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You Think!



**GUARANTEED  
EDUCATION**

Academic Catalog 2007-2008

**N**orthwest State  
Community College



# Northwest State Community College

## Mission:

**To Serve** by Creating Opportunities which maximize the potential of individuals, communities and organizations through transformational learning.

## Vision:

Serving as a beacon of leadership, Northwest State Community College will be a gateway, its people the keystone, to a sustainable future.

## Call to Service:

To be an innovative leader providing **access** to those who seek to learn.

To be committed to the **development of human potential**.

To be a leader and partner in **economic and community development**.

To be a skillful **steward of resources** accountable to our varied stakeholders.

Northwest State Community College is accredited by:

The Higher Learning Commission  
30 North La Salle Street, Suite 2400  
Chicago, IL 60602-2504  
312-263-0456

[www.ncahigherlearningcommission.org](http://www.ncahigherlearningcommission.org)



## President's Welcome

Dr. Betty Young, President

Greetings from Northwest State Community College, a college steeped in a tradition of innovation and excellence. At NSCC it's about careers and opportunities! The faculty and staff are committed to student success and committed to serving students as they seek to maximize their potential through higher education and training.

At NSCC opportunities come in many forms, the Applied Associate Degrees, Associate of Arts, and Associate of Science Degrees, pathways to careers and to the Bachelors Degree which NSCC makes available through College and University partnerships. There are opportunities for certificate programs, licensure preparation and certification in various fields, continuing education for professional development and personal interest. NSCC also offers businesses and industries in the region specialized and customized training for their workforce.

The NSCC college experience is affordable, class schedules are flexible and there are many campus activities to enrich your total experience. Whether you are entering college directly from high school or returning to college later in life NSCC is the first choice for a student looking for a relevant curriculum that can transform their life.



## Chairman's Welcome

Steven Lankenau, Chair

On behalf of the Board of Trustees and the College, we welcome you to Northwest State Community College.

Whether you are continuing your education, looking for challenging and engaging courses, or improving your current job skills, we invite you to consider Northwest State Community College.

Try to imagine all the individuals who have succeeded after graduating from NSCC. You are following in the footsteps of these individuals. You too have the opportunity to succeed by attending one of the fastest growing two-year schools in the state of Ohio. When you tour our campus you quickly discover that our faculty, staff, and administration care about your success. Our people and our facilities provide the environment, the curriculum, the technical support, and state of the art equipment to meet the highest academic standards for student success.

We welcome the opportunity to serve you. Thank you for your decision to fulfill your educational needs at Northwest State Community College.

# Northwest State Community College

2007 - 2008

Northwest State Community College is a state-supported, public, two-year college which awards the following degrees:

ASSOCIATE OF APPLIED BUSINESS (AAB)  
ASSOCIATE OF APPLIED SCIENCE (AAS)  
ASSOCIATE OF ARTS (AA)  
ASSOCIATE OF INDIVIDUALIZED STUDIES (AIS)+  
ASSOCIATE OF SCIENCE (AS)  
ASSOCIATE OF TECHNICAL STUDIES (ATS)  
The College also awards certificates in many programs.

## Academic programs include:

### ARTS & SCIENCES

Associate of Arts, Associate of Science, Historic Preservation (Pending Approval),  
Transfer Module, Undecided

### BUSINESS TECHNOLOGIES

Pre-Business Administration  
Accounting, Accounting Assistant\*, Entrepreneurship,  
Business Management, International/Global Business,  
Banking/Finance, Marketing/Retailing, Real Estate\*, Straight Truck Transportation, Tractor Trailer Transportation,  
Computer Programming, Network Administration, Computer Operator\*, Web Site Management, Office Administration, Medical  
Support, Office Assistant\*, Paralegal, Visual Communications

### ENGINEERING TECHNOLOGIES

Automation & Controls, CAD\*, CAD/CAM, Mechanical Engineering Technology  
Quality Control, HVAC-R Climate Control\*, Industrial Management Technology  
Industrial Maintenance, Machining\*, Machining CNC Programming  
Industrial Electrician, Industrial Electrical\*, Millwright, Millwright\* Programmable Controller\*  
Maintenance Technician/Mechatronics, Plastics Engineering Technology  
Associate of Technical Studies, Plastics Machine Maintenance, (ATS Degree - Type A)

### HEALTH AND HUMAN SERVICES

Child & Family Specialist, Early Childhood Pre-Kindergarten  
Early Childhood Program Administration, Paraprofessional Educator (Proposed)  
Human Services, Corrections, Probation & Parole, Computer Crimes & Investigation, Law Enforcement  
Law Enforcement - Academy Option, Associate Degree Nursing (R.N.), Practical Nursing (P.N.)  
Nursing Advanced Standing, (LPN to RN Transition), EMS\*, Medical Assistant (Proposed)

*\*One-year Certificate Programs leading to Associate Degrees*

Northwest State Community College is an affirmative action, equal opportunity employer and educator that does not discriminate on the basis of race, color, national origin, religion, disability, sex, or age. In accordance with the Americans with Disabilities Act, it is the policy of Northwest State Community College to provide reasonable accommodations to persons with disabilities.

For further information contact: **Northwest State Community College 22600 State Route 34 Archbold, Ohio 43502-9542**

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*Any information contained in this catalog is subject to change whenever the College deems it necessary so that the most current trends in technology, education, and the economy can be addressed. Students are advised to consult with their academic advisor or the appropriate College official for current policies, procedures, or requirements.*

# College History

2007 - 2008

## A Progressive History

Northwest State Community College is located in the last region of the Buckeye State to be claimed by settlers. In the quarter century since the Ohio Board of Regents approved the formation of the Four County Technical Institute, this community-serving institution has progressed steadily into the future, discovering and meeting the diverse and ever-changing needs of Defiance, Fulton, Henry, Paulding, and Williams Counties.

Studies in 1966 and again in 1967 established that a need for technical education existed and would grow in Northwest Ohio. Consequently, in 1968, the Ohio Board of Regents approved the formation of Four County Technical Institute, and classes began in September, 1969, in the west wing of the Four County Joint Vocational School. In 1972, Northwest Technical College moved into its own building. The change made it possible to accommodate 600 daytime students with laboratories, general classrooms, a large meeting room, commons, student services area, and library.

In addition, Phase II of the College Master Plan in 1987 nearly doubled the size and capacity of the College. An open atrium became the link between the renovated original structure and the new wings. The Business Technology occupies the "B" wing, with those rooms available to other courses as needed. Student services, food services, an attractive conference room, and an exercise area are housed in the "C" wing. Another building, the Child Development Center, opened in the fall of 1991. As the State Community College status brings about growth, additional building has taken place on the present 80-acre site.

In January 2002, a new 12,000 square foot Technology Training Center was opened, which includes 5 technical labs that support the Plastics, Industrial Electrical, and CAD Technologies.

## Accreditations and Approvals

Northwest State Community College takes pride in its accreditation by The Higher Learning Commission and a member of the North Central Association of Colleges and Schools.

Professional approval and/or accreditations are given for quality programs. Many of the majors at Northwest State Community College have received this distinction.

The Human Services students who successfully have completed this major can apply for State of Ohio Counselor and Social Worker Board for Social Work Assistant.

The Early Childhood Education major is approved by the Ohio Department of Education for Pre-Kindergarten Associate certification.

The Associate Degree Nursing program is approved by the Ohio Board of Nursing and accredited by the National League for Nursing Accrediting Commission, 61 Broadway 33rd Floor, New York, NY 10006, (800) 669-1656, ext. 153.

The Practical Nursing program is approved by the Ohio Board of Nursing.

The Electrical Engineering Technology Program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering Technology. Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202 Telephone (410) 347-7700.

The Metalworking Program is designed to meet the quality requirements set by the National Institute for Metalworking (NIMS).

The Business Technologies are accredited by the Association of Collegiate Business Schools and Programs. ACBSP, 7007 College Blvd., Suite 420, Overland Park, KS 66211, (913) 339-9356.

## Affiliations and Memberships

Northwest State Community College maintains memberships in national, regional, and local professional organizations including League for Innovation in Community Colleges, North Central Association, Ohio Association of Community Colleges, Better Business Bureau, National Association of Student Financial Aid Officers, Ohio Association of Student Financial Aid Officers, College Placement Council, Henry/Fulton JSEC, Ohio Association of College Admissions Counselors, Ohio Two-Year Placement Association, Educators in College Helping Hispanics Onward, Ohio Council on Student Development, National Association of College Admission Counseling (NACAC), National Council of Instructional Administrators, Association of Collegiate Business Schools and Programs, Midwest Institute for International/Intercultural Education, Ohio Association of Collegiate Registrars and Admissions Officers, Ohio Association of Two-Year Colleges, Council of Chief Instructional Officers, American Association of Community Colleges, National League for Nursing, Midwest Alliance in Nursing, Council of North Central Two-Year Colleges, and the following local Chambers of Commerce: Napoleon/Henry County, Archbold, Paulding, Wauseon, Bryan, Delta, and Defiance, American Association of Collegiate Registrars and Admissions Officers.

## NSCC Mission:

**To serve**, by creating opportunities which maximize the potential of individuals, communities, and organizations through transformational learning.

## Vision:

Serving as a beacon of leadership, Northwest State Community College will be a gateway, its people the keystone to a sustainable future.

## Institutional Learning Outcomes

Students earning associate degrees from Northwest State Community College should demonstrate:

1. Critical thinking skills, through comprehending the implications of problems, drawing on appropriate evidence, and constructing well-reasoned conclusions.
2. Communication skills, through reading comprehensions and effective writing.
3. Computation skills, through performance of basic algebraic manipulations and problem solving.
4. Teamwork skills, through interacting constructively with others to accomplish goals.

## NSCC - Call to Service:

- To be an innovative leader providing **access** to those who seek to learn.
- To be committed to the **development of human potential**.
- To be a leader and partner in **economic and community development**.
- To be a skillful **steward of resources** accountable to our varied stakeholders.

# Academic Support Services

2007 - 2008

## Cooperative Education

Cooperative Education at Northwest State Community College combines practical work experience with the academic program. This combination of academic learning and related on-the-job training can create an excellent learning environment for the student. The student can earn both wages and college credit for work experience. If the student is already employed in their field of study, the Co-op program may allow him/her to receive college credit for the work the student is currently doing.

Co-op is available to students enrolled in the Business Technologies Department and the Engineering Technologies Department. For more information about the Cooperative Education program contact Career Services at 419-267-1330 or an advisor in the appropriate academic division.

## Success Center

Student success is a priority at Northwest State Community College (NSCC). The Success Center (SC) is designed to enhance NSCC students' success by providing the staff, facilities, and resources necessary to support and empower students' ability to achieve their potential. Students are encouraged to use the SC services and resources, as all are free of charge and easily accessible. The SC desk is located on the first floor in Building A just outside the east entrance doors of the library and is open during most daytime and evening hours Monday through Thursday and during the day on Friday. The SC tutoring service offers free assistance to students experiencing difficulty with a course despite regular attendance and hard work. Students interested in receiving tutoring services are encouraged to come to the SC and request assistance. Qualified students are encouraged to become tutors, who are paid by the College. Applications are available at the SC desk.

The SC houses a Math Lab, a Writing Lab, Tutoring Services, Accessibility Services, and ABLE (Adult Basic Literacy Education/GED classes). The SC labs consist of user-friendly computers with Internet access and laser printing. The computers contain easy-to-learn word processing programs and desktop publishing applications, as well as other applications that enable students to produce papers efficiently.

The SC labs also offer a wide range of software, audio cassette/workbook programs, videos, and supplementary textbooks to reinforce material covered in NSCC courses. These self-paced and easy-to-use tutorials are available for many topics in mathematics, English, reading and study skills, accounting, keyboarding, physical and life sciences, computer literacy, economics, and other areas.

Accessibility services are provided for students with disabilities who desire assistance. Any student who wishes to investigate available college resources should first meet with the Success Center Supervisor or the Accessibility Services Coordinator. To be qualified for assistance regarding a disability, a student will need to provide recent documentation of the disability. For more specific information regarding the procedure for obtaining assistance, please see the Accessibility Services section on this page.

## Developmental Courses

Refresher courses are offered in reading, writing, and mathematics for students who need or desire preparation for college-level studies. These courses may be required on the basis of Compass Assessment scores or elected by students. Students with questions regarding their need for these courses should consult with the Testing Office or the Success Center for clarification. Please see the Course Description section of this catalog for more details.

## Accessibility Services

A student with a disability may obtain assistance to help achieve his or her educational goals. Any student who wishes to investigate available college resources should first meet with the Success Center Supervisor or the Accessibility Services Coordinator. To be qualified for assistance regarding a disability, a student will need to provide recent documentation of the disability. Documentation should be sent at least three months prior to his or her semester start date or as soon as possible.

Upon delivery of documentation, each student is expected to:

1. Schedule an assessment and orientation appointment and meet with the Accessibility Services Coordinator to discuss and establish a plan for reasonable accommodations.
2. Apply for auditory books and other aids as necessary.
3. Schedule an advising session with the Dean of General Studies.
4. Notify instructors of the disability and discuss what accommodations will be beneficial prior to the first week of class.
5. Make arrangements with instructors and Success Center Supervisor for testing accommodations.

Individuals with hearing disabilities who need interpretive services must contact the Success Center Supervisor three months prior to their starting date in order to guarantee allocation of funds and qualified interpreters. No student will have his or her requests met until an academic plan is established with the Success Center Supervisor.

## Guaranteed Education Policy (GEP)

Because Northwest State Community College believes in the strength and integrity of its educational programs, the College Board of Trustees is offering a two-year academic guarantee to its students, their employers, and education transfer institutions.

If within two years of a student's graduation, the employer or receiving institution deems the student's performance to be unsatisfactory, the college will offer a tuition scholarship to repeat the coursework. The waiver will be for courses where the student did not meet the expectations of the employer or the receiving institution. (This guarantee will become effective for the Spring 2006 graduates.)

## How to enact guarantee:

- The employer or receiving institution must submit a letter indicating their lack of satisfaction expressing the following: specific knowledge and/or skills not demonstrated details to assist in assessing student's deficiencies, and details to assist in course improvement. Letters will be addressed and sent to the Chief Learning Officer.
- The referred student/employer or receiving institution will be contacted by the Chief Learning Officer to facilitate registration for the course or arrange other remediation or additional course content on a case-by-case basis.
- Students will not be limited as to how many classes they will be permitted to repeat or how many times they may need to repeat a course. The limiting factor is the 2 years past graduation.

# Student Support Services

2007 - 2008

## Library Resource Center

The Library has many services available for students: a book and print journal collection, DVD and video collection, access to other Ohio college collections through OhioLINK, individual and group study space, and interlibrary loan service. A student I.D. card is needed for checking out materials. For more information call (419) 267-1272.

Additionally, the following services are available to enhance student research:

- Statewide access to over 90 libraries in the state of Ohio
- Electronic delivery of full-text journal articles
- 90+ research databases on a variety of subjects
- Personalized research assistance on request

## Career Services

The Career Services Office assists students in the job search process while they are attending Northwest State Community College and when they are ready to graduate and gain professional employment. In addition to sharing employment listings with the students, the Career Services Office offers workshops and individual assistance with resume development, interviewing skills and job search concerns. These services are also available to Northwest State Alumni. Listings of part-time and full-time positions are also available for currently enrolled students who are looking for employment, throughout the campus on bulletin boards and on our HOMEPAGE.

The following services are offered:

- Electronic resume referral service thru Web Walk-Up
- Job Search Workshops
- Full-time, part-time, Co-op and Summer Job Listings.
- Career Futures & Choices CT, a computerized career guidance system, is offered free of charge in a workshop setting, two or three times a month.
- A wide range of career material is also available in our Career Services Offices as well as the college library.

## Counseling and Guidance

Students are encouraged to utilize the available professional counseling services offered at Northwest State. The counseling staff will assist students with educational and occupational planning, or personal problems that may affect academic progress while at the College. For ongoing personal counseling needs, referral counseling is also available through the Student Services Office.

## Child Development Center

Quality care for children ages 18 months to kindergarten is available at Northwest State Community College through Northwest Ohio Community Action Committee. This facility strives to meet the social, emotional, physical, mental and creative needs of each child trusted to its care. The center also serves as a clinical site for the college's Early Childhood Development and Paraprofessional Educational programs.

You can schedule care for your children at the center by calling 419-267-5188. The center is open year round from 6:00 am to 6:00 pm, Monday -Friday.

## Student Activities

All students are encouraged to participate in extracurricular activities. Student Body Organization officers and members plan and supervise an ongoing calendar of activities.

In addition to social functions such as entertainment and parties, recreational activities are also sponsored. Intramurals consist of basketball, soccer, volleyball, bowling, ping-pong, flag football, and pool. Other planned recreational activities include a variety of on-and-off campus events, such as bowling, chili cook-off, spring fling, karaoke, ice cream social and spring break trips to Florida.

Other special interest clubs, such as Phi Theta Kappa, Progressive Student Organization (PSO), and Campus Crusade for Christ (CCC) offer other opportunities for student involvement.

## Food Service

The Snack Bar is located on the first floor of the A Building. It features noon specials along with ala carte items in the "Grab & Go" section. It is also opened for dinner for those who have late afternoon or night classes. You can also make a choice at the Courtyard Corner in the Atrium. It has a breakfast menu along with noon specials to satisfy any hungry appetite.

## Bookstore

For the convenience of the students, a well-stocked bookstore is available on campus. In addition to textbooks, other supplies and materials, clothing items, snacks, and a limited food service are available. The cost of books and supplies is separate from, and in addition to, instructional fees.

## Student Facilities & Services

The fitness room is for use of students & employees of Northwest State Community College - Fitness Room - C105

M - TH 7:30 am - 10:00 pm

Friday 7:30 am - 3:30 pm

Saturday 8:00 am - Noon

Game Area - Atrium; Food Court - A Wing;

Shower and Locker Rooms - Women's - C108, Men's - C109

Non-Traditional Student Lounge - A248

## Student Insurance

A health insurance plan is available for full-time students on a voluntary basis. For a reasonable rate, students are covered 24 hours a day for 12 months. Information is available in the Student Services Office.

# Student Support Services

2007 - 2008

## Student Organizations

**Campus Crusade for Christ** - A Christian organization open to all students and College staff wanting to explore Bible study and other related activities.

**Progressive Student** - The Progressive Student Organization is a social action group that is devoted to bringing attention and raising awareness about some of the pressing social issues in our society and community. We do this through educational activities or engaging in projects that help the local community.

**Phi Theta Kappa** - An honors and service organization for students attaining a 3.5 GPA after completing 18 or more credit hours. Students are invited to become members and provide letters of recommendation from faculty.

**Education for Sustainability (E4S) Student Group** - An organization of faculty, staff and students interested in environmental issues. Help is always needed to set up recycling boxes, empty recycling boxes, and to suggest and study ways NSCC can contribute to a cleaner environment.

## International Club

During the fall 2001 semester, an international club was organized. During the academic year the members traveled to various social and cultural events as well as participated in many of the NSCC campus activities.

## Student Body Organization (S.B.O.)

S.B.O is the representative student government at Northwest State Community College. This group is responsible for promoting academic, cultural, recreational, and social activities for students. Elected officers and student members coordinate, plan, and execute activities, policies, regulations affecting the general student body. Membership is open to all students. Regular meetings are held at which all students have a voice and a vote in the conduct of business. Students are also represented on various standing committees of the College.

## Student Lockers

Atrium and fitness room lockers can be rented through the Student Activities Office. Rental by the semester or the entire academic year is available on a first-come-first-serve basis.

- In case of a campus emergency, authorized College and/or emergency personnel may open these lockers.

## Student Photo I.D. Cards

All students are required to have picture I.D. cards. These cards are used to identify NSCC students for student activities such as the ice cream social and bowling night. Additionally, these cards will have the ability to be scanned for use in the library, bookstore, cafeteria, and the snack bar. There is no charge for these cards. If you lose your card, additional replacements will cost \$5.00. Photo I.D.s are available through the Campus Police Department.

## Academic Advising

NSCC prides itself on the personal attention it gives each of its students. One procedure we follow to enhance this attention is to make sure that all students are assigned an academic advisor to help them in the pursuit of their degrees.

Advisors are available to answer any questions you may have regarding class schedules or other College policies and procedures.

## Transfer Degrees

Through articulation agreements with four-year colleges and universities in the area, Northwest State Community College has developed transfer degrees/programs to provide students the opportunity to complete the first two years at Northwest State and then transfer to a college or university to complete the last two years of a baccalaureate degree. Bluffton College; Bowling Green State University; Defiance College; Franklin University; Lourdes College; Medical College of Ohio; and The University of Toledo are a few of the many options available to Northwest State Community College students. NSCC offers the Associate of Arts and the Associate of Science degrees for undecided transfer students.

Many students have found that tuition and fees at Northwest State are less than those of four-year institutions. This, coupled with small classes and a low student-to-instructor ratio, makes NSCC an attractive alternative for students wishing to obtain the first two years of a bachelor's degree.

## Adverse Weather

Northwest State Community College will operate under the premise that it will be in session according to the College Calendar.

However, the president or designee will have the prerogative to close school under extenuating circumstances, and under such conditions, the students will not be expected to report.

Such closing will be announced over local radio and television stations and on the Northwest State Web Site. A recorded message will be placed on the college phone system. To activate this message, dial 419-267-5521.

# Admission Requirements

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Admission to Northwest State Community College is open to any high school graduate or holder of a high school equivalency statement (GED).

A non-high school graduate may be admitted upon presenting to the office of admissions evidence of the ability to satisfactorily complete college level work.

Some programs may have additional admission requirements.

The College requires testing for course placement purposes and, in certain instances, developmental coursework prior to enrolling in college-level courses.

You are not required to meet with an Admissions Counselor before you enroll at NSCC, but you may find it helpful. A counselor can suggest opportunities at the College you may not know about, can explain entrance requirements of the various programs, and can answer questions about how NSCC will help you reach your career goals.

## Mandatory Course Placement

Prior to registration, all degree or certificate seeking students are required to be evaluated or show evidence of successful completion of college-level coursework in math and English. An appointment is required for Compass Placement Assessment. Contact the Admissions Office at 419-267-1320 to schedule an assessment.

Students who receive a score of 95-100 on the COMPASS placement test may choose to complete a writing sample, administered by the testing coordinator, to qualify for placement into ENG112. The writing sample will be reviewed by full-time faculty members in the English department. If approved, the testing coordinator will notify the student of the following placement options available to them:

1. Take ENG111 and ENG112, or
2. Take ENG112 and either ENG210, ENG220, ENG223, ENG234, ENG250, ENG251, ENG260, ENG261, or ENG271. The second writing course will be substituted for ENG111, and cannot also be used to meet a Humanities requirement.

## New Student Orientation

All students enrolling at NSCC for the first time are encouraged to attend an orientation program. Orientations are held prior to the start of each semester. Call the Admissions Office at extension 320 for times and dates.

## Developmental Courses

Developmental courses are designed to refresh, upgrade and improve academic performance. These courses do not apply toward degree requirements. Students whose placement scores indicate a need for developmental courses may be limited to twelve credit hours until satisfactory ("S") academic status is achieved.

