programming language. Students will work within specified decimal tolerances from engineering drawings. Students will earn CNC certification from NIMS, Haas, and Fanuc. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 4. ♦

AMIT 1510 Non-Collaborative Robot Operator 2 cr.
Operation, programming, and application of non-collaborative industrial robotics used in automated manufacturing. Topics covered will also include HandingTool Operation and Programming. Handling Pro, and Robot simulations. Students will have the opportunity to earn certifications in Fanuc's Robot Operations and HandlingTool Operation and Programming. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 2. ♦

AMIT 1800 Collaborative Robot Operator 2 cr.
Operation, programming, and application of collaborative industrial robotics used in automated manufacturing. Topics covered will also include CRX and Universal Collaborative Operation and Programming with robot simulations. Students will have the opportunity to earn certifications in Fanuc's collaborative robot operations, CRX Operation and Programming, and Universal Robotics Core. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 2. ♦

AMIT 2170 Computer Aided Manufacturing 3 cr.

Computer-Aided Manufacturing (CAM) is a comprehensive course designed to provide students with a solid understanding of the principles, techniques, and applications of using computer technology to automate and optimize various manufacturing processes. This course explores the intersection of computer science, engineering, and manufacturing, enabling students to develop the skills necessary to design, simulate, and control manufacturing operations using advanced software tools. Students will have the opportunity to earn ACE, NIMS, Autodesk, and Mastercam credentials. Prerequisite: AMIT 1170. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AMIT 2510 Robot Technician 2 cr.

Building upon the prerequisite courses, this course covers more advanced robotic programming applications, integration techniques, and maintenance. This course also focuses on setup, operations, and programming of vision systems and welding for industrial robot applications. Students will have the opportunity to earn certifications in Fanuc's Robot Technician, Fanuc IR Vision 2D Operation and Programming, and Fanuc ArcTool Operation and Programming. Prerequisite: AMIT 1510 or AMIT 1800. Co-Requisite: None. Lecture: 1, Lab: 2. ♦

AMIT 2530 Solid Modeling with Additive Manufacturing 3 cr.

This course provides students with a comprehensive understanding of the principles and practices of solid modeling and additive manufacturing. It combines the theoretical foundations of 3D modeling with practical skills in utilizing these models to create physical objects through 3D printing. Additive manufacturing, also known as 3D printing, has revolutionized the way we design and produce objects, making it crucial for aspiring engineers, designers, and manufacturing professionals to grasp its concepts. Students will gain hands-on experience with industry-standard software and 3D printing equipment, enabling them to design, optimize, and manufacture a wide range of products and components. Students can earn certifications in both solid modeling and additive manufacturing. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

AMIT 2600 Integration & Cell Design 3 cr.

The focus of this course is to develop the foundation for integration and how it utilizes the PLC to control and network corresponding equipment. The students will have a hands-on opportunity to take real world components and join them together to manufacture a functional unit. Through the application of sensors, motors, fixturing, and sequencing students will develop automated systems. Proper documentation throughout each phase of the automation design process will be prioritized. Testing and then implementing a successful automation cell to increase quality and efficiency or products and processes. Prerequisite: AMIT 1500 and ELET 2410. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

AMIT 2800 AMIT Capstone 1 cr.

A research seminar and project development of a topic in student's Advanced Manufacturing & Integration Technology discipline. Presentation of a project supported with documented research, proposal, time/cost estimates and PowerPoint presentation. Prerequisite: ENGL 1510 and AMIT 2510. Lecture: 0, Lab: 2. ♦

ART (ARTS)

ARTS 1000 Art Appreciation 3 cr. TM-H

Introduction to traditional and contemporary visual arts in the context of their social and cultural backgrounds. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

ARTS 2010 Art History I 3 cr. TM-H

Survey of art history and the analysis of painting, sculpture, and architecture from prehistory through the Renaissance and the relationship of the visual arts to their social and cultural context. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH005.

AUTOMOTIVE SERVICE TECHNOLOGY (AUTO)

AUTO 1100 Vehicle Service & Maintenance 3 cr.

Perform minor maintenance and service such as lubrication, minor adjustments, replacing simple components and correcting malfunctions on working vehicles. Includes battery construction, starter servicing, some ASE tasks. Emphasis on shop and trade safety procedures. The course may be offered in a blended format in the evening or summer semester. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1110 Electrical Circuitry 3 cr.

Basic electrical theory with emphasis on operating characteristics of DC series and parallel circuits. Emphasis on the relationship of resistance, voltage, and amperage in an electrical circuit. Circuits will be analyzed using Ohm's Law and verified using electrical meters. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1120 Automotive Brakes 3 cr.

A study of hydraulic braking operations, and chassis parts and functions. Laboratory work will consist of brake lathe operation, tire balancing and brake repair. Anti-lock brake concepts are introduced. The course may be offered in a blended format in the evening or summer semester. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1130 Electrical Components 3 cr.

Study of the theory of electricity and electronics as applied in modern automotive & diesel systems. Principles of operation, testing, and repairing all major parts in these systems including the battery, starting, charging, and ignition systems. The use of tools and procedures necessary to test and repair wiring. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1140 Automotive Chassis 3 cr.

Study of steering alignment angles and suspension fundamentals. Laboratory work consists of late model alignments, suspension service, and wheel balancing. Active suspension systems will be introduced. The course may be offered in a blended format in the evening or summer semester. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1150 Manual Drive Trains 3 cr.

The design, construction, and operating principles of the major types of transmissions used today are covered. Actual disassembling, maintenance, and servicing techniques of driveline units such as clutch and differentials are covered. Laboratory work will include disassembly and reassembly of working units. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 1160 Fuel & Emissions Controls 3 cr.

Study of carburetor and other fuel system components. Covers exhaust emission control devices. Lab work consists of tune-up procedures, carburetor overhaul, and a continuation of troubleshooting procedures using the various diagnostic analyzers and gauges. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 2100 Automatic Drive Trains 3 cr.

Covers design, construction, and operating principles of the major types of transmissions used today. Includes actual disassembling, maintenance and servicing techniques of automatic transmissions, final drives and electronics. Lab work includes disassembly and reassembly of working units. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 2110 Computerized Engine Controls 3 cr.

Covers the operation and control functions of the automotive computer; use of tools and procedures necessary in testing and repair of the various components of these systems. Emphasis on fundamentals of electricity (circuitry, amperage, voltage and resistance) and basics of solid state electronics and their use in the automobile. Review ignition, fuel and emission systems of modern automobiles and their relationship with computerized engine controls. Prerequisite: AUTO 1160. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 2130 Cylinder Block & Lower Engine 3 cr.

Gasoline engines will be disassembled, inspected, and reassembled. Emphasis will be on troubleshooting failed engine components, clearance measurements, and preventive maintenance. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

AUTO 2150 Principles of Air Conditioning 3 cr.

Covers the principles of automotive HVAC systems, plus the operation and diagnosis of the C.C.O.T. (Cycling clutch orifice tube) and V-5 air conditioning systems. Includes purging, charging, reclaiming, leak detection and performance testing. Student will study environmental impact of fluorocarbons. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

BIOLOGY (BIOL)

BIOL 1010 Principles of Biology 3 cr. TM-N

A biology course for non major's which introduces cell biology, physiology, genetics, evolution and ecology. Inquiry-based learning and case studies are used to foster good science process skills in lecture and discussion. Prerequisite: None. Co-Requisite: BIOL 101L. Lecture: 3, Lab: 0.

BIOL 101L Principles of Biology Lab 1 cr. TM-N

A biology course for non major's which introduces cell biology, physiology, genetics, evolution and ecology. Inquiry-based learning and case studies are used to foster good science process skills in lecture, discussion and laboratory. Prerequisite: None. Co-Requisite: BIOL 1010. Lecture: 0, Lab: 2. ♦

BIOL 1100 General Biology I 3 cr. TM-N

An introductory course for biology majors covering reproduction of cells, their structure and function, classical and molecular genetics and evolution. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 110L. Lecture: 3, Lab: 0. TAG: OSC003.

BIOL 110L General Biology I Lab 1 cr. TM-N

A series of experiments designed to enhance the material discussed in BIOL 1100. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 1100. Lecture: 0, Lab: 3. TAG: OSC003. ♦

BIOL 1110 General Biology II 3 cr. TM-N

A continuation of BIOL1100 with emphasis on the evolution of animal and plant life, including systematics, phylogeny, organ systems, anatomy, physiology and behavior. The course emphasizes comparative strategies within the animal and plant kingdom. Prerequisite: BIOL 1100 & BIOL 110L with "C" or better. Co-Requisite: BIOL 111L. Lecture: 3, Lab: 0. TAG: OSC004.

BIOL 111L General Biology II Lab 1 cr. TM-N

A series of experiments designed to enhance the material discussed in BIOL1110. Prerequisite: BIOL 1100 & BIOL 110L with "C" or better. Co-Requisite: BIOL 1110. Lecture: 0, Lab: 3. TAG: OSC004. ♦

BIOL 112L General Biology for MLT Lab I 1 cr.

A series of online experiments for students in the MLT program designed to enhance the material discussed in BIOL 1100. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 1100. Lecture 0, Lab: 3. ♦

BIOL 113L General Biology for MLT Lab II 1 cr.

A series of online experiments for students in the MLT program designed to enhance the material discussed in BIOL 1110. Prerequisite: BIOL 1100 & BIOL 112L with "C" or better. Co-Requisite: BIOL 1110. Lecture: 0, Lab: 3. ♦

BIOL 1300 The Human Body 4 cr.

The student will learn the recognize the structures, describe the physiological processes, and use correct terminology to describe the many aspects of the human body. Online activities are integrated in a comprehensive study of the cells, tissues and organs of the body, with emphasis on the integumentary, skeletal, articular, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems. Prerequisite: None. Co-Requisite: None. Lecture: 4, Lab: 0.

BIOL 1350 Anatomy & Physiology I for Massage Therapists 4 cr.

This course is t designed to facilitate understanding of the structure and function of the human body. Formal classroom activities are integrated in a comprehensive study of the body systems and their relation to the practice of Massage Therapy. This course is intended for Massage Therapy Students as preparation for the MBLEx Certification Exam. Prerequisite: None. Co-Requisite: None. Lecture: 4, Lab: 0.

BIOL 1510 Introduction to Nutrition 3 cr.

A course for non-science majors which introduces the basic nutritional needs of humans through the life cycle; nutrient functions, sources, and requirements. Significant factors which influence food attitudes and habits are included. Students will complete a diet analysis project. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

BIOL 2010 Basic Microbiology 2 cr. TM-N

An introduction to microorganisms and their impact on human health, disease, and the environment. Epidemiology, techniques of infection control and sterile technique are discussed. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 201L. Lecture: 2, Lab: 0.

BIOL 201L Basic Microbiology Lab 1 cr. TM-N

This hands-on learning experience is designed to provide a comprehensive introduction to the fundamental concepts and techniques in microbiology. Through a combination of laboratory exercises, laboratory reports, and practical applications, students will develop expansive knowledge of laboratory principles and microbial lab skills. This laboratory course complements the lecture as it relates to the impact of microorganisms on human health, disease, and the environment. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 2010. Lecture: 0, Lab: 2. ♦

BIOL 2110 Environmental Science 3 cr. TM-N

A course for majors and non majors which introduces current environmental problems including air and water pollution, toxic wastes, pesticides and energy resources. Human population and environmental impact are also included. Local environmental problems are addressed. Prerequisite: None. Co-Requisite: BIOL 211L. Lecture: 3, Lab: 0.

BIOL 211L Environmental Science Lab 1 cr. TM-N

Topics of the lab align to the lecture course. Prerequisite: None. Co-Requisite: BIOL 2110. Lecture: 0, Lab: 2. ♦

BIOL 2310 Human Anatomy & Physiology I 3 cr. TM-N

First of two courses on structure and function of the human body. Comprehensive study of cells, tissues, and organs with emphasis on the integumentary, skeletal, muscular, nervous systems and endocrine systems, and the general special senses. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 231L. Lecture: 3, Lab: 0.

BIOL 231L Human Anatomy & Physiology I Lab 1 cr. TM-N

First of two laboratories on structure and function of the human body. Comprehensive study of cells, tissues, and organs with emphasis on the integumentary, skeletal, muscular, nervous, and endocrine systems and general and special senses. Prerequisite: HS Biology or BIOL 1010, BIOL 101L & HS Chemistry or CHEM 1210, CHEM 121L. Co-Requisite: BIOL 2310. Lecture: 0, Lab: 3. ♦

BIOL 2320 Human Anatomy & Physiology II 3 cr. TM-N

This course is a continuation of Human Anatomy & Physiology I (BIOL 2310). Included in this course will be a comprehensive study of the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems, and growth & development and genetics. Prerequisite: BIOL 2310 and BIOL 231L. Co-Requisite: BIOL 232L. Lecture: 3, Lab: 0.

BIOL 232L Human Anatomy & Physiology II Lab 1 cr. TM-N

This course is a continuation of Human Anatomy & Physiology I Lab (BIOL 231L). This is the second of two

laboratories and will involve a comprehensive study of the cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems, and growth & development and genetics. Prerequisite: BIOL 2310 and BIOL 231L. Co-Requisite: BIOL 2320. Lecture: 0, Lab: 3. ♦

BIOL 2450 Pathophysiology 3 cr.

This course focuses on basic pathophysiological processes and major disorders to introduce students to the diversity of disease process. By covering some disorders in detail and others by a generic presentation covering a group of disorders, the student is encouraged to compare textbook presentation with the actual clinical picture of a disorder that they may encounter in the clinical setting. Prerequisite: BIOL 2310 and BIOL 231L or BIOL 1350 or BIOL 1300. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHL019.

BIOL 2600 Introduction to Ecology 3 cr. TM-N

A study of the interactions between organisms and their environments. Ecosystems, population structure and dynamics, as well as environmental perturbations are addressed. Prerequisite: BIOL 1010 and BIOL 101L or BIOL 1100 and BIOL 110L with "C" or better. Co-Requisite: BIOL 260L. Lecture: 3, Lab: 0.

BIOL 260L Introduction to Ecology Lab 1 cr. TM-N

A study of the interactions between organisms and their environments. Ecosystems, population structure and dynamics, as well as environmental perturbations are addressed. Lab analysis and fieldwork in local areas is conducted. Prerequisite: BIOL 1010 and BIOL 101L or BIOL 1100 and BIOL 110L with "C" or better. Co-Requisite: BIOL 2600. Lecture: 0, Lab: 2. ♦

BUSINESS MANAGEMENT (BUSM)

BUSM 1000 Internship 1-6 cr.

Provides the opportunity to put classroom knowledge to practical use. Student's position is selected and/or approved by the college; student is evaluated periodically by the organization and is supervised by a college instructor/coordinator. Prerequisite: None. Co-Requisite: None. Lecture: TBD, Lab: TBD.

BUSM 1550 Business Management 3 cr.

The nature of business management, organization and opportunities. Development of managerial viewpoints and methods. Explores business personnel, marketing and operational control functions. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

BUSM 1570 Small Business Entrepreneurship 3 cr.

A study of the basic fundamentals and problems of operating a small business. Topics of major interest including organization, opportunities in democracy, location, physical facilities, financing, administration of a credit program, problems of distributing goods and services, keeping records of your business, simplified bookkeeping systems. This course contains a student simulation to start a business. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

BUSM 1600 PC Applications 3 cr.

The primary focus is on the application of personal computers using software popular in the business community. Students will use current operating systems, web browsers, word processing, spreadsheet databases, and presentation software. Concepts will be reinforced by a variety of hands-on assignments. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

BUSM 1660 Business Law 3 cr.

Introduction to the legal environment of business, based principally on the Uniform Commercial Code. Topics covered in the course include: business ethics, nature and sources of law, the U.S. judicial system, torts, contracts, product liability, agency, partnerships, corporations, anti-trust law, the employment relationship, equal employment legislation, and securities regulation. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OBU004.

BUSM 1710 Auto/Diesel Bus Computer App 3 cr.

Students will study the fundamentals of operating computer business applications in the automotive industry. Topics include basic start-up, inventory control, billing and records maintenance. The computer's disk operating system, spreadsheets, word processing programs, browsers and presentation graphics will be introduced. Students will complete assignments in each type of software. Basic operations in web advisor and Sakai will be covered. This course was developed for Automotive and Diesel Truck majors only. This course is not for business majors and may not be substituted for any other BUSM course in the college's inventory. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

BUSM 2130 Customer Service and Sales 3 cr.

This course prepares learners for a role as a customer service and sales professional in a variety of settings. Upon completion, students will be able to take the National Retail Federation RISE UP Certification exam. This course also includes best practices for building resumes and navigating job searches. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

BUSM 2220 Business Excel 3 cr.