## Advanced Placement

Many area high schools have developed plans with NSCC allowing their students to receive college credit for certain high school technical courses. Additional information is available through high school guidance counselors or through our Admissions Office.

## Classification of Students

Applicants for admission to the College may elect one of the following student classifications:

**Degree Student** - A student who has indicated, at the time of application, the intent to study toward an associate degree and who has fulfilled all admission requirements.

**Certificate Student** - A student who has indicated, at the time of application, the intent to study toward a one-year certificate program and who has fulfilled all admission requirements.

**Non-Degree Student** - A student who has indicated, at the time of application, the intent to pursue selected courses.

**Early Admit Student** - Generally a high school student who has been recommended by his/her guidance counselor or principal to take college courses for credit.

**Post-Secondary Enrollment Option Student** - Senate Bill 140 allows high school students who have met special admissions criteria to take college courses and receive either college credit or high school credit for work successfully completed.

**Transfer Student** - Either a "degree" or "non-degree" student who has indicated, at the time of application, the interest to transfer selected general studies courses or a full degree program to a four-year bachelor's degree program. All students enrolling as transfer students should speak with a transfer counselor prior to registering for classes.

**Guest Student** - A student who is attending another institution of higher education and enters NSCC for specific courses which have been approved in writing by the other institution's vice president or registrar.

## College Math Proficiency Policy

All associate degree and certificate programs offered at Northwest State Community College require all graduates to demonstrate a minimum math proficiency at the level of MTH080 - Beginning Algebra. Proficiency can be demonstrated on the placement test at the time of entry, by passing a proficiency test, by successfully passing the course MTH080 - Beginning Algebra, or by being a recent high school graduate (within the last six years) and have taken two (2) or more high school algebra courses (not including any pre-algebra or geometry courses) with grades of "C" or better in each semester.

## Selective Service Registration

Federal law requires that males having reached the eligible age of eighteen, must register with the Selective Service System. Failure to provide proof of Selective Service registration will result in an additional out-of-state surcharge for the current semester. This surcharge will be waived only if proof of a Selective Service registration is received prior to the end of the semester. In addition, grades and transcripts will not be released without proof of registration, and Financial Aid eligibility may also be affected. Registration for a Selective Service number can be completed in one of two ways:

1. Applications are available at any Post Office. Complete the necessary forms and follow the procedures as outlined on the application.
2. Register on-line at [www.sss.gov](http://www.sss.gov). In many cases, the selective service number will be received instantly, instead of the 90 days it takes to complete the mail-in application procedure.

After applying for a number, eligible students should fill out a verification form in the Registrar's Office, and as soon as they receive their selective service number, submit it to the Registrar's Office for final documentation.

# Transfer Information

2007 - 2008

## Transfer Credit to NSCC

Transfer credit will be allowed for any previous courses in which a “C” or better grade was earned from a U.S. or Canadian regionally accredited institution of higher learning. International students may receive credit for coursework taken at foreign institutions of higher learning by:

1. Providing a Credential Evaluation Report from a credential evaluation service of the student’s choice (i.e. Educational Credential Evaluation, Inc., World Education Services, Josef Silney & Associates, etc.), or
2. A student may choose in lieu of providing a Credential Evaluation Report (officially translated transcript), to take proficiency examinations for any applicable coursework according to the College’s Proficiency Examinations (Credit by Examination) policy.

Credits transferred to NSCC will apply toward graduation only if they satisfy requirements for a particular major. Transfer credit not required by a particular major may be counted as additional hours completed.

Transfer credit may be awarded for courses in which a student received credit through a proficiency exam taken at another regionally accredited institution. Such credit will be given only if the transcript clearly indicates that credit was granted for the course at another institution. If the transcript simply indicates that a proficiency exam was taken but credit was not given for the course, Northwest State will not accept the proficiency as transfer credit.

Students may receive credit for courses taken at non-accredited institutions by successfully passing a proficiency examination, if one is available.

In order to be eligible for the associate degree at the College, at least thirty percent of the credits must have been earned at Northwest State Community College.

## State of Ohio Policy for Institutional Transfer

The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students’ ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. Since independent colleges or universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements.

## Transfer Module and Transfer Assurance Guides

The Ohio Board of Regents’ Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university’s general education program. The Transfer Module consists of 54 to 60 quarter hours or 36 to 40 semester hours of courses in the following areas: English, Mathematics, Arts and Humanities, Social and Behavioral Sciences, Natural and Physical Sciences, and Interdisciplinary Study.

A Transfer Module completed at one college or university will automatically meet the requirements of the Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution R (receiving institution) is said to have completed the Transfer Module portion of Institution R’s general education program. Institution R, however, may require additional general education courses beyond the Transfer Module.

Since many receiving institutions require general education courses within or beyond the Transfer Module, students are encouraged early in their academic careers to meet with an academic advisor at the institution to which they plan to transfer.

The Ohio Board of Regents has also approved Transfer Assurance Guides (TAGs) for several academic majors. Each TAG identifies

courses that are required for particular areas of study (for example, Biology, Education, and History four-year degrees). Students completing TAG-approved coursework will receive transfer credit at Ohio institutions that fulfill partial degree requirements for these majors. For more information on TAGs for specific fields of study, see the Ohio Board of Regents web site at [www.regents.state.oh.us](http://www.regents.state.oh.us)

## Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution’s major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

## Appeals Process

A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and of the process for filing the appeal **on the Transfer of Credit Evaluation form**. Each institution shall make available to students the appeal process for that specific college or university.

If a transfer student’s appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state-level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee shall review and recommend to institutions the resolutions of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability of transfer credits at receiving institutions.

## Conditions for Transfer Admission

The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better for all previous college-level courses.

The policy also encourages receiving institutions to give preferential treatment to students who have not earned an Associate of Arts or Associate of Science degree but who have earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college-level courses.

The policy further encourages that students who have not earned an Associate of Arts or Associate of Science degree or who have not earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses be eligible for admission as transfer students on a competitive basis.

## Acceptance of Transfer Credit

Students who have completed the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better will receive transfer credit for all college-level courses in which a grade of D or better has been earned.

Students who have not earned an Associate of Arts or Associate of Science degree will receive transfer credit only for those college level courses in which a grade of C or better has been earned.

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

# Financial Assistance

2007 - 2008

Financial aid occurs in many forms. In general, the amount of assistance that students may receive depends upon their established financial need. This need is determined by a financial statement provided by students and their families. Students should reapply for aid every year.

How to Apply:

Students apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA), the Renewal FAFSA, or FAFSA on the Web ([www.fafsa.ed.gov](http://www.fafsa.ed.gov)).

	<b>Programs</b>	<b>Type/Criteria</b>	<b>Application</b>	<b>Maximum Amount</b>	<b>Minimum Enrollemnt Status</b>
<b>Grants</b>	Academic Competitive Grant	Federal Grant/Need	FAFSA	\$750	Full-Time
	Federal Pell Grant	Federal Grant/Need	FAFSA	\$4,050/Year	Part-Time
	Federal SEOG Grant	Federal Grant/Need	FAFSA	Varies	Part-Time
	Ohio College Opportunity Grant	State Grant/Need	FAFSA	Varies	Part-Time Full-Time
	Ohio Instructional Grant	State Grant/Need	FAFSA	\$2,190/Year	Full-Time
	Part-Time Student Instructional Grant	State Grant/Need	FAFSA	Varies	Part-Time
<b>Scholarships</b>	Presidential	Academic 3.25 GPA & ACT score of 23	Scholarship Application	Full-Tuition	Full-Time
	Dean's	Academic 3.25 GPA	Scholarship Application	Half-Tuition	Full-Time
	NSCCEA Horizon	Academic	Scholarship Application	Varies	Part-Time, 2nd Year
	Max Covert	Academic	Scholarship Application	Varies	Part-Time, 2nd Year
	Toledo Edison	Academic Need	Scholarship Application	Varies	Part-Time, 2nd Year
	Marie Richey	Secretarial Major	Scholarship Application	Varies	Full-Time Part-Time
	George Isaac Business	Business Major	Scholarship Application	Varies	Part-Time
	Arrow Tru-Line Presidential	Engineering Major	Scholarship Application	Full-Tuition	Full-Time
	NW Ohio Chapter of APICS	Academic Need, Business Major	Scholarship Application	Varies	Part-Time
	<b>Loans</b>	Federal Stafford Loan	Student Loan Need	FAFSA and Stafford Loan Application	<b>Freshman:</b> \$3,500/year <b>Sophomore:</b> \$4,500/Year
Federal PLUS Loan		Parent Loan	Plus loan Application	Cost of Attendance	Half-Time
Charles E. Schell Foundation Loan		Short-Term Loan	None (See Financial Aid Office)	Tuition & Books	Part-Time
<b>Employment</b>	Federal Work Study	Campus Employment Need	FAFSA & FWS Application	Varies	Part-Time

**\*\*Dollar amounts subject to change due to federal & state funding.**

# Financial Assistance

2007 - 2008

## Enrollment Status

The number of credit hours for which a student enrolls each semester is especially important to students seeking financial aid. For example, the Federal Stafford Loan program requires that students be enrolled at least half-time (6 credit hours per semester). Presidential and Dean's scholarship recipients are required to be enrolled full-time (12 credit hours per semester). Most grant programs do not require a minimum number of credit hours per semester.

## Satisfactory Academic Progress

Students receiving any form of federal financial aid must maintain satisfactory academic progress toward a degree objective. According to government regulations, failure to do so will result in federal financial aid being withheld until satisfactory academic progress has been reestablished.

Students are maintaining satisfactory academic progress if they:

1. Successfully complete (with grades of A, B, C, D, S, or CR) at least 50% of all credit hours attempted in any semester,
2. Successfully complete (with grades of A, B, C, D, S, or CR) at least 50% of all credit hours attempted cumulatively, AND
3. Maintain a minimum cumulative grade point average as follows:

<u>Cr. Hrs. Attempted</u>	<u>Cumulative GPA</u>
1-15	1.4
16-30	1.6
31-45	1.8
46+	2.0

## Financial Aid Probation

Students who do not maintain satisfactory academic progress, as defined previously, will be placed on financial aid probation. Students will remain eligible for federal financial aid through one semester of financial aid probation.

## Financial Aid Suspension

Students who do not maintain satisfactory academic progress, as defined previously, during the semester of financial aid probation, will be placed on financial aid suspension. Federal financial aid will then be suspended until satisfactory academic progress has been reestablished. (Students will not be placed on financial aid suspension if their semester grade point average is 2.0 or higher or if they show significant progress.)

Students may continue to take courses at their own expense until reaching the minimum GPA and the number of successfully completed credit hours required to reestablish satisfactory academic progress.

## Maximum Time Frame

Eligibility for federal financial aid may not exceed 150% of the published length of an academic program as outlined in the college catalog. Therefore, students working toward an associate degree may receive federal financial aid through 105 attempted semester credit hours. Students working toward a one-year certificate may receive federal financial aid through 57 attempted semester credit hours.

## Student Loan Certification

Students must have generally completed at least 12 credit hours before being certified for another student loan. Also, except in extreme circumstances, students may borrow the maximum loan amount only twice as a freshman and twice as a sophomore.

## Last Date of Attendance

When a federal financial aid recipient withdraws from or stops attending all classes, the college is responsible for determining the student's last date of attendance for refund calculation purposes, as prescribed by federal regulations. Upon request, faculty will be required to report a student's last known date of attendance from attendance records kept, tests taken, or homework assignments received. Also, when assigning a grade of "F" or "U" as a final grade, the faculty member will be required to report the student's last date of attendance. All federal financial aid refunds will be calculated using the student's last date of attendance.

## Federal Financial Aid Refund Policy

Recipients of federal financial aid (grants and/or loans) will be required to repay all or a portion of aid received, if they withdraw from (or stop attending) all classes prior to the 60% point of the semester. The calculation for the return of these funds will result in the student owing a balance to the college.

## Tuition and Fee Installment Plan

The Tuition and Fee Installment Plan (TIP) is an alternative to the single payment of fees due at the beginning of each semester.

A nonrefundable service fee will be charged to students for the Tuition and Fee Installment Plan.

Participants pay their fees in three installments. The first installment is due according to the published fee payment schedule, with the second and third payments due in approximately 30-day increments. The second and third installments are due on the same dates for all students regardless of when the first payment was made. It is the students' responsibility to know the payment due dates and to make payments on time, even though a statement may not have been received in the mail.

A late fee of \$15.00 will be added to an installment payment when payment is not received or made in office or via the web by the due date.

Tuition, out-of-state, lab, student and late fees for fall and spring semester are covered by this program. The program is not offered for the summer term. Courses added after the first payments are not covered. Courses (including flexibly scheduled courses) paid for after late registration are not covered. Books, supplies, and noncredit tuition are not covered. Financial aid is deducted from total fees due before calculation of the payments. Financial aid finalized after the first payment is applied to the TIP balance due. The refund amount of a withdrawal from class is applied to the TIP balance due. Financial aid or withdrawal which results in an overpayment (after the TIP balance is covered in full) will be refunded to the student.

## Senior Citizen Discount

Any person who is sixty years of age or older, and who has resided in the state for at least one year, shall be permitted to enroll in classes without instructional charge, provided such attendance is on a credit basis, classroom space is available, and is approved by the instructors of the courses involved.

# Fees

2007 - 2008

## Payment of Fees

The amount of fees students pay each semester will depend upon the number of credit hours for which they are enrolled.

Students choosing to audit courses will pay the same fees as if the courses were being taken for credit.

Students who have outstanding financial obligations to the College will not be permitted to register for the next semester until those obligations are met.

All fees are subject to change at the beginning of any semester.

If paying in person by credit card with a credit card not in your name, NSCC must have both a written authorization and the credit card signed by the card holder specifying if the card may be used for fees and/or books. This must be done each time the card is used.

Payment of fees is required prior to the first day of the semester or first day of class for those flexibly scheduled. Failure to pay on time will result in a late fee being added.

## Application Fee

A \$20.00 non-refundable application fee is charged to all new students when applying for admission to the College. Payment is required immediately and is accepted by cash, check, or charge. Financial Aid is excluded as a means of payment.

When an applicant does not enroll, his or her application materials will be retained by the College for three years before being destroyed. After that time, the applicant must submit an updated application and other supporting documentation as necessary.

## Student Fee

A student fee will be assessed to students at the rate of \$30.00 each semester.

Upon total withdrawal from all classes during the 100% refund period, the student fee will be fully refunded.

## Late Registration Fee

Late registration will be permitted during the first week of classes, or later with the approval of the instructor and division dean. A student who wishes to register late must first confer with a faculty advisor and departmental dean and present an approved program of courses to the Registrar's Office. A late registration fee of \$15.00 will be charged.

## Lab Fees

Laboratory fees are assessed in certain courses to cover the cost of expendable materials used by the student and/or technology costs.

## Proficiency Examination Fees

A non-refundable fee of \$45.00 must accompany any application for a proficiency examination. Contact the Testing Coordinator to secure the proper proficiency application form.

## Graduation and Diploma Fee

A one-time \$50.00 graduation and diploma fee per degree/major must be paid by all students at the time they file an application for graduation, whether applying for a two-year associate degree or a one-year certificate. These applications are due by October 31 to ensure evaluation prior to the beginning of Spring semester to better assist you in scheduling any remaining courses you may need. The graduation and diploma fee will also be charged for all additional degrees/majors. No applications will be accepted after April 1 for that ensuing spring commencement without the approval of the Chief Learning Officer.

## Transcript Request Fee

All students will receive one free transcript upon graduation. All other requests must be in writing, signed by the student, and accompanied by a \$2.00 transcript fee. Transcripts may be requested and paid for online at [www.northweststate.edu](http://www.northweststate.edu). Please allow three business days for processing your request. Transcripts will not be faxed. Transcripts must be requested from the Registrar's Office but paid for in the Business Office.

## Refund of Student Fees

All withdrawals from class(es) must be in writing and are effective on the date received by the Registrar. The tuition and lab/material fee refund policy is shown below. Application, graduation, proficiency, and late fees are nonrefundable. The student fee is refunded if a complete drop is done during the 100% refund period.

In extreme circumstances, tuition and lab/material fees may be refunded after the refund period. Documentation proving extreme circumstances must be submitted to the Registrar for consideration and final approval from the Student Services Committee.

## Refund of Tuition & Lab/Material Fees

### FALL AND SPRING SEMESTERS (16 weeks)

Week 1	100% Refund
Week 2	75% Refund
Week 3	50% Refund
After Week 3	No Refund

### SUMMER SEMESTER (8 weeks)

Week 1	100% Refund
Week 2	50% Refund
After Week 2	No Refund

The refund policy for flexibly scheduled classes is unique to each class. Please see the Registrar for details.

Financial aid recipients should contact the Financial Aid Office if they plan to withdraw from (or stop attending) all classes during the semester.

# Residency

2007 - 2008

## Ohio Residency

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

1. A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for twelve consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
2. A person who has been a resident of Ohio for the purpose of this rule for at least twelve consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding twelve consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
3. A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates.

## Specific Exceptions and Circumstances

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
2. A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A person who is transferred by his employer beyond the territorial limits of the fifty states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered a resident of Ohio for these purposes as long as Ohio remains the state of such person's domicile and as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.
5. A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.
6. A person who was considered a resident under this rule at the time the person started a community service position as defined under this rule, and his or her spouse and dependents, shall be considered as residents of Ohio while in service and upon completion of service in the community service position.
7. A person who returns to the state of Ohio due to marital hardship, takes or has taken legal steps to end a marriage, and reestablishes financial dependence upon a parent or legal guardian (receives greater than 50 percent of his or her support from the parent or legal guardian), and his or her dependents shall be considered residents of Ohio.
8. A person who is a member of the Ohio National Guard and who is domiciled in Ohio, and his or her spouse and dependents, shall be considered residents of Ohio while the person is in Ohio National Guard service.

## Procedures

1. A dependent person classified as a resident of Ohio for these purposes and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of twelve months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph 1 or 2 of this rule.
3. For students who qualify for residency status under paragraph 3 (of Ohio Residency), residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than twelve months after accepting employment and establishing domicile in Ohio.
4. Any person once classified as a nonresident, upon the completion of twelve consecutive months of residency, must apply to NSCC for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support in the preceding twelve consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.
5. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
6. Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for the purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

## Documentation of full-time employment and domicile shall include the following documents:

- (a) A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent or spouse of the student is employed full-time in Ohio.
- (b) A copy of the lease which the parent or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential and real property located in Ohio of which the parent or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

## Additional criteria which may be considered in determining residency for these purposes may include, but are not limited to the following:

- (a) If a person is subject to tax liability under section 5747.02 of the Ohio Revised Code;
- (b) If a person qualifies to vote in Ohio;
- (c) If a person is eligible to receive state welfare benefits;
- (d) If a person has an Ohio driver's license and/or motor vehicle registration.

# Residency

2007 - 2008

## Criteria evidencing lack of residency:

- (a) If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
- (b) If a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits.

Application packets for in-state tuition are available in the Registrar's Office. Packets should be obtained no later than the first week of classes for the semester in question. The distribution and collection of all packets will be logged by the Registrar's Office.

The completed application requesting a change of out-of-state status, including all required documentation, must be received by the Registrar by the end of the third week of classes for the semester in question. The registrar will review the application within five working days from the date of receipt to determine the candidate's residency status.

The Registrar will notify in writing, the student applicant within ten working days, of the final determination of the request. A copy of the final determination along with the application and documentation will be filed in the student's file.

The applicant should plan to pay all fees, even if they believe their application will be approved. Provided that residency requirements were met prior to the first day of the semester, fees will be refunded back to the beginning of the semester in question once a final determination has been made.

## Academic Policies and Procedures

### Academic Advisors

In an effort to foster individualized attention, each student is assigned an academic advisor. An advisor can provide guidance regarding class scheduling and program requirements, as well as discuss academic or personal problems. Each advisor has regular office hours set aside for student appointments.

### Academic Amnesty

A student may repeat coursework for which he or she has received a D, U, F, or WF grade. When a course, or its current equivalent, is repeated, the most recent grade will be included in the calculation of the grade point average. For up to and including 12 credit hours, the grade received in the previous course will be replaced with a P, meaning progress.

### Academic Dishonesty

Academic dishonesty is defined as any attempt by a student to misrepresent academic work, including computer assignments/activities or any effort to use unauthorized aids during a testing situation. There are many forms of academic dishonesty. Examples include but are not limited to:

1. Cheating - the use of unauthorized or prohibited materials. Students who intentionally use or attempt to use unauthorized information in any academic exercise, including computers or exams, are cheating.
2. Cooperating with another person in academic dishonesty, such as, taking an exam for another student, having another student take an exam for you, arranging with other students to give or receive answers by use of signals, arranging to sit next to someone who will let you copy his or her exam, or allowing another student to copy from you during an exam.
3. Copying from or looking at another person's exam without his/her knowledge.
4. Obtaining unauthorized copies of an exam prior to exam time.
5. Intentionally falsifying information in an academic exercise or clinical/laboratory record.
6. Plagiarism - representing the words or ideas of another person as your own without identifying the source. This includes submitting the work of another student as your own or allowing someone to submit your work as his or her own.

### Disciplinary Penalties for Academic Dishonesty

The faculty member who detects academic dishonesty and Division Dean will handle the discipline. In the event the faculty member is the Dean, the Chief Learning Officer will handle the discipline. Each action will be documented in writing and the faculty member will be notified.

1. For a first-time offense, a grade of "F" may be issued for the project, paper, test, or whatever assignment in which academic dishonesty has occurred. A faculty member may have other penalties specified in the course syllabus. The faculty member will impose the grade.
2. For a second offense, not necessarily in the same course, a grade of "F" will be issued for the course in which academic dishonesty has occurred. The Chief Learning Officer will inform the faculty member of the second offense, and the faculty member will impose the grade. The Chief Learning Officer will inform the student.
3. For a third offense, not necessarily in the same course, a grade of "F" will be issued for the course in which academic dishonesty has occurred. Additionally, any student who has been involved in three offenses, not necessarily in the same course or semester, will be dismissed from the College immediately for one semester (excluding summer). Upon readmission to the College, any future offense will cause the student to be dismissed immediately with no right to readmission. The Chief Learning Officer will be responsible for imposing dismissal.

### Reporting Cases of Academic Dishonesty

1. Within seven (7) days in which classes are held after the incident is discovered, the faculty member will file a written report of the incident with the Division Dean and the student charged. The report will include: a) the particular violation alleged; b) when the incident occurred; c) when it was discovered; d) the names of all students involved in the incident; and e) the action taken.
2. The Division Dean will forward the report to the Chief Learning Officer to be placed in an academic dishonesty history file.
3. Any such filed report will be removed and destroyed upon the student's meeting graduation requirements.

# Academic Policies and Procedures

2007 - 2008

## Academic Honors

For the purposes of Dean's List calculations, a full-time student is defined as a student carrying at least 12 graded credit hours for the semester. A part-time student is defined as a student carrying less than 12 graded credit hours for the semester.

Each full-time student earning a grade point average of 3.5 or above on a 4.0 scale will be named to the Dean's List for that semester.

Using the same criteria, a part-time student first becomes eligible for the Dean's List at the end of the semester in which the accumulation of graded credit hours reaches at least 12. Additional eligibility periods would begin with the next semester and end with the semester in which the accumulated hours again total at least 12.