This course prepares learners for use and mastery of the Microsoft Excel Software. The learner will focus on data entry and storage, collection and verification of business data, advanced formulas, pivot tables, accounting and budgeting, visualizations, and forecasting. Successful

completion of this course will prepare learners for the Microsoft Office Specialist-Excel Certification. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

BUSM 2300 Introduction to Finance 3 cr.
Introduction to short, intermediate and long-term debt, risk management, financial intermediaries, and valuation of stock. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

BUSM 2510 Marketing 3 cr.
Introduction to the marketing process. Study the framework of marketing in the organization, the marketing concept, the marketing mix, target marketing, consumer decision making, marketing research, physical distribution, channels of distribution, product concepts, promotion, pricing concepts, global marketing. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

BUSM 2560 Human Resource Management 3 cr.
Theories of human resource management topics including: equal employment opportunity legislation, the employee selection process: recruiting, testing, and interviewing, a management team approach to performance appraisal, the process of discipline and discharge and safety. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

BUSM 2610 Business Leadership 3 cr.
Study of the following office management topics: office layout, office environment, selection of office equipment, performance appraisal, job evaluation, salary administration, work measurement, systems analysis, records management, forms design, reprographics. The course contains two projects – a capstone project, and an office layout project. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

CHEMICAL DEPENDENCY (CHDE)

CHDE 2160 Chemical Dependency Practicum and Seminar I 2 cr.
The first of two practicums and seminars. This course provides a practical, field-based experience of 105 hours in an addiction counseling setting as required by the Ohio Chemical Dependency Board. This experience may be arranged with supervision coordinated through the practicum course instructor and an on-site supervisor. Under the direction of the college faculty, the student will also participate in a one-hour weekly review and assessment of the work experience as related to chemical dependency and the practicum situation. Input from the agency supervisor will be used as an integral part of this weekly review. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 7. ♦

CHDE 2170 Chemical Dependency Practicum and Seminar II 2 cr.
The second of two practicums and seminars. This course provides a practical, field-based experience of 105 hours in an addiction counseling setting as required by the Ohio Chemical Dependency Board. This experience may be arranged with supervision coordinated through the practicum course instructor and an on-site supervisor. Under the direction of the college faculty, the student will also participate in a one-hour weekly review and assessment of the work experience as related to chemical dependency and the practicum situation. Input from the agency supervisor will be used as an integral part of this weekly review. Prerequisite: CHDE 2160. Co-Requisite: None. Lecture: 1, Lab: 7. ♦

CHDE 2320 Theories of Addiction 3 cr.
This course will examine the biological, psychological, social and spiritual dimensions of addictions and addictive behavior. Addictive behaviors will be presented as part of a continuum of mental and emotional disorders. This course will emphasize the biological substrate and developmental course of addictions and the relationship of addictive behavior to common psychological disorders. Models and theories of addictive behavior that the professional counselor needs to understand when treating clients with addictive and co-occurring disorders will be reviewed. Prerequisite: SOSV 1150. Co-Requisite: None. Lecture: 3, Lab: 0.

CHDE 2330 Advanced Theories of Addiction 3 cr.
This course provides a comprehensive overview of the major theories of the counseling professions inclusive of ethical, privacy and legal issues, counseling techniques, supervision and outcomes research. Exploration of the population demographics counselors work with regarding naturally and synthetically manufactured drugs and the impact on the individual, family and community will be explored. Students will learn how to conduct assessment for and diagnosis of substance abuse and addiction disorders, including co-occurring disorders; the effects of substances and addictions on the client and others; etiology; and best practices in counseling and treatment. This course presents an in-depth coverage of the effects of chemical dependency on health, individuals, families and communities using a holistic, bio-psycho-social-spiritual approach. Prerequisite: CHDE 2320. Lecture: 3, Lab: 0.

CHDE 2340 Substance Abuse Counseling 3 cr.
This course is designed to provide a structured learning environment for acquiring substance use and addictive behavior counseling skills. It will cover all aspects of the scope of practice for substance use disorder practitioners. This course will provide students with an understanding of the connections to the physiological and psychological effects of drugs and the significance of treatment planning in diverse settings. The students will apply their knowledge of individual, group, and family counseling strategies

as they are applied to behavior change and relapse prevention. Students will learn about the diagnostic criteria of substance use and addictive behavior, models of etiology, and approaches to treatment. The course will review substance abuse studies, individual and group counseling and family systems approaches to prevention and intervention and treatment. Students will also be introduced to the skills and techniques an alcohol and other drugs abuse counselor requires to develop working knowledge in order to practice in the AODA counseling profession. Prerequisite: CHDE 2330. Co-Requisite: None. Lecture: 3, Lab: 0.

CHEMISTRY (CHEM)

CHEM 1210 Principles of Chemistry I 3 cr. TM-N

Provides elementary chemistry knowledge for non-science majors on states of matter, elements, compounds, atomic and molecular structure, chemical bonding, solutions and the periodic table, acids, bases & buffers, the Gas Laws, reaction rates & equilibrium, radioactivity & nuclear processes. Prerequisite: HS Algebra or MATH 0106. Co-Requisite: CHEM 121L. Lecture: 3, Lab: 0.

CHEM 121L Principles of Chemistry I Lab 1 cr. TM-N

Lab portion of the course that provides elementary chemistry knowledge for non-science, majors on states of matter, elements, compounds, atomic and molecular structure, chemical bonds, solutions and the periodic table. Prerequisite: HS Algebra or MATH 0106. Co-Requisite: CHEM 1210. Lecture: 0, Lab: 2. ♦

CHEM 123L Principles of Chemistry for MLT Lab 1 cr.

Online set of laboratory activities that provides elementary chemistry knowledge on states of matter, elements, compounds, atomic and molecular structure, chemical bonds, solutions and the periodic table. This course is designed for students planning to enroll in the online MLT program and does not count for transfer credit or any general education requirements. All other students taking CHEM 1210 should enroll in CHEM 121L. Prerequisite: HS Algebra or MATH 0106. Co-Requisite: CHEM 121L. Lecture: 0; Lab: 2. ♦

CHEM 1510 Fundamentals of Chemistry I 3 cr. TM-N

This chemistry series is for students majoring in science and related fields. Fundamental chemical concepts covered in the first semester include atomic structure, periodic classification, molecular bonding, stoichiometry, acid-base neutralization, thermochemistry, and gas laws. Critical thinking is stressed through problem solving. Prerequisite: HS Algebra or MATH 2130 & HS Chemistry or CHEM 1210 & CHEM 121L with "C" or above. Co-Requisite: CHEM 151L. Lab: 0. TAG: OSC008.

CHEM 151L Fundamentals of Chemistry I Lab 1 cr. TM-N

This chemistry series is for students majoring in science and related fields. General laboratory procedures, emphasizing safety, data analysis and reporting, will be developed through the hands-on laboratory experiments covering fundamental chemical concepts and principles in atomic structure, periodic trends, bonding, stoichiometry, acid-base neutralization, thermochemistry, and gas laws. Prerequisite: HS Algebra or MATH 2130 & HS Chemistry or CHEM 1210 & CHEM 121L with "C" or above. Co-Requisite: CHEM 1510. Lecture: 0, Lab: 3. TAG: OSC008. ♦

CHEM 1520 Fundamentals of Chemistry II 3 cr. TM-N

This chemistry series is for students majoring in science and related fields. Fundamental chemical concepts covered in the second semester include intermolecular forces, colligative properties, equilibria, kinetics, thermodynamics, and electrochemistry. Prerequisite: CHEM 1510, CHEM 151L with "C" or better. Co-Requisite: CHEM 152L. Lecture: 3, Lab: 0. TAG: OSC009.

CHEM 152L Fundamentals of Chemistry II Lab 1 cr. TM-N

This chemistry lab series is for students majoring in science and related fields. General laboratory procedures, emphasizing safety, data analysis and reporting, will be developed through the hands-on laboratory experiments covering fundamental chemical concepts and principles covering intermolecular forces, colligative properties, equilibria, thermodynamics, and electrochemistry. Prerequisite: CHEM 1510 and CHEM 151L with "C" or better. Co-Requisite: CHEM 1520. Lecture: 0, Lab: 3. TAG: OSC009. ♦

CHEM 153L Chemistry for MLT Lab I 1 cr.

An online chemistry laboratory sequence for the students in the MLT program. General laboratory procedures, emphasizing safety, data analysis and reporting, will be developed through the hands-on laboratory experiments covering fundamental chemical concepts and principles in atomic structure, periodic trends, bonding, stoichiometry, acid-base neutralization, thermochemistry, and gas laws. Registration is restricted to students in the online MLT program. Prerequisite: HS Algebra or MATH 2130 & HS Chemistry or CHEM 1210 & CHEM 121L with a "C" or above. Co-Requisite: CHEM 1510. Lecture: 0, Lab: 3.

CHEM 154L Chemistry for MLT Lab II 1 cr.

An online chemistry laboratory sequence for students in the MLT program. General laboratory procedures, emphasizing safety, data analysis and reporting, will be developed through the hands-on laboratory experiments covering fundamental chemical concepts and principles covering intermolecular forces, colligative properties, equilibria, thermodynamics, and electrochemistry. Registration is restricted to students in the online MLT program. Prerequisite: CHEM 1510 and CHEM 153L. Co-

Requisite: CHEM 1520. Lecture: 0, Lab: 3.

CRIMINAL JUSTICE TECHNOLOGY (CRJU)

CRJU 1010 Introduction to Criminal Justice 3 cr.
This course examines American criminal justice and the systems and procedures developed by society for dealing with crime, law, and justice. Emphasis is on the three major components of the system: police, courts, and corrections. The course also provides an introduction to the major theories of criminal behavior and victimization. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS031.

CRJU 1110 Criminal Evidence and Procedures 3 cr.
A thorough study of the constitutional basis for procedural law. Emphasis will be placed on the 4th, 5th, 6th, 7th, 8th, and 14th Amendments of the U.S. Constitution. Cases chosen for review will involve significant precedent or will involve current legal decisions affecting the role and performance of our criminal justice professions. Study of the evidence rules with specific emphasis on their application in preparing and presenting evidence. Course will briefly discuss burden of proof, general admissibility tests, witness testimony, and documentary and real evidence. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

CRJU 1120 Criminal Law 3 cr.
Study of the history and development of criminal law, the elements of crime, parties to a crime, types of offenses, and possible defenses. The theories of the text will directly correlate to the specific sections of the Ohio Revised Code. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

CRJU 1210 Criminal Investigation 3 cr.
Fundamental principles and techniques applicable to police investigation from incident to trial. A review of current and evolving technologies and the collection, preservation, and presentation of evidence in a court of law will be presented. Ethical considerations will be addressed. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab 0. ♦

CRJU 1310 Police Operations 3 cr.
Introduction to basic principles and philosophies of law enforcement organizations. Examination of purposes, methods, techniques, and types of patrol. Overview of support services and analysis of various techniques used in surveillance, narcotics, and vice control. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS032.

CRJU 1510 Corrections in the Criminal Justice System 3 cr.
Comprehensive overview of corrections practice and theory to include organization and administration of correctional institutions. Examines history and development of corrections, the interrelationship of corrections and the criminal justice system, elements of correctional process, correctional clients, non-institutional corrections system, and alternatives to incarceration. Emphasis is placed on the role of the correctional officer and on the operation and analysis of current methods of correctional treatment within institutions. Students learn to apply corrections principles and develop interpersonal communication and decision making skills for direct intervention with correctional clients. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS033.

CRJU 1600 Private Security Academy 6 cr.
Successful completion of the Ohio Peace Officer Training Commission's certified Private Security Academy programs provides graduates with a State of Ohio certification. The state mandates 135 hours of training covers the areas of: administration, legal, human relations, communications, loss prevention, safety and protective services, unarmed self-defense and first aid. Prerequisite: Admission standards per AG's office. Co-Requisite: None. Lecture: 5, Lab: 15. ♦

CRJU 1601 Firearms Academy 1 cr.
Successful completion of the Ohio Peace Officer Training Commission's certified Private Security programs provides graduates with a State of Ohio certification. The state mandates 45 hours of training covers firearms training revolver, semi-auto and shotgun. Prerequisite: CRJU 1600. Co-Requisite: None. Lecture: 1, Lab: 5. ♦

CRJU 2130 Corrections Academy 8 cr.
Successful completion of the Ohio Peace Officer Training Commission's Corrections Academy program provides students with a State of Ohio certification. The state mandates 154 hours of training that covers the areas of: ethics/professionalism, report writing, inmate rights, civil liability, searches, inmate supervision, crisis intervention, administration, legal, human relations, communications, loss prevention, safety and protective services, unarmed self-defense and first aid. Prerequisite: Meet the admission standards per the Ohio Attorney General's Office. Co-Requisite: None. Lecture: 7, Lab: 3. ♦

CRJU 2140 Peace Officer Basic Academy (POBA) I 13 cr.
The Peace Officer Training Academy (POBA) is sanctioned under the auspices of the Ohio Attorney General's Office. Successful completion of the POBA certificate program is mandatory for individuals to become certified Law Enforcement Officers in the State of Ohio. Cadets will learn the basic fundamental skills, aptitudes and attitudes necessary to be a successful peace officer in the State of Ohio. Prerequisite: Admission standards per AG's office. Co-Requisite: None. Lecture: 8, Lab: 15. ♦

CRJU 2150 Peace Officer Basic Academy (POBA) II 13 cr.
The Peace Officer Training Academy (POBA) is sanctioned

under the auspices of the Ohio Attorney General's Office. Successful completion of the POBA certificate program is mandatory for individuals to become certified Law Enforcement Officers in the State of Ohio. Cadets will learn the basic fundamental skills, aptitudes and attitudes necessary to be a successful peace officer in the State of Ohio. Continuation of CRJU2140 POBA I Prerequisite: CRJU 2140. Co-Requisite: None. Lecture: 8, Lab: 15. ♦

CRJU 2210 Criminalistics 3 cr.

Introduces the crime laboratory and techniques of scientific investigation with emphasis on recognition, collection, and preservation of evidence. Develops skills in using scientific equipment to detect and identify blood, hair, and other serology evidence, fingerprints, narcotics, impression and trace evidence, gun shot evidence, hairs, fibers, and soil evidence. Prerequisite: CRJU 1210. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

CRJU 2530 Criminal Justice Administration 3 cr.

A study of the objectives of criminal justice organizations, to include corrections, courts, and law enforcement. Topics include organizational effectiveness, leadership, communication, morale, records, programs, and evaluation methods of organizations. Prerequisite: CRJU 1310. Co-Requisite: None. Lecture: 3, Lab: 0.

CRJU 2550 Juvenile Justice Procedures 3 cr.

A survey of the nature and causes of delinquent activity by juveniles. Social and psychological factors underlying delinquency are studied. The roles of police, courts, and corrections in the juvenile justice system. Prerequisite: CRJU 1010. Co-Requisite: None. Lecture: 3, Lab: 0.

CRJU 2570 Crisis and Incident Response 4 cr.

Introduction to the Incident Command System, introduces the Incident Command System (ICS) and provides the foundation for ICS training. This course describes the history, features and principles, and organizational structure of the Incident Command System. It also explains the relationship between ICS and the National Incident Management System (NIMS). This course provides the context for ICS within initial response, and supports higher level ICS training. Prerequisite: CRJU 1010. Co-Requisite: None. Lecture: 4, Lab: 0.

CRJU 2600 Criminal Justice Practicum & Seminar 2 cr.

Practicum provides the placement of an individual into a criminal justice agency (police, probation, courts, corrections) to observe and participate in its operation. Students will spend 105 hours in the field working with perspective agency. Under the direction of the college faculty, the student will participate in a one-hour weekly review and assessment of the work experience as related to the practicum situation. Input from the agency supervisor will be used as an integral part of this weekly review. Prerequisite: CRJU 2850 and successful completion of 15 credit hours of criminal justice coursework. Lecture: 1, Lab: 7. ♦

CRJU 2850 Criminal Justice Careers 3 cr.

Focuses on job search skills, resume writing, current CJ trends, interview techniques, job retention, and career planning. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

CYBER SECURITY (CYBS)

CYBS 1010 Introduction to Cyber Security 3 cr.

In this course, students will become familiar with cyber security's core concepts, its terminology, its technologies, along with its skills. The Introduction to Cyber Security course is the beginning guide for anyone interested in information technology and cyber security. Major security topics such as vulnerability assessment, virus attacks, hacking, spyware, network-defense, passwords, firewalls, VPNs and intrusion detection are covered. Furthermore, this course helps prepare students for the CompTIA Security+ and TestOut Security Pro certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1020 Operating Systems and Computing Fundamentals 3 cr.

This course is designed as an introduction to operating systems. It is intended for students with a basic background in computer systems. The first portion of the course presents the basic concepts of operating systems, which are platform independent. The second portion of the course covers specific issues with operating systems in widespread use today. Furthermore, this course helps prepare students for the Microsoft MOS and TestOut Office Pro certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1030 Fundamentals of Hacking and IT Psychology 3 cr.

This course offers an in-depth analysis of the various methods for attacking and defending an organization's network. Explores network security concepts from the viewpoint hackers and their attack methodologies. Includes topics about hackers, attacks, Blue Team vs. Red Team, Intrusion Detection Systems (IDS) malicious code, computer crime, and industrial intelligence. Furthermore, this course helps prepare students for the CompTIA Security+ and TestOut Security Pro certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1210 A+ Hardware and Software 3 cr.

The primary focus of this course will be on mastering skills related to hardware parts and functions of peripherals of a personal computer. Processors, motherboards, buses, ports, cables, expansion cards, hard drives, printers, displays,

and other hardware functionalities and topics will be covered. The importance of communication skills, safety, and professionalism is also stressed. The course will help the student to prepare for the CompTIA A+ and TestOut PC Pro certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1220 Unix/Linux 3 cr.

This course teaches students common tasks a user or system administrator of Unix or Linux has to perform, such as installation and configuration of the operating system. Students will learn command line interface commands and syntax in order to accomplish most of these goals. Students will learn how to use text editors such as vi and gedit as powerful configuration tools. Furthermore, this course helps prepare students for the CompTIA Security+ and TestOut Security Pro certifications. Prerequisite: CYBS 1020. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1230 Network+ 3 cr.

This course focuses on the interface of hardware components with PC networks and network operating systems. Detailed specifications are examines. Furthermore, this course helps prepare students for the CompTIA Network+ and TestOut Network Pro certifications. Prerequisite: CYBS 1020. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 1240 Ethical Protocols of Cyber Security 3 cr.

In this course, students will be introduced to the basic ethical protocols of cyber security, giving students an understanding of the threats and vulnerabilities of a cyber-landscape, along with other topics relating to the information technology cyber security fields. Furthermore, this course helps prepare students for the CompTIA Security+ and TestOut Security Pro certifications. Prerequisite: CYBS 1010. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 2100 Tactical Perimeter Defense in Cyber Security 3 cr.

This course provides an examination of how software and hardware can be implemented in information technology practices to provide a perimeter defense in protecting resources, and how security is addressed in both wireless and wired networks. In the duration of this course, topics will include the use of tools such as wireless access points, proxy servers, VPN's, auditing, intrusion detection systems and firewalls. Furthermore, this course helps prepare students for the CompTIA Security+ and TestOut Security Pro certifications. Prerequisite: CYBS 1030. Co-Requisite: None. Lecture: 2, Lab: 2.

CYBS 2800 Cyber Security Practicum and Capstone 4 cr.

The knowledge and principles acquired in the Cyber Security curriculum will be used through direct interaction with an IT Professional Mentor. The student is required to work with an assigned IT professional for 21 hours per week. The college faculty and practicum site mentor work closely to ensure the student a wide range of repair/troubleshooting and networking experiences. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 21.

DIESEL TRUCK SYSTEMS (TRCK)

TRCK 1100 Introduction to Truck Systems 3 cr.

Perform minor maintenance and service, such as lubrication, replacing simple components and correcting defects on heavy and medium duty trucks. Includes the study of brakes, clutch, and electrical systems. Hands on training with an emphasis on shop and trade safety procedures. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 1120 Medium and Heavy Brakes 3 cr.

Students will be introduced to basic brake systems, terminology, components, and theory of operation. Medium and heavy air and hydraulic brakes systems are covered including: service and emergency systems, disc, wedge and cam foundation brakes. Major antilock braking systems are discussed including service and diagnostics procedures. Basic industrial hydraulics systems for mobile applications are covered including: principles of operation, parts identification, and preventative maintenance. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 1130 Medium and Heavy Truck Chassis 3 cr.

This course of training consists of the theory, service, and repair of on-road medium and heavy truck and trailer chassis. Steering, suspension, and tire/wheel configurations are covered as are the associated geometry and alignment for both truck and trailers. Theory and operation of fifth wheels and coupling system are discussed including service and repair. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 1140 Diesel Engine Design & Service 3 cr.

Introduction to basic diesel engine designs, terminology, subsystems, components, and theory of operation. Labs: will emphasize proper use of tools, application of appropriate safety and environmental procedures, and the development of professional work standards in a group shop environment. Engines will be disassembled, cleaned, inspected for reusability of parts, reassembled, and test ran. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 2100 Diesel Engine Tune Up & Maintenance 3 cr.

Examines the history of the diesel engine; the role of the trucking industry and the professional technician; the terms, formulae and presentation methods of engine performance data; diesel fuel and its alternatives. Labs will emphasize tune-up procedures and troubleshooting methodologies, engine brake theory and adjustment, engine performance

and testing procedures. Prerequisite: TRCK 1140. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 2110 Diesel Fuel Systems & Hydraulics 3 cr.
A study of the primary hydromechanical fuel management systems and subsystems used by the diesel industry, theory of operation, nomenclature, maintenance procedures. Mobile hydraulic systems, associated components, and theories of operation are covered also. Labs will provide hands-on disassembly, inspection, and calibration of diesel fuel injection systems; and applied hydraulic experiments. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 2120 Diesel Truck Drive Trains 3 cr.
Students will remove, disassemble, reassemble, install and test the operation of class 6/8 heavy truck drive train components. Includes five to fifteen speed transmissions; single reduction, double reduction, and internal differential assemblies; automatic transmissions; and related components. Lab work includes disassembly and reassembly procedures, troubleshooting, and component failure analysis. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 2130 Electronic Diesel Engines 3 cr.
Study of current electronic engine management systems. Identification and use of service tools/software used for diagnostics, repair, and data retrieval/management. Identification and repair of wiring systems. Labs provide hands-on use of tooling to diagnose and repair engine performance problems on live equipment. Prerequisite: TRCK 2110. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

TRCK 2140 Practicum TRCK/AUTO 2 cr.
Supervised training in the automotive or diesel industry. Students will be mentored 7 hours per week for 15 weeks at an established automotive/diesel service or parts business. Requires weekly journal entries for successful completion of course. Capstone Practicum. Prerequisite: 27 credits TRCK/AUTO courses. Co-Requisite: None. Lecture: 1, Lab: 7. ♦

TRCK 2150 ASE Technician Preparation 3 cr.
This course is intended for automotive or diesel truck systems majors who are preparing to take one or more ASE (Automotive Service Excellence) examinations. Combined refresher materials with an abundance of sample test questions that relate to each competency required for certification by ASE. Labs with hands on operations and the appropriate ASE task check off sheets will be used to put together a portfolio. Prerequisite: 27 credits TRCK/AUTO courses. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

DIGITAL TECHNOLOGY-COMPUTER SUPPORT (DTCS)

For other Computer Support Technician courses see Electronics (ELEC)

DTCS 1020 Desktop Applications 3 cr.
This course is designed as an introduction to Windows Applications. It is intended for students with a basic background in the Windows Operating systems. The first portion of the course presents the basic concepts of the operating systems applications. The second portion of the course covers specific issues with operating systems in widespread use today. Furthermore, this course helps prepare students for the Microsoft MOS and TestOut Desktop Pro Plus certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

DTCS 2010 Microsoft Organizational Implementations 3 cr.
This course is designed as an introduction to operating systems and its organizational implementations. It is intended for students with a basic background with the Windows Operating Systems. The first portion of the course presents the basic concepts of the operating systems of Windows. The second portion of the course covers specific issues with layout, design, organization, and implementations of the operating systems of Windows. Furthermore, this course helps prepare students for the Microsoft MOS and TestOut Client Pro certifications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

DTCS 2100 Database Management 3 cr.
An introduction to database theory and methodology with practical use of a SQL-based database. Projects will include building and interrogating small databases. Prominent database applications will be studied. Prerequisite: BUSM 1600. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

DTCS 2610 Microsoft Domain Controllers 3 cr.
This course focuses on the installation, configuration, and utilization of interface of Microsoft Windows Servers and Domain Controllers. The course will provide the instruction to build, configure, and manage a Windows Domain Controller. Furthermore, this course helps prepare students for the Microsoft Server and TestOut Server Pro certifications. Prerequisite: CYBS 1020. Co-Requisite: None. Lecture: 2, Lab: 2.
special effects. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ECONOMICS (ECON)

ECON 2120 Principles of Macroeconomics 3 cr. TM-S
Introduction to American capitalism: basic economic concepts including, national income analysis, employment theory, inflation, the business cycle, price level, fiscal policy, federal budget deficit, the role of money, the institutions and function of the American banking system, the Federal

Reserve, monetary policy, comparative advantage, and Gross Domestic Product. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS005.

ECON 2130 Principles of Microeconomics 3 cr. TM-S

Study of the following microeconomic topics: opportunity cost, production possibilities frontier, supply and demand analysis, supply and demand elasticity, price determination, profit maximization, cost analysis, wage determination, imperfect market structures, antitrust and government deregulation of industry. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS004.

EDUCATION TRANSFER (EDUC)

EDUC 1000 Introduction to Education 3 cr.

Introduction to the teaching profession and college education program. This course explores the purposes organizations, and outcomes of schooling from the perspectives of the field of social foundations of education. The focus of the course revolves around four themes: aims of education and role of schools in democratic society, economic legal and political context of schools, culturally responsive and inclusive education, and ethics and professionalization. These themes will be examined through selected readings and discussions. Professional portfolios will be started and transfer options discussed. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OED007. ♦

EDUC 1020 Early Childhood Development 3 cr.

This course focuses on applying knowledge of the characteristics and needs of young children, from conception through age eight, for the creation of healthy, respectful, supportive, challenging, and effective learning environments. It includes examining multiple and interrelated influences on the development and learning of young children. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OED010.

EDUC 1560 Education Seminar and Field Work 1 cr.

Classroom observation for students preparing to enter the teaching profession. Students must attend a seminar on campus and complete 40 hours of field work. Students must clear an FBI/BCI background check to participate. Students gain knowledge and experience necessary for initial understanding of concepts and practices presented in education courses. Prerequisite: EDUC 1000. Co-Requisite: None. Lecture: 1, Lab: 0. ♦

EDUC 1700 Educational Technology 3 cr.

Introduces varied uses of the computer and technology in classrooms. Material covered includes integration of computers into the curriculum and record-keeping assistance; hardware and software selection criteria; and offers opportunity to use several popular applications and programs including the functions of Google. Assists pre-service teachers in meeting ISTE standards (NETS). Includes laboratory and project work. Upon completion of this course, the learner will be able to proficiently use Google in a classroom setting. The student will understand the implementation of technology standards to the learning environment and be able to use technology at various levels in order to address the needs of the 21st Century classroom. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

EDUC 1800 Online Instructional Strategies 3 cr.

This course focuses on the effective ways of integrating technology and instructional strategies to build and deliver online and blended courses at Washington State College of Ohio. It introduces the various academic technologies used by WSCO, including the Canvas learning management system. The course addresses topics such as the characteristics of online learners, who should teach online and who shouldn't, teaching with Canvas and other technology tools, developing online courses using the WSCO course blueprint, engaging students, and effective facilitation and assessment. Quality of online content will be discussed within the context of Quality Matters Rubric standards for online and blended course design. Participants will learn how to manage time for efficient delivery of a course and learn how to distinguish between quality of content and quality of delivery in an online and blended course. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

EDUC 2100 Exceptional Learners 3 cr.

This study of people with special needs and exceptionalities includes information on inclusion and differentiated school programming with emphasis on understanding their needs and behaviors. Prerequisite: EDUC 1000. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OED009.

EDUC 2110 Exceptional Learners Education Seminar and Field Work 1 cr.

Classroom observation for students preparing to enter the teaching profession. Students must attend a seminar on campus and complete 40 hours of field work. Students must clear an FBI/BCI background check to participate. Students gain knowledge and experience necessary for initial understanding of concepts and practices presented in education courses. Prerequisite: EDUC 1000 and EDUC 1560. Co-Requisite: None. Lecture: 1, Lab: 0. ♦

EDUC 2300 Families, Communities, and Schools 3 cr.

This course explores educational considerations for teachers including the policies, theories, practices, skills, and knowledge of home, school, and community partnerships. Students will examine: the multiple influences on the whole child; accessibility of community services and supports; ethical, practical, and culturally competent

decisions to foster family engagement; knowledge and skills needed to address family structure, socio-cultural and linguistic backgrounds, identities and customs, and advocacy for children and families. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OED011.

EDUC 2950 Education Capstone: Foundations of the Profession 1 cr.

To be taken as the Education Transfer student is completing associate degree requirements. The course will focus on professionalism and finalization of transfer plans. Additionally, the course will highlight current events in education, student achievement, curriculum and instruction, and school government and finance. Educational issues regarding curriculum choice, diversity and social justice will also be explored. Prerequisite: EDUC 2110. Co-Requisite: None. Lecture: 1, Lab: 0. ♦

ELECTRICAL ENGINEERING TECHNOLOGY (ELET)

ELET 1000 Internship 1 cr.

Provides the opportunity to put classroom knowledge to practical use. Student's position is selected and/or approved by the college; student is evaluated periodically by the organization and is supervised by a college instructor/coordinator. Prerequisite: None. Co-Requisite: None. Lecture: TBD, Lab: TBD.

ELET 1110 DC Circuits 3 cr.

Comprehensive study of DC electricity with emphasis on basic electrical concepts such as atomic structure, electron theory, current, voltage, resistance, conductance, Ohm's Law, electrical energy and power, Kirchoff's voltage and current laws, series, parallel, series-parallel circuits, network theorems, capacitance, inductance, time constants, and magnetic circuits. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OET001. ♦

ELET 1130 AC Circuits 3 cr.

Extensive study of AC Fundamentals emphasizing frequency, reactance, series, parallel, and series-parallel impedances, voltage, current, Ohm's Law, Kirchoff's voltage and current Laws, AC power, network theorems, resonance, complex power, circuit analysis in time and frequency domains, phase angle, phaser diagrams, transformers, coupled circuits, and polyphase systems. Prerequisite: ELET 1110. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OET003. ♦

ELET 1310 Digital I 3 cr.

The first of two courses in digital circuit fundamentals, including: Introductory Concepts, Number Systems, Operations, and Codes, Logic Gates, Boolean Algebra, and Logic Simplification, Combinational Logic Analysis, Functions of Combinational Logic, Latches, Flip-Flops, and Timers, Counters, Shift Registers, Memory and Storage, and Integrated Circuit Technologies. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OET002. ♦

ELET 1340 Embedded Systems 3 cr.

Study of embedded systems, and their application to IOT, as pertinent to electrical engineering technology. Embedded systems have been described as "computers as components" of larger systems. Examples include the embedded microcontrollers in autos, airplanes, and robots. This course uses the Arduino microcontroller as the platform to learn to design and program embedded systems including IOT applications. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

ELET 1360 Commercial Wiring and Prints 3 cr.

Sizing and installation of home and commercial electrical wiring circuits in compliance with the National Electrical Code, including installation of conduit, junction boxes, outlet boxes, receptacles, and switches. Reading commercial electrical blueprints, conductor ampacity calculations, and sizing of overcurrent protection devices. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2.

ELET 1430 Electrical CAD 3 cr.

A class designed to take a basic AutoCAD user to a higher level of understanding and skill. Topics include drawing productivity functions, three-dimensional modeling, presentation and customization. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ELET 2110 Rotating Machinery 3 cr.

Emphasis on DC and AC equipment and machinery; Includes armature and field windings of generators and motors, controls, parallel generator operation, speed regulation, efficiency, losses, transformers, and polyphase systems. Prerequisite: None. Co-Requisite: ELET 1130. Lecture: 2, Lab: 3. ♦

ELET 2130 Motor Control 3 cr.

Reading and interpreting process and instrument drawings, motor control diagrams and ladder logic diagrams. Installing, testing, and troubleshooting motor control circuits. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ELET 2160 Instrumentation I 3 cr.

Modern instrumentation and process control, including the common types of measurement and instruments used in industry. Controllers, final control elements, including the sizing, calibration, maintenance, and troubleshooting of control systems and its components. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

ELET 2180 Advanced Automation Control 3 cr.

The study of advanced automation and industry 4.0 applications. Includes typical home and industrial sensor applications, networking and wireless communication

protocols and security, advanced PLC and DCS control systems. Machine-to-machine communications, edge computing, cloud computing, and industrial internet of things (IIOT). This course uses Python programming and Raspberry Pi in lab activities as well as Allen-Bradley and Emerson Delta V configurations. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

ELET 2210 Electronics I 3 cr.