The 12 hour minimum will be waived for all students in the semester during which the degree or certificate is completed.

## Academic Probation

Students will be placed on academic probation at the end of any semester, including summer session, in which their cumulative grade point average falls below the following minimum levels:

Credit Hours Attempted	Cumulative GPA below
15	1.4
16-30	1.6
31-45	1.8
46+	2.0

Students will remain on academic probation until such time as their cumulative GPA meets or exceeds the minimum levels referenced in paragraph above.

**NOTE:** Veterans receiving VA educational assistance may have benefits terminated following their second semester of academic probation if progress is not being made toward the required GPA.

## Academic Suspension

A student on probation will be suspended at the end of any semester, including summer, if the minimum cumulative grade point average is not reached while on probation. There will be no suspension if the semester grade point average is 2.0 or the student shows significant progress, as determined by the Chief Learning Officer.

The period of suspension will be for one academic semester, excluding summer session.

## Bookstore Purchases and Financial Aid Funds Policy

No student on academic or financial aid probation or suspension can make purchases with financial aid funds until after current semester grades have been posted. From the time grades are posted until the day before the start of the next semester, the student may use financial aid funds to purchase educational supplies, and only books for courses in which he/she is registered. As of the first day of the semester, all financial aid funds available to the student will be totally accessible for all bookstore purchases.

## Adding & Dropping Courses

The deadline for registration and/or adding regular semester classes during fall and spring semesters is the end of the first week of the semester, and will not require the instructor's or division Dean's signatures. Courses may be added without written approval in Summer semester prior to the first day of the semester only. Classes added after the first week of the semester (Fall & Spring) or after the semester begins (Summer) will be allowed on an exception basis only, and will require both the instructor's and division Dean's signature. Courses may also be added and dropped via the Web through the first week of classes for Fall and Spring semesters and prior to the beginning of the semester for Summer. All adding/dropping of classes must be processed via the "Add/Drop" form available in the Registrar's Office unless processed via the Web.

Students may withdraw from any or all classes through the first week of classes and receive no grade. After the first week of classes, a "W" will be given for any course that is dropped and will be refunded at the appropriate rate. However, no "W" will be given if the dropped course involves a simple section switch of the same course, or a move into a higher or lower level (i.e. Composition I to Basic Composition). There will be no refund/additional payment due for section switches unless the switch involves a change in credit hours.

Section changes can be made in **flexibly scheduled** courses to any section of the same course that begins within the same semester. However, if the student subsequently drops that section, the refund period applicable to the **original** registration for the course will be used in calculating any possible refund.

All withdrawals **must be in writing** and are effective on the date received by the Registrar. The student, by signing and submitting the "Add/Drop Form" to the Registrar's Office or processing a drop on-line, accepts **full responsibility and consequences** for dropping classes that are required for a degree or certificate program. Failure to attend classes or give proper written intention to withdraw will result in failure of a course. Students will be academically and financially responsible for any "W" and "F" grade received.

Withdrawals after the twelfth week of the semester (or sixth week in summer semester), may be made on an exception basis only, and must be approved by a Department Dean or the Chief Learning Officer. The last date to withdraw from a **flexibly scheduled class** is prorated according to the number of sessions the class meets.

Refunds for withdrawn classes are made according to the approved refund schedule.

Withdrawals due to military activation during a semester will require the student to withdraw from classes at the time of activation, at which time a "W" will be assigned. Upon receipt of a copy of the student's actual military activation orders, the College will refund 100% of the student's tuition and fees for the semester, and any "W" grades will be changed to "WM" to signify a military withdrawal on the transcript.

The adding or dropping of courses requires the student to contact Financial Aid and/or the Business Office to adjust the aid or make payment.

# Academic Policies and Procedures

2007 - 2008

## Affirmative Action

### Policy Statement

1. The Northwest State Community College affirmative action policy has as its objective the equal employment and treatment of all individuals without regard to race, color, religion, sex, national origin or ancestry, handicap, age, marital or parental status, veteran status, or other non-job related factors.
2. The College is fully committed to providing:
  - a. Equal opportunities in all employment-related activities, including but not limited to, recruiting, hiring, advancement, transfer, compensation, benefits, and terms of employment;
  - b. Equal opportunities in all educational, social and recreational programs;
  - c. Physical access to all facilities.
3. It is the intent that this policy be in full compliance with all applicable federal and state laws and regulations concerning affirmative action.

## Assessment of Student learning

Northwest State Community College is committed to providing opportunities to develop students' academic and career potential through transformational learning. Students at NSCC will engage in a learning environment that challenges critical thinking, communication, computation, and teamwork skills. NSCC will gather information to assess student learning of these skills. Prior to graduation, all Associate Degree graduates are required to:

1. Complete a nationally normed test.
2. Submit the required elements of a portfolio.

Current electronic portfolio requirements include:

- The argument paper from English 111 (submission required to pass course).
- The research paper from English 112 (submission required to pass course).
- A writing assignment from a Humanities core course most likely to demonstrate critical thinking skills.
- A writing assignment from a Social Sciences core course most likely to demonstrate critical thinking skills.
- A writing assignment that represents, in the student's opinion, his or her best writing and critical thinking performance from late in the program (preferably from the final semester, and not duplicating other portfolio submissions).
- A writing assignment from the student's technical program (or, for an Associate of Arts or Associate of Science student, from the intended area of study upon transfer), that demonstrates application of writing and critical thinking skills (not to duplicate other portfolio submissions).
- Any other assignments designated by the student's specific degree program. Some programs require additional submissions beyond the minimum listed above.

## Auditing Courses

The term "audit" refers to a course which is taken without credit. Courses taken on this basis are not included in the computation of the cumulative grade point average and are not applicable to graduation requirements. A student must elect audit status at registration. During the first week of classes, students also have the privilege of changing from audit to credit. Students may change from credit to audit through the twelfth week of the semester. The student initiates such action through the Registrar's Office.

Students auditing a course will pay the same fees as if the course was being taken for credit. The time limits referred to above will be adjusted for shorter session equivalents. These occur, for instance, with flexibly scheduled courses and summer semester.

## Catalog Requirements

Students will follow the curriculum requirements for their major as listed in the catalog in effect at the time of their admission to the College. Following a break of enrollment at NSCC of two years or more, students will automatically be updated to the catalog requirements in effect at the time of their re-enrollment.

## Change of Student Information

All changes of student information, including name, address, major, catalog changes, etc. must be made by completing a Student Information Change Form in the Registrar's office, or by completing the on-line form at [www.northweststate.edu](http://www.northweststate.edu). Any name changes must be substantiated with legal or court issued documents such as a marriage certificate, divorce decree, or other documentation of legal action.

## Class Attendance Policy

Excessive absences are defined as three consecutive absences or sporadic absences that impair satisfactory student progress in a course. For those students, instructors will report excessive absences and last date of attendance to the Registrar's Office.

The College is obligated to report lack of attendance or last date of attendance to federal and state agencies that provide financial assistance to students.

Instructors have the right to issue a failing grade to students who incur excessive absences and who have not filed an official withdrawal from a course.

## Course Cancellation for Cause

The College reserves the right to cancel courses for cause, such as insufficient enrollment or unavailability of faculty.

## Course and Credit Hour Load Limitations

The course load of a regular student may not exceed twenty credit hours of coursework in a regular semester, or ten credit hours for a summer session except upon recommendation of his/her advisor and approval of the Department Dean and/or Chief Learning Officer.

## Cumulative Point Average

The cumulative point average is obtained at the conclusion of each semester by dividing the total number of credit points earned by the number of semester credit hours the student has attempted.

## Cumulative Technical Point Average

The cumulative technical point average (CUM TECH GPA) is obtained at the conclusion of each semester by dividing the number of credit points earned by the number of credit hours the student has attempted in technical courses only. Technical courses are designated by a "+" in front of the course number under each technology in this catalog.

# Academic Policies and Procedures

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## COMPASS Placement Retesting

1. Students may have one retest using either an alternate form of the COMPASS Placement Test or a Departmental Proficiency Test (but not both).
2. A retest must be requested prior to enrolling in related developmental courses.
3. Retesting must be approved by the General Studies Dean or designee.
4. There must be at least a one-month waiting period between testing dates involving a Departmental Proficiency test only.
5. Placement test results are valid for three years. After three years retesting is recommended and the fee is waived.
6. Students may choose to retake the entire COMPASS Placement Test or choose specific sub-tests for retesting.
7. A \$20 retesting fee will be charged for the COMPASS Placement Test and a \$45.00 fee for the Proficiency Test.

## Academic Fresh Start Policy

Once in a lifetime, a student may apply for a change of grade from D, F, U, or WF to W in a maximum of two courses, which are not program requirements. The fresh start requirements for application are:

1. A student must be currently enrolled in credit courses and have a declared major at Northwest State Community College.
2. The student must have demonstrated satisfactory academic progress for at least one academic term (12 cumulative credit hours beyond fresh start course(s) request) with a GPA of 2.0 for these courses at Northwest State Community College including developmental courses.
3. Courses requested for fresh start must have been taken during the first 30 credit hours attempted including developmental courses.
4. The application for Academic Fresh Start must be in writing and is subject to review and approval by committee(s).
5. An application fee of \$10 per requested course change must be paid at the time of the application.
6. A transcript placement fee of \$20 per approved course must be paid within ten (10) days of notice of final approval.
7. Academic Fresh Start application forms are available in the Registrar's Office.

## Medical Fresh Start Policy

Twice in a lifetime, due to extenuating personal health/medical circumstances, students may be eligible to retake at no additional cost, classes that they failed as a result of their medical condition. The requirements for a medical fresh start are:

1. The student's incapacitation must have exceeded two weeks in duration.
2. A Medical Fresh Start applies only to illness/injury experienced by the student personally (does not include family members).
3. A student must be currently enrolled in credit courses (not including summer semester) and have a declared a major at Northwest State Community College.
4. The Petition for Medical Fresh Start must be initiated within six months of the date of the illness/injury.
5. The student must register to re-take the affected courses or equivalent credit hours within one year of filing the Petition for Medical Fresh Start.

6. The student and his/her attending physician must complete and sign the Petition for Medical Fresh Start. The Petition for Medical Fresh Start must be mailed to the Registrar's Office directly from the physician.
7. Medical Fresh Start application forms are available in Registrar's office.
8. A non-refundable application fee must be paid at the time of application.

## Grade Reports

Grades can be accessed by students on-line at [www.northweststate.edu](http://www.northweststate.edu).

## Graduation with Honors

Any student graduating with a cumulative point average of 3.50 or higher will be graduated with honors as follows:

3.50 - 3.74	Cum Laude
3.75 - 3.89	Magna Cum Laude
3.90 - 4.00	Summa Cum Laude

A notation of this honor will be placed on the student's diploma and transcript.

## Graduation Requirements

The associate degree is awarded upon the successful completion of any one of the two-year programs. A certificate is awarded upon the successful completion of any of the one-year certificate programs. Students must have successfully completed all required courses in their program and must have attained a 2.0 grade point average in their technical courses as well as a cumulative grade point average of 2.0 in all courses.

Students are eligible to receive only one degree within a technology but may have more than one major. A student's major or majors are listed on the student's transcript. If a student completes a second major at any time within the same technology area, he/she will receive a letter of commendation for the accomplishment rather than a second degree diploma. Students wishing to receive a dual degree/dual technologies must meet with their academic advisor to fulfill their programs of study.

Students must complete a petition for graduation, usually during the fall semester prior to graduation.

A \$30.00 non-refundable graduation fee is assessed along with a \$30.00 late fee if turned in after the October 31 deadline. No applications will be accepted after April 1st, for the current year's commencement ceremony. Each graduate is expected to attend the graduation exercises after the application for graduation has been approved. Students who are unable to attend should notify the College by contacting the Registrar's Office at least two weeks prior to Commencement.

# Academic Policies and Procedures

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## Incomplete Grade

Students may request an incomplete through discussion with the instructor and by negotiating and completing an "Incomplete Grade Contract" with that instructor and the academic dean, provided that each of the following criteria is met:

1. The student is unable to complete the work due to reasons beyond their control.
2. The student is passing the course.
3. At least seventy-five percent of the coursework is completed.
4. The course may be completed without the aid of classroom instruction.

The contract must indicate the specific procedures and deadlines for fulfilling course requirements. A grade of an "I" will be assigned until a final grade can be established. Work must be completed by the deadline established by the instructor or by the end of the next regular semester, whichever is earlier. All incomplete grade contracts must be approved and signed by the division Dean.

Failure to complete the requirements of the contract will result in failure of the course, and the "I" will be converted to a grade of "F" on the student's permanent record by the Registrar's Office. Extensions to the time limit may be made only upon recommendation of the instructor involved and approval of the Department Dean.

## Independent Study

Independent study courses are initiated by the dean of the division in which the independent study course is to be offered.

The independent study of a course must be the last resort method of instruction considered only when program requirements, electives and appropriate substitutes are not available.

The independent study must satisfy the following three criteria:

1. The student is capable of successfully completing the course independently.
2. The course is appropriate for the independent study methodology.
3. The College is willing to offer the course independently.

The College may at its discretion offer courses in an independent study mode including but not limited to internships, practicum and co-ops.

## Marking and Credit System

The quality of coursework at Northwest State Community College is indicated by means of letter grades. Each grade, in turn, carries credit points which are used in computing the student's cumulative point average.

All developmental courses are S/U. Students are permitted to select S/U (Pass/Fail) status for a limit of two elective courses per Associate Degree, and one per certificate program. Courses must be designated as such no later than the end of the first week of classes. Pass/Fail status for flexibly scheduled courses must be designated as such no later than the end of the first week of the original registration. The Request for Pass/Fail Status Form must be completed in the Registrar's Office, and students will not be allowed to change this status after formally selecting such. NOTE: Pass/Fail courses may not transfer to other institutions.

A	Superior Quality	.....	4.0 Credit Points
B	High Quality	.....	3.0 Credit Points
C	Average	.....	2.0 Credit Points
D	Below Average	.....	1.0 Credit Points
F	Failing	.....	0.0 Credit Points
I	Incomplete	.....	Not computed in grade point average

NG	No Grade Reported by Instructor
NP	In Progress..... Not computed in grade point average. Used to denote a flexible scheduled course where work is not completed by the end of semester when grades are due.
W	Withdrawal..... Prior to the end of the twelfth week; not computed in the grade point average.
WM	Military Withdrawal
S	Satisfactory
U	Unsatisfactory
AU	Audit; no credit
P	Progress
CR	Credit Given

Grades of W, S, U, AU, P, CR, NP, NG and I, are not computed in the cumulative point average.

## Privacy of Records/Directory Information

The Family Education Rights and Privacy Act 1974 was designated to protect the privacy of education records. It established the right of students to have access to inspect and review their academic records, as well as limits the release of any such information about a student without the student's consent.

The items listed below are designated as "Directory Information" and may be released by this institution at its discretion.

**Name - \*Address - Major - Birth Date - Honors - Full-time or part-time status - Dates of Attendance - Degree(s) Conferred**  
\*for legitimate educational purposes only

Under the provisions of the Family Educational Rights and Privacy Act of 1974, you have the right to withhold the disclosure of any or all of the above information.

Should you decide to withhold any information, you will need to fill out a Request to Prevent Disclosure of Directory Information form and submit it to the Registrar no later than the **end of the second week of classes** each semester. This form is available in the Registrar's Office. Such requests will be honored for one academic year or a shorter period of time as designated by the student. A complete set of FERPA guidelines is available for you to review in the Registrar's Office.

## Proficiency Examination (Credit by Examination)

The College recognizes that students, through self-study or other methods, may have proficiencies that equate to the requirements of certain courses offered. Students who feel that they may be proficient in a course have the opportunity to request an examination to determine such capability; however, the student should be aware that proficiency tests are not available for every course.

Prior to applying for proficiency testing, the student must have submitted an application for admission to the College and paid the \$20.00 application fee.

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## Proficiency Examination (Continued from Page 19)

A student may make application for a proficiency examination in a subject area by following these procedures:

1. Present tangible proof or evidence of proficiency to the Testing Coordinator or Department Dean.
2. Complete application for proficiency examination, make testing arrangements with the testing coordinator or Division Dean, and make payment of the \$45.00 preparation fee prior to the examination.
3. Complete the total process, if enrolled in the course in which examination is requested, before the end of the fourth week of a regular semester, and before the end of the second week of a summer semester.
4. A student cannot Proficiency in a course previously taken (successfully or unsuccessfully).
5. A student may make application for a Proficiency Examination **ONE TIME PER COURSE.**
6. Students certified as proficient will be refunded the appropriate credit hour tuition charge for the course.
7. Credit for the course for a satisfactory proficiency examination will become a part of the student's permanent record, and a grade of "CR" will be assigned.
8. Proficiency credit cannot be posted to the transcript until the end of the semester in which the student has completed at least one course at NSCC.

If not enrolled in the particular course for which examination is requested, a student can make application for the proficiency exam at any time during the regularly scheduled semester by following all procedures outlined above. All other policies will apply with the exception of refund of instructional charges.

## College Level Examination Program (CLEP), Advanced Placement (AP), and DANTES credit

Full college credit may be granted or prerequisite courses waived based upon College Level Examination Program (CLEP), Advanced Placement (AP), and DANTES credit.

Credit awarded through CLEP, AP, or DANTES scores may not exceed 70% of any degree or certificate requirement.

Upon presentation of CLEP, AP, and DANTES scores in the same area, credit will be awarded for either CLEP, AP, or DANTES based upon the higher number of credit hours. In no case will CLEP, AP, and DANTES credits be combined. In the event that the credit hours to be awarded through CLEP, AP, or DANTES are equal, the individual department will award the appropriate credit at their discretion.

## Military School Credit

Transfer credit will be given to those students who have successfully completed educational experience through the military services as evaluated in the American Council on Education Guide (ACE).

Total military credit transferred may not exceed 70% of any degree requirement.

## Protection of Human Subjects Research Policy

Northwest State Community College shall comply with the federal provisions of the protection of human subjects in research policy in accordance with 45 CFR 46, and 21 CFR 56.

## Repeated Courses

The qualifications for graduation require that each required course in which an "F" grade is received must be repeated. This requirement may be waived by the Chief Learning Officer, in special circumstances where a course is no longer available for the student to repeat and/or reasonable substitution can be made. In addition, certain majors require a grade of

"C" or better in certain courses to meet graduation requirements.

Students may, with written permission of their Division Dean and Division Dean or Chief Learning Officer, repeat a course in which they earned a passing grade. The grade received for the repeated course will thereafter be substituted for the former grade in calculating the student's cumulative grade point average. The grade received in the previous course will be replaced by a "P" denoting progress.

If a student received a grade of "D", "F", "I", "U", or "WF" in a course and then receives credit for that course by successful completion of a similar course at another institution, the credit hours and quality points for the first registration will continue to be used in computing the student's grade point average.

## Second-Year Student Status

A "second-year student" is anyone who has completed thirty or more credit hours.

## Sexual Harassment and Other Forms of Harassment

### Policy Statement

All employees and students of Northwest State Community College have the inalienable right to work in an environment free from intimidation and harassment. This College prohibits an act - physical, verbal or visual- that has the effect of unreasonably interfering with the employee/student's job performance or creates an intimidating, hostile or offensive atmosphere, either real or perceived.

### Dissemination of Policy

Information about the College's sexual harassment policy will be communicated at least annually to all employees and students through College publications and other available media.

### Definitions

1. Sexual harassment is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or conduct of a physical nature when:
  - a. Submission to such conduct is made either explicitly or implicitly, a term or condition of an individual's employment or the student's status in a course, program, or activity.
  - b. Submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individuals.
  - c. Such conduct has the purpose or effect of substantially interfering with a person's work or academic performance, or creating an intimidating, hostile, or offensive work/study environment.
2. Solicitation is a form of sexual harassment that includes offering sexual favors in exchange for personal advancement, monetary gain, improved academic or employment standing, or other special consideration.
3. Other forms of harassment is prohibited conduct including that which has the purpose or effect of creating an intimidating, hostile, discriminatory, or offensive educational environment on the basis of gender, religion, race, color, ethnicity, age, and/or disability.

All employees/students must act responsibly and professionally. Faculty, administration and staff employees must avoid placing themselves in situations where even the minute appearance of sexual harassment or improper conduct is a possibility. Northwest State Community College has substantial legal liability for the action of its employees. Accordingly, faculty, administration and staff employees will generally be subject to severe disciplinary action, including termination of employment with the College for improper conduct, actions and communications, either verbal or written.

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All individuals affiliated with Northwest State Community College must take care to avoid improper conduct, language or dress which might be incorrectly interpreted by another individual. Any employee or student may speak to any union official, administrator, faculty or member of the College staff about any form of sexual harassment, without fear of reprisal or adverse action against that employee or student by the College. The employee or student need not complain to his/her union representative, administrator, direct supervisor prior to speaking to another supervisor or College official.

An employee or student who believes that (s)he is the victim of sexual harassment or other forms of harassment is asked to report the incident immediately to the Director of Human Resources. If the employee or student feels uncomfortable reporting to the person(s) designated, or if the harassment continues, (s)he is asked to contact the President of Northwest State Community College in person or by telephone at (419) 267-5511, or in writing at 22600 State Route 34, Archbold, Ohio 43502. An impartial investigation will be conducted to determine whether the conduct can appropriately be defined as sexual harassment and if so, what corrective action can be taken.

Northwest State Community College will actively investigate any allegation of harassment and take appropriate disciplinary action which may include immediate termination of employment of any employee who has committed sexual harassment or other forms of harassment.

## Regulations

It is a violation of College policy:

1. For any member of the faculty, administration, staff, or student body to engage in sexual or other forms of harassment or solicitation, as defined above.
2. For anyone knowingly to bring false accusations of sexual or other forms of harassment against any member of the College community, or to use the threat of such accusations to seek gain, advancement, or other special consideration.
3. To retaliate in any way against any member of the College community who files a complaint of sexual or other forms of harassment.

## Administration Responsibilities

The President of the College shall designate the Executive Assistant to the President/Human Resources as the Affirmative Action Officer responsible for overall administration of the harassment policy.

1. The Affirmative Action Officer is responsible for:
  - a. Coordinating, disseminating and implementing this policy.
  - b. Serving as a resource for all matters dealing with sexual and other forms of harassment.
  - c. Investigating sexual and other forms of harassment complaints.
  - d. Assisting in the resolution of sexual and other forms of harassment complaints.
2. Each administrative officer is responsible within his or her area of jurisdiction for
  - a. Referring reported incidents of sexual and other forms of harassment to the Affirmative Action Officer.
  - b. Implementing sanctions as deemed appropriate.
3. All members of the College community are responsible for:
  - a. Ensuring adherence to this policy.
  - b. Discouraging sexual and other forms of harassment.
  - c. Reporting such incidents to the Affirmative Action Office
  - d. Cooperating in any investigation which might result.

## Investigation Procedures

An individual who believes that this policy has been violated should contact the Affirmative Action Officer. First efforts in response to a complaint will be made on an informal basis through this office. Such efforts will be an attempt to resolve the complaint informally and will not involve formal investigative procedures.

If an informal resolution of the complaint is not achieved, the complainant may file a formal, written complaint with the Affirmative Action Officer. This will initiate a formal and complete investigation.