Semiconductor theory, including diode theory and applications, bipolar transistor theory, small and large signal amplifiers, biasing and gain calculations, JFETs, MOSFETs, Solid State Relays, thyristors, op-amps, and regulated power supplies. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OET005. ♦

ELET 2230 Electronics II 3 cr.

An introduction to alternative energy technologies, including: solar, wind, and fuel cells. Research and construction project of a selected topic using various facets of electrical engineering technology. Final project term paper and presentation required. Prerequisite: ELET 2210. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

ELET 2410 Programmable Logic Controllers 3 cr.

Basic operations, history, numbering systems, system hardware and software, ladder logic programming, math functions, sequencers, comparisons, block transfers, program control instructions, fault handling, and PLC networking. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OET022. ♦

ELECTRONICS (ELEC)

ELEC 1950 Cisco Semester I – Introduction to Networks 3 cr.

This course uses the OSI and TCP layered models of computer networks to examine the nature and roles of protocols and services at various layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Labs will allow students to analyze protocols and network operations, build small networks, apply basic cabling principles, and perform basic configurations of network devices such as routers, switches, and implementation of IP addressing schemes. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 5. ♦

ELEC 2050 Cisco Semester II - Routing and Switching Essentials 3 cr.

This course covers the architectures, components, and operations of routers and switches in a small network. Students learn how to configure routers and switches for functionality and security. Students will learn to configure and troubleshoot common issues with RIPv2, single-area OSPF, virtual LANs and inter-VLAN routing in both IPv4 and IPv6 networks. Additional topics include configuration of ACLs, DHCP, NAT, SSH and Switch Security. Prerequisite: ELEC 1950. Co-Requisite: None. Lecture: 1, Lab: 5. ♦

ENGINEERING, GENERAL (ENGR)

ENGR 1010 Fundamentals of Engineering 3 cr.

Using VEX Robotic Design System, students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Students will complete a study into their future career. Curriculum is heavily focused on mechatronic principles, programming, and the use of engineering notebook to document their work. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

ENGR 1100 Engineering Materials 4 cr.

Introduces engineering materials, including ferrous and nonferrous materials, plastics, and ceramics; various material property tests such as tension, compression, shear, elongation, and impact; basic metallurgy; various plastic processing techniques. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 3. ♦

ENGR 2210 Statics 4 cr.

Analysis of forces and effects of forces on rigid body structures at rest such as frames and trusses. Prerequisite: MATH 2120. Co-Requisite: None. Lecture: 4, Lab: 0. TAG: OET007.

ENGR 2220 Strength of Materials 3 cr.

A comprehensive coverage of the important topics in strength of materials with an emphasis on application, problem solving, and design of structural members, mechanical devices, and systems. Includes evaluation of externally applied forces and internally induced stresses in materials. Consideration is given in terms of compression, tension, and shear to solve problems of an engineering nature. Prerequisite: ENGR 2210. Co-Requisite: None. Lecture: 2, Lab: 2. TAG: OET008. ♦

ENGLISH COMPOSITION (ENGL)

ENGL 1510 English Composition I 3 cr. TM-E

Effective communication is a critical skill to learn for success in life, academics, and careers. In this first-year writing course, in response to different writing experiences, students will develop the ability to draft, analyze and revise their writing. The students will learn and utilize various skills of writing in areas of rhetorical knowledge and critical reasoning. Additionally, students will analyze the work of other students and professional writers. The goal of the course is to provide students a chance to improve their writing and learn how to effectively respond to unique writing challenges. Prerequisite: None. Co-Requisite: None.

Lecture: 3, Lab: 0. ♦

ENGL 1515 Technical Writing 3 cr. TM-E

Students adapt their writing skills to prepare technical documents—memos, resume, application letter, abstract, instructions, description, and proposal—including page design and graphics. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

ENGL 1520 English Composition II 3 cr. TM-E

Continues improvement of writing skills. Argumentative and expository papers created by evaluating information from multiple perspectives and drawing reasonable conclusions for a final research writing. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

GEOLOGY (GEOL)

GEOL 2310 Environmental Geology 3 cr. TM-N

This course is a survey of geological processes and products and their relation to environments and life forms. It includes the formation of the earth, internal and surface processes with a focus on major environmental processes, immediate and extended influence of humans, natural resources and their sustainability and prospects for future of physical environment. Prerequisite: None. Co-Requisite: GEOL 231L. Lecture: 3, Lab: 0.

GEOL 231L Environmental Geology Lab 1 cr. TM-N

This course is the laboratory associated with the GEOL 2310 course and includes an introduction to laboratory techniques, laboratory safety with an emphasis on geological processes in practical situations. Prerequisite: None. Co-Requisite: GEOL 2310. Lecture: 0, Lab: 2. ♦

HEALTH INFORMATION MANAGEMENT TECHNOLOGY

HIMT 1100 Legal Aspects 2 cr.

This course covers evaluation of healthcare records as legal documents and places special emphasis on policies and procedures concerning release of medical information and protecting patient confidentiality. Topics including legal principles, organization of the judicial system, healthcare fraud and abuse, Health Insurance Portability and Accountability (HIPAA) regulations are covered. Ethical issues in healthcare settings concerning the privacy and security of healthcare are addressed. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0. TAG: OHL021

HIMT 1200 Health Record Management I 3 cr.

This is the entry course to health information management. This course explores and gives an overview of healthcare delivery systems, health information management professions, healthcare settings, introduction to patient record documentation and guidelines, clinical terminologies and classification systems, data privacy and confidentiality, data management, data privacy and security, revenue management and reimbursement, fraud and abuse, ethical issues in health information management, human resource management, and professional development. Prerequisite: Program admission. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

HIMT 1301 Clinical Classifications ICD10-CM/PCS 3 cr.

This course focuses on the ICD-10-CM and ICD-10-PCS coding classification systems and applies coding guidelines for each body system. Coding guidelines, rules, and conventions for each body system will be studied. Principal, primary, secondary, and history diagnosis will be studied as well as procedures for patient encounters in inpatient, ambulatory, and physician services will be studied. Coding references, case studies in various patient settings, and manual and computerized coding methods will be utilized. Prerequisite: BIOL 1300, and BIOL 2450, or HLTH 1420 and HLTH 1800. Co-Requisite: None. Lecture: 2, Lab: 2.

HIMT 1302 Current Procedural Terminology 3 cr.

This comprehensive course is designed for students requiring advanced knowledge in the Current Procedural Terminology (CPT) coding classification system starting with the purpose of CPT, then learning and applying principles, guidelines and conventions to assign CPT for evaluation and management, ambulatory, surgical and ancillary coding. Practical experience in coding will be obtained through the use of coding references, case studies in various patient settings, and manual and computerized coding methods will be utilized. Prerequisite: BIOL 1300, and BIOL 2450, or HLTH 1420 and HLTH 1800. Co-Requisite: None. Lecture: 3, Lab: 0.

HIMT 1400 Healthcare Reimbursement 3 cr.

Students will review the organization of healthcare delivery systems including managed care and capitation. The theory and use of reimbursement systems such as Diagnostic Related Groups (DRGs), Ambulatory Payment Classifications (APCs), and Resource-Based Relative Value Scale (RBRVS) are applied. Revenue cycle discussions and analysis include data flow from admission to billing and the analysis of case-mix. In addition, other external forces, such as Health Insurance Portability and Accountability Act (HIPAA) and Recovery Audit Contractors (RACs), are reviewed. Prerequisite: HIMT 1200, HIMT 1301, and HIMT 1302. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHL022.

HIMT 1500 Advanced Clinical Classification System 3 cr.

This course provides the student with advanced knowledge and coding practice in the clinical classification systems. In depth topics will be studied on Principles of Nomenclatures, Terminologies, Clinical Vocabularies, Taxonomies and other data sets (OASIS, HEDIS, UHDD, & DEEDS) and applications

of Classification Systems (ICD/CPT, HCPCS, SNOMED, and DSM). Other topics studied include RX Norm; LONIC; International Classifications of Functioning, Disability, and Health; Data Standards; Data Interchange Standards; Centralized Locations and Tools for Servers, Databases, and Registries; and the use of Vocabulary, Terminology, and Classification Systems. Prerequisite: HIMT 1301 and HIMT 1302. Co-Requisite: None. Lecture: 3, Lab: 0.

HIMT 1700 Revenue Cycle and Coding 3 cr.

This course provides application in the revenue cycle management process and focuses on acute care hospital perspective. Topics include revenue cycle basics, cost analysis and payer contracts, patient access, documentation and charge capture, record completion and coding, claims management, and an overview how charges become revenue. Prerequisite: HIMT 1301 and HIMT 1302. Co-Requisite: HIMT 1400 and HIMT 1500. Lecture: 2, Lab: 2. ♦

HIMT 2100 Health Record Management II 3 cr.

This course is a continuation of Health Record Management I where students will build their knowledge and complete projects at the end of the course and blend content knowledge from HIMT 1200 Health Record Management I. This course explores and studies data security, health information systems, management, performance improvement, secondary data sources and research and data analysis. Data management and data privacy and confidentiality will be heavily reviewed. Prerequisite: HIMT 1200. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

HIMT 2200 Health Information Technology Systems 3 cr.

This course looks in-depth into the role, purpose, and use of health information in the healthcare delivery system. Topics of study include defining the electronic health record (EHR), the development of EHR, EHR adoption challenges in relation to the current status of the EHR, study of hardware and software, proprietary application use in health information management, clinical inpatient information systems, information exchange, and current initiatives. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

HIMT 2301 Statistical Analysis 2 cr.

This course covers calculating statistics for healthcare operations and introduces procedures to properly collect, organize, display and interpret healthcare data. Uses for healthcare data and users of healthcare data will be covered. Calculations will be done manually and by spreadsheet application. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0.

HIMT 2400 Quality Management 2 cr.

This course will introduce procedures for facility-wide quality management and performance improvement programs. Students will analyze clinical data, and utilize performance improvement tools to demonstrate effectiveness in demonstrating quality and safety. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0.

HIMT 2500 Health Information Management and Data Governance 3 cr.

This course introduces the evolution of health information systems and the complexities of data flow. Students will demonstrate leadership skills through a case study threaded throughout the textbook and learn the roles, functions, and practices for successfully managing healthcare data as an enterprise set and application of policies and procedures. Students will explore enterprise functions such as data governance, data architecture, metadata management, master data management, business intelligence, data security management, and terminology and classifications systems within healthcare departments or business unit context. Prerequisite: HIMT 1200. Co-Requisite: None. Lecture: 3, Lab: 0.

HIMT 2900 Professional Practice 2 cr.

Students will receive 40-hours external professional practice and be supervised and evaluated by the external site supervisor. These hours may be performed virtually or on-site, pending availability, position, and requirements for the external facilitating site. During this course, students will prepare to take the Registered Health Information Technician Certification Exam through the American Health Information Management Association and be encouraged to sit for medical billing certifications through the Healthcare Financial Management Association and medical coding certification exams through the American of Professional Coders and/or the American Health Information Management Association. Students will complete assignments and case studies as a comprehensive review. Prerequisite: Approval, and must be taken in the last semester of HIMT program. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

HEALTH SCIENCES (HLTH)

HLTH 1001 Basic Life Support for Healthcare Providers 0.5 cr.

This course provides training for basic life support and Cardiopulmonary Resuscitation for Healthcare Providers. Students will learn single-rescuer and team basic life support for adults, children and infants through interactive exercises, scenarios and a written test. This is a one day class that leads to a certificate. Prerequisite: None. Co-Requisite: None. Lecture: 0.4, Lab: 0.4. ♦

HLTH 1002 Basic Life Support for Healthcare Providers Renewal 0.5 cr.

This course provides recertification training for basic life support and Cardiopulmonary Resuscitation for Healthcare Providers. Students will learn single-rescuer and team

basic life support for adults, children and infants through interactive exercises, scenarios and a written test. This is a one day class that leads to recertification. Prerequisite: None. Co-Requisite: None. Lecture: 0.4, Lab: 0.4. ♦

HLTH 1040 Basic Health Sciences 3 cr.
This course is an introduction to applied math and basic sciences concerning cardiopulmonary anatomy and physiology. Basic math, chemistry and physics are applied to applications in the respiratory and medical fields. Prerequisite: MATH 0106 and admission to the Respiratory Therapy Program. Co-Requisite: None. Lecture: 2, Lab: 2.

HLTH 1120 First Aid and Personal Safety 2 cr.
Lectures, discussion, and practice are used to study safety and give first aid in emergency situations. A certificate (adult, infant, and child) for CPR may be obtained by students who pass appropriate examinations. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0. ♦

HLTH 1400 Careers in Health Care 3 cr.
This course will provide the basic fundamentals necessary to develop personal and professional skills in health care with include; career exploration and preparation, health care communications, ethical responsibilities, employment skills, professionalism, safety, and professional development. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

HLTH 1420 Introduction to Human Disease 3 cr.
This course will focus on the mechanisms of human diseases and disorders and how they affect the major systems of the human body. The course will cover the prevention, etiology, signs and symptoms, prognosis, and treatments of common diseases. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

HLTH 1800 Medical Terminology 3 cr.
This course provides an overview of medical language used by the medical profession. Students will learn how to use appropriate terminology/abbreviations pertaining to anatomy, physiology, pathology, diagnostic processes/procedures and medical interventions related to the human body. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHL020.

HLTH 2400 EKG/Cardiovascular Technician 2 cr.
This comprehensive Certified EKG Technician Program prepares students to function as EKG/Cardiovascular Technicians and prepares them to take the Electrocardiograph (EKG) Technician exam if they have a Health Science degree and/or one year experience. This course will include important practice and background information on anatomy of the heart and physiology, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, and electrocardiography. Additionally, students will practice with equipment and perform hands-on labs including introduction to the function and proper use of the EKG machine, the normal anatomy of the chest wall for proper lead placement, 12-lead placement, and other clinical practices. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

HISTORY (HIST)

HIST 1010 Civilization I: Early World Culture 3 cr. TM-S
This course is designed to provide an introduction into early modern world history. Students will follow a mostly chronological path, analyzing how politics, culture, and societal factors shaped world events. The course will take a broad purview of world history, looking at larger transformations across time, while also more closely examining how individuals and groups caused and responded to these larger changes. Both primary and secondary source reading assignments are intended to present a more complete picture of the early modern period. This course covers: The Commercial Revolution; the Age of Science; Reason & Enlightenment; The Rise of Nationalism; The Industrial Revolution and its problems; social reform; scientific advancement; development of the arts; the world wars; Russian and Chinese revolutions; the Cold War; rise and fall of imperial systems in Africa; East Asia, the Middle East, and Latin America. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHS041.

HIST 1020 Civilization II: Early/Modern Period 3 cr. TM-S
The Commercial Revolution; the Age of Science; Reason & Enlightenment; The Rise of Nationalism; The Industrial Revolution and it's problems; social reform; scientific advancement; development of the arts; the world wars; Russian and Chinese revolutions; the Cold War; rise and fall of imperial systems in Africa; East Asia, the Middle East, and Latin America. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHS042.

HIST 2110 American History to 1865 3 cr. TM-S
Political, diplomatic, social, and economic developments of America from 1607 to 1865: Topics include Colonial America, founding of a new nation, the early national period, Jacksonian Democracy, territorial expansion, sectionalism & controversy and the Civil War. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHS043.

HIST 2120 American History 1865 to Present 3 cr. TM-S
Political, diplomatic, social, and economic development of America 1865 to Present. Topics include Reconstruction, the Industrial Revolution, the progressive movement, World Wars I and II, prosperity and depression, and problems of the Cold War era. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OHS044.

HUMANITIES (HUMN)

HUMN 1200 Introduction to Film 3 cr. TM-H
Study of film as an art form. Includes a brief history on development of the cinema, viewing, and discussion of representative films and excerpts. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0.

HUMN 1300 Survey of Mythology 3 cr. TM-H
Introduces mythology from the earliest oral tales to the present as a genre and provides an overview of various approaches to interpreting texts. Constructs an awareness of the historical and contemporary contexts of myth through lectures, discussions, and critiques. Students will have an opportunity to engage with primary texts from cultures around the world as they are represented in prose, poetry, and drama through the drafting of interpretive essays and creative projects. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

HUMN 2480 Science of Science Fiction 3 cr. TM-H
The Science of Science Fiction provides an overview of science fiction and some of the science behind it. This will include a short history of science fiction and the science behind it as well as some of the major sub-genres of science fiction in order to see the impact of various fields of science. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

INDUSTRIAL TECHNOLOGY (INDT)

INDT 1010 Introduction to Chemical Operator 3 cr.
A course delivered in an online modular format designed for newly hired or potential chemical operators. Designed to provide participants with a basic foundation in chemistry and mathematics as well as equipment operation and function. Concepts relating to safe operating practices and environmentally responsible behavior are also included. This course serves as the introductory course for students interested in pursuing an online Chemical Operator Associate degree or certificate and instructs the student in online learning protocols and methods. Course delivery includes use of computer simulations and labs and interactive video. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

INDT 1100 Industrial Maintenance Awareness CPT 4.0 3 cr.
Students will learn the basics of industrial maintenance including safety, use of hand tools, types and uses of fasteners, as well as recognizing potential maintenance issues. Successful completion will earn the student a certificate in Maintenance Awareness 4.0 on route to completing the Certified Production Technician 4.0 certificate. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

INDT 1120 Fluid Power 3 cr.
A comprehensive introduction to fluid power including both hydraulic and pneumatic. Course includes underlying theoretical concepts and mathematical equations; construction, selection, and function of components; operation and design of basic circuits; reading basic schematics. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

INDT 1150 Machining Processes 3 cr.
Introduction to traditional mechanical machining operations. The course is designed to provide basic training in conventional machine tool operations and processes. Projects will be completed on the lathe, vertical milling machine, drill press and welding. Instruction will include proper hand tool use and the use of measuring devices. Students will work within specified decimal tolerances from engineering drawings. Students will have the opportunity to earn NIMS credentials. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 4. ♦

INDT 1220 OSHA Safety with CPT 4.0 2 cr.
This safety course is designed to equip students with knowledge of workplace safety and health hazards, and the knowledge of how to minimize and mitigate such risks. At the successful completion of the course, students will have earned the OSHA-10 General Industry Safety Certification as well as the first certificate in the Certified Production Technician 4.0 Certification and earn an authorized fork truck operator license. Students will perform a final assessment to earn the CPT 4.0 Safety certificate. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 1. ♦

INDT 1221 CPT 4.0 Safety 2 cr.
This safety course is designed to equip students with knowledge of workplace safety and health hazards, and the knowledge of how to minimize and mitigate such risks. At the successful completion of the course, students will have earned the first certificate in the Certified Production Technician 4.0 Certification. Students will perform a final assessment to earn the CPT 4.0 Safety Certificate. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 1. ♦

INDT 1330 Industrial Electricity 2 cr.
This course introduces the basic concepts of electricity, electrical components and equipment, and their applications in an industrial environment. Electrical basics, including Ohm's Law, series and parallel circuits, resistance, capacitance and inductance are covered; as well as direct and alternating electrical current. Electrical drawings and symbols, power and energy, motors, motor control, transformers, electrical distribution, and basic industrial electronics will also be covered. The application of trouble shooting is incorporated and electrical safety

awareness in the workplace is reinforced. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0. ♦

INDT 1340 Quality Practices and Measurements CPT 4.0 3 cr.

This course focuses on the introduction to statistical process control and quality systems. Blueprint reading and geometric dimensioning and tolerancing (GD&T) is also discussed. Students will perform quality analysis on system processes and participate in continuous improvement (CI) efforts. Successful completion will earn the student a certificate in Quality Practices and Measurements on route to completing the Certified Production Technician 4.0 Certificate. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

INDT 2180 Manufacturing Processes and Production CPT 4.0 3 cr.

This course provides coverage of the processes used in Industry 4.0 manufacturing settings. Students will investigate the whole manufacturing/production realm from identifying customer needs to equipment needs and processes, production planning and workflow, and control of processes. Successful completion will earn the student a certificate in Manufacturing Process & Production on route to completing the Certified Production Technician Certificate. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 4. TAG: OET010 ♦

INDT 2210 Process Control 4 cr.

This introductory course covers the equipment and technology associated with the control systems found in modern chemical process and manufacturing plants. The introduction is followed by units covering valves, piping and vessels, pumps, compressors, turbines and motors, heat exchangers, cooling towers, boilers, furnaces, basic instrumentation and process diagrams. This course introduces the concept of process control and instrumentation and covers the fundamental components of a control loop. PID control and PLC's are introduced along with the concept of distributive control systems. The function of pneumatic and electronic transmitters and transducers is explained and the function, operation, and maintenance of chemical analyzers are included. The application of trouble shooting is incorporated and safety awareness, environmental responsibility, and professionalism in the workplace are reinforced. Prerequisite: None. Co-Requisite: None. Lecture: 4, Lab: 0. ♦

INDT 2300 Process Troubleshooting 3 cr.

The effective troubleshooter needs to understand basic troubleshooting methods & tools, as well as how equipment and systems work. We use a systematic approach to the troubleshooting process including using problem solving tools like, Ask Why 5 Times & Cause and Effect Diagrams. This course develops industrial workers' skills to identify, analyze and resolve process problems and abnormal situations. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

INDT 2800 Industrial Capstone 3 cr.

A research seminar and project development of a topic in student's engineering discipline (industrial). Presentation of a project supported with documented research, proposal, time/cost estimates and PowerPoint presentation. Prerequisite: ENGL 1510. Lecture: 1, Lab: 5. ♦

LITERATURE (LITR)

LITR 1300 Introduction to Literature 3 cr. TM-H

Introduction to literary and textual study with attention to various forms of fiction, creative nonfiction, drama, poetry, and to essential literary terminology and practice. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH062.

LITR 2100 Survey of American Literature I 3 cr. TM-H

Historical and critical study of American authors from colonial period to the Civil War. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH053.

LITR 2110 Survey of American Literature II 3 cr. TM-H

A historical and critical study of American authors from the Civil War to the present. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH054.

LITR 2200 Survey of British Literature I 3 cr. TM-H

Historical and critical study of British authors from the Old English period through the 18th century. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH055.

LITR 2210 Survey of British Literature II 3 cr. TM-H

Historical and critical study of British authors from the 19th century to the present. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH056.

MASSAGE THERAPY (MAST)

MAST 1370 Functional Anatomy and Kinesiology 3 cr.

This course is designed to help students see how understanding structure, posture, and normal human movement is instrumental in the application of physical assessments, understanding mechanisms of injury, and selecting the most appropriate therapeutic interventions. This course will deepen students' understanding of how muscles, bones, fascia, joints, and other structures come together to produce human movement. It explores biomechanics, key structures for movement, and principles of posture and gait. Prerequisite: BIOL 1350. Co-Requisite: MAST 137L. Lecture: 3, Lab: 0.

MAST 137L Functional Anatomy and Kinesiology Lab 1 cr.
This course is designed to facilitate understanding of the structure and function of the human body. Classroom activities are integrated in a comprehensive study of the skeletal, muscular, and nervous systems. This course is designed to allow students to enhance their ability to locate surface anatomy features, body landmarks, muscles, and other structures of the region, which are vital in manual therapy professionals as they asses their patients. This course will emphasize anatomical terminology, skeletal anatomy and function, the study of joints and joint function, and palpation skills. Prerequisite: BIOL 1350. Co-Requisite: MAST 1370. Lecture: 0, Lab: 3. ♦

MAST 1510 Massage Techniques I 3 cr.
History of medical massage, the therapeutic environment and relationship, professional ethics; applied anatomy of integumentary system and superficial fascia; introduction to Swedish Massage and Deep Tissue massage. Prerequisite: Acceptance into Massage Program. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

MAST 1516 Business for Massage Therapists 2 cr.
This is a practical class focusing on the business aspects of the massage profession. It will deal with various potential employment scenarios as well as the realities of owning a personal massage business. Topics include issues such as attitudes about money, legal issues and ethics of business. Prerequisite: None. Co-Requisite: None. Lecture: 2, Lab: 0.

MAST 1520 Massage Techniques II 3 cr.
Introduction to soft tissue barriers and their clinical significance; Muscle Energy Techniques, Craniosacral therapy; Pregnancy Massage, Trigger Point Therapy, Pain physiology and assessment; Myofascial Release; Chair Massage, Reflexology, Shiatsu, and other modalities. Swedish massage continued; applied anatomy of neuromuscular and musculoskeletal systems; palpatory and assessment skills, pathology of joints, professional ethics, and communication in therapeutic relationship. Prerequisite: MAST 1510. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

MAST 2480 Orthopedic Assessment & Documentation for Massage Therapists 4 cr.
This course is designed to provide a well-rounded opportunity for students to assess anatomical and physiological deficiencies in the body, how to navigate pathological conditions and properly treat them and to document such deficiencies with palpation, observation, and various orthopedic tests, and to develop strategies to resolve these deficiencies. Prerequisite: MAST 1510 and BIOL 1360 or BIOL 2310. Co-Requisite: None. Lecture: 3, Lab: 2.

MAST 2550 Massage Therapy Directed Practice I 2 cr.
Introductory experience in the clinical setting, application of theories and techniques for client intervention, assessment and medical record keeping, and referral to other health care providers. Prerequisite: MAST 1520. Co-Requisite: None. Lecture: 1, Lab: 5. ♦

MAST 2840 Massage Therapy Capstone 4 cr.
Comprehensive review of massage therapy theory and practice for the massage therapist. A review of techniques, structure and function of the human body. Emphasis focuses on review of skeletal, joint, and muscle structure, function, and motion in the human body. Detailed consideration is given to muscle origin, insertion, action, joint motion, prime movers, and antagonist muscle groups using proper medical terminology and pathological conditions. This course is intended for massage therapy students as preparation for the certification exam. Prerequisite: MAST 1510, MAST 1516, MAST 1520, MAST 2480, and MAST 2850. Co-Requisite: None. Lecture: 4, Lab: 0.

MAST 2850 Building an Ethical Massage Therapy Practice 2 cr.
This course prepares students to safely and ethically practice massage therapy. It provides steps and discusses techniques to build a successful and reputable massage therapy practice. Students will develop professionalism and a basic understanding of the therapist – client relationship. A code of ethics and a standard of practice will be explored and implemented. Prerequisite: acceptance into Massage Program. Co-Requisite: None. Lecture: 2, Lab: 0.

MATHEMATICS (MATH)

MATH 0106 Math Essentials 4 cr.
A review of the essentials of math and an introduction to algebra. Topics include the four basic operations with fractions, decimals, natural numbers, whole numbers, and integers; ratio, proportion, percent, some basic geometry topics, Metric and English conversions, scientific notation, and an introduction to solving equations and problem solving. Prerequisite: None. Co-Requisite: None. Lecture: 4, Lab: 0. ♦

MATH 1104 Technical Mathematics 4 cr. TM-M
Includes Geometry 2D and 3D. Includes selected topics from plane and solid geometry with emphasis on practical applications to measurement of length, area, volume. Includes measurements of properties of angles. Includes Pythagorean Theorem and uses of it. Includes measurement units and converting units American and Metric Systems. Topics in algebra using equations, inequalities and graphics. Topics include dimensional analysis. Right angle trigonometry and using trig functions. Includes vectors, complex numbers and functions. A scientific hand-held calculator will be used to solve these problems.

Prerequisite: MATH 0106 or placement. Co-Requisite: None. Lecture: 4, Lab: 0.

MATH 2110 Principles of Statistics 4 cr. TM-M

Introduction to the vocabulary, concepts, formulas, and presentation of statistics as applied to business and the sciences. This course focuses on measures of central tendencies and dispersion; probability; sampling practices and theory, and probability distributions with emphasis on binomial and normal distributions. Calculator usage will be incorporated into this course. Prerequisite: MATH 0106 or placement. Co-Requisite: None. Lecture: 4, Lab: 0.

MATH 2130 College Algebra 4 cr. TM-M

An application-based course that encompasses a review of basic algebra skills; an analysis of functions, graphs, and their properties; systems of linear equations, algebraic reasoning, methods of solving equations of degree two and higher; the use of the graphing calculator; and exponential and logarithmic functions. Prerequisite: MATH 0106 or placement. Co-Requisite: None. Lecture: 4, Lab: 0.

MATH 2140 Quantitative Reasoning 3 cr. TM-M

Quantitative Reasoning will be unlike any mathematics course you have ever taken. This course develops critical thinking and problem-solving skills in a variety of mathematical contexts, real-life situations, and quantitative comparisons. You will work collaboratively with other students to do, to think, to listen, and to talk about mathematics, statistics, and mathematical modeling. You will also learn how to make your mathematical thinking seen, heard, and understood by others. Prerequisite: MATH 0106 or placement. Co-Requisite: None. Lecture: 3, Lab: 0.

MATH 2150 Precalculus 5 cr. TM-M

This course is intended for students planning to progress through a STEM-related Calculus I (and beyond) sequence. Students will build on their understanding of functions from College Algebra and extend their understanding to exponential, logarithmic, trigonometric, piecewise functions and equations. Much of the coursework will be focused on the in-depth study of functions and trigonometry and its applications to the world around us. Students will also have experiences with summations, sequences, and series in mathematics. Prerequisite: MATH 2130. Co-Requisite: None. Lecture: 5, Lab: 0.

MATH 2263 Calculus I 4 cr. TM-M

This mathematics course is foundational for students planning for advanced work in the STEM-related and medical fields. This beginning Calculus course will include a numerical, graphical, and algebraic investigation of limits; functional interpretation of limits; continuity; rules and theorems related to derivatives; graphical interpretations of the derivative as well as rates of change between variables; higher-order derivatives; curve sketching; function analysis and optimization; and an introduction to integral calculus including antiderivatives, areas under curves, integration by substitution, and the Fundamental Theorem of Calculus. Prerequisite: MATH 2150. Co-Requisite: None. Lecture: 4, Lab: 0.

MATH 2264 Calculus II 4 cr. TM-M

This mathematics course is for students planning for advanced work in the STEM-related and medical fields. This intermediate calculus course will include applications of the definite integral, integration techniques including improper limits, sequences and series, parametric curves, and polar coordingate. Prerequisite: MATH 2263. Co-Requisite: None. Lecture: 4, Lab: 0

MEDICAL LABORATORY TECHNOLOGY (MMLT)

MMLT 1010 MLT Orientation 2 cr.

This course presents an overview of the role of the MLT which includes ethics, employment areas, job opportunities, and some basic laboratory skills. The collection of blood specimens is taught. This course also includes a self-study course in medical terminology. Prerequisite: MLT Program Admission. Co-Requisite: None. Lecture: 1, Lab: 3. TAG: OHL008. ♦

MMLT 1210 Urinalysis and Body Fluid Analysis 2 cr.

Quantitative and qualitative procedures for routine chemical, physical and microscopic examination of urine. Includes theory and application of renal function. Also included are the analyses of cerebral spinal fluid, seminal fluid, gastric secretions and feces. Prerequisite: MLT Program Admission. Co-Requisite: None. Lecture: 1, Lab: 3. TAG: OHL010. ♦

MMLT 1310 Hematology I 3 cr.

Course which studies the origin, formation and differentiation of blood cells. Erythrocyte, leukocyte, and platelet pathology as well as the mechanism of hemostasis, vascular integrity and platelet function in relation to disease states is discussed. Techniques in counting red cells, white cells, and platelets are included, as well as red blood cell indices. Clinical application of coagulation includes the study of various procedures such as prothrombin time, activated partial thromboplastin time, thrombin time, fibrinogen level, bleeding time and fibrinogen degradation products. Prerequisite: MLT Program Admission. Co-Requisite: None. Lecture: 2, Lab: 3. TAG: OHL009. ♦

MMLT 1320 Hematology II 2 cr.