1. Procedures For Investigation Include:
  - a. All complaints of sexual and other forms of harassment will be handled without undue delay.
  - b. All information regarding a complaint will be considered confidential and made known only to persons directly involved.
  - c. Investigation of a formal complaint will include:
    1. Notification to the person against whom the complaint is filed.
    2. Consultation with the complainant and respondent, both of whom will be provided with a copy of the harassment policy.
    3. Discussion with persons whom the investigator believes may be of assistance in establishing the facts of the complaint.
    4. Preparation of a written report to the appropriate administrative officer, including recommendations for resolution. A copy of the report will be sent to both the complainant and the respondent.
2. Sanctions
  - a. At the conclusion of an investigation, the Affirmative Action Officer may recommend in his or her report either that the case be officially closed or that some action be taken. Recommended action may include, but is not limited to, counseling, reprimand (either verbal or written), reassignment of job responsibilities, probation, suspension without pay, termination, or filing a criminal action. Any action relating to the disciplining of students will be administered through the Chief Learning Officer.
  - b. The administrative officer will then take whatever action (s)he deems appropriate.
  - c. If either the complainant or the respondent is not satisfied with the action taken by the Affirmative Action Officer, (s)he may appeal, in writing, to the President of Northwest State Community College, within seven calendar days of notification of the Affirmative Action Officer's decision. The President or President's designee will review the appeal and respond, in writing, to all parties-complainant, respondent, Affirmative Action Officer—concerning his or her disposition of the appeal.

## Student Regarding Controlled Substances

NSCC specifically prohibits the illegal manufacture, sale, possession or use of alcoholic beverages, narcotics, marijuana, hypnotics, sedatives, tranquilizers, stimulants, hallucinogens or similar controlled substances at Northwest State Community College.

This policy applies to students, staff, faculty, and visitors. Violation of the policy may result in disciplinary action, including, but not limited to disciplinary probation, suspension, dismissal, expulsion, withholding of transcripts or other appropriate action.

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## Student Conduct

To ensure each student at Northwest State Community College the right to obtain a quality education, certain rules of conduct must be imposed. Offenses which may result in disciplinary action include:

1. Possession or use of alcoholic beverages or controlled substances on the premises or entering the property under the influence of such substance
2. Possession of weapons
3. Gambling
4. Altering or forging an official College document
5. Furnishing false information to the College with the intent to deceive.
6. Unlawful and/or vandalistic appropriation of College property with the result that others are deprived of its use and benefits
7. Misuse of computer hardware, software, and privileges, including unauthorized use of an account number, password, program, file or file definition
8. Any action that is disruptive to the learning process of another

In order to maintain an orderly process for learning, the instructor/supervisor/administrator has the authority to exclude any student who is considered to be detrimental to an ongoing learning experience. Disciplinary action may include but is not limited to disciplinary probation, suspension, dismissal, expulsion, withholding of transcripts or other appropriate action.

## Student Due Process and Grievance Policy

Resolution of a problem, whether academic or administrative, including challenging of a grade, can be achieved through proper channels or authority and may be resolved at any level of the due process and grievance procedure. Any student filing a grievance must follow the step-by-step procedure in the listed sequence.

## Academic Matter

Informal discussion between the student and the faculty member/administrator should take place within twelve (12) instructional days\* from the date of occurrence or discovery. In the case of a grade challenge, the date of occurrence is the date the grade was posted to the transcript. If the matter is not resolved, the student may invoke the formal written appeal process outlined below.

**\*NOTE:** An instructional day is defined as any day, Monday through Saturday, that NSCC holds classes.

### Step I - Formal Appeal Process

1. The student will submit a written grievance form to the individual involved within six (6) instructional days following unresolved informal discussion. If the written request is not received within the 6-day deadline, the case will be considered closed and the student will have forfeited the right for an appeal hearing.
2. Within six (6) instructional days of receiving the formal grievance, the individual involved and the student will meet and attempt to resolve the problem to the mutual satisfaction of both parties.
3. The faculty member/administrator will issue a written response to the student within six (6) instructional days after the meeting.
4. If the problem is not resolved in step one or the above time frames are not adhered to by the faculty member/administrator, the student may proceed with Step 2.

### Step 2 - Formal Appeal Process

1. Within six (6) instructional days of receiving the written response from Step 1, the student will submit the original grievance form to the supervisor of the individual involved, with a copy to the Chief Learning Officer.
2. Within six (6) instructional days of receiving all written documentation, the immediate supervisor will meet with the student and the individual involved attempting to resolve the problem to the mutual satisfaction of both parties. The Chief Learning Officer may attend this meeting at his/her discretion.
3. Within six (6) instructional days after the meeting, the immediate supervisor will issue a written response to all parties involved, with the original copy to the Chief Learning Officer.
  - a. If the problem is resolved, the written resolution issued by the supervisor will become part of the original document and bring closure to the grievance.
  - b. If the problem is not resolved, the student may proceed to Step 3.
4. If the above time frames are not adhered to by the student, the case will be considered closed and the student will have forfeited the right for an appeal hearing.

### Step 3 - Formal Appeal Process

1. Within six (6) instructional days of receiving the written response from Step 2, the student may request a formal hearing by notifying the Chief Learning Officer. If the request is not received within the 6-day deadline, the case will be considered closed, and the student will have forfeited the right for an appeal hearing.
2. The Chief Learning Officer will notify and forward the original written grievance to the chairperson of the Academic Affairs committee.
3. Within (6) instructional days of receiving the request, the Academic Affairs Committee will meet to appoint an ad hoc due-process committee to hear the grievance.
  - a. The ad hoc committee will consist of five (5) members: one grade level I, II, or III employee; two faculty members; an officer of the student body organization; and a person of the student grievant's choice (person may be a present student, faculty member, or other employee of the College). Alternate committee members may be appointed as well by the Academic Affairs Committee. Grade level I, II, III includes vice presidents, division deans, and student service professionals.
  - b. The Academic Affairs chair will appoint one member of the ad hoc committee to act as chair for the proceedings.
4. The hearing will take place within six (6) instructional days after the committee appointments. To prepare for the hearing, the chair of the ad hoc committee may make the following arrangements, which are intended to facilitate due process.
  - a. Provide all ad hoc committee members with copies of the written grievance prior to the meeting.
  - b. Identify a date, time and meeting place convenient for the ad hoc committee members, the student grievant, and the person who is the object of the grievance.
  - c. Inform the student grievant and the staff member involved that they may present witnesses and additional written documentation at the hearing.

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- d. The following chronology for the hearing and follow-up is recommended. (The proceedings may also be tape-recorded, provided that all parties are informed in advance.)
  1. Select a recorder.
  2. Review the grievance and hearing procedures. This segment will be closed to the grievant and faculty member.
  3. Invite the student to be heard. The grievant may present witnesses and additional written documentation at this time. This segment will be closed to the faculty member/administrator.
  4. Invite the individual involved to be heard, at which time he or she may provide witnesses and additional written documentation. This segment will be closed to the student.
  5. In closed session, the committee will discuss its findings and reach a clear and explicit decision. The student and individual involved may be invited to reappear and provide more information as requested.
- e. Within six (6) instructional days after the formal hearing is concluded, the ruling of the ad hoc committee will be presented in writing to the student, the faculty member/administrator involved, the department dean, the chair of Academic Affairs Committee and the Chief Learning Officer, who will implement the ruling.
- f. The decisions rendered by the ad hoc due - process committee will be final.
- g. All original documentation will be kept on file in the Chief Learning Officer.

## Non-Academic Matter

Informal discussion between the student and a staff member involved should take place within twelve (12) instructional days from the date of occurrence or discovery. If the matter is not resolved, the student may invoke the formal written appeal process outlined below.

### Step-1 - Formal Appeal Process

1. The student will submit a written grievance form to the College employee involved within six (6) instructional days following unresolved informal discussion. If the written request is not received within the 6-day deadline, the case will be considered closed and the student will have forfeited the right for an appeal hearing.
2. Within six (6) instructional days of receiving the formal grievance, the College employee involved and the student will meet and attempt to resolve the problem to the mutual satisfaction of both parties.
3. The College employee will issue a written response to the student within six (6) instructional days after the meeting.
4. If the problem is not resolved in step one or the above time frames are not adhered to by the staff member, the student may proceed with Step 2.

### Step 2 - Formal Appeal Process

1. Within six (6) instructional days of receiving the written response from Step 1, the student will submit the original grievance form to the supervisor of the individual involved, with a copy to the next
2. Within six (6) instructional days of receiving all written documentation, the immediate supervisor will meet with the student and the individual involved to attempt to resolve the

problem to the mutual satisfaction of both parties. The second level supervisor may attend this meeting at his/her discretion.

3. Within six (6) instructional days after the meeting, the immediate supervisor will issue a written response to all parties involved, with the original copy to the Chief Learning Officer.
  - a. If the problem is resolved, the written resolution issued by the supervisor will become part of the original document and bring closure to the grievance.
  - b. If the problem is not resolved, the student may proceed to Step 3.
4. If the above time frames are not adhered to by the student, the case will be considered closed and the student will have forfeited the right for an appeal hearing.

### Step 3 - Formal Appeal Process

1. Within six (6) instructional days of receiving the written response from Step 2, the student may request a formal hearing by notifying the Chief Learning Officer. If the request is not received within the 6-day deadline, the case will be considered closed, and the student will have forfeited the right for an appeal hearing.
2. The Chief Learning Officer will notify and forward the original written grievance form to the chair of the Student Affairs committee.
3. Within six (6) instructional days of receiving the request, the Student Affairs Committee will meet to appoint an ad hoc due-process committee to hear the grievance.
  - a. The ad hoc due process committee will consist of one grade level I, II, or III employee; one grade level IV or support staff member; one faculty member; an officer of the student body organization; and a person of the student grievant's choice. (The person may be a present student, faculty member, or other employee of the College.)
  - b. The Student Affairs chair will appoint one member of the ad hoc committee to act as chair for the proceedings.
4. The hearing will take place within six (6) instructional days after the committee appointments. To prepare for the hearing, the chair of the ad hoc committee may make the following arrangements, which are intended to facilitate due process.
  - a. Provide all ad hoc committee members with copies of the written grievance prior to the meeting.
  - b. Identify a date, time and meeting place convenient for the ad hoc committee members, the student grievant, and the person who is the object of the grievance.
  - c. Inform the student grievant and the staff member involved that they may present witnesses and additional written documentation at the hearing.
  - d. The following chronology for the hearing and follow-up is recommended. (The proceedings may also be tape-recorded, provided that all parties are informed in advance.)
    1. Select a recorder.
    2. Review the grievance and hearing procedures. This segment will be closed to the student and staff member.
    3. Invite the student grievant to be heard. The grievant may present witnesses and additional written documentation at this time. This segment will be closed to the staff member.
    4. Invite the staff member to be heard, at which time he or she may provide witnesses and additional written documentation. This segment will be closed to the student.

# Academic Policies and Procedures

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5. In closed session, the committee will discuss its findings and reach a clear and explicit decision. The student and staff member may be invited to reappear and provide more information as requested.
  - e. Within one week after the formal hearing is concluded, the ruling of the ad hoc committee will be presented in writing to the student grievant, the staff person involved, the staff member's immediate supervisor, the chairperson of the Student Affairs committee, and the second level supervisor who will implement the findings. All original documentation will be sent to the Chief Learning Officer.
  - f. The decisions rendered by the ad hoc committee will be final.
  - g. All original documentation will be kept on file in the Chief Learning Officer's Office.
6. Northwest State Community College will release non-directory information, including grades, to parents of dependent students only with the written consent of the student, regardless of the student's age or dependency status. Written consent for such requests must be submitted to the Registrar's Office.

## Hearing to challenge content of records:

1. Students shall have an opportunity for a hearing to challenge the content of their College generated records, to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein. Third party records are not open to challenge.
2. A student may request, in writing, an opportunity for a hearing to challenge the content of his/her College record.
  - a. request should be made to the President or his designee(s).
  - b. A request must:
    1. Identify in specific terms the portion(s) of the record to be challenged
    2. State the reason(s) for challenging the portion(s) of the record so identified.
    3. State the remedy sought; i.e., the correction or the information under challenge.

## Hearing procedures:

1. The hearing will be conducted by the President or his designee(s) who will act as the hearing officer.
2. The hearing will be granted within ten days after the request has been made.
3. The department head or his/her designee(s) responsible for the student record under challenge shall represent that record in the hearing.
4. Prior to the hearing, the hearing officer shall notify the student and the department head of the time, place and date of the hearing and of the specific portion(s) of the student's record to be challenged in the hearing.
5. The hearing shall be limited to consideration of the specific portion(s) of the student's record being challenged.
6. The student will have the right to be assisted by an advisor of his/her choice.
7. The burden of sustaining the challenge rests with the student.
8. The student and the department head have the right to present evidence and witnesses directly related to that portion(s) of the student's record being challenged.
9. The hearing officer shall keep a taped record of the hearing.
10. The hearing officer must provide the student with a written notification of the disposition of the challenge including the reason(s) for the disposition.

## Access to Student Records

College policy on a student's right to inspect and review personally identifiable records and the right for a hearing to challenge the content of those records:

### Inspect and Review Records

1. Individuals who have attended Northwest State Community College have the right to inspect and review official records, files, and data directly related to themselves, including material incorporated into each student's cumulative record folder in accordance with the College policy on access to student records.
2. A student may request, in writing, the opportunity to inspect and review his/her records.
  - a. The request should be made to the chief administrator or his/her designee(s) of the department in which the records are on file.
  - b. A request must specify records to be inspected and reviewed.
3. Release of Information for Deceased Students.
  - a. Requests for information on individuals other than the executor during the first 10 years after death will be limited to the release of directory information only. Thereafter, all information becomes available to the public.
4. A request by a student to inspect and review his/her records will be granted within a reasonable period of time, but such time is not to exceed seven days in which classes are held after the request has been made.
5. Records will be inspected and reviewed by the student in the presence of the department head of his/her designee(s).
  - a. Records may not be changed or deleted during the process of inspection and review.
  - b. The student shall be advised of his/her right to challenge and the procedure to challenge any portion(s) of his/her College record.
  - c. Upon written request, the student shall be provided with a copy of requested documents within his/her record.

# Academic Policies and Procedures

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Institutional personnel access to student records:

1. Students have the right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
  - a. One exception, which permits disclosure without consent, is disclosure to "school officials" with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic, research, or support staff position, including law enforcement unit personnel; a person or company with whom the College has contracted such as an attorney, auditor, or collection agent; a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
  - b. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.
2. Financial aid information supplied by students or parents will be maintained on a confidential basis, with only necessary information released to institutional personnel from the standpoint of processing financial aid awards.

## **Student directory information:**

The following directory information may be released without the student's or graduate's permission:

1. Name
2. Address\*
3. Major field of study, dates of attendance, degrees and awards received
4. Students and graduates may restrict the publication and release of directory information by filing a written request in the Registrar's office

**\*for legitimate educational purposes only**

Third parties:

Whenever a student's information is passed on to a third party, the College will inform the third party that such information may not be passed on to a fourth party.

Records:

The institution will maintain a record of persons who are not institutional employees who request access to a student's file or who obtain access to a student's file. These requests will be directed to the Registrar and/or the Chief Operating Officer.

## **Study at Other Institutions**

A student who wants to attend another institution during the summer or any other part of the academic year, for the purpose of transferring credit to a degree program of NSCC, must first obtain permission from the Chief Learning Officer and file a transient student form signed by the Chief Learning Officer or the Registrar.

Only credit hours transfer—quality points and grades are not figured into the student's permanent record.

## **Campus Crime and Security Policy**

Northwest State Community College does comply with the Crime Awareness and Campus Security Act of 1990.

## **Drug Free Workplace Policy**

Northwest State Community College shall comply with the Drug Free Workplace Act of 1988 and the Drug Free Schools Community Act of 1989.

## **Tobacco-Free Policy**

The use of tobacco products within College owned or leased buildings and fleet vehicles is prohibited after June 7, 1993. Smoking is permitted in the courtyard south of the "E" building.

## **Non-Discrimination Policy**

Northwest State Community College is an equal opportunity institution, and does not discriminate on the basis of race, color, creed, national origin, sex, age, or handicap.

The College reserves the right to make changes in offerings, requirements, policies, regulations, and fees, subsequent to the publication of this catalog.

Certain degree and/or certificate programs have additional requirements, regulations, policies, and fees. For specific information, the student must contact the appropriate academic division.

# Northwest State Core Requirements

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Arts & Sciences courses provide instruction that is essential to a well-rounded education, including written and oral communications, humanities, natural sciences, mathematics, and social and behavioral sciences. Every degree program requires a core of these general education courses to insure that our graduates are not only academically prepared but also better citizens. Arts & Sciences courses help the students develop ways of approaching information and experience that strengthen their reasoning capacity, their awareness of relationships and responsibilities in a social and civic context, and their attention to values and moral issues.

Students in the Associate of Arts or Science degree program should plan their courses with the assistance of a faculty advisor after checking the requirements of the college to which they intend to transfer. By completing the AA or AS degree, the requirements for the Transfer Module will also be met. Additional courses or courses with higher credit value may be taken in order to meet the requirements of the major at the receiving institution. Electives should be chosen carefully in consultation with the receiving institution according to the desired major at the receiving institution.

Students whose goal is a four-year degree may find they can take selected courses at NSCC for a lower cost while staying near home. Academic work toward virtually any major at any college in the nation can be started at NSCC. To transfer efficiently, students must take courses that can be applied to the specific degree requirements at the institution to which they intend to transfer.

NSCC continues to develop and maintain articulation agreements and transfer guides with the institutions who receive the majority of NSCC's transfer students. Currently, covenant and inter-institutional articulation agreements are signed between Northwest State Community College and the following institutions of higher education: Bluffton College, Bowling Green State University, Cuyahoga Community College, Defiance College, Franklin University, Jackson Community College, Lakeland Community College, Lorain County Community College, Lourdes College, Ohio Northern University, Owens Community College, Terra Community College, University of Toledo, and Tri-State University. These agreements and guides help simplify the process for students transferring to these colleges and universities. Because new agreements and guides are continually being developed, students interested in transferring must stay in contact with their academic advisors for the most current information.

As part of the graduation requirements for the Associate of Arts, Associate of Science, Associate of Applied Business, Associate of Applied Science, Associate of Individualized Study, and Associate of Technical Study degrees, a student must complete at least five courses in general studies. These courses are distributed within five core categories. Students must take at least one course from each of the five categories as listed below. Students should consult their degree program for specific requirements within this core.

Associate of Arts and Associate of Science degrees are recommended primarily for students who plan to transfer to a four-year college or university. The planned program of instruction is generally equivalent to the first two years of a baccalaureate degree program.

## Core Requirements

- I ENG111 Composition I
- II ENG112 Composition II
- III Any 100- or 200- level course with one of the following prefixes: BIO, CHM, ECO, ENG, GEO, HIS, HUM, MTH, PHI, PHY, PSY, SPN, SSC, or STA

- (or)
- HST212 Substance Abuse
- HST240 Social Problems
- HST242 Marriage and the Family
- IV ENG223 Interpretation of Literature
- ENG230 Children's Literature
- ENG234 Narrative Literature of the Old Northwest Territory
- ENG250 American Literature Through the Mid-19th Century
- ENG251 American Literature Since the Mid-19th Century
- ENG260 British Literature Through the 18th Century
- ENG261 British Literature 19th Century to Present
- ENG271 Non-Western Literature
- HIS101 US History Pre-1876
- HIS102 US History Post-1876
- HIS203 US Since 1945
- HIS210 The Modern World
- HUM209 Humanities and Cultures:
  - Ancient & Medieval Worlds
- HUM210 Humanities and Cultures:
  - Renaissance to Present
- HUM221 Music Appreciation
- HUM230 Art Appreciation
- PHI110 Critical Thinking & Logic
- PHI201 Introduction to Philosophy
- PHI210 Ethics
- PHI220 Ethics in Health Care
- PHI222 Ethics in the Helping Profession
- PHI230 World Religions
- V PSY110 General Psychology
- PSY220 Social Psychology
- SSC101 Sociology
- SSC110 General Anthropology
- SSC120 American Government
- SSC130 Comparative Government
- SSC210 Cultural Diversity

NOTE: No course being used within I, II, IV, or V can be used within III.

In addition to these requirements, MTH080 proficiency is required for all NSCC Associate Degree graduates; however, individual programs may require a higher mathematics competence. This requirement may be fulfilled by placement test or by taking the course.

Students enrolled in either the Associate of Arts or Associate of Science degree program must demonstrate the following abilities through placement testing or successful course completion:

- College Reading Series
- MTH050 Basic Math
- CIS090 Introduction to Computers
- MTH080 Beginning Algebra
- ENG090 Basic Composition
- MTH090 Intermediate Algebra
- OAS090 Keyboarding Basics

Additional courses should be selected in line with the student's chosen field of study and the four-year college to which the student plans to transfer. Note that many four-year institutions require a foreign language sequence.

# Arts & Sciences

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The Arts and Sciences Division at NSCC offers the Associate of Arts and Associate of Science degrees as two-year degrees that represent the first two years of the four-year baccalaureate degree. The Associate of Arts and Associate of Science degrees are structured to give students a broad-based background in liberal arts. The degrees are flexible enough to allow students to meet the general education requirements at the four-year institution of their choice, with elective course work that may be completed in their anticipated major.

The Associate of Arts and Associate of Science degrees are designed to provide the following program learning outcomes:

## PROGRAM LEARNING OUTCOMES

1. Produce unified, coherent, and well-developed essays following the rules of written academic English and MLA.
2. Interpret the larger thematic, historical or cultural significance of primary works in the humanities.
3. Define and apply key concepts when examining human functioning and problems in society.
4. Summarize and interpret data and relationships using standard statistical processes.
5. Demonstrate symbolic and graphic manipulations using analytic mathematic skills appropriate to the program.
6. Incorporate the steps of the scientific method, beginning with a question, and concluding by analyzing data and drawing conclusions about a stated hypothesis.
7. Demonstrate competency in utilizing current software applications.

## General Education

For NSCC core requirements for all graduates, see page 26.

## Prerequisites

All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the placement test or take the recommended classes. If you have not taken the tests, see the testing coordinator in room C104 for information or referral to testing.

Some courses listed in this program have specific prerequisites. See prerequisites required for each course in the Course Description section of this publication.

# Associate of Arts

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## English and Composition 2 courses required

ENG111	Composition I ("C" or better required)	3 Cr. Hrs.
ENG112	Composition II (Required)	3 Cr. Hrs.