Course which studies the various types of anemias, leukemias, lymphomas, proliferative disorders and storage syndromes. Techniques include reticulocyte counts, ESRs, normal differentials and abnormal differentials. Prerequisite: MMLT 1310. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

MMLT 1410 Immunology and Serology 3 cr.
A study of the formation, characteristics and reactions of antigens and antibodies. The serological applications of these principles are investigated in theory and application in agglutination, flocculation, and precipitation reactions. Also includes principles of immunodiffusion and the study of complement. Prerequisite: MMLT 1010. Co-Requisite: None. Lecture: 2, Lab: 2. ♦

MMLT 1420 Immunohematology 3 cr.
Course which includes the study of blood group systems, phenotyping, atypical antibodies and cases of crossmatching incompatibilities. Time is spent studying investigations of transfusion reactions, the use of blood components in therapy, fetal-maternal incompatibilities and other immunological procedures. ABO and Rh typing, antibody screening and crossmatching of patient and donor blood are some of the procedures practiced. Topics of safety in immunohematology laboratory are addressed. Prerequisite: MMLT 1010. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

MMLT 1510 Diagnostic Microbiology 5 cr.
Course which provides the study of bacteriology, parasitology, mycology and virology. Procedures include the cultivation and identification of organisms via the use of primary and secondary culture techniques, aerobic and anaerobic techniques, biochemical techniques, serological techniques and microscopic examination. Antibiotic sensitivity testing, blood cultures, concentration of mycobacteria and the preparation of culture media and stains are also studied. Parasitology, host parasite relationships, as well as the various types of fungi, are included in the course. Prerequisite: MMLT 1010. Co-Requisite: None. Lecture: 3, Lab: 4. ♦

MMLT 1610 Clinical Chemistry 4 cr.
Course which provides the student with an introduction to manual and analytical techniques used in a clinical laboratory. Includes information about the procedures used in clinical chemistry in relation to principle, reagents, specimens, controls, procedures, instruments, normal and abnormal test results and correlation with clinical conditions. Topics of safety in the clinical chemistry laboratory are addressed. Prerequisite: MMLT 1010. Co-Requisite: MMLT 2210. Lecture: 3, Lab: 2. ♦

MMLT 2210 Instrumentation and Laboratory Skills 2 cr.
Provides an integration of the theory, application, and laboratory skills learned during the first three semesters of the program in an on-campus clinical laboratory. Areas of emphasis include: instrumentation, quality control, time management, and laboratory information systems. Designed to increase proficiency in laboratory techniques. Student competency will be assessed by comparison with known results in coagulation, hematology, immunohematology, microbiology, serology, and urinalysis. Prerequisite: Completion of the first 3 semesters of MLT Program. Co-Requisite: MMLT 1610. Lecture: 0, Lab: 7. ♦

MMLT 2310 MLT Seminar 1 cr.
Student participation in discussions about their progress and challenges in the Directed Practice. Projects include preparation of a patient case study report and a research project describing medical laboratory practice in a non-US country. Guest lecturers, technical workshops, field trips and discussion of timely topics in the field are utilized. Students learn the importance of continuing education in the medical laboratory field. Prerequisite: Completion of the first 4 semesters of MLT Program. Co-Requisite: None. Lecture: 1, Lab: 0.

MMLT 2410 MLT Directed Practice 6 cr.
One semester of an off-campus directed practice where the student applies the principles and practice skills learned in the first four semesters of the program in an actual clinical laboratory. Students progress through 3 levels: observation of laboratory procedures, practice of laboratory procedures with maximum supervision, and practice of laboratory procedures with minimal supervision. Competency in laboratory procedures is assessed by comparison with known results. Prerequisite: Completion of the first 4 semesters of MLT Program. Co-Requisite: None. Lecture: 1, Lab: 32. ♦

MUSIC (MUSC)

MUSC 1200 Music Appreciation 3 cr. TM-H
Development of listening skills for understanding elements of musical style in a historical perspective and the significance of music as Fine Art. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

NURSING, ASSOCIATE DEGREE (NADN)

NADN 1110 Foundations of Medical Surgical Nursing 5 cr.
This foundational course provides a theoretical basis to clinical nursing practice. It will begin with emphasis on professional identity, nursing roles and human flourishing. There will be emphasis on assessment of the patient through the use of developing nursing judgment, safety, health promotion, communication skills, and basic medical-surgical nursing content. It is designed to cultivate a safe level 1 nursing student in preparation for future patient-centered clinical courses. Prerequisite: Admission ADN Program. Co-Requisite: NADN 1115. Lecture: 5, Lab: 0. ♦

NADN 1115 Foundations of Clinical Nursing Practice 2 cr.
This course is designed to build a nursing practice foundation using evidence-based practice while emphasizing rationale for simple to complex essential

nursing skills. This course emphasizes the use of the nursing process to cultivate safe care practices for a level 1 nursing student. Course content includes: assessment, mobility, hygiene, asepsis, wound care, urinary elimination, bowel elimination, gastrointestinal functioning and medication administration. Prerequisite: Admission to ADN program. Co-Requisite: NADN 1110. Lecture: 0, Lab: 6. ♦

NADN 2050 Role Transition to ADN 2 cr.

This course is designed to enhance the transition of the Practical Nurse to the Associate Degree Nursing Program. The ADN program philosophy and conceptual framework as they relate to nursing education will be introduced. In order to differentiate between LPN and RN roles, legal scopes of practice will be reviewed. The nursing process will be used to enhance the student's decision-making skills and the development of clinical nursing judgment. Co-Requisite: NADN 2120, NADN 2150. Lecture: 2, Lab: 0.

NADN 2060 Transitional Synthesis 3 cr.

This course is designed to enhance the transition of graduates of the WSCO Practical Nursing program to the Associate Degree Nursing Program. In order to differentiate between LPN and RN roles, legal scopes of practice will be reviewed. Emphasis will be placed on the RN's use of the nursing process, evidence-based practice, and clinical judgment in the promotion of patient health. Prerequisite: Graduate of the WSCO state practical nursing program, and admission to Associate Degree Nursing Program. Co-Requisite: BIOL 2010 and BIOL 201L. Lecture: 2.5, Lab: 0.5. ♦

NADN 2120 Clinical Nursing Judgment Across the Lifespan 7 cr.

This course is a continuation of Foundations of Medical-Surgical Nursing and is designed to strengthen the student's ability to apply clinical judgment to patients with common and altered disease processes. This course is designed to cultivate a safe Level 1 nursing student in developing assessment, nursing and communication skills while processing medical/surgical nursing information in acute care and community settings. The student's role as a collaborative member of the health care team will be explored in the promotion of patient-centered care. Prerequisite: NADN 1110, NADN 1115, BIOL 2320, BIOL 232L, and PSYC 2700. Co-Requisite: NADN 2150. Lecture: 4, Lab: 1.5, Clinical: 7.5. ♦

NADN 2150 Nursing Pharmacology 3 cr.

This theory course is an introduction to the use of pharmacological interventions in the promotion of patient health across the lifespan. Identified drug classifications will be discussed, and the nurses' role in drug therapy will be explored. The nursing process will be reviewed as a means to assess, hypothesize, intervene, and evaluate patients' responses to drug administration. Clinical judgment will be explored through individual responses to drug therapy and variables which affect such responses in the provision of safe medication administration. Prerequisite: NADN 1110, NADN 1115, BIOL 2320, BIOL 232L, and PSYC 2700. Co-Requisite: NADN 2120. Lecture: 3, Lab: 0.

NADN 2240 Concepts in Behavioral Health Nursing 3 cr.

This course is designed to assist the Associate Degree Nursing student in the comprehension of mental health concepts and selected theoretical frameworks. This course explores psychiatric illnesses and mental health concepts consistent with the roles of the professional nurse. Emphasis is on evidence-based practice, DSM criteria, therapeutic communication, therapeutic relationships, self-awareness, treatment modalities, community resources, and patient-centered needs in the promotion of behavioral health across the variety of settings. Prerequisite: PSYC 2700. Co-Requisite: NADN 2350. Lecture: 3, Lab: 0.

NADN 2350 Clinical Nursing Judgment with Complex Patients 6 cr.

This course is designed to assist the Associate Degree Nursing student in the comprehension of pathophysiological and psychosocial concepts as they relate to patients experiencing complex alterations in health. Emphasis will be placed upon clinical judgment in the assistance of patients and their support persons to attain, maintain and regain health in advanced technological settings. The student will utilize the nursing process and evidence- based practice to prioritize optimal health outcomes in the provision of safe, quality nursing care. Prerequisite: NADN 2120. Co-Requisite: NADN 2240. Lecture: 3, Lab: 2. Clinical: 7. ♦

NADN 2370 Clinical Nursing Judgment in Maternal-Child Health 6 cr.

This course is designed to assist the Associate Degree Nursing student in the comprehension of developmental, physiological, and psychosocial concepts as they relate to health promotion with mothers and families. The unique nursing care needs of childbearing and childbearing families will be addressed. The clinical simulation laboratory will be used to reinforce classroom theory and promote nursing student collaboration, decision-making, and judgment in a supportive learning environment. Prerequisite: NADN 2350, NADN 2240. Co-Requisite: NADN 2400. Lecture: 5, Lab: 3. ♦

NADN 2400 Clinical Nursing Judgment with Groups of Patients 5 cr.

This course is designed to assist the Associate Degree Nursing student in developing a theoretical foundation for the professional practice of nursing. The course will enhance the student's ability to refine clinical and leadership skills as well as develop skills in managing the care of multiple patients. The course focuses on discovering

and discussing issues and trends which affect nursing practice. The legal and regulatory requirements of nursing practice and the leadership and managerial concepts will be explored. This course will prepare the student for the NCLEX-RN examination and the transition to the profession of nursing. Prerequisite: NADN 2350. Co-Requisite: NADN 2370. Lecture: 2, Lab: 1, Clinical: 8 ♦

NURSING, PRACTICAL (NPNT)

NPNT 1800 Practical Nursing Concepts 2 cr.

This foundational course provides a conceptual basis for the practical nursing student with an emphasis on professional identity, clinical judgment, nursing roles, health promotion, and human flourishing. The concepts presented are utilized in the care of patients across the lifespan in a variety of healthcare settings. Prerequisite: Admission to the state practical nursing program. Co-Requisite: BIOL 1510, BIOL 2310, BIOL 231L, and PSYC 1010. Lecture: 2, Lab: 0.

NPNT 1810 Essential Clinical Nursing Skills 2 cr.

This course explores the development of safe clinical nursing skills in the promotion of patient health across the lifespan. The concepts of asepsis, hygiene, skin integrity, wound healing, medication administration, and basic intravenous therapy are presented as they relate to nursing judgment and the role of the practical nurse. Prerequisite: BIOL 1510, BIOL 2310, BIOL 231L, PSYC 1010, and NPNT 1800. Co-Requisite: BIOL 2320, BIOL 232L, NPNT 1820, and NPNT 2150. Lecture: 0, Lab: 6. ♦

NPNT 1820 Health Alterations I 5 cr.

This course continues to build upon the concepts regarding nursing care in the promotion, maintenance, and restoration of adult health in a variety of acute and long-term care settings. The practical nursing students' use of clinical judgment as an effective member of the healthcare team will be explored in both the classroom and clinical setting. Prerequisite: BIOL 1510, BIOL 2310, BIOL 231L, PSYC 1010, and NPNT 1800. Co-Requisite: BIOL 2320, BIOL 232L, NPNT 1810, and NPNT 2150. Lecture: 4, Lab: 0, Clinical: 3. ♦

NPNT 1830 Health Alterations II 8 cr.

As a continuation of Health Alterations, I, this course presents increasingly complex concepts regarding health promotion and nursing care of the adult patient. In addition to medical-surgical nursing content, the concepts of professionalism, delegation, and mentorship will be emphasized as nursing students transition to professional practice. Opportunities for clinical and laboratory practice of intravenous therapy will be provided. Prerequisite: BIOL 2320, BIOL 232L, NPNT 1810, NPNT 1820, and NPNT 2150. Co-Requisite: NPNT 1910, and NPNT 2240. Lecture: 5, Lab: 1.5, Clinical: 7.5. ♦

NPNT 1910 Maternal Child Health 3 cr.

This course is designed to introduce the practical nursing student to the concepts of nursing care and health promotion in the expanding family. Evidence-based practice related to normal and high-risk pregnancy, labor and delivery, growth and development, and health alterations in the pediatric patient from newborn to adolescence will be prepared. Prerequisite: BIOL 2320, BIOL 232L, NPNT 1810, NPNT 1820, and NPNT 2150. Co-Requisite: NPNT 1830, and NPNT 2240. Lecture: 2.5, Lab: 0.5. ♦

NPNT 2150 Nursing Pharmacology 3 cr.

This theory course is an introduction to the use of pharmacological interventions in the promotion of patient health across the lifespan. Identified drug classifications will be discussed, and the nurse's role in drug therapy will be explored. The nursing process will be reviewed as a means to assess, hypothesize, intervene, and evaluate patients' responses to drug administration. Clinical judgment will be explored through individual responses to drug therapy and variables which affect such responses in the provision of safe medication administration. Prerequisite: BIOL 1510, BIOL 2310, BIOL 231L, ENGL 1510, NPNT 1800, and PSYC 1010. Co-Requisite: BIOL 2320, BIOL 232L, NPNT 1810, and NPNT 1820. Lecture: 3, Lab: 0.

NPNT 2240 Concepts in Behavioral Health Nursing 3 cr.

This course is designed to assist the practical nursing student in the comprehension of mental health concepts and selected theoretical frameworks. This course explores psychiatric illnesses and mental health concepts consistent with the roles of the professional nurse. Emphasis is placed on evidence-based practice, DSM criteria, therapeutic communication, therapeutic relationships, self-awareness, treatment modalities, community resources, and patient-centered needs in the promotion of behavioral health across a variety of settings. Prerequisite: BIOL 2320, BIOL 232L, NPNT 1810, NPNT 1820, and NPNT 2150. Co-Requisite: NPNT 1830, and NPNT 1910. Lecture: 3, Lab: 0. ♦

NURSING, RN TO BSN (NURS)

NURS 3400 Transition in Professional Nursing 3 cr.

This introductory RN to BSN course synthesizes previous knowledge and skills to provide a foundation for the role of the professional nurse. Selected nurse theorists will be explored as they relate to the core values necessary in the promotion of patient-centered care, including vulnerable populations. Ethical and legal concepts, as well as the professional nurse's role in public health policy will be discussed. Prerequisite: BIOL 1510, BIOL 2010, BIOL 201L, BIOL 2310, BIOL 231L, BIOL 2320, BIOL 232L,

ENGL 1510, MATH 2110, PSYC 1010, and PSYC 2700. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 3450 Health Assessment and Promotion 3 cr.

This course is designed to enhance the registered nurse's performance of a comprehensive physical assessment across the lifespan. In addition to physical assessment and analysis, the holistic concepts of mental health, nutrition, culture, and spirituality will be discussed in the promotion of the health of families, communities, and special populations. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 3480 Culturally Competent Nursing and Health Promotion 3 cr.

This RN to BSN course is designed to promote culturally competent nursing care in the diverse society. Students will explore the interconnectedness of health-related practices and beliefs in the promotion of individualized nursing care across population groups. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 4100 Community and Public Health Nursing 3 cr.

This RN to BSN course is designed to expand the focus of Registered Nurses from individuals and families as patients, to communities and populations. The basic concepts of community and public health nursing will be introduced to facilities health promotion in populations across the lifespan. Topics include levels of disease prevention, communicable disease and the principles of epidemiology, community and environmental assessment, disaster preparedness, professional nursing roles, and interprofessional collaboration. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 4110 Nursing Informatics 3 cr.

This course will provide the nurse with an overview of health care informatics. The role of the nurse within technology will be explored. Concepts and frameworks will be discussed with relevance to nursing practice. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 4120 Collaborative Healthcare 3 cr.

This RN to BSN course will focus on the development and promotion of a team-based interpersonal collaborative approach to patient-centered community and population-oriented care. Included in this course are the core competencies of values and ethics, roles and responsibilities, communication, and teamwork as a paradigm for the promotion of quality healthcare. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 4150 Nursing Research and Evidence-Based Practice 3 cr.

This course will introduce the RN to BSN student to the basic concepts and processes of nursing research, including reading and critiquing research reports and the application of research findings to evidence-based nursing practice. Methods of data collection and analysis, as well as the importance of scientific and ethical integrity will be explored. Prerequisite: NURS 3400. Co-Requisite: None. Lecture: 3, Lab: 0.

NURS 4180 Nursing Leadership and Management 4 cr.

This course explores leadership and management theories, resource allocation, the nurse as a change agent and a member of the profession through an experiential approach. Communication within organizational structures and healthcare groups, as well as continuous quality improvement will be analyzed in the provision of holistic nursing care for diverse individuals, families, groups, and populations across the lifespan. Prerequisite: NURS 3400, NURS 3450, NURS 3480, NURS 4100, NURS 4110, NURS 4120, and NURS 4150. Co-Requisite: None. Lecture: 3, Lab: 0, Clinical: 1.

PHILOSOPHY (PHIL)

PHIL 1010 Introduction to Philosophy 3 cr. TM-H

This course represents humanity's attempts to understand the nature of the universe and the meaning and purpose of life. The class is divided into five topics; reasoning; epistemology; metaphysics; ethics; and, aesthetics. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH045.

PHIL 1300 Introduction to Ethics 3 cr. TM-H

Discussion of classic and modern philosophical views of human values, ideals, and morality. Provides some introductory problems, concepts, and results of ethics; includes selected philosophers of past and present. Lecture, reading and discussion. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OAH046.

PHYSICAL THERAPIST ASSISTANT (PTAT)

PTAT 1020 Introduction to Physical Therapy 2 cr.

This course introduces the student to the history of the physical therapy profession and the physical therapist assistant. Students will learn about the role of the physical therapist assistant as a member of the healthcare team, working under the direction and supervision of the physical therapist. Students will be introduced to clinical practice settings, practice areas, and physical therapy assessment and treatment methods. Other topics include ethics and professionalism, laws and regulations, communication, documentation, reimbursement, research, and current trends in delivery of care. Prerequisite: None. Co-Requisite:

None. Lecture: 2, Lab: 0.

PHYSICS (PHYS)

PHYS 1010 Applied Physics 2 cr.
Introduction to the principles combined with its applications in industry today. Covers the broad fields of mechanics, heat, light, sound. Specific topics include atomic structure, flow of fluids, work, energy, simple machines, thermal expansion & gas laws. High school physics is not required. Prerequisite: None. Co-Requisite: PHYS 101L. Lecture: 2, Lab: 0.

PHYS 101L Applied Physics Lab 1 cr.
The Laboratory portion of the course PHYS 1010. This includes an introduction to laboratory techniques, laboratory safety, significant figures as well as communicating scientific ideas. For non-science majors. Prerequisite: None. Co-Requisite: PHYS 1010. Lecture: 0, Lab: 2. ♦

PHYS 2510 General Physics I 4 cr. TM-N
This physics series is for science and engineering majors. Classical physics with calculus and vectors. Topics include Newtonian mechanics, rotational dynamics, gravitation, fluids and wave phenomena. Prerequisite: None. Co-Requisite: MATH 2263 and PHYS 251L. Lecture: 4, Lab: 0. TAG: OSC016.

PHYS 251L General Physics I Lab 1 cr. TM-N
The laboratory section associated with the General Physics I class. The course includes proper laboratory and safety procedures, significant digits and communicating scientific ideas. This physics series is intended for science and engineering majors. Prerequisite: None. Co-Requisite: MATH 2263 and PHYS 2510. Lecture: 0, Lab: 2. TAG: OSC016. ♦

PHYS 2530 General Physics II 4 cr. TM-N
Continuation of PHYS 2510. Classical physics with calculus and vectors; thermal properties of matter, heat, and thermodynamics, electricity, magnetism and optics. Prerequisite: PHYS 2510, PHYS 251L and MATH 2263. Co-Requisite: PHYS 253L. Lecture: 4, Lab: 0. TAG: OSC017.

PHYS 253L General Physics II Lab 1 cr. TM-N
Continuation of PHYS 251L. Classical physics with calculus and vectors; thermal properties of matter, heat, thermodynamic, electricity and magnetism. Prerequisite: PHYS 2510, PHYS 251L and MATH 2263. Co-Requisite: PHYS 2530. Lecture: 0, Lab: 2. TAG: OSC017. ♦

POLITICAL SCIENCE (POLS)

POLS 1020 American National Government 3 cr. TM-S
Survey of all aspects of our democratic system; emphasis on the Constitution, the three branches of government, civil rights and liberties, and foreign policy. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS011.

POLS 1030 State and Local Government 3 cr. TM-S
Survey of the structure and operation of state and local governments. Emphasis on the relationship and interaction of state and local government subdivisions in Ohio. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS014.

POLS 2050 Global Issues 3 cr.
Consideration of major problems such as environment, health, economics, war, population, human rights; discussion of possible political solutions. Writing Intensive Course. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS012.

PSYCHOLOGY (PSYC)

PSYC 1010 General Psychology 3 cr. TM-S
Introduction to Psychology: Survey of topics in psychology including physiological bases of behavior, methods of psychology, cognition, social/organizational, developmental, and personality/psychology. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS015.

PSYC 2320 Abnormal Psychology 3 cr. TM-S
Survey of the major categories of psychological disturbance emphasizing a balance of research and application. Topics will include etiology, prognosis, and treatment modalities using the current DSM as a reference basis. Prerequisite: PSYC 1010. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS017.

PSYC 2700 Developmental Psychology 3 cr. TM-S
Examines the life cycle of humans from conception to death. Applies developmental theories and research in the explanation of human behavior. Allows experiential learning opportunities that demonstrate research in the field. This course is considered a writing intensive course that has at least 20 pages of collegiate writing. Prerequisite: PSYC 1010. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS048.

PSYC 2750 Educational Psychology 3 cr. TM-S
Applications of psychological theories and models to the classroom. Major topics include goals of education; cognitive, social and affective development in children; cognitive and behavioral models of learning; motivation; individual and cultural differences; effects of social class, ethnicity, and gender on learning and development; tests

and evaluation. Prerequisite: PSYC 1010. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OED008.

RADIOLOGIC TECHNOLOGY (RADT)

RADT 1010 Introduction to Radiologic Technology and Procedures I 2 cr.

This course introduces the student to specific medical, legal, ethical, and professional topics important for success in the profession, including professional issues in Radiologic Technology, patient care and safety, and instrumentation. This course also presents the student with the didactic material necessary to achieve the cognitive domain in order to be successful in the clinical setting by teaching the student how to perform specific radiographic procedures. The student is required to attend two lecture sessions per week. Prerequisite: Acceptance into RADT Program. Co-Requisite: None. Lecture: 2, Lab: 0.

RADT 1110 Principles of Radiographic Exposure I 3 cr.

This is the first of two radiographic exposure courses. This course introduces the student to the fundamentals of X-ray exposure, anatomy and physiology of the X-ray tube, principles of X-ray production, interactions between X-rays and matter, and basic radiographic quality. This course provides the student with the prerequisite knowledge (cognitive domain) base required prior to operating the radiographic equipment in the clinical setting. This course presents the student with the study of Image Receptors, automatic exposure control, scattered radiation, and devices used to improve radiographic quality including stationary and moving grids, anode heel effect, and compensating filters. Prerequisite: Acceptance into RADT Program. Co-Requisite: None. Lecture: 3, Lab: 0.

RADT 1120 Principles of Radiographic Exposure II 3 cr.

This is the second of two radiographic exposure courses. This course presents the student with the study of "radiographic quality" and the factors that control it. The course also covers recorded detail, receptor exposure, contrast, distortion, and the factors controlling each. This course reviews and relates exposure principles to practical problem solving. It covers Quality Improvement, and exposure combination problems. Prerequisite: RADT 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

RADT 1220 Radiographic Procedures II 3 cr.

This is the second of three Radiographic Procedures courses. This course is a continuation of Radiographic Procedures I and presents the student with the didactic material and laboratory demonstration and practice necessary to develop the cognitive and psychomotor domains in order to be successful in clinic. The course will teach the student how to perform specific radiographic procedures and allow the student to practice the procedures in the laboratory setting prior to performing them in the clinical setting. Prerequisite: RADT 1010. Co-Requisite: None. Lecture: 3, Lab: 0.

RADT 1230 Radiographic Procedures III 2 cr.

This is the Third and final positioning course in the program. This course offers a comprehensive review of "routine" positions already taught, and "non-routine" positions not yet covered, but common to the profession and part of the A.R.R.T. certification exam test bank. Prerequisite: RADT 1220. Co-Requisite: None. Lecture: 2, Lab: 0.

RADT 1310 Applied Radiography I 2 cr.

This is the first of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, image acquisition, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop critical thinking/problem solving skills, and develop and promote Life-Long Learning skills. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge based course designed to develop and evaluate the cognitive and psychomotor Domains. Prerequisite: Acceptance into RADT program. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 14.

RADT 1320 Applied Radiography II 2 cr.

This is the second of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, image acquisition, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop critical thinking/problem solving skills, and develop and promote Life-Long Learning skills. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge based course designed to develop and evaluate the cognitive and psychomotor Domains. Prerequisite: RADT 1310. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 14.

RADT 1330 Applied Radiography III 1 cr.

This is the third of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, image processing, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop critical thinking/problem solving skills, and develop and promote

Life-Long Learning skills. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge based course designed to develop and evaluate the cognitive and psychomotor Domains. Prerequisite: RADT 1320. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 7.

RADT 2170 Radiographic Physics 4 cr.

This course includes the study of matter, electrostatics, electrodynamics, magnetism, electromagnetism, electromagnetic induction, the generation of electricity, the production and control of high voltage, regulation of current, rectification, review of x-ray production, half value layer, pair production, review of the x-ray tube, and x-ray circuits. Prerequisite: RADT 1120. Co-Requisite: None. Lecture: 4, Lab: 0.

RADT 2190 Special Procedures/Radiographic Imaging 2 cr.

This course covers the equipment, positioning, and anatomy involved with "Special Procedures" radiography, image identification and image acquisition, digital imaging processing, image display, digital imaging informatics, and criteria for image evaluation. Prerequisite: RADT 1230. Co-Requisite: None. Lecture: 2, Lab: 0.

RADT 2310 Applied Radiography IV 3 cr.

This is the fourth of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, image processing, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop/demonstrate (Affective Domain) Critical Thinking/Problem Solving skills, and promote Life-Long Learning. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge/skills based course designed to develop and evaluate the cognitive, psychomotor, and affective Domains. Prerequisite: RADT 1330. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 21.

RADT 2320 Applied Radiography V 3 cr.

This is the fifth of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, digital image processing, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop critical thinking/problem solving skills, and develop and promote Life-Long Learning skills. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge/skills based course designed to develop and evaluate the cognitive, psychomotor, and affective Domains. Prerequisite: RADT 2310. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 21.

RADT 2330 Applied Radiography VI 1.5 cr.

This is the last of six Applied Radiography courses that provides the student with the exposure to the practice of Radiology necessary to develop competence in patient care, instrumentation, radiographic procedures, processing techniques, promote professional and ethical conduct, and develop the student's ability to function both independently and as a member of the health care team, develop critical thinking/problem solving skills, and develop and promote Life-Long Learning skills. The outcomes are measured by performance objectives, written objectives, competency evaluations, and adherence to policy and the professional code of conduct. This is a knowledge/skills based course designed to develop and evaluate the cognitive, psychomotor, and affective Domains. Prerequisite: RADT 2320. Co-Requisite: None. Lecture: 0, Lab: 0, Clinical: 10.5.

RADT 2420 Selected Topics 3 cr.

This course covers the A.R.R.T. credentialing exam (Registry) content specifications for the current Radiography examination. It is intended to be a review of material from all previous terms to prepare the student for the ARRT Registry exam. This course includes a separate 2 day Kettering A.R.R.T. Registry Review Seminar. Prerequisite: RADT 2510. Co-Requisite: None. Lecture: 3, Lab: 0.

RADT 2510 Pathology/Advanced Radiobiology & Radiation Protection 3 cr.

This course provides some review of anatomy and pathology, and a detailed study of radiographically diagnosed diseases and abnormalities. This course provides an introduction to cross sectional anatomy. This course also details the deleterious biological effects of ionizing radiation on cellular function and body systems, and the Dose Equivalent Limits of ionizing radiations. The course also reviews and details radiation protection procedures with Federal and state requirements. Prerequisite: RADT 2190. Co-Requisite: None. Lecture: 3, Lab: 0.

RESPIRATORY THERAPY TECHNOLOGY (RESP)

RESP 1100 Introduction to Respiratory Care 2 cr.

History, organization, credential systems and job functions of the respiratory care profession; respiratory care theory and procedures including terminology, applied principles of physics, vital signs, ambulation and body mechanics, universal precautions, oxygen appliances and quality

assurance procedures. Prerequisite: BIOL 2310, BIOL 231L, HLTH 1040, and program admission. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

RESP 1210 Cardiopulmonary Pharmacology 2 cr.

The course is an orientation to general pharmacology including drug groups, dosage, effects, and dispensing regulations. It is an emphasis on drugs used in the treatment and management of cardiopulmonary disease including bronchodilators, mucokinetics, steroids, and other drugs. Prerequisite: BIOL 2310, BIOL 231L, HLTH 1040, and program admission. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

RESP 1250 Medical Gas Administration Therapeutics 4 cr.

This course is a study of therapeutic modalities and physiologic monitoring practices used in the treatment and diagnosis of pulmonary diseases. The major subjects covered include: Storage and Delivery of Medical Gas Therapy, Humidity and Bland Aerosol Therapy, Lung Expansion Therapy, Airway Clearance Therapy, Analysis and Monitoring of Gas Exchange, Airway Management, and Noninvasive Ventilation. Prerequisite: BIOL 2310, BIOL 231L, HLTH 1040, and program admission. Co-Requisite: None. Lecture: 3, Lab: 3. ♦

RESP 1330 Cardiopulmonary Anatomy & Physiology 2 cr.

Overview of the fundamental concepts of the cardiopulmonary system and function. Emphasis on normal physiology. Prerequisite: BIOL 2310, BIOL 231L, HLTH 1040, and program admission. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

RESP 1350 Clinical Practice I 1 cr.

Experiences will include basic skills such as; medical asepsis, monitoring vital signs, charting in medical record and other record keeping, isolation techniques, and CPR. The student will become familiarized with Hospital and Respiratory Therapy Dept.(RT) policies and procedures for operations and emergency procedures. Also includes performance of medical gas administration and introduction to basic therapeutic procedures. The student will also be assigned to a physician's office for involvement with patient History and physicals. Prerequisite: BIOL 2310, BIOL 231L, HLTH 1040, and program admission. Co-Requisite: None. Lecture: 0, Lab: 5. ♦

RESP 1360 Advanced Cardiopulmonary Resuscitation 1 cr.

In-depth study of specific respiratory care issues in a group with a structured format. Prerequisite: HLTH 2400, RESP 2500 and program admission. Co-Requisite: None. Lecture: 0, Lab: 3. ♦

RESP 2450 Clinical Practice II 1 cr.

Continuation of the hospital clinical experience including basic patient care skills such as medical asepsis, vital sign monitoring, documentation of the patient's response to procedures, CPR and other basic skills. Also performance of therapeutic and diagnostic modalities such as: Aerosol Therapies, I.P.P.B., Postural Drainage & Percussion, Medical Gas Administration, Pulse Oximetry, End Tidal CO2 Monitoring, Airway Care, and Arterial Puncture and analyzation of Blood Gas Samples. Students will explore the Cultural Diversity and Age Specific requirements of the patient population and be introduced to the care of pediatric patients. In this semester the student will also be assigned to a hospital operating room under the supervision of the Anesthesia Dept to experience airway maintenance procedures. Prerequisite: RESP 1100, RESP 1210, RESP 1250, RESP 1330, and RESP 1350. Co-Requisite: None. Lecture: 0, Lab: 8. ♦

RESP 2460 Arterial Blood Gases 1 cr.

The course will review the fundamentals of acid-base respiratory physiology, interpretation and assessment of blood gases and the clinical applications. Prerequisite: RESP 2500, RESP 2630 and RESP 2450. Co-Requisite: None. Lecture: 1, Lab: 0. ♦

RESP 2500 Respiratory Critical Care I 2 cr.

Students will study the essentials of caring for critically ill patients, spanning from adults to pediatrics and neonates, with a spotlight on mechanical ventilation. This course delves into foundational critical care concepts, such as the principles, modes, and effects of mechanical ventilation, initiation and termination of mechanical ventilation, and assessment and patient monitoring in the critical care setting. Prerequisite: RESP 1100, RESP 1210, RESP 1250, RESP 1330, and RESP 1350. Co-Requisite: None. Lecture: 1, Lab: 3. ♦

RESP 2510 Cardiopulmonary Pathology I 3 cr.

Diseases and disorders affecting the cardiopulmonary systems emphasizing diagnosis, selection and implementation of therapeutic modalities, and the role of the respiratory care practitioner treatment. Prerequisite: RESP 2500, RESP 2630 and RESP 2450. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

RESP 2520 Cardiopulmonary Pathology II 1 cr.

Practical application of the principles obtained in Cardiopulmonary Pathology I, as they apply to the National Board for Respiratory Care (NBRC) examination process, with emphasis on the Clinical Simulation Exam. Prerequisite: RESP 2510. Co-Requisite: None. Lecture: 0, Lab: 3. ♦

RESP 2550 Clinical Practice III 2 cr.

Additional Hospital experience and continuation of patient care skills, providing therapeutic modalities: Small Volume Nebulizer, Postural Drainage & Percussion, IPPB, Incentive Spirometry, etc. In addition the student should be able to perform Arterial puncture and analysis of blood samples as

well as non-invasive diagnostic procedures; pulse oximetry, capnography, etc. The student will begin to explore aspects of Mechanical Ventilation and Critical Care environments in this semester as well as provide care to the Pediatric Patient. The student will also apply various modes of mechanical ventilation to adult patients in the hospital setting toward the end of the semester. Prerequisite: RESP 2500, RESP 2630 and RESP 2450. Co-Requisite: None. Lecture: 0, Lab: 15. ♦

RESP 2600 Respiratory Critical Care II 3 cr.

Continuation of the care of the critically ill patient, beginning with a review of adult and neo-natal ventilation procedures. This semester will deal with aspects of managing a patient on mechanical ventilation, inclusive of hemodynamic monitoring, ventilator waveform interpretation, and pharmacological interventions for the ventilator patient as well as ventilation of the patient in the home. The course will conclude with a discussion on classification of mechanical ventilators and patient case studies. Prerequisite: RESP 2500, RESP 2630 and RESP 2450. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

RESP 2630 Respiratory Pediatrics & Neonatology 3 cr.