## Humanities 15 credit hours required

- One Literature course (choose from: ENG223, ENG240, ENG241, ENG250, ENG251, ENG260, ENG261 or ENG271)
- One Humanities survey: HUM209 or HUM210 required
- Courses from at least 3 different prefixes,
- No more than 6 hours in the applied arts\*

ART103	Beginning Drawing*	3 Cr. Hrs.
ART210	Oil Acrylics*	3 Cr. Hrs.
ENG223	Interpretation of Literature	3 Cr. Hrs.
ENG230	Children's Literature	3 Cr. Hrs.
ENG234	Narrative Literature of the Old Northwest Territory	3 Cr. Hrs.
ENG240	Poetry	3 Cr. Hrs.
ENG241	Fiction	3 Cr. Hrs.
ENG250	American Literature Through the Mid-19th Century	3 Cr. Hrs.
ENG251	American Literature Since the Mid-19th Century	3 Cr. Hrs.
ENG260	British Literature Through the 18th Century	3 Cr. Hrs.
ENG261	British Literature 19th Century to Present	3 Cr. Hrs.
ENG271	Non-Western Literature	3 Cr. Hrs.
HIS101	US History Pre-1876	3 Cr. Hrs.
HIS102	US History Post-1876	3 Cr. Hrs.
HIS203	US Since 1945	3 Cr. Hrs.
HIS210	The Modern World	3 Cr. Hrs.
HUM121	Concert Band*	1 Cr. Hr.
HUM209	Humanities and Cultures: Ancient & Medieval Worlds	3 Cr. Hrs.
HUM210	Humanities and Cultures: Renaissance to Present	3 Cr. Hrs.
HUM221	Music Appreciation	3 Cr. Hrs.
HUM230	Art Appreciation	3 Cr. Hrs.
PHI110	Critical Thinking and Logic	3 Cr. Hrs.
PHI201	Introduction to Philosophy	3 Cr. Hrs.
PHI210	Ethics	3 Cr. Hrs.
PHI220	Ethics in Health Care	3 Cr. Hrs.
PHI230	World Religions	3 Cr. Hrs.

## Social/Behavioral Sciences 15 credit hours required

- PSY110 and SSC101 are required

ECO211	Macroeconomics	3 Cr. Hrs.
ECO212	Microeconomics	3 Cr. Hrs.
GEO110	World Geography	3 Cr. Hrs.
GEO210	Geography - US & Canada	3 Cr. Hrs.
HST212	Substance Abuse	3 Cr. Hrs.
HST240	Social Problems	3 Cr. Hrs.
HST242	Marriage and the Family	3 Cr. Hrs.
PSY110	General Psychology (required)	3 Cr. Hrs.
PSY210	Abnormal Psychology	3 Cr. Hrs.
PSY220	Social Psychology	3 Cr. Hrs.
PSY230	Human Growth & Development	3 Cr. Hrs.
PSY240	Psychology of Organizational Behavior	3 Cr. Hrs.
PSY260	Forensic Psychology	3 Cr. Hrs.
SSC101	Sociology (required)	3 Cr. Hrs.
SSC110	General Anthropology	3 Cr. Hrs.
SSC120	American Government	3 Cr. Hrs.
SSC130	Comparative Government	3 Cr. Hrs.
SSC210	Cultural Diversity	3 Cr. Hrs.

## Mathematics and Science 10 credit hours required

- STA140 required
- At least 1 course must be a lab course \*
- Courses must be from at least 2 prefixes
- Mathematics proficiency must be demonstrated at the MTH090 Intermediate Algebra level

BIO101	Principles of Biology*	4 Cr. Hrs.
BIO115	Ecology*	4 Cr. Hrs.
BIO150	The Human Body	4 Cr. Hrs.
BIO180	Genetics*	4 Cr. Hrs.
BIO210	Botany*	4 Cr. Hrs.
BIO220	Zoology*	4 Cr. Hrs.
BIO231	Anatomy & Physiology I*	4 Cr. Hrs.
BIO232	Anatomy & Physiology II*	4 Cr. Hrs.
BIO257	Microbiology*	4 Cr. Hrs.
CHM101	Principles of Chemistry*	4 Cr. Hrs.
CHM256	Principles of Biochemistry*	3 Cr. Hrs.
PHY101	Principles of Physical Science*	4 Cr. Hrs.
PHY140	Astronomy*	4 Cr. Hrs.
PHY150	Geology*	4 Cr. Hrs.
PHY251	Physics: Mechanics & Heat*	4 Cr. Hrs.
PHY252	Physics: Electricity & Magnetism*	4 Cr. Hrs.
MTH109	College Algebra	3 Cr. Hrs.
MTH112	Trigonometry	3 Cr. Hrs.
MTH213	Calculus I	5 Cr. Hrs.
MTH214	Calculus II	5 Cr. Hrs.
STA140	Introduction to Statistics (required)	3 Cr. Hrs.

## Computer Literacy 3 credit hours required

CIS114	Microsoft Applications	3 Cr. Hrs.
CIS119	PowerPoint	1 Cr. Hr.
CIS116	Outlook	1 Cr. Hr.
CIS118	Access	1 Cr. Hr.

## Electives 11 credit hours required

- Electives may include any 100 or 200 level course. Electives should be selected in line with the student's chosen field of study and the four-year college to which the student plans to transfer. Note that many four-year institutions require a foreign language sequence.

## Total Required: 60 Credit Hours

Curriculum guide sheets for typical programs are available in the Student Services Office, C-106. Students planning to transfer to another college should use a guide sheet to help with academic planning. For additional guidance, students should contact the college to which they intend to transfer.

# Associate of Science

2007 - 2008

## English Composition 2 courses required

ENG111	Composition I ("C" or better required)	3 Cr. Hrs.
ENG112	Composition II (Required)	3 Cr. Hrs.

## Humanities 12 credit hours required

- One Literature course (choose from: ENG223, ENG240, ENG241, ENG250, ENG251, ENG260, ENG261 or ENG271)
- One Humanities survey: HUM209 or HUM210 required
- Courses from at least 3 different prefixes
- No more than 6 hours in the applied arts\*

ART103	Beginning Drawing*	3 Cr. Hrs.
ART210	Oil Acrylics*	3 Cr. Hrs.
ENG223	Interpretation of Literature	3 Cr. Hrs.
ENG230	Children's Literature	3 Cr. Hrs.
ENG234	Narrative Literature of the Old Northwest Territory	3 Cr. Hrs.
ENG240	Poetry	3 Cr. Hrs.
ENG241	Fiction	3 Cr. Hrs.
ENG250	American Literature Through the Mid-19th Century	3 Cr. Hrs.
ENG251	American Literature Since the Mid-19th Century	3 Cr. Hrs.
ENG260	British Literature Through the 18th Century	3 Cr. Hrs.
ENG261	British Literature 19th Century to Present	3 Cr. Hrs.
ENG271	Non-Western Literature	3 Cr. Hrs.
HIS101	US History Pre-1876	3 Cr. Hrs.
HIS102	US History Post-1876	3 Cr. Hrs.
HIS203	US Since 1945	3 Cr. Hrs.
HIS210	The Modern World	3 Cr. Hrs.
HUM121	Concert Band*	1 Cr. Hr.
HUM209	Humanities and Cultures: Ancient & Medieval Worlds	3 Cr. Hrs.
HUM210	Humanities and Cultures: Renaissance to Present	3 Cr. Hrs.
HUM221	Music Appreciation	3 Cr. Hrs.
HUM230	Art Appreciation	3 Cr. Hrs.
PHI110	Critical Thinking and Logic	3 Cr. Hrs.
PHI201	Introduction to Philosophy	3 Cr. Hrs.
PHI210	Ethics	3 Cr. Hrs.
PHI220	Ethics in Health Care	3 Cr. Hrs.
PHI230	World Religions	3 Cr. Hrs.

## Social/Behavioral Sciences 12 credit hours required

- PSY110 and SSC101 are required

ECO211	Macroeconomics	3 Cr. Hrs.
ECO212	Microeconomics	3 Cr. Hrs.
GEO110	World Geography	3 Cr. Hrs.
GEO210	Geography - US & Canada	3 Cr. Hrs.
HST212	Substance Abuse	3 Cr. Hrs.
HST240	Social Problems	3 Cr. Hrs.
HST242	Marriage and the Family	3 Cr. Hrs.
PSY110	General Psychology (Required)	3 Cr. Hrs.
PSY210	Abnormal Psychology	3 Cr. Hrs.
PSY220	Social Psychology	3 Cr. Hrs.
PSY230	Human Growth & Development	3 Cr. Hrs.
PSY240	Psychology of Organizational Behavior	3 Cr. Hrs.
PSY260	Forensic Psychology	3 Cr. Hrs.
SSC101	Sociology (Required)	3 Cr. Hrs.
SSC110	General Anthropology	3 Cr. Hrs.
SSC120	American Government	3 Cr. Hrs.
SSC130	Comparative Government	3 Cr. Hrs.
SSC210	Cultural Diversity	3 Cr. Hrs.

## Mathematics and Science 16 credit hours required

- STA140 required
- At least 2 courses must be lab courses \*
- Courses must be from at least 2 prefixes
- Mathematics proficiency must be demonstrated at the level of MTH109 College Algebra and MTH112 Trigonometry or MTH213 Calculus I

BIO101	Principles of Biology*	4 Cr. Hrs.
BIO115	Ecology*	4 Cr. Hrs.
BIO150	The Human Body	4 Cr. Hrs.
BIO180	Genetics*	4 Cr. Hrs.
BIO210	Botany*	4 Cr. Hrs.
BIO220	Zoology*	4 Cr. Hrs.
BIO231	Anatomy & Physiology I*	4 Cr. Hrs.
BIO232	Anatomy & Physiology II*	4 Cr. Hrs.
BIO257	Microbiology*	4 Cr. Hrs.
CHM101	Principles of Chemistry*	4 Cr. Hrs.
CHM256	Principles of Biochemistry*	3 Cr. Hrs.
PHY101	Principles of Physical Science*	4 Cr. Hrs.
PHY140	Astronomy*	4 Cr. Hrs.
PHY150	Geology*	4 Cr. Hrs.
PHY251	Physics: Mechanics & Heat*	4 Cr. Hrs.
PHY252	Physics: Electricity & Magnetism*	4 Cr. Hrs.
MTH109	College Algebra	3 Cr. Hrs.
MTH112	Trigonometry	3 Cr. Hrs.
MTH213	Calculus I	5 Cr. Hrs.
MTH214	Calculus II	5 Cr. Hrs.
STA140	Introduction to Statistics (required)	3 Cr. Hrs.

## Computer Literacy 3 credit hours required

CIS114	Microsoft Applications	3 Cr. Hrs.
CIS119	PowerPoint	1 Cr. Hr.
CIS116	Outlook	1 Cr. Hr.
CIS118	Access	1 Cr. Hr.

## Electives 11 credit hours required

- Electives may include any 100 or 200 level course. Electives should be selected in line with the student's chosen field of study and the four-year college to which the student plans to transfer. Note that many four-year institutions require a foreign language sequence.

## Total Required: 60 Credit Hours

Curriculum guide sheets for typical programs are available in the Student Services Office, C-106. Students planning to transfer to another college should use a guide sheet to help with academic planning. For additional guidance, students should contact the college to which they intend to transfer.

# Associate of Arts Historic Preservation

2007 - 2008

The value and importance of historic preservation has finally come of age in the United States, where market forces are demanding professionals and paying them competitive wages for knowledge and skills in this area. Northwest State is fortunate to be within driving distance of the University of Eastern Michigan, which has the premier, award winning program in the U.S. for historic preservation. Students entering into Northwest State's associate degree program will fulfill the first two years of course requirements for the bachelor's degree at Eastern. The program provides students an entry level preparation that will make them cultural stewards who increase awareness and effectiveness of the preservation movement in the United States.

### Career Outlook

Based upon Eastern Michigan University's latest placement statistics (2003), the outlook for jobs is good. The most common placements are by the following categories: State Historic Preservation Offices, museums and historical societies, planning consultants and architectural firms, as well as local, state, and federal government entities. Other groups such as historic district commissions, downtown development authorities, statewide preservation organizations, as well as archives and libraries have hired graduates with preservation backgrounds. A few graduates have even been hired by the National Trust for Historic Preservation.

### PROGRAM LEARNING OUTCOMES

1. Produce unified, coherent, and well-developed essays following the rules of written academic English and MLA.
2. Interpret the larger thematic, historical or cultural significance of primary works in the humanities.
3. Define and apply key concepts when examining human functioning and problems in society.
4. Demonstrate knowledge of historically significant events and their impact on society.
5. Demonstrate symbolic and graphic manipulation using analytic mathematic skills appropriate to the program.
6. Incorporate the steps of the scientific method, beginning with a question, and concluding by analyzing data and drawing conclusions about a stated hypothesis.
7. Demonstrate competency in utilizing current software applications.
8. Demonstrate practices which lead to the preservation and use of historically significant documents.

### First Semester

	<u>Credits</u>
CIS114 Microsoft Applications .....	3
ENG111 Composition I .....	3
HIS101 U.S. History Pre-1876 .....	3
VCT108 Photo Editing .....	2
Social/Behavioral Science Elective .....	<u>3</u>
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### Second Semester

	<u>Credits</u>
ENG112 Composition II .....	3
HIS102 U.S. History Post 1876 .....	3
VCT111 Layout & Design .....	3
Math/Science Elective .....	3
Social/Behavioral Science Elective .....	<u>3</u>
	15

### Third Semester

	<u>Credits</u>
ENG250 American Lit. Thru Mid. 19th Century .....	3
HIS234 History of the Old Northwest .....	3
VCT268 Video Production .....	3
Math/Science Elective .....	4
Social/Behavioral Science Elective .....	<u>3</u>
	16

### Fourth Semester

	<u>Credits</u>
GEO210 Geography U.S. & Canada .....	3
STA220 Statistics .....	3
VCT204 Concepts of Visual Communications .....	3
Humanities Elective .....	3
Social/Behavioral Science Elective .....	<u>3</u>
	15

### Humanities Electives:

ART103	Beginning Drawing
ART210	Oil Acrylics
HUM209	Hum. & Cultures: Ancient & Mid. Worlds
HUM210	Hum. & Cultures: Renaissance to Present
HUM230	Art Appreciation

### Math/Science Electives: (Must take 2 prefixes, one lab course):

BIO101	Principles of Biology
BIO115	Ecology
BIO150	The Human Body
BIO180	Genetics
BIO210	Botany
BIO220	Zoology
BIO231	Anatomy & Physiology I
BIO257	Microbiology
CHM101	Principles of Chemistry
MTH109	College Algebra
MTH112	Trigonometry
MTH213	Calculus I
PHY101	Principles of Physical Science
PHY140	Astronomy
PHY150	Principles of Geology

### Social/Behavioral Science Electives:

GEO110	World Geography
PSY110	General Psychology
PSY220	Social Psychology
PSY240	Organizational Psychology
SSC101	Sociology
SSC110	General Anthropology
SSC120	American Government
SSC210	Cultural Diversity

# Associate of Individualized Studies Degree Program

2007 - 2008

The Associate of Individualized Studies Degree program provides the student an opportunity to develop a tailor-made program of instruction which may include already learned skills, life experiences, and course credits from appropriate professional, personal, and career experiences. Such program needs may not necessarily fit into traditional program offerings.

## Admission Requirements

Admission requirements will adhere to the full requirement of the College. Upon application, the student will be advised and counseled in a program which matches the student's interest and aptitude in so far as possible. High school records, equivalency exams, and Course Placement Test scores will be evaluated.

Students may apply for the AIS program by presenting their intent to the Dean of Arts & Sciences, who will assist them in planning an individualized program of study. The program may be denied if:

1. Standards are not comparable to other technologies offered at Northwest State Community College.
2. The proposed AIS program duplicates an existing technology offered at Northwest State Community College.

For cases in which the College does not offer courses needed to fulfill the degree requirements, cooperative arrangements may be entered into with approved public and private colleges, as well as accredited correspondence schools, vocational centers, and schools conducted by business and industry. Transfer credits, credits by examination, or credit by any other acceptable method in current use at NSCC may be granted.

## Graduation Requirements

Courses designed through individualized studies may be substituted for specific course requirements with the approval of the Dean of General Studies. In all cases, the AIS Degree must meet the following minimum expectations:

### English and Language

- 6 hr. required
- ENG111 Composition I 3 hr. ("C" or better)
- ENG112 Composition II 3 hr.

### Humanities

- 15 hr. required
- At least 3 hours - (other than ENG230) - from ENG prefix
- Coursework from at least 3 different prefix categories within the humanities: ART, HIS, HUM, PHI
- No more than 6 hours in the applied arts (ART prefix courses)

### Social & Behavioral Sciences

- 15 hr. required
- Coursework from at least 2 different prefix categories within the Social & Behavioral Sciences: ECO, GEO, PSY, SSC

### Mathematics & Science

- 10 hr. required
- Demonstrated proficiency at MTH090 Intermediate Algebra level
- MTH220 Introduction to Statistics 3 hr.
- Coursework from at least 2 different prefix categories within Mathematics and Science: BIO, CHM, PHY, MTH
- At least one course must be a lab course

### Computer Literacy

- 3 hr. required
- Selected from approved list

### Electives

- 11 hr. required
- May be selected from available college credit classes at the 100 and 200 level
- May be independent study/work experiences as described below

Total 60 hr. Min.

Independent study/work experiences:

- Must be under the supervision of NSCC faculty and subject to approval of Arts & Sciences Division.
- Must be of collegiate level of academic rigor, work expectations, and appropriate written documentation.
- May be used to meet required hours in Humanities, Social & Behavioral Sciences, or Mathematics & Science if subject matter is appropriate and approval is obtained.
- May be used to meet required elective hours.
- Independent study/work hours should be chosen and designed to transfer in an appropriate fashion to a 4-year college or university.
- Minimum of 2.00 grade point average overall.
- A minimum of 30 semester credit hours of supervised coursework after acceptance into the AIS program.
- Must earn at least 12 of the final 30 credit hours from NSCC.
- A maximum of 12 semester credit hours can be earned through portfolio assessment.

### Counseling Procedure

A student interested in pursuing the Associate of Individualized Study Degree will begin the application procedure by first being directed to the Dean of Arts & Sciences for tentative program approval.

Students who plan to use life experiences or other non-collegiate work as part of their AIS degree must enroll in course AIS101 Portfolio Development.

# NSCC Transfer Module

2007 - 2008

The NSCC Transfer Module consists of 40 semester credit hours which will transfer to any Ohio public two- or four-year college. Students should follow the instructions below in selecting courses for the Transfer Module:

1. Choose courses to fulfill the minimum requirements in each section below, according to the guidelines provided.
2. Complete the remaining hours of the Transfer Module by selecting additional courses listed in any of the sections to total the 40 semester hours required for the Transfer Module.  
NOTE: Be sure to check with an advisor to assure that the courses chosen are appropriate for the major and the transfer institution selected and that they are consistent with the minimum graduation requirements of this institution. Also, check the college catalog for any prerequisites required.
3. NSCC students completing the Associate of Arts or Associate of Science degree requirements will have satisfied this Transfer Module.

**English Composition** 2 courses (required)

ENG111	Composition I (required)	3 Cr. Hrs.
ENG112	Composition II (required)	3 Cr. Hrs.

**Mathematics Electives**

MTH109	College Algebra	3 Cr. Hrs.
MTH112	Trigonometry	3 Cr. Hrs.
MTH213	Calculus I	5 Cr. Hrs.
MTH214	Calculus II	5 Cr. Hrs.

**Arts & Humanities** Select a minimum of 3 courses from the following list:

ENG223	Interpretation of Literature	3 Cr. Hrs.
ENG230	Children's Literature	3 Cr. Hrs.
ENG250	American Literature Through the Mid-19th Century	3 Cr. Hrs.
ENG251	American Literature Since the Mid-19th Century	3 Cr. Hrs.
ENG260	British Literature Through the 18th Century	3 Cr. Hrs.
ENG261	British Literature 19th Century to Present	3 Cr. Hrs.
ENG271	Non-Western Literature	3 Cr. Hrs.
HIS101	US History Pre-1876	3 Cr. Hrs.
HIS102	US History Post-1876	3 Cr. Hrs.
HIS203	US Since 1945	3 Cr. Hrs.
HIS210	The Modern World	3 Cr. Hrs.
HUM209	Humanities and Cultures: Ancient and Medieval Worlds	3 Cr. Hrs.
HUM210	Humanities and Cultures: Renaissance to Present	3 Cr. Hrs.
HUM221	Music Appreciation	3 Cr. Hrs.
HUM230	Art Appreciation	3 Cr. Hrs.
PHI110	Critical Thinking and Logic	3 Cr. Hrs.
PHI201	Introduction to Philosophy	3 Cr. Hrs.
PHI210	Ethics	3 Cr. Hrs.
PHI230	World Religions	3 Cr. Hrs.

**Social/Behavioral Sciences** Select a minimum of 3 courses from at least 2 areas on the following list:

ECO211	Macroeconomics	3 Cr. Hrs.
ECO212	Microeconomics	3 Cr. Hrs.
GEO110	World Geography	3 Cr. Hrs.
GEO210	Geography - US and Canada	3 Cr. Hrs.

HST240	Social Problems	3 Cr. Hrs.
HST242	Marriage and the Family	3 Cr. Hrs.
PSY110	General Psychology	3 Cr. Hrs.
PSY210	Abnormal Psychology	3 Cr. Hrs.
PSY220	Social Psychology	3 Cr. Hrs.
PSY230	Human Growth & Development	3 Cr. Hrs.
PSY240	Psychology of Organizational Behavior	3 Cr. Hrs.
SSC101	Sociology	3 Cr. Hrs.
SSC110	General Anthropology	3 Cr. Hrs.
SSC120	American Government	3 Cr. Hrs.
SSC130	Comparative Government	3 Cr. Hrs.
SSC210	Cultural Diversity	3 Cr. Hrs.

**Natural and Physical Sciences** Select a minimum of 6 credits from the following list:

BIO101	Principles of Biology*	4 Cr. Hrs.
BIO115	Ecology	4 Cr. Hrs.
BIO150	The Human Body	4 Cr. Hrs.
BIO180	Principles of Genetics	4 Cr. Hrs.
BIO210	Botany*	4 Cr. Hrs.
BIO220	Zoology*	4 Cr. Hrs.
BIO231	Anatomy & Physiology I*	4 Cr. Hrs.
BIO232	Anatomy & Physiology II*	4 Cr. Hrs.
BIO257	Microbiology*	4 Cr. Hrs.
CHM101	Principles of Chemistry*	4 Cr. Hrs.
CHM256	Principles of Biochemistry*	3 Cr. Hrs.
PHY101	Principles of Physical Science*	4 Cr. Hrs.
PHY140	Astronomy*	4 Cr. Hrs.
PHY150	Principles of Geology	4 Cr. Hrs.
PHY251	Physics: Mechanics & Heat*	4 Cr. Hrs.
PHY252	Physics: Electricity & Magnetism*	4 Cr. Hrs.

# Business Division

2007 - 2008

The field of business is growing rapidly. Northwest State has many programs to help you see yourself in a whole new way!

- Pre-Business Administration
- Accounting
  - Accounting Assistant Certificate
- Business Management
  - Banking & Finance
  - Entrepreneurship
  - Marketing/Retailing
  - Real Estate Certificate
- Information Technology
  - Computer Programming
  - Network Administration
  - Web Site Management
  - Computer Operator Certificate
- Office Administration
  - Medical Support
  - Office Assistant Certificate
- Paralegal Studies
- Visual Communications

The following elective lists should be used unless specified on the program page.

## General Studies:

Any 100 or 200 level course with one of the following prefixes: BIO, CHM, ENG, GEO, HIS, HUM, MTH, PHI, PHY, PSY, SPN, or SSC

## Humanities:

- ENG223 Interpretation of Literature
- ENG230 Children's Literature
- ENG240 Poetry
- ENG241 Fiction
- ENG250 American Literature Through the Mid-19<sup>th</sup> Century
- ENG251 American Literature Since the Mid-19<sup>th</sup> Century
- ENG260 British Literature Through the 18<sup>th</sup> Century
- ENG261 British Literature 19<sup>th</sup> Century to Present
- ENG271 Non-Western Literature
- HIS101 U.S. History Pre-1876
- HIS102 U.S. History Post-1876
- HIS203 U.S. Since 1945
- HIS210 The Modern World
- HUM209 Humanities and Cultures: Ancient & Medieval Worlds
- HUM210 Humanities and Cultures: Renaissance to Present
- HUM221 Music Appreciation
- HUM230 Art Appreciation
- PHI110 Critical Thinking & Logic
- PHI201 Introduction to Philosophy
- PHI210 Ethics
- PHI230 World Religions

## Social/Behavioral Science:

- PSY110 General Psychology
- PSY220 Social Psychology
- SSC101 Sociology
- SSC110 General Anthropology
- SSC120 American Government
- SSC130 Comparative Government
- SSC210 Cultural Diversity

## **Prerequisites**

All students are required to demonstrate proficiency in reading, writing, mathematics, keyboarding, and computers based on scores on the assessment test or by taking the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing.

Some courses listed in this program have specific prerequisites. It is strongly recommended that students without prior accounting instruction take ACC090, Introduction to Accounting, BEFORE registering for Financial Accounting. See prerequisites required for each course in the Course Description section of the College catalog.

## **General Education**

For Northwest State Core Requirements, see page 26. For the NSCC Transfer Module, see page 32.

## **Course Sequence**

This is a suggested sequence of courses for full-time students. If you are a part-time student, or have transferred courses from another school, you should generally complete courses listed under the first semester before moving on to semester 2, 3, and then 4. Elective courses may be taken at any time. Please meet with your advisor to develop a personalized schedule which will meet your needs. Your advisor can help you make any necessary changes to this recommended sequence.

# Associate of Science

## Pre-Business Administration

2007 - 2008

Students who wish to transfer into the College of Business Administration at the University of Toledo can complete the first two years at Northwest State and earn an Associate of Science in Pre-Business Administration. Courses will transfer to the Bachelor of Business Administration degree. Many other four-year colleges and universities will also accept the courses for transfer credits.

### Career Outlook

Employment opportunities are varied and will depend on each individual goal. Entry-level management positions are found in the manufacturing, retail, food service, banking, and governmental services. Individuals interested in sales positions will find many opportunities. Both nationally and in the state of Ohio business services sales positions, particularly technical sales are expected to grow much faster than the average. Management positions are expected to grow about as fast as the average through the year 2008. Companies which are new and existing will be hiring managers. Service industries, such as food service, will experience a faster than average growth.

### PROGRAM LEARNING OUTCOMES

Students who complete the Pre-Business Administration program will be able to transfer to four-year colleges in degree programs in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will demonstrate mastery of a foundation of business understanding.

### Humanities Electives: (At least one from each prefix)

HIS101	U.S. History Pre-1876
HIS102	U.S. History Post-1876
HUM209	Humanities & Cultures: Renaissance to Present
HUM210	Humanities & Cultures: Ancient & Medieval Worlds
HUM221	Music Appreciation
HUM230	Art Appreciation
PHI110	Critical Thinking & Logic
PHI201	Introduction to Philosophy
PHI210	Ethics
PHI230	World Religions

### Literature Electives:

ENG223	Interpretation of Literature
ENG250	American Literature Through the Mid-19th Century
ENG251	American Literature Since the Mid-19th Century
ENG260	British Literature Through the 18th Century
ENG261	British Literature 19th Century to Present
ENG271	Non-Western Literature

### Natural Science Electives: (One course per prefix)

BIO101	Principles of Biology
BIO115	Ecology
BIO180	Principles of Genetics
PHY140	Astronomy
PHY251	Physics: Mechanics and Heat
PHY252	Physics: Electricity and Magnetism

### Social/Behavioral Science Electives:

PSY110	General Psychology
SSC101	Sociology
SSC120	American Government

### First Semester

		Credits
ACC111	Financial Accounting .....	4
ENG111	Composition I .....	3
MGT110	Management .....	3
	Humanities Elective .....	3
	Social/Behavioral Science Elective .....	3
		16

### Second Semester

		Credits
ACC112	Managerial Accounting .....	4
CIS114	Microsoft Applications .....	3
ENG112	Composition II .....	3
MKT110	Marketing .....	3
	Humanities Elective .....	3
		16

### Third Semester

		Credits
ECO211	Macroeconomics .....	3
MTH213	Calculus I .....	5
SSC210	Cultural Diversity .....	3
	Humanities Elective .....	3
	Natural Science Elective .....	4
		18

### Fourth Semester

		Credits
ECO212	Microeconomics .....	3
STA220	Statistics .....	3
	Humanities Elective .....	3
	Literature Elective .....	3
	Natural Science Elective .....	4
		16

# Associate of Applied Business

# Accounting

2007 - 2008

Students in accounting develop a high degree of technical skills in accounting systems and business organization. The accounting programs provide business-related experience on modern equipment. Courses utilize personal computers and electronic printing calculators. The Accounting degree program is designed to help students attain technical accounting skills and a broad knowledge of business fundamentals. Accounting systems are studied as they are applied every day in business and industrial organizations.

Graduates are qualified as Senior Clerks or Junior Accountants, positions as a Cost Accountant, Accounting Supervisor, Payroll Supervisor, or Office Manager. The Associate of Applied Business degree in Accounting is offered on a weekend college basis along with the typical schedule of daytime or evening classes.

### Career Outlook

Employment both nationally and in the state of Ohio is expected to grow about as fast as the average through the year 2008. As the economy grows, the number of businesses will increase as well as the need for accountants. The accounting profession generally has a low rate of turnover; therefore, openings will be primarily created through retirements and promotions.

### PROGRAM LEARNING OUTCOMES

Students who complete the Accounting program will be employable in a variety of accounting positions in which:

1. Students will create financial statements, reports, and schedules.
2. Students will interpret financial statements and make managerial decisions.
3. Students will integrate accounting knowledge into software programs.
4. Students will demonstrate accurate skills in recording and reporting of accounts.
5. Students will demonstrate mastery of a foundation of business understanding.

<u>First Semester</u>	<u>Credits</u>
+ ACC111 Financial Accounting .....	4
+ ACC120 Payroll Accounting .....	3
BUS110 Business Math/Calculators .....	3
ENG111 Composition I .....	3
Social/Behavioral Science Elective .....	<u>3</u>
	16

<u>Second Semester</u>	<u>Credits</u>
+ ACC112 Managerial Accounting .....	4
+ ACC140 Personal Income Tax Accounting .....	3
CIS114 Microsoft Applications .....	3
ENG112 Composition II .....	3
Humanities Elective .....	<u>3</u>
	16

<u>Third Semester</u>	<u>Credits</u>
+ ACC211 Intermediate Accounting I .....	3
+ ACC221 Cost Accounting I .....	3
+ Computer Accounting Elective .....	3
+ Accounting Elective .....	3
Business Elective .....	<u>3</u>
	15

<u>Fourth Semester</u>	<u>Credits</u>
+ ACC212 Intermediate Accounting II .....	3
+ ACC222 Cost Accounting II .....	3
+ ACC230 Auditing .....	3
BUS221 Business Law .....	3
General Studies Elective .....	<u>3</u>
	15

### Accounting Electives:

ACC240	Business Income Tax Accounting
ACC291	Accounting Internship

### Business Electives:

BUS250	Labor Relations
BUS260	International Trade
BUS280	Finance
CIS118	Access
CIS119	Power Point
CIS122	Intermediate Excel
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT110	Marketing
MKT230	Salesmanship

### Computer Accounting Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC263	Quicken
ACC264	Dunphy Income Tax
ACC271	Intermediate Quick Books
ACC272	Advanced Quick Books

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Accounting Certificate

## Accounting Assistant

2007 - 2008

Accounting is an excellent foundation for any type of business or office position. Most managerial positions require at least some understanding of accounting functions. The one-year certificate program provides students with accounting skills in balance sheets, income statements, payroll accounting, and personal tax accounting.

Those who complete the program are employable within one academic year as a Payroll Clerk, Accounts Payable Clerk, Accounts Receivable Clerk, or General Accounting Bookkeeper in business or industrial organizations. The student can earn the associate degree by completing one year of full-time study beyond the Accounting Assistant Certificate.

Although occupations such as accounting clerks and bookkeepers will probably not grow in size through the year 2008, the large size of the occupation ensures that there should be a large number of openings and plentiful job opportunities for job seekers. Openings will result primarily from replacing workers who leave the profession or retire. New positions will largely be created in small, rapidly growing organizations.

### Career Outlook

Employment both nationally and in the state of Ohio is expected to grow about as fast as the average through the year 2008. As the economy grows, the number of businesses will increase as well as the need for accountants. The accounting profession generally has a low rate of turnover; therefore, openings will be primarily created through retirements and promotions.

### PROGRAM LEARNING OUTCOMES

Students who complete the Accounting program will be employable in a variety of accounting positions in which:

1. Students will create financial statements, reports, and schedules.
2. Students will interpret financial statements and make managerial decisions.
3. Students will integrate accounting knowledge into software programs.
4. Students will demonstrate accurate skills in recording and reporting of accounts.
5. Students will demonstrate mastery of a foundation of business understanding.

<u>First Semester</u>	<u>Credits</u>
+ ACC111 Financial Accounting .....	4
+ ACC120 Payroll Accounting .....	3
BUS110 Business Math/Calculators .....	3
ENG111 Composition I .....	3
Business Elective .....	<u>3</u>
	16

<u>Second Semester</u>	<u>Credits</u>
+ ACC112 Managerial Accounting .....	4
+ ACC140 Personal Income Tax Accounting .....	3
BUS221 Business Law .....	3
CIS114 Microsoft Applications .....	3
ENG112 Composition II .....	<u>3</u>
	16

### Business Electives:

- BUS250 Labor Relations
- BUS260 International Trade
- BUS280 Finance
- ECO211 Macroeconomics
- ECO212 Microeconomics
- MGT110 Management
- MGT210 Human Resource Management
- MGT280 Business Climate Analysis
- MKT110 Marketing
- MKT230 Salesmanship

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business

# Business Management

2007 - 2008

Today's successful managers need a variety of skills, including communication skills and analytical and decision-making skills. The demand for business management personnel has risen with the growing number of small businesses in Northwest Ohio. At the same time, large businesses continuously require mid-management and supervisory personnel. The graduate of the Business Management program is skilled in supervision, labor relations, accounting, marketing, salesmanship, and decision-making. The graduate is qualified for a position as a General Manager or Assistant Manager of a small business or a Personnel Specialist, Foreman, or Supervisor of a manufacturer, commercial business, or other organization. The Business Management program offers a weekend college option along with the typical schedule of daytime or evening classes.

### Career Outlook

Employment opportunities are varied and will depend on each individual goal. Entry-level management positions are found in the manufacturing, retail, food service, banking, and governmental services. Individuals interested in sales positions will find many opportunities. Both nationally and in the state of Ohio, business services sales positions, particularly technical sales, are expected to grow much faster than the average. Management positions are expected to grow about as fast as the average through the year 2008. Companies which are new and existing will be hiring managers. Service industries, such as food service, will experience a faster than average growth.

### PROGRAM LEARNING OUTCOMES

Students who complete the Business Management program will be employable in a variety of management positions in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self-motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.

### Business Electives:

ACC140	Personal Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS260	International Trade
ECO212	Microeconomics
MGT220	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
REA210	Real Estate Principles
VCT182	Photography

### Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC263	Quicken
ACC264	Dunphy Income Tax
ACC271	Intermediate Quick Books
CIS116	Outlook
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

### First Semester

			<u>Credits</u>
+	ACC111	Financial Accounting .....	4
	BUS110	Business Math/Calculators .....	3
	ENG111	Composition I .....	3
+	MGT110	Management .....	3
		Social/Behavioral Science Elective .....	<u>3</u>
			16

### Second Semester

			<u>Credits</u>
+	ACC112	Managerial Accounting .....	4
	CIS114	Microsoft Applications .....	3
	ENG112	Composition II .....	3
+	MKT110	Marketing .....	3
		General Studies Elective .....	<u>3</u>
			16

### Third Semester

			<u>Credits</u>
+	BUS221	Business Law .....	3
	ECO211	Macroeconomics .....	3
+	MGT210	Human Resource Management .....	3
+		Business Elective .....	3
		Computer Elective .....	1
		Humanities Elective .....	<u>3</u>
			16

### Fourth Semester

			<u>Credits</u>
+	BUS250	Labor Relations .....	3
+	BUS280	Finance .....	3
+	MGT280	Business Climate Analysis .....	3
+	MKT230	Salesmanship .....	3
	STA220	Statistics .....	3
		Computer Elective .....	<u>1</u>
			16

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Business Management

## Banking & Finance

2007 - 2008

The Banking and Finance major provides students with a broad and practical background in bank-related management skills and the application of those skills to the banking field. Topics with which a bank manager should be familiar (commercial and real estate lending, investments, regulatory structure, and financial statements) receive major emphasis. Several course projects require extensive research into these bank-related fields. The graduate is also familiar with the computer field and with some accounting and spreadsheet applications.

The graduate is qualified for a position as a Manager or Assistant Manager of a small bank, savings and loan, or credit union. In a larger institution, the graduate could specialize in either the loan origination or consumer/commercial credit department.

Real Estate classes are offered in a seminar format as full-day sessions on weekends.

### Career Outlook

Most opportunities will be found in financial institutions which include banks, credit unions, loan companies, insurance firms, stock brokerage firms, investment banking firms, and commercial and residential real estate businesses. Job opportunities appear to be solid. For instance, growth for loan officer positions is expected to grow faster than the average through the year 2008. As the economy grows, loan officers/counselors will process more applications for commercial, consumer, and mortgage loans. Financial Manager Positions are expected to grow about as fast as the average, especially in the securities industry because more people are investing.

### PROGRAM LEARNING OUTCOMES

Students who complete the Banking & Finance program will be employable in a variety of management positions in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.
6. Students will demonstrate understanding of banking practices.

<u>First Semester</u>	<u>Credits</u>
+ ACC111 Financial Accounting .....	4
BUS110 Business Math/Calculators .....	3
ENG111 Composition I .....	3
+ MGT110 Management .....	3
Social/Behavioral Science Elective .....	<u>3</u>
	16

<u>Second Semester</u>	<u>Credits</u>
+ ACC112 Managerial Accounting .....	4
+ BAN110 Bank Management .....	3
CIS114 Microsoft Applications .....	3
ENG112 Composition II .....	3
General Studies Elective .....	<u>3</u>
	16

<u>Third Semester</u>	<u>Credits</u>
+ BAN210 Credit Management .....	3
ECO211 Macroeconomics .....	3
+ MGT210 Human Resource Management .....	3
+ REA210 Real Estate Principles .....	3
+ REA220 Real Estate Law .....	3
Computer Elective .....	<u>1</u>
	16

<u>Fourth Semester</u>	<u>Credits</u>
+ BAN220 Investment Management .....	3
+ BUS280 Finance .....	3
+ REA230 Real Estate Finance .....	3
Business Elective .....	3
Computer Elective .....	1
Humanities Elective .....	<u>3</u>
	16

**Business Electives:**

ACC140 Personal Income Tax Accounting
ACC221 Cost Accounting I
ACC240 Business Income Tax Accounting
BUS260 International Trade
ECO212 Microeconomics
MGT220 Entrepreneurship
MGT230 Retail Management
MGT280 Business Climate Analysis
MGT290 Business Management Internship
MKT110 Marketing
MKT230 Salesmanship
REA240 Real Estate Appraisal

**Computer Electives:**

ACC261 Quick Books
ACC262 Peachtree
ACC263 Quicken
ACC264 Dunphy Income Tax
ACC271 Intermediate Quick Books
CIS116 Outlook
CIS118 Access
CIS119 PowerPoint
CIS121 Intermediate Word
CIS122 Intermediate Excel
CIS129 Web Page Development

# Associate of Applied Business: Business Management Marketing & Retailing

2007 - 2008

The graduate of the Marketing/Retailing Management major is skilled in retailing, retail buying, marketing, small business management, salesmanship, and advertising, as well as accounting, supervision, and decision making. The graduate is qualified for a position as Manager or Assistant Manager of a retail store, franchise outlet, or department store. Graduates may also work as managers or supervisors of other organizations.

## Career Outlook

Employment in marketing and retail, both nationally and in the state of Ohio, is expected to grow as fast as the average. The main employers in marketing and retail management are grocery stores, automotive dealerships, clothing stores, and department stores.

## PROGRAM LEARNING OUTCOMES

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self-motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.
6. Students will demonstrate understanding of marketing and retailing practices.

<u>First Semester</u>	<u>Credits</u>
+ ACC111 Financial Accounting .....	4
BUS110 Business Math/Calculators .....	3
ENG111 Composition I .....	3
+ MGT110 Management .....	3
+ MGT230 Retail Management .....	<u>3</u>
	16

<u>Second Semester</u>	<u>Credits</u>
+ ACC112 Managerial Accounting .....	4
CIS114 Microsoft Applications .....	3
ENG112 Composition II .....	3
+ MKT110 Marketing .....	3
General Studies Elective .....	<u>3</u>
	16

<u>Third Semester</u>	<u>Credits</u>
+ BUS221 Business Law .....	3
ECO211 Macroeconomics .....	3
+ MGT210 Human Resource Management .....	3
+ MKT210 Advertising .....	3
Computer Elective .....	1
Social/Behavioral Science Elective .....	<u>3</u>
	16

<u>Fourth Semester</u>	<u>Credits</u>
+ MGT221 Entrepreneurship .....	3
+ MGT280 Business Climate Analysis .....	3
+ MKT230 Salesmanship .....	3
STA220 Statistics .....	3
Computer Elective .....	1
Humanities Elective .....	<u>3</u>
	16

## Computer Electives:

ACC261 Quick Books
ACC262 Peachtree
ACC263 Quicken
ACC264 Dunphy Income Tax
ACC271 Intermediate Quick Books
CIS116 Outlook
CIS118 Access
CIS119 PowerPoint
CIS121 Intermediate Word
CIS122 Intermediate Excel
CIS129 Web Page Development

- + **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Business Management

## Entrepreneurship

2007 - 2008

The graduate acquires skills to create innovative ventures, recognize opportunities, evaluate alternative courses of action, and formulate a plan to successfully achieve organizational objectives. Entrepreneurial skills can be utilized within existing organizations and government agencies to effect changes necessary to the success and survival of the organization.

Students are prepared with assessment skills in financial and legal analysis. The creation of the Business Plan forms the foundation for the entrepreneur and is a major focus of the Entrepreneurship course.

### Career Outlook

Employment both nationally and in the state of Ohio, is expected to grow as fast as the average. From 2002 to 2012 the top areas of job creation will be management and consulting (42.9% growth rate), computer systems and related services (41.3% growth rate), and home health care services (39.6% growth rate), indicating areas of opportunities for individuals with drive, vision and skills to provide new and creative services.<sup>1</sup>

### Prerequisites

All students are required to demonstrate proficiency in reading, writing, mathematics, keyboarding, and computers based on scores on the assessment test or by taking the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing.

Some courses listed in this program have specific prerequisites. It is strongly recommended that students without prior accounting instruction take ACC090 Introduction to Accounting BEFORE registering for Financial Accounting. See prerequisites required for each course in the Course Description section of the College catalog.

### General Education

For Northwest State Requirements, see page 26. For the NSCC Transfer Module, see page 32.

### PROGRAM LEARNING OUTCOMES

1. Students will identify entrepreneurial opportunities.
2. Students will develop strategies to exploit entrepreneurial opportunities.
3. Students will evaluate and analyze alternative strategies and assess risk.
4. Students will develop and present a feasible business plan
5. Students will demonstrate understanding of the major styles of management.
6. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
7. Students will exhibit work skills of attendance, work ethic, and self-motivation.
8. Students will demonstrate mastery of a foundation of business understanding.
9. Students will demonstrate understanding of business ethics.
10. Students will demonstrate understanding of supervision of employees.

### First Semester

	<u>Credits</u>
+ ACC111 Financial Accounting .....	4
BUS110 Business Math/Calculators .....	3
ENG111 Composition I .....	3
+ MGT110 Management .....	3
Technical Elective .....	<u>3</u>
	16

### Second Semester

	<u>Credits</u>
+ ACC112 Managerial Accounting .....	4
CIS114 Microsoft Applications .....	3
ENG112 Composition II .....	3
+ MGT120 Supervision .....	3
+ MKT110 Marketing .....	<u>3</u>
	16

### Third Semester

	<u>Credits</u>
+ BUS221 Business Law .....	3
ECO211 Macroeconomics .....	3
+ MGT210 Human Resource Management .....	3
+ MKT210 Advertising .....	3
Computer Elective .....	1
Social/Behavioral Science Elective .....	<u>3</u>
	16

### Fourth Semester

	<u>Credits</u>
+ MGT221 Entrepreneurship .....	3
+ MKT230 Salesmanship .....	3
+ Business Elective .....	3
Computer Elective .....	1
General Studies Elective .....	3
Humanities Elective .....	<u>3</u>
	16

### Business Electives:

MGT280 Business Climate Analysis
MGT290 Business Management Internship

### Technical Electives:

CAD111 CAD I
IET105 Industrial Computing I
MET110 Print Reading & Sketching
MGT230 Retail Management
PET110 Principles of Plastics
QCT100 Quality Concepts
REA210 Real Estate Principles

### Computer:

ACC261 Quick Books
ACC262 Peachtree
ACC263 Quicken
ACC264 Dunphy Income Tax
ACC271 Intermediate Quick Books
CIS116 Outlook
CIS118 Access
CIS119 PowerPoint
CIS121 Intermediate Word
CIS122 Intermediate Excel
CIS129 Web Page Development

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Business Management

## International/Global Business

2007 - 2008

The value and importance of global business has finally come of age in the United States, where market forces are demanding professionals and paying them competitive wages for knowledge and skills in this area. Northwest State is fortunate to be located in the heart of the NAFTA Corridor, on the road between Monterrey, Mexico and Windsor, Ontario. Students entering into Northwest State's associate degree program will learn international and global business concepts while studying the Business Management program. The program provides students an entry level preparation that will enhance cultural awareness and polish business skills.

### Career Outlook

Employment opportunities are varied and will depend on each individual goal. Entry-level management positions are found in the manufacturing, retail, food service, banking, and governmental services. Students will be familiar with international business so as to assist in businesses which focus on a global market of customers and suppliers.

### PROGRAM LEARNING OUTCOMES

Students who complete the International/Global Business program will be employable in a variety of positions in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self-motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.
6. Students will demonstrate understanding of global business practices.