This course emphasizes neonatal and pediatric care, focusing on neonatal and pediatric pulmonary physiology and disease. Prerequisite: RESP 1100, RESP 1210, RESP 1250, RESP 1330, and RESP 1350. Co-Requisite: None. Lecture: 2, Lab: 3. ♦

RESP 2700 Assessment of Pulmonary Function 2 cr.

Advanced pulmonary physiology and pathology related to pulmonary function, test interpretation emphasizing performance of testing protocols, interpretation of results, equipment maintenance and quality assurance, computer applications, special procedures, and pulmonary function calculations and math. Prerequisite: RESP 2510 and RESP 2600. Co-Requisite: None. Lecture: 2, Lab: 0. ♦

RESP 2730 Pulmonary Rehabilitation & Subspecialities 2 cr.

This course encompasses areas of Respiratory Care that are considered subspecialties such as Hyperbaric Oxygen, Thoracic Imaging, Bronchoscopy, Cardiac/Pulmonary Rehabilitation, Alternative Respiratory Care sites/Home Care, Respiratory care administration, responsibilities and basic math with common equations used in respiratory care. Prerequisite: RESP 2510 and RESP 2600. Co-Requisite: None. Lecture: 2, Lab: 0. ♦

RESP 2750 Clinical Practice IV 2 cr.

Final experiences in the practical application of Respiratory Care. The student will be assigned specific areas of clinical experience in: Pulmonary Function, Pulmonary Rehabilitation, Sleep Lab, Home care, and Neonatal and Pediatric Intensive Care. During this semester the student will also be assigned to sites outside of the acute care hospital for clinical experience. The student will also apply various modes of mechanical ventilation to adult patients in the hospital setting. Prerequisite: RESP 2600, RESP 2510, RESP 2550, and RESP 2460. Co-Requisite: None. Lecture: 0, Lab: 15. ♦

RESP 2800 Cardiology and Hemodynamic Monitoring 2 cr.

This course encompasses areas of Respiratory Care Hemodynamic Monitoring in critical care and cardiology. Prerequisite: RESP 2510 and RESP 2600. Co-Requisite: None. Lecture: 2, Lab: 0. ♦

RESP 2990 Respiratory Capstone 3 cr.

This course is a summative course in which several summative evaluations (knowledge & affective domains) are performed prior to graduation. It includes ongoing education in professionalism and is focused on preparation for the NBRC board exams after graduation. Prerequisite: ENGL 1510. Co-Requisite: None. Lecture: 3, Lab: 0. ♦

SOCIAL SERVICES TECHNOLOGY (SOSV)

SOSV 1005 SOSV First Year Experience Seminar 1 cr.

This course is designed to help the social services student make an effortless and successful transition to Washington State College of Ohio. Students are introduced into the mission of the profession of social work practice, current and anticipated socioeconomic and cultural conditions and emerging research findings. The social services student will identify social work skills and competencies that are consistent with the social work profession, its core values and ethics. Students will recognize that education extends far beyond what takes place within the classroom and also includes the extracurricular life of the community college as well as the experience as a practicum student representing Washington State College of Ohio. Prerequisite: None. Co-Requisite: None. Lecture: 1, Lab: 0.

SOSV 1110 Introduction to Social Work & Social Welfare 3 cr.

Introduces social services through examination of social problems, community resources, and practice methods from both historical and contemporary perspectives. Discusses professional roles of generalist social work practice. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS029.

SOSV 1130 Generalist Practice 3 cr.

Generalist Practice emphasizes the importance of the interpersonal relationship between worker and client. It provides an introduction to the fundamental concepts, principles, and skills of social work practice. This course is intended to introduce students to beginning knowledge, values and skills of social work practice from a generalist

perspective and provide a foundation for subsequent elective courses and the practicum experience. The course content includes an introduction to roles, tasks, and functions of the generalist practitioner, knowledge and value bases of practice, problem-solving processes using various methods and strategies of intervention. Prerequisite: SOSV 1005 and SOSV 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 1140 American Social Welfare Institution 3 cr.
A general overview of the nature of social welfare as a social institution. The course will focus on social welfare acts, historical development of programs and services, value and diversity orientation, issues in social policy and the emergence of social work as a profession. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS030.

SOSV 1150 Introduction to Theories of Addiction 3 cr.
Explores the process through which individuals develop addictions. Covers similarities between particular addictive behaviors and examines the common effects of addiction on family life and society. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 1680 Social Service and the Law 3 cr.
Study of basic legal concepts and procedures as they affect social service policies, practices and service delivery. Develops legal understanding necessary to guide social service workers through the complications encountered in a profession increasingly regulated by law. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 2100 Crisis Intervention 3 cr.
Designed to acquaint the student with practical strategies of crisis intervention and the knowledge and skills needed to deal with these situations. Prerequisite: SOSV 1005 and SOSV 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 2110 Family Intervention 3 cr.
The purpose of this course is to introduce family, systems, and relational therapies to the worker client relationship. The intent is to provide an overview of theoretical concepts and intervention strategies associated with systemic and post-modern theories of family therapy. To understand and practice family therapy concepts it requires an epistemological shift from individual to relational thinking. Therefore, the focus of this course will be on examining how we construct reality and think in ways that facilitate interventions with couples, families, and organizational systems. Prerequisite: SOSV 1005 and SOSV 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 2120 Gerontology 3 cr.
Study of gerontology with emphasis on the ways in which social structures and institutions help to shape our concepts of the aging process. The behavior patterns of aging, the effects of the aging process on health, problems related to aged persons and a consideration of appropriate worker roles will be studied. Prerequisite: SOSV 1005 and SOSV 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 2150 Domestic Violence 3 cr.
Introduces key issues of domestic violence and evaluates policy responses of public and private criminal justice and social services. Assessment of intervention methods and measures that can be taken to prevent abusive behavior. Prerequisite: SOSV 1005 and SOSV 1110. Co-Requisite: None. Lecture: 3, Lab: 0.

SOSV 2160 Social Services Practicum & Seminar I 2 cr.
Under the direction of the college faculty, the student participates in a one-hour weekly review and assessment of the work experience as related to the practicum situation. Input from the agency supervisor will be used as an integral part of this weekly review. This course provides a practical, field-based experience of 112 hours in a social work setting. This experience may be arranged with supervision coordinated through the practicum course instructor and an on-site supervisor. Prerequisite: None. Co-Requisite: None. Lecture 1, Lab: 7. ♦

SOSV 2170 Social Services Practicum & Seminar II 2 cr.
This is a continuation of SOSV 2160. Under the direction of the college faculty, the student participates in a one-hour weekly review and assessment of the work experience as related to the practicum situation. Input from the agency supervisor will be used as an integral part of this weekly review. This course provides a practical, field-based experience of 112 hours in a social work setting. This experience may be arranged with supervision coordinated through the practicum course instructor and an on-site supervisor. Prerequisite: SOSV 2160. Co-Requisite: None. Lecture: 1, Lab: 7. ♦

SOCIOLOGY (SOCI)

SOCI 1010 Introduction to Sociology 3 cr. TM-S
Introduction to the nature of human society and its development. Covers fundamental concepts and ideas: culture, personality, socialization, social organization, groups, and institutions. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS021.

SOCI 2010 Social Problems 3 cr. TM-S
Sociological perspectives on social problems, including: crime, sexual inequality, racism, drug and alcohol, mental illness, unemployment and poverty. Prerequisite: SOCI 1010. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OSS025.

SOCI 2250 The Sociology of Race and Ethnic Relations in America 3 cr. TM-S

Social, economic and political survey of America's diverse racial, ethnic and religious groups; immigration and residential patterns; subcultural characteristics and histories of the groups in the United States. Special attention to African-Americans, Asian-Americans, Native Americans and Latino peoples. Prerequisite: SOCI 1010. Co-Requisite: None. Lecture: 3, Lab: 0. TAG-OSS024.

SOCI 2300 Introduction to Criminology 3 cr.

Introduction to major concepts, theories and empirical data that make up criminology and corrections. Emphasis on types and rates of crime, definitions of criminal deviance, explanations of criminal behavior, jails/prisons and community programs. Prerequisite: CRJU 1010 or SOCI 1010. Co-Requisite: None. Lecture: 3, Lab: 0.

SPANISH (SPAN)

SPAN 1110 Beginning Spanish I 3 cr.

Development of comprehension, speaking, reading, and basic writing skills through grammar exercises, oral and written communication activities, and on-line work. Beginning course of a 2 semester, first year sequence. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

SPAN 1130 Beginning Spanish II 3 cr.

Continuation of basic skills in Spanish. Prerequisite: SPAN 1110 or 1 year high school Spanish. Co-Requisite: None. Lecture: 3, Lab: 0.

SPAN 2110 Advanced Spanish 3 cr.

First course of a 2-semester intermediate level sequence. Continued study of advanced concepts of Spanish grammar; includes readings, discussions and compositions in Spanish, as well as cultural material. Prerequisite: SPAN 1130 or 2-3 years high school Spanish. Co-Requisite: None. Lecture: 3, Lab: 0.

SPAN 2130 Conversational Spanish 3 cr.

Continued review. Emphasis on advanced grammar concepts, advanced oral and written communication in Spanish. Cultural material and selected readings of Spanish & Latino dramatists, poets, & novelists with discussion and analysis in Spanish. Prerequisite: SPAN 2110 or 3-4 years high school Spanish. Co-Requisite: None. Lecture: 3, Lab: 0.

SPEECH (SPCH)

SPCH 1510 Speech 3 cr. TM-C

Introduces students to both the general principles of communication and the specific process involved in the preparation and presentation of informative and persuasive one-to-many messages. Online students are required to provide an audience for their presentations. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OCM013.

SPCH 2060 Interpersonal Communication 3 cr.

Focuses on such factors as gender, age, and social position as they influence the most common form of human communication: the dyadic encounter. Discussion topics include: perception; self-concept; nonverbal cues; verbal codes; listening skills; and, conflict management techniques. The course also examines the basic stages in significant interpersonal relationships involving family, friends, and intimates. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0. TAG: OCM002.

SPCH 2500 Cross Cultural Communication 3 cr.

Examines the communication issues associated with transactions between people from different cultures. Discussions focus on differences in perception and cognitive patters; value systems and hierarchies; and, symbolic meaning as expressed through various verbal codes and nonverbal cues. The issues of ethnocentrism and conflict management are also considered. Prerequisite: SOCI 1010 or SPCH 1510 or SPCH 2060. Co-Requisite: None. Lecture: 3, Lab: 0.

THEATRE (THEA)

THEA 1200 Introduction to Theatre 3 cr. TM-H

Overview of theatre as an art form. Includes historical and production points of view. Students will effectively view and critique plays and musicals. Writing intensive course. Prerequisite: None. Co-Requisite: None. Lecture: 3, Lab: 0.

WELDING (WELD)

WELD 1232 Industrial Welding 3 cr.

This course will instruct students on safety and welding shop and in the field. Proper personal protective equipment used in welding and cutting. Proper use of hand tools. Oxy/Acetylene safety and set-up and plasma safety and set-up. Various cutting processes OFC, PAC and different welding processes OFW, SMAW, and GMAW used with proper safety and equipment set-up. Different variables and filler metal explained for each process will be discussed. Demonstrations using virtual welder in GMAW and SMAW. Safety in the lab will be highly stressed in this course. Prerequisite: None. Co-Requisite: None. Lecture: 1; Lab: 4. ♦

WSCO FACULTY

FULL-TIME FACULTY

Name	Credentials
Anderson, Jill	MA, State University of New York, BA, Hollins University
Barrows, Roxane	MS, Ohio University; BS, The Ohio State University
Carpenter, Christopher	MEd, Post University; BSAST, Thomas Edison State University; AA, Coastline Community College; US Navy Specialized
Chandler, Brittany	BSN, Ohio University; ADN, Ohio University - Zanesville; LPN, Mid East Career and Technology
Collins, Sarah	MSN, Gonzaga University; BSN, University of Northern Colorado
Covert, Micah	Ed.D., University of Dayton; MBA, Ohio Dominican University; BA, Ohio University
Garcia, Laura	MA, West Virginia University; BA, Wheeling Jesuit College
Gater, Christina	MBA, Franklin University; BS, Franklin University; AA, Hocking College
Godfrey, Donhnall	MA, Goldsmith University; BA, Marietta College
Graham, Kelsie	MA, Bowling Green State University; BS, Marietta College
Graham, David	PhD, Purdue University; MA, Bowling Green State University; BA, Marietta College
Harlow, Stephanie	MSCJ, Tiffin University; BCJ, Ohio University; AAS, Washington State Community College
Hedges, Melissa	BA, Wright State University; AAS, Marion Technical College
Hellinger, Adrienne	MHA, Capella University; BS, Muskingum University; AAS, Washington State Community College
Hendrix, Keshia	BSN, Ohio University; ADN, Washington State Community College
Hill, Rachelle	BSN, Ohio University; ADN, Hocking Technical College; LPN, Washington State Community College
Holley, Joshua	MS, South Dakota State University; BS, Ohio University
Johnson, Paula	MEd, Marietta College; BS, Marietta College
Kimble, Katherine	MLS (ASCP)cm; BS, West Virginia University
Kramer, Kelly	BSN, Ohio University; AAS, Northeastern Oklahoma A&M College
Krider, Jacqulyn	BS Ohio University; AAS, Washington State Community College; Certification in Massage Therapy, Washington State Community College; Licensed Physical Therapist
Kurtz, Mary	RHIT, SHRM-CP; BA, Malone College; AAS, Stark State College
Lerch, Kelsey	MS, Case Western Reserve University; BS, Marietta College
Manley, Christina	RHIT, MA.Ed., Mount Vernon Nazarene University; BS, University of Cincinnati; BS, The Ohio State University; AAS, Marion Technical College
Marasco, Christine	BSN, Ohio University; AAS, Washington State Community College
McKeny, Timothy	PhD, The Ohio State University; MA, Marshall University; BA, Marshall University
Merritt, Brad	MBA, Ohio University; MA, Ohio University; BA, Marietta College
Mincks, Tawni	DNP, Walsh University; MSN, Walsh University; BSN, Ohio University; AAS, Washington State Community College
Mosberg, Sarah	MSN, Saint Louis University; BSN, Muskingum University; AAS, Washington State Community College; LPN, Wood County School of Practical Nursing
Osborne, Christopher	MS, East Tennessee State University; BS, Radford University; AAS, Southwest Virginia Community College
Paslay, Paul	MS, Pennsylvania State University; BS, Marietta College
Penich, Jessie	MS, University of Pittsburg; BS, Saint Vincent College
Perry, Michael	AAS, Washington State Community College
Riley, Mark	MEd, Ohio University; BS, Ohio University
Rupp, Nancy	tDPT, EIM Institute of Health Professions: Neurorecovery Training Institute; BS, Grand Valley State University
Salyers, Kim	PTA, EdD, American College of Education; MA, University of Phoenix, BS, Ohio Valley University; AAS, Central Ohio Technical College
Santini, Lexie	MA, University of North Dakota; BA, Ohio University
Schaad, Tricia	MSN, Otterbein College; BSN, Mt. Carmel College
Schneider, Chad	Ph.D., The Ohio State University; MA, University of Illinois; BA, The Ohio State University
Senderak, Susan	PhD, Capella University; MSN, Regis University; BSN, Loyola University
Shields, Thomas	ASE Master Automobile Technician Certification
Singree, Shirley	MS, Ohio University; BS, Rio Grande College; AAS, Washington State Community College
Smith, Stacy	MS, Walden University; MSW, West Virginia University; BA, West Virginia University
Smith, Gary	ASE Automobile Technician Certification, ASE Master Engine Machinist Certification, NOCTI Automotive Technician Certification, MACS Refrigerant Recycling & Services Procedures Certification
Tamm, Andrea	MSN, Grand Canyon University; BSN, Fairmont State University
Temesvary, Steve	MHA, MLS(ASCP)cm Ohio University; BS, Marietta College; AAS, Washington State Community College
Thompson, Jessica	MSN, Northern Kentucky University; BSN, Ohio University; ADN, Hocking Technical College
Veladota, Christina	PhD, Ohio University; MFA, University of North Carolina; BFA, Emerson College
Voldness, Jared	MS, Ohio University, BS, Bowling Green State University
Webster, Valerie	Ed. S., University of Toledo; MBA, University of Rio Grande; BS, University of Rio Grande
West, Madison	MSN & MBA, Indiana Wesleyan University; BSN, Ohio University; ADN, Ohio University; LPN Mid East Career and Technology Center
Worthington, Regina "Annie"	MHA, Capella University; BSN, Ohio University; AAS, Washington State Community College
York, James	MS, Ohio University; BS, Purdue University