<u>First Semester</u>		<u>Credits</u>
+	ACC111	Financial Accounting ..... 4
	BUS110	Business Math/Calculators ..... 3
	BUS160	International & Global Business ..... 3
	ENG111	Composition I ..... 3
+	MGT110	Management ..... <u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+	ACC112	Managerial Accounting ..... 4
	CIS114	Microsoft Applications ..... 3
	ECO211	Macroeconomics ..... 3
	ENG112	Composition II ..... 3
+	MKT110	Marketing ..... <u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
+	BUS221	Business Law ..... 3
	BUS257	Global Economics ..... 3
+	MGT210	Human Resource Management ..... 3
	SSC210	Cultural Diversity ..... 3
		Computer Elective ..... 1
		Humanities Elective ..... <u>3</u>
		16

<u>Fourth Semester</u>		<u>Credits</u>
+	BUS260	International Trade ..... 3
+	MGT281	Global Business Climate Analysis ..... 3
+	MKT230	Salesmanship ..... 3
	STA220	Statistics ..... 3
		Computer Elective ..... 1
		General Studies Elective ..... <u>3</u>
		16

### Computer Electives:

ACC261	Quick Books
ACC262	Peach Tree
ACC263	Quicken
ACC264	Dunphy Income Tax
ACC271	Intermediate Quick Books
ACC272	Advanced Quick Books
CIS116	Outlook
CIS118	Access
CIS119	Power Point
CIS121	Intermediate Excel
CIS129	Web Page Development

# Business Management Certificate

## Real Estate

2007 - 2008

Real Estate agents assist people in buying, selling, and renting properties and businesses. Real Estate agents work for brokers on a contractual basis. Some real estate agents work for construction companies, promoting homes that the company is building. Students who complete the Real Estate Certificate are qualified to pursue licensure as a Real Estate Salesperson. The Ohio Real Estate Commission has approved the following courses in preparation for licensure: REA210 Real Estate Principles, REA220 Real Estate Law, REA230 Real Estate Finance, and REA240 Real Estate Appraisal. Credits earned in the Real Estate Certificate also apply toward the Banking & Finance Major.

Real Estate classes are offered in a seminar format as full-day sessions on weekends.

### Career Outlook

Employment will be stable in the state of Ohio for real estate agents. The demand for home purchases and management of rental units is expected to grow in the future. People will continue to move to other parts of the country, creating a demand for home sales, while others will be seeking larger homes as their income increases. Real estate agents will be able to work more efficiently with the increased use of technology in the field, such as computers, cellular phones, and pagers. Access to the internet will also allow agents to show clients homes without leaving the office, therefore helping the agent to serve more clients than in the past.

### First Semester

### Credits

+	ACC111	Financial Accounting .....	4
	BUS110	Business Math/Calculators .....	3
	ENG111	Composition I .....	3
+	REA210	Real Estate Principles .....	3
+	REA220	Real Estate Law .....	<u>3</u>
			16

### Second Semester

### Credits

+	ACC112	Managerial Accounting .....	4
	CIS114	Microsoft Applications .....	3
	ENG112	Composition II .....	3
+	REA230	Real Estate Finance .....	3
+	REA240	Real Estate Appraisal .....	<u>3</u>
			16

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Business Management

## Straight Truck Transportation

2007 - 2008

The Straight Truck Transportation major provides students with the skills required to qualify as an entry truck driver in interstate and/or intrastate commerce. Graduates are familiar with vehicles, engines, and brakes. They also have acquired skills in maneuvering, cornering, backing, and parking through a variety of urban and rural environments.

The graduate of the Business Management program is skilled in supervision, labor relations, accounting, and decision-making. The graduate is qualified for a position as a General Manager or Assistant Manager of a small business or a Personnel Specialist, Foreman, or Supervisor of a manufacturer, commercial business, or other organization.

Truck driving classes are held at the HR Career Development Truck Driver Training School in Montpelier, Ohio and require additional fees.

### Career Outlook

Employment of truck drivers is strong and is expected to remain at a high level in Ohio and throughout the country. The world depends upon the transfer of raw materials and finished goods, with the primary method via truck transportation.

### PROGRAM LEARNING OUTCOMES

Students who complete the Straight Truck Driving program will be employable in a variety of positions in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self-motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.
6. Students will demonstrate understanding of truck driving practices.

### Business Electives:

ACC140	Personal Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS260	International Trade
ECO212	Microeconomics
MGT220	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising

### Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC263	Quicken
ACC264	Dunphy Income Tax
ACC271	Intermediate Quick Books
CIS116	Outlook
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

<u>First Semester</u>	<u>Credits</u>	
BUS110	Business Math/Calculators .....	3
+ MGT110	Management .....	3
TRN150	Straight Truck Driver .....	7
	Social/Behavioral Science Elective .....	<u>3</u>
		16

<u>Second Semester</u>	<u>Credits</u>	
CIS114	Microsoft Applications .....	3
ENG111	Composition I .....	3
MKT110	Marketing .....	3
	Business Elective .....	3
	General Studies Elective .....	<u>3</u>
		15

<u>Third Semester</u>	<u>Credits</u>	
+ ACC111	Financial Accounting .....	4
+ BUS221	Business Law .....	3
ECO211	Macroeconomics .....	3
ENG112	Composition II .....	3
+ MGT210	Human Resource Management .....	3
	Computer Elective .....	<u>1</u>
		17

<u>Fourth Semester</u>	<u>Credits</u>	
+ ACC112	Managerial Accounting .....	4
+ BUS250	Labor Relations .....	3
+ MGT280	Business Climate Analysis .....	3
STA220	Statistics .....	3
	Humanities Elective .....	<u>3</u>
		16

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Business Management

## Tractor-Trailer Transportation

2007 - 2008

The Tractor-Trailer Transportation major provides students with the skills required to qualify as an entry-level tractor-trailer driver in interstate and/or intrastate commerce. Graduates are familiar with vehicles, engines, and brakes. They also have acquired skills in maneuvering, cornering, backing, and parking through a variety of urban and rural environments.

The graduate of the Business Management program is skilled in supervision, labor relations, accounting, and decision-making. The graduate is qualified for a position as a General Manager or Assistant Manager of a small business or a Personnel Specialist, Foreman, or Supervisor of a manufacturer, commercial business, or other organization.

Truck driving classes are held at the HR Career Development Truck Driver Training School in Montpelier, Ohio and require additional fees.

### Career Outlook

Employment of truck drivers is strong and is expected to remain at a high level in Ohio and throughout the country. The world depends upon the transfer of raw materials and finished goods, with the primary method via truck transportation.

### PROGRAM LEARNING OUTCOMES

Students who complete the Tractor-Trailer Driving program will be employable in a variety of positions in which:

1. Students will demonstrate understanding of the major styles of management.
2. Students will exhibit personal skills of telephone etiquette, proper business attire, and social skills.
3. Students will exhibit work skills of attendance, work ethic, and self-motivation.
4. Students will demonstrate mastery of a foundation of business understanding.
5. Students will demonstrate understanding of business ethics.
6. Students will demonstrate understanding of truck driving practices.

### Business Electives:

ACC140	Personal Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS260	International Trade
ECO212	Microeconomics
MGT220	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
TRN100	Tractor-Trailer Driver Refresher

### Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC263	Quicken
ACC264	Dunphy Income Tax
ACC271	Intermediate Quick Books
CIS116	Outlook
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

<u>First Semester</u>		<u>Credits</u>
BUS110	Business Math/Calculators .....	3
+ MGT110	Management .....	3
TRN200	Tractor-Trailer Driver .....	<u>9</u>
		15

<u>Second Semester</u>		<u>Credits</u>
CIS114	Microsoft Applications .....	3
ENG111	Composition I .....	3
	Business Elective .....	3
	General Studies Elective .....	3
	Social/Behavioral/Science Elective .....	<u>3</u>
		15

<u>Third Semester</u>		<u>Credits</u>
+ ACC111	Financial Accounting .....	4
+ BUS221	Business Law .....	3
ECO211	Macroeconomics .....	3
ENG112	Composition II .....	3
+ MGT210	Human Resource Management .....	3
	Computer Elective .....	<u>1</u>
		17

<u>Fourth Semester</u>		<u>Credits</u>
+ ACC112	Managerial Accounting .....	4
+ BUS250	Labor Relations .....	3
+ MGT280	Business Climate Analysis .....	3
STA220	Statistics .....	3
	Computer Elective .....	1
	Humanities Elective .....	<u>3</u>
		17

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Information Technology

## Computer Programming

2007 - 2008

Computers play a part in nearly all phases of our life today. Businesses and governmental agencies, large and small, require trained computer specialists. The Computer Programming Major prepares computer programmers and computer operators to work with a wide variety of computers and languages used by area employers. The Computer Programming curriculum has been developed to prepare technically trained personnel to meet the demands of the more centralized mini/mainframe Data Processing departments. Emphasis is placed upon business-oriented computer languages. Programming and practical applications of business data are stressed. In the laboratory, hands-on experience is provided using the IBM AS/400 minicomputer and PC compatible computers.

Graduates may find employment in entry-level positions with typical titles such as Computer Operator, Application Programmer, Maintenance Programmer, Software Developer, or in Technical Support. A career path may include Lead or Senior Programmer and Data Processing Manager.

### Career Outlook

Employment of computer programmers is expected to be quite good. Through the year 2006, the growth is expected to be faster than the average nationally and as fast as average in the state of Ohio. Opportunities should be especially good for those programmers who know several programming languages.

### PROGRAM LEARNING OUTCOMES

Students who complete the Computer Programming program will be employable in a variety of positions in which:

1. Students will write and debug programs.
2. Students will gain an understanding of structured programming concepts.
3. Students will assemble and troubleshoot hardware.
4. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
5. Students will install and troubleshoot current Network Operating Systems and current Network Protocols.
6. Students will demonstrate software skills.

#### Business Electives:

BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT110	Marketing

#### Business Analysis:

ACC221	Cost Accounting I
STA220	Statistics
BUS280	Finance

#### Technical Electives:

CAD111	CAD I
CIS155	Linux Networking I
CIS161	C #
CIS272	Microsoft Networking I
CIS290	Information Technology Internship
EET272	Cisco Networking I

<u>First Semester</u>	<u>Credits</u>
+ CIS111	Visual Basic Programming ..... 4
CIS130	Computer Mathematics ..... 3
+ CIS190	Computer Operations GOS ..... 4
ENG111	Composition I ..... <u>3</u>
	14

<u>Second Semester</u>	<u>Credits</u>
CIS114	Microsoft Applications ..... 3
+ CIS165	Java Programming ..... 4
+ CIS180	Computer Operations & CL ..... 4
ENG112	Composition II ..... 3
	Business Elective ..... <u>3</u>
	17

<u>Third Semester</u>	<u>Credits</u>
ACC111	Financial Accounting ..... 4
+ CIS150	Programming C++ ..... 4
+ CIS230	Programming RPG ..... 4
	General Studies Elective ..... <u>3</u>
	15

<u>Fourth Semester</u>	<u>Credits</u>
+ ACC112	Managerial Accounting ..... 4
	Business Analysis Elective ..... 3
	Humanities Elective ..... 3
	Social/Behavioral/Science Elective ..... 3
+	Technical Elective ..... <u>4</u>
	17

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Information Technology

## Network Administration

2007 - 2008

The increase in power of microcomputers and the maturation of data communications technology is driving the replacement of centralized data processing systems with distributed processing, client-server networks. This down-sizing may be to pure microcomputer installations or to hybrid systems involving complex interfaces and dissimilar micro-mini-mainframe computer hardware.

The Network Administration major provides skills and training to program on, operate, and install these networks using Novell, Microsoft, and CISCO networks and IBM AS/400. Graduates are eligible to sit for certification tests as Certified Novell Engineers, Microsoft Certified System Engineers, or CISCO Certified Network Administrators.

### Career Outlook

Career opportunities are numerous for individuals in this field. All organizations, large and small, use computers as an integral part of how they do business. Workers need both software and hardware support to do their jobs. Graduates may find employment in entry-level positions with typical titles such as Network Administrator, Network Engineer, Network Installation Engineer, Computer Programmer, or Technical Support or Help Desk. A career path may include Enterprise Network Administration, Lead or Senior Programmer, Systems Programmer, and Data Processing Manager.

### PROGRAM LEARNING OUTCOMES

1. Students will assemble and troubleshoot hardware.
2. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
3. Students will install and troubleshoot current Network Operating Systems and current Network Protocols.
4. Students will gain an understanding of structured programming concepts.
5. Students will demonstrate software skills.

### Networking Electives

CIS155	Linux Networking I
CIS255	Linux Networking II
CIS256	Linux Networking III
CIS272	Microsoft Networking I
CIS282	Microsoft Networking II
CIS283	Microsoft Networking III
EET272	Cisco Networking I

### Business Electives:

BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT110	Marketing

### Business Analysis:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

### Technical Electives:

CAD111	CAD I
CIS111	Visual BASIC
CIS165	Java Programming
CIS180	Computer Operations & CL
CIS230	Programming RPG
CIS290	Information Technology Internship

### First Semester

		Credits
	CIS130 Computer Mathematics .....	3
+	CIS150 Programming C++ .....	4
+	CIS190 Computer Operations GOS .....	4
	ENG111 Composition I .....	3
		14

### Second Semester

		Credits
+	CIS114 Microsoft Applications .....	3
+	CIS161 C# .....	4
	ENG112 Composition II .....	3
	Business Elective .....	3
+	Networking Elective .....	4
		17

### Third Semester

		Credits
	ACC111 Financial Accounting .....	4
	General Studies Elective .....	3
+	Networking Elective .....	4
+	Technical Elective .....	4
		15

### Fourth Semester

		Credits
	ACC112 Managerial Accounting .....	4
	Business Analysis Elective .....	3
	Humanities Elective .....	3
	Social/Behavioral Science Elective .....	3
+	Networking Elective .....	4
		17

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business: Information Technology

## Web Site Management

2007 - 2008

The increase in power of microcomputers and the maturation of data communications technology is driving the replacement of centralized data processing systems with distributed processing, client-server networks. This down-sizing may be to pure microcomputer installations or to hybrid systems involving complex interfaces and dissimilar micro-mini-mainframe computer hardware.

### Career Outlook

Career opportunities are numerous for individuals in this field. All organizations, large and small, use computers as an integral part of how they do business. Workers need both software and hardware support to do their jobs. Graduates may find employment in entry-level positions with typical titles such as Network Administrator, Network Engineer, Network Installation Engineer, Web Master, Technical Support or Help Desk.

### PROGRAM LEARNING OUTCOMES

1. Students will assemble and troubleshoot hardware.
2. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
3. Students will install and troubleshoot current Network Operating Systems and current Network Protocols.
4. Students will gain an understanding of structured programming concepts.
5. Students will demonstrate software skills.
6. Students will develop and edit web pages.
7. Students will demonstrate the ability to develop graphic enhancements.

<u>First Semester</u>		<u>Credits</u>	
+	CIS114	Microsoft Applications .....	3
	CIS130	Computer Mathematics .....	3
+	CIS150	Programming C++ .....	4
+	CIS190	Computer Operations GOS .....	4
	ENG111	Composition I .....	<u>3</u>
			17

<u>Second Semester</u>		<u>Credits</u>	
	CIS129	Web Site Development .....	3
+	CIS161	C# .....	4
+	CIS272	MS Networking I .....	4
	ENG112	Composition II .....	3
+	VCT108	Photo Editing .....	<u>2</u>
			16

<u>Third Semester</u>		<u>Credits</u>	
	ACC111	Financial Accounting .....	4
+	CIS165	Java Programming .....	4
+	CIS282	MS Networking II .....	4
		General Studies Elective .....	<u>3</u>
			15

<u>Fourth Semester</u>		<u>Credits</u>	
+	VCT260	3D Computer Animation .....	3
		Business Elective .....	3
		Business Analysis Elective .....	3
		Humanities Elective .....	3
		Social/Behavioral Science Elective .....	<u>3</u>
			15

### Business Electives:

BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT110	Marketing

### Business Analysis:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

- + **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Information Technology Certificate

## Computer Operator

2007 - 2008

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The Computer Operator must have experience working on microcomputers, such as the IBM Personal Computer or PC compatible, and minicomputers, such as the IBM AS/400.

Operators are acquainted with software packages such as word processors and spreadsheets. The computer operator must be knowledgeable in computer operations and computer systems. The student will receive hands-on practical experience using the IBM AS/400 minicomputer.

The students can earn the associate degree by completing one year of full-time study beyond the Computer Operator Certificate. Graduates may find employment in entry-level positions such as Computer Operator, Peripheral Equipment Operator, or Technical Support.

### PROGRAM LEARNING OUTCOMES

Students who complete the Computer Operator program will be employable in a variety of positions in which:

1. Students will write and debug programs.
2. Students will gain an understanding of structured programming concepts.
3. Students will assemble and troubleshoot hardware.
4. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
5. Students will install and troubleshoot current Network Operating Systems and current Network Protocols.
6. Students will demonstrate software skills.

<u>First Semester</u>		<u>Credits</u>
ACC111	Financial Accounting .....	4
CIS130	Computer Mathematics .....	3
+ CIS190	Computer Operations GOS .....	4
ENG111	Composition I .....	<u>3</u>
		14

<u>Second Semester</u>		<u>Credits</u>
ACC112	Managerial Accounting .....	4
CIS114	Microsoft Applications .....	3
ENG112	Composition II .....	3
	Business Elective .....	3
	Networking Elective .....	<u>4</u>
		17

### Networking Electives:

CIS155	Linux Networking I
CIS272	Microsoft Networking I
EET272	Cisco Networking I

### Business Electives:

BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT110	Marketing

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Office Administration

2007 - 2008

A management team is complete only with a qualified administrative staff. The Office Administrative Services Technology develops well-trained graduates for positions in business and in governmental agencies as principal assistants to the managers and administrators of industrial corporations, financial institutions, colleges and schools, hospitals, clinics, law firms, governmental agencies, and small business.

Graduates' skills include machine dictation and transcription, records management, keyboarding on computers, operating word processing software programs on the PC, accounting, and the composition of business letters and reports. They also prioritize work, process mail, arrange business trips, make appointments, answer the telephone, operate photocopy machines, and assist in routine office duties. They may supervise other office employees.

**Career Outlook**

This occupation is one of the largest in the United States. Employment opportunities should be very good, especially for those who have obtained excellent communication skills. Although many of the tasks that secretaries and administrators perform have become automated, it will be those tasks which require personal contact and communication which will continue to play a key role in the office activities of most organizations. Those duties include planning conferences, receiving clients, and giving staff instructions. It is expected that several hundred thousand secretarial positions will be open annually throughout the U.S.

**PROGRAM LEARNING OUTCOMES**

Students who complete the Office Administration program will be employable in a variety of positions in which:

1. Students will exhibit proficient keyboarding skills.
2. Students will demonstrate language arts skills such as proofreading, grammar, and punctuation.
3. Students will demonstrate proficiency in computer software skills.
4. Students will demonstrate time management and organizational skills.

<u>First Semester</u>		<u>Credits</u>
	CIS104 Desktop Management .....	2
+	CIS112 Microsoft Word .....	3
	ENG111 Composition I .....	3
+	OAS101 College Keyboarding* .....	3
+	OAS110 Records Management .....	3
	General Studies Elective .....	<u>3</u>
		17

<u>Second Semester</u>		<u>Credits</u>
+	CIS113 Microsoft Excel .....	3
	CIS118 Access .....	1
	CIS138 Intermediate Access .....	1
	ENG112 Composition II .....	3
+	OAS102 Keyboarding Applications .....	3
+	OAS105 Document Editing & Proofreading .....	2
+	OAS160 Office Procedures .....	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
	BUS110 Business Math/Calculators .....	3
	ACC102 Office Accounting .....	4
	CIS119 PowerPoint .....	1
	OAS200 Speedbuilding .....	1
	OAS249 Advanced Microsoft Suite Appl. ....	3
	Humanities Elective .....	<u>3</u>
		15

<u>Fourth Semester</u>		<u>Credits</u>
	ACC261 QuickBooks .....	1
+	OAS230 Machine Transcription .....	3
+	OAS250 Integrated Business Projects .....	3
+	OAS290 Internship .....	3
	MGT110 Management .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		16

\*OAS090 Keyboarding Basics is required before taking OAS101 or proficiency test.

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Medical Support

2007 - 2008

Medical employees work in physicians' offices, hospitals, nursing homes, and other medical settings. They may transcribe dictation, prepare medical records or charts, schedule appointments, handle correspondence, prepare bills, and process insurance forms. In addition to a good background in keyboarding, accounting, and computers, there is a need for expertise with medical terminology and familiarization with medical references. Strong communication skills are also important in dealing with patients in stressful situations.

### Career Outlook

The increase in medical services and the aging population place tremendous demands on physicians and hospitals. Medical employees are essential workers who must accurately process medical and insurance documents. Nationally, employment for medical secretaries is expected to grow as fast as average and in Ohio it is expected to grow faster than average through the year 2008.

### PROGRAM LEARNING OUTCOMES

Students who complete the Medical Support program will be employable in a variety of positions in which:

1. Students will exhibit proficient keyboarding skills.
2. Students will demonstrate language arts skills such as proofreading, grammar, and punctuation.
3. Students will demonstrate proficiency in computer software skills.
4. Students will demonstrate time management and organizational skills.
5. Students will exhibit proficiency in medical terminology and transcription.
6. Students will demonstrate the ability to properly code medical procedures.

<u>First Semester</u>		<u>Credits</u>
	CIS104 Desktop Management .....	2
+	CIS112 Microsoft Word .....	3
	ENG111 Composition I .....	3
+	OAS101 College Keyboarding* .....	3
+	OAS110 Records Management .....	3
	General Studies Elective .....	<u>3</u>
		17

<u>Second Semester</u>		<u>Credits</u>
	CIS113 Microsoft Excel .....	3
	ENG112 Composition II .....	3
+	OAS102 Keyboarding Applications .....	3
+	OAS105 Document Editing & Proofreading .....	2
+	OAS160 Office Procedures .....	3
+	OAS180 Medical Terminology .....	<u>3</u>
		17

<u>Third Semester</u>		<u>Credits</u>
	ACC102 Office Accounting .....	4
	BUS110 Business Math/Calculators .....	3
+	OAS200 Speedbuilding .....	1
+	OAS221 Medical Information Coding .....	3
+	OAS282 Medical Machine Transcription .....	<u>3</u>
		14

<u>Fourth Semester</u>		<u>Credits</u>
	ACC261 Quick Books .....	1
+	OAS222 Inter. Medical Information Coding .....	3
+	OAS281 Medical Insurance & Accounting .....	3
+	OAS290 Internship .....	3
	Humanities Elective .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		16

\*OAS090 Keyboarding Basics is required before taking OAS101 or proficiency test.

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

## Office Administrative Services Certificate

# Office Assistant

2007 - 2008

A one-year certificate is available for students who need a quicker entry into the job market. The skills needed for entry-level positions in today's fast-paced and automated business office are provided in this program. The Office Assistant is prepared to assemble facts and figures from office records and express them in statements, letters, and forms; file office records, operate calculators, photocopy machines, and the latest word processing equipment; and assist with general business duties such as responding to mail, making arrangements for business trips, and scheduling appointments.

The student can earn the associate degree by completing one year of full-time study beyond the Office Assistant Certificate.

### Career Outlook

Employment opportunities should be very good, especially for those who have obtained excellent communication skills. Although many of the tasks that secretaries perform have become automated, it will be those tasks which require personal contact and communication which will continue to play a key role in the office activities of most organizations.

### PROGRAM LEARNING OUTCOMES

Students who complete the Office Assistant program will be employable in a variety of positions in which:

1. Students will exhibit proficient keyboarding skills.
2. Students will demonstrate language arts skills such as proofreading, grammar, and punctuation.
3. Students will demonstrate proficiency in computer software skills.
4. Students will demonstrate time management and organizational skills.

### First Semester

			<u>Credits</u>
	CIS104	Desktop Management .....	2
+	CIS112	Microsoft Word .....	3
	ENG111	Composition I .....	3
+	OAS101	College Keyboarding* .....	3
+	OAS110	Records Management .....	3
		General Studies Elective .....	<u>3</u>
			17

### Second Semester

			<u>Credits</u>
+	CIS113	Microsoft Excel .....	3
	CIS118	Access .....	1
	CIS138	Intermediate Access .....	1
	ENG112	Composition II .....	3
+	OAS102	Keyboarding Applications .....	3
+	OAS105	Document Editing & Proofreading .....	2
+	OAS160	Office Procedures .....	<u>3</u>
			16

\*OAS090 Keyboarding Basics is required before taking OAS101 or proficiency test.

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business in Paralegal Studies

2007 - 2008

The Paralegal works under the direct supervision of an attorney, performing a variety of duties including research and investigation of facts for attorneys. The Associate Degree in Paralegal Studies prepares students for an entry-level position in a law firm or law department of a business or financial institution. Typical job titles include Legal Assistant, Title Researcher, and Legal Researcher. The paralegal may be called on to prepare a variety of law-related documents including standard forms, pleadings, deeds mortgages, and other documents. The Paralegal may search official records and record and file documents with County Clerk of Courts, Secretary of State, or other officials. The Paralegal will perform legal research for the preparation of briefs and other legal documents, and communicate clearly and effectively in writing and orally with attorneys, clients, and other government officials.

This program prepares the student for transfer to the University of Toledo's Bachelor of Science in Paralegal Studies.

## Career Outlook

Nationally, and in the state of Ohio, employment for paralegals is expected to grow faster than the average through the year 2008. Most Paralegals will be hired by private firms, although opportunities will also exist in the public sector. In larger cities there are also opportunities with consumer organizations, public agencies, and the courts.

## PROGRAM LEARNING OUTCOMES

Students who complete the Paralegal program will be employable in a variety of positions in which:

1. Students will exhibit understanding of law office practices.
2. Students will demonstrate ability to conduct legal research and comprehend legal documents.
3. Students will demonstrate understanding of civil and criminal procedures.
4. Students will exhibit understanding of tort law situations and procedures.
5. Students will demonstrate understanding of real estate transactions and probate procedures in Ohio.
6. Students will demonstrate understanding of domestic relations law in Ohio.

### General Studies Electives:

ART103	Beginning Drawing
HUM209	Humanities and Cult.: Ancient & Medieval Worlds
HUM210	Humanities and Cult.: Renaissance to Present
HUM221	Music Appreciation
HUM230	Art Appreciation

### Social/Behavioral Science Electives:

PSY110	General Psychology
SSC110	General Anthropology
SSC120	American Government

### Business Electives:

BUS221	Business Law (Not for Transfer)
ECO211	Macroeconomics (Transfer)

### Mathematics Electives:

BUS110	Business Math/Calculators (Not for Transfer)
MTH109	College Algebra (Transfer)

### Program Electives:

BIO101	Principles of Biology
BIO115	Ecology
BIO231	Anatomy & Physiology I
PAR221	Bankruptcy (Not for Transfer)
PHY140	Astronomy

### First Semester

			<u>Credits</u>
+	CIS114	Microsoft Applications .....	3
	ENG111	Composition I .....	3
+	PAR100	Introduction to Paralegal .....	3
+	PAR101	Law Office Management .....	3
		Mathematics Electives .....	<u>3</u>
			15

### Second Semester

			<u>Credits</u>
	ACC111	Financial Accounting .....	4
	ENG112	Composition II .....	3
+	PAR110	Civil Procedures .....	3
+	PAR115	Family Law .....	3
		Social/Behavioral Science Elective .....	<u>3</u>
			16

### Third Semester

			<u>Credits</u>
+	PAR205	Real Estate Transactions .....	3
+	PAR210	Legal Research & Writing .....	3
+	PAR215	Tort Law .....	3
		Business Elective .....	3
		General Studies Elective .....	<u>3</u>
			15

### Fourth Semester

			<u>Credits</u>
+	PAR220	Criminal Law .....	3
+	PAR222	Estates, Trusts & Wills .....	3
	PHI110	Critical Thinking & Logic .....	3
	SSC210	Cultural Diversity .....	3
		Program Elective .....	<u>3</u>
			15

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Business

## Visual Communications

2007 - 2008

The Visual Communication program prepares students for a variety of positions utilizing computer graphics and imaging skills. Graduates are prepared to produce public relations materials, including print, video, and electronic media.

Graduates may transfer as juniors to complete a bachelor's degree in Visual Communications.

### Career Outlook

Opportunities within this field are expected to grow through the year 2006 due to the emphasis on visual appeal in product design, advertising, marketing, web design, and television. Willingness to relocate, however, may be an important factor since many of the opportunities will be in larger metropolitan areas.

### PROGRAM LEARNING OUTCOMES

Students who complete the Visual Communications program will be employable in a variety of positions in which:

1. Students will demonstrate the ability to take photos under various conditions.
2. Students will accurately edit photos.
3. Students will demonstrate knowledge of graphics and drawing abilities.
4. Students will demonstrate the ability to manipulate programs to create and enhance graphics.
5. Students will demonstrate the ability to capture, edit, and animate video.

<u>First Semester</u>		<u>Credits</u>
+	CIS114	Microsoft Applications ..... 3
+	CIS118	Access ..... 1
+	CIS119	PowerPoint ..... 1
	ENG111	Composition I ..... 3
+	VCT108	Photo Editing ..... 2
+	VCT182	Photography ..... 3
		Math Elective ..... <u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
	ART103	Beginning Drawing ..... 3
+	CIS129	Web Page Development ..... 3
	ENG112	Composition II ..... 3
+	VCT111	Layout & Design ..... 3
+	VCT205	Visual Communication Technology ..... 2
		Program Elective ..... <u>3</u>
		17

<u>Third Semester</u>		<u>Credits</u>
	ACC111	Financial Accounting ..... 4
	HUM230	Art Appreciation ..... 3
+	VCT260	3D Computer Animation ..... 3
+	VCT268	Video Production ..... 3
		General Studies Elective ..... <u>3</u>
		16

<u>Fourth Semester</u>		<u>Credits</u>
	BUS221	Business Law ..... 3
	ENG210	Technical Communications ..... 3
+	VCT204	Concepts of Visual Communications ..... 3
+	VCT266	Multimedia Productions ..... 3
+	VCT289	VCT Co-Op Experience ..... 3
		Social/Behavioral Science Elective ..... <u>3</u>
		18

### Math Electives:

- BUS110 Business Math
- MTH109 College Algebra (Transfer)

### Program Electives:

- ART210 Oil/Acrylic Painting
- CAD111 CAD I
- MKT110 Marketing
- MTH112 Trigonometry (Transfer)

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Engineering Technology Division

2007 - 2008

The field of Engineering Technology and Skilled Trades is growing rapidly. Northwest State has many programs to help you see yourself in a whole new way!

The following elective lists should be used unless specified on the program page.

## Business:

BUS280	Finance
MKT110	Marketing
MKT230	Salesmanship

## General Studies:

ENG113	Speech
ENG210	Technical Communications
ENG214	Discussion & Conference Methods
ENG220	Business Writing

## Humanities:

ENG223	Interpretation of Literature
ENG224	American Literature
ENG225	British Literature
ENG230	Children's Literature
HIS101	U.S. History Pre-1876
HIS102	U.S. History Post-1876
HIS203	U.S. Since 1945
HIS210	The Modern World
HUM209	Humanities and Cultures: Ancient & Medieval Times
HUM210	Humanities and Cultures: Renaissance to Present
HUM221	Music Appreciation
HUM230	Art Appreciation
PHI110	Critical Thinking & Logic
PHI201	Introduction to Philosophy
PHI210	Ethics
PHI230	World Religions

(Any NSCC Humanities Elective)

## Science:

CHM101	Principles of Chemistry
PHY252	Physics: Electricity & Magnetism

## Social/Behavioral Science:

GEO210	Geography - US and Canada
PSY110	General Psychology
PSY220	Social Psychology
SSC101	Sociology
SSC110	General Anthropology
SSC120	American Government
SSC130	Comparative Government
SSC140	Current International Problems
SSC210	Cultural Diversity
SSC230	Economy & Society

(Any NSCC Social/Behavioral Science Elective)

## Prerequisites

All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the assessment test or take the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing.

Some courses listed in this program have specific prerequisites. See prerequisites required for each course in the Course Description section of this publication.

## General Education

For Northwest State Core Requirements, see page 26. For the NSCC Transfer Module, see page 32.

## Course Sequence

This is a suggested sequence of courses for full-time students. If you are a part-time student or have transferred courses in from another school, you should generally complete the courses listed under semester 1 before moving on to semester 2, 3, and then 4. Elective courses may be taken at any time. Please meet with your advisor if you need assistance to register. Your advisor can help you make any necessary changes to this recommended sequence.

# Associate of Applied Science in Instrumentation Technology

## Automation & Controls

2007 - 2008

The Industrial Automation Engineering Technology program is a new two-year degree program.

The market today divides employees in the electrical field in two distinct areas: Industrial Electrical (installation & troubleshooting), and Industrial Automation (design and application).

The Industrial Automation program will allow students to apply technology such as Industrial Networking, Programmable Controllers, Instrumentation, Robotics and Automated Controls to solve problems in the manufacturing workplace. We see such a market demand for graduates of this program in the OEM (original equipment manufacturers) and System Integrator market. This is an excellent program for upgrading the skill level of the Engineering and Maintenance personnel in the Industrial Automation field that are currently working in the industry.

### Career Outlook

The career outlook for workers in the Automation and Robotics field is tremendous. The skilled workers in manufacturing are in high demand.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Electrical symbols and abbreviations
2. Print reading and documentation
3. Wiring techniques
4. Troubleshooting and analysis
5. Electrical measurements and calculations
6. Electrical control symbols
7. Electrical power systems
8. Industrial computing
9. Systems component storage

This program is going through the final approval procedure at the Ohio Board of Regents.

<u>First Semester</u>		<u>Credits</u>
+	CAD111 CAD I .....	4
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I** .....	3
	MTH109 College Algebra .....	3
+	EET171 Industrial Electricity I .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		19

<u>Second Semester</u>		<u>Credits</u>
+	EET240 Engineering Programming .....	3
+	EET272 CISCO Networking I .....	4
	ENG112 Composition II .....	3
	MTH112 Trigonometry .....	3
+	EET194 Industrial Electricity II .....	3
	Humanities Elective .....	<u>3</u>
		19

<u>Third Semester</u>		<u>Credits</u>
+	IET107 Industrial Computing II .....	3
	PHY251 Physics: Mechanics & Heat .....	4
+	PLC200 Programmable Controller I .....	3
+	EET265 Instrumentation & Controls I .....	3
	General Studies Elective .....	<u>3</u>
		16

<u>Fourth Semester</u>		<u>Credits</u>
+	PLC210 Programmable Controller II .....	3
+	PLC220 Programmable Controller III .....	3
+	PLC230 Servo/Robotic Systems .....	3
+	PLC270 Instrumentation & Controls II .....	3
+	Technical Elective .....	3
	Science Elective .....	<u>3</u>
		18

### Technical Electives:

Any EET, CAD, QCT or MET course.

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application

**+ Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

# Associate of Applied Science

# Mechanical Engineering Technology

2007 - 2008

The machinery of modern industry consists of mechanical devices – levers that move, wheels that spin, and cogs that must mesh. The Mechanical Engineering Technology is designed to train students in technology based, entry-level occupations related to the mechanical and manufacturing engineering fields. The graduate will be able to assist engineers and other professional staff engaged in plant and facilities maintenance and other plant engineering and management functions.

All aspects of industry are dependent on the production and reading of drawings to convey information.

The Mechanical Engineering Technology provides a student the opportunity to study engineering topics associated with the design and installation of mechanical equipment and systems with the option of transferring to another institution to pursue a four-year bachelor degree in Mechanical Engineering Technology.

The student who follows this course of study will be trained to function as a Mechanical Technician in a number of industrial situations which require knowledge of mechanical systems, engineering materials, and equipment. The student may find himself/herself working closely with engineers engaged in designing, testing, servicing, or assembly and installation of machinery and industrial equipment.

### Career Outlook

Many diverse occupations find their origins in the mechanical field. These occupations include a variety of titles in the areas of drafting, production, testing, design and analysis, to name a few. Employment in the mechanical field should be quite good with job opportunities growing as fast as average nationally and in the state of Ohio. The largest need for mechanical engineering technicians will be in manufacturing, with companies continually wanting new or improved machinery.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Proficiency in manipulating Computer-Aided-Design (CAD) software, in a hands-on environment.
2. Basic knowledge on operating system, networking, and computer hardware
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic knowledge to the theory of common manufacturing processes.
5. Knowledge of reading and operating precision measuring devices and instruments.
6. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
7. Knowledge of the basic physical and chemical properties of common engineering materials and their design considerations.
8. Knowledge of the resolution of forces on rigid bodies and how to calculate stress, strain, and deflection.

### First Semester

			<u>Credits</u>
+	CAD111	CAD I .....	4
	ENG111	Composition I .....	3
+	IET105	Industrial Computing I** .....	3
	MET103	Applied Geometry & Trigonometry .....	3
+	MET110	Print Reading & Sketching .....	3
	MTH109	College Algebra .....	<u>3</u>
			19

### Second Semester

			<u>Credits</u>
+	CAD112	CAD II .....	4
	ENG112	Composition II .....	3
	MTH112	Trigonometry .....	3
+	PET110	Principles of Plastics .....	4
		Humanities Elective .....	<u>3</u>
			17

### Third Semester

			<u>Credits</u>
+	QCT141	Precision Measurement .....	3
+	MET232	Industrial Fluid Power I .....	3
	PHY251	Physics: Mechanics & Heat .....	4
		General Studies Elective .....	3
+		Technical Elective .....	<u>4</u>
			17

### Fourth Semester

			<u>Credits</u>
+	MET134	Engineering Materials .....	3
+	MET234	Strength of Materials .....	3
+	MET235	Statics .....	3
+	MET265	Machine Design .....	3
		Science Elective .....	4
		Social/Behavioral Science Elective .....	<u>3</u>
			19

### Technical Electives:

CAD213	CAD III
EET240	Engineering Programming
QCT243	Advanced Quality Improvement
MET252	Industrial Fluid Power II
MET290	Eng. Tech. Co-Op/Internship
EET171	Industrial Electricity I

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science: Mechanical Engineering Technology

## CAD/CAM

2007 - 2008

The CAD/CAM graduate will earn an Associate of Applied Science degree in the Mechanical Engineering Technology. Students completing the associate degree are qualified to play a support role to the engineering professionals in industry preparing blueprints, layouts, bills of materials, manufacturing and product support documentations. The CAD/CAM major will also prepare the student to interpret designs and to design components and tooling used in manufacturing and to operate production machines and program CNC machines, using G Codes and state-of-the-art CAM software.

### Career Outlook

Job seekers who have a two-year degree should have the best prospects for employment. With the shortage of skilled Metalworkers in the US today, the job opportunities are really good for the CAD/CAM Technician.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Proficiency in manipulating Computer-Aided-Design (CAD) software, in a hands-on environment.
2. Basic knowledge on operating system, networking, and computer hardware.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic knowledge to the theory of common manufacturing processes.
5. Knowledge of reading and operating precision measuring devices and instruments.
6. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
7. Knowledge of the basic physical and chemical properties of common engineering materials and their design considerations.
8. Knowledge of the resolution of forces on rigid bodies and how to calculate stress, strain, and deflection.

<u>First Semester</u>		<u>Credits</u>
+	CAD111 CAD I .....	4
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I** .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	MET110 Print Reading & Sketching .....	3
+	MET122 Principles of Machining .....	<u>3</u>
		19

<u>Second Semester</u>		<u>Credits</u>
+	CAD112 CAD II .....	4
	ENG112 Composition II .....	3
+	MET150 Tooling & Fixtures .....	3
+	MET222 Programming Computer Numerical Cont .....	3
	MTH109 College Algebra .....	3
+	QCT141 Precision Measurement .....	<u>3</u>
		19

<u>Third Semester</u>		<u>Credits</u>
+	CAD213 CAD III .....	4
+	MET223 CAM I .....	4
	MTH112 Trigonometry .....	3
	PHY251 Physics: Mechanics & Heat .....	4
	General Studies Elective .....	3
	Humanities Elective .....	<u>3</u>
		21

<u>Fourth Semester</u>		<u>Credits</u>
+	MET260 CAM II .....	3
+	MET262 CAD/CAM Project .....	4
	Science Elective .....	4
	Social/Behavioral Science Elective .....	3
+	Technical Elective .....	<u>3</u>
		17

### Technical Electives:

MET232	Industrial Fluid Power I
MET290	Eng. Tech. Co-Op/Internship
PET110	Principles of Plastics
EET171	Industrial Electricity I

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Industrial Engineering Technology Certificate

## Computer Aided Design

2007 - 2008

The CAD one-year certificate program will prepare the student to create engineering drawings on the computer using CAD software.

The student can earn an associate degree in CAD/CAM by completing the equivalent of one year of full time coursework beyond this certificate.

### Career Outlook

Graduates of this program may find employment as an entry-level CAD Technician or as a Detailer working under the direction of a design engineer.

Job opportunities for CAD technicians will remain stable through the year 2008, with most of the positions occurring from replacing workers who leave the profession or retire.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of file handling and management.
2. Familiarize with computer software, CAD, computer hardware, and component terminologies.
3. Basic knowledge working with Cartesian coordinate system.
4. Knowledge of setup, display, drawing, inquiry, and modify commands.
5. Demonstrate ability of developing, modifying, and manipulating symbols, crosshatching, and various types of dimensioning.
6. Demonstrate a knowledge of inquiry commands and developing industrial-type. Detail and assembly drawings as well as plotting finished projects.

<u>Summer Semester</u>		<u>Credits</u>
+	CAD111 CAD I .....	4
+	MET110 Print Reading & Sketching .....	<u>3</u>
		7

<u>Fall Semester</u>		<u>Credits</u>
+	CAD112 CAD II .....	4
+	IET105 Industrial Computing I ** .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	MET150 Tooling & Fixtures .....	<u>3</u>
		13

<u>Spring Semester</u>		<u>Credits</u>
+	CAD213 CAD III .....	4
+	MET122 Principles of Machining .....	3
+	QCT141 Precision Measurement .....	<u>3</u>
		10

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science

# Plastics Engineering Technology

2007 - 2008

Plastics is one of the fastest growing manufacturing industries today. The Plastics program at Northwest State Community College was created in response to the industry demand in Northwest Ohio for employee training and student education in plastics manufacturing. Students will receive specialized training in thermoplastic materials, injection molding, and plastics testing. Graduates will also be skilled in various processes such as blow molding, extrusion, and thermoforming.

### Career Outlook

While consumer demand for convenient, plastic products increases, so will the need for highly-skilled plastics technicians. Job titles in this field can include Molding Technician, Production Supervisor, Design and Development, and Quality Control Technician to name a few. Employment of plastic processing workers is expected to grow as fast as the average through the year 2008 both nationally and in the state of Ohio. An increase in workers trained in the field will stem from manufacturers substituting plastic parts for those that had been manufactured from metal in the past.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Basic knowledge of polymers including history, current industry, recycling, types of polymers and properties.
2. Basic knowledge to the theory of common manufacturing processes used in the plastics industry.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Knowledge of reading and operating precision measuring devices and the ability to apply SPC practices to various processes within the plastics industry.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
6. Basic knowledge of the injection molding process and the ability to establish a production intent process and troubleshoot various defects.
7. Basic knowledge of the various properties associated with plastics and ability to perform functional tests used to determine properties.
8. Basic knowledge to the theory of common secondary operations used in the plastics industry primarily for assembly and decorating

### First Semester

			<u>Credits</u>
	ENG111	Composition I .....	3
	MET103	Applied Geometry & Trigonometry .....	3
+	MET110	Print Reading & Sketching .....	3
	MTH109	College Algebra .....	3
+	PET110	Principles of Plastics .....	<u>4</u>
			16

### Second Semester

			<u>Credits</u>
	CHM101	Principles of Chemistry .....	4
	ENG112	Composition II .....	3
	MTH112	Trigonometry .....	3
+	PET210	Injection Molding .....	4
+	QCT141	Precision Measurement .....	3
		General Studies Elective .....	<u>3</u>
			20

### Third Semester

			<u>Credits</u>
+	MET232	Industrial Fluid Power I .....	3
+	PET231	Plastics Materials Testing .....	4
	PHY251	Physics: Mechanics & Heat .....	4
+	QCT100	Quality Concepts .....	3
+		Plastics Elective .....	<u>4</u>
			18

### Fourth Semester

			<u>Credits</u>
+	PET250	Plastics Secondary Operations .....	4
		Humanities Elective .....	3
+		Plastics Elective .....	4
		Social/Behavioral Science Elective .....	3
+		Technical Elective .....	<u>3</u>
			17

### Technical Electives:

CAD111	CAD I
CAD112	CAD II
MET265	Machine Design
MET290	Engineering Tech. Co-op/Internship

### Plastics Electives:

PET220	Advanced Injection Molding
PET225	Extrusion, Blowmolding & Thermoforming
PET240	Injection Mold Tooling
	Product Design for Plastics
	FEA and Mold Flow

- + **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science Plastics Manufacturing Certificate

2007 - 2008

Plastics is one of the fastest growing manufacturing industries today. The Plastics program at Northwest State Community College was created in response to the industry demand in Northwest Ohio for employee training and student education in plastics manufacturing. Students will receive specialized training in thermoplastic materials, injection molding, and plastics testing. Graduates will also be skilled in various processes such as blow molding, extrusion, and thermoforming.

### Career Outlook

While consumer demand for convenient, plastic products increases, so will the need for highly-skilled plastics technicians. Job titles in this field can include Molding Technician, Production Supervisor, Design and Development, and Quality Control Technician to name a few. Employment of plastic processing workers is expected to grow as fast as the average through the year 2008 both nationally and in the state of Ohio. An increase in workers trained in the field will stem from manufacturers substituting plastic parts for those that had been manufactured from metal in the past.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Basic knowledge of polymers including history, current industry, recycling, types of polymers and properties.
2. Basic knowledge to the theory of common manufacturing processes used in the plastics industry.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Knowledge of reading and operating precision measuring devices and the ability to apply SPC practices to various processes within the plastics industry.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
6. Basic knowledge of the injection molding process and the ability to establish a production intent process and troubleshoot various defects.
7. Basic knowledge of the various properties associated with plastics and ability to perform functional tests used to determine properties.
8. Basic knowledge to the theory of common secondary operations used in the plastics industry primarily for assembly and decorating.

<u>First Semester</u>			<u>Credits</u>
+	MET110	Print Reading & Sketching .....	3
+	PET110	Principles of Plastics .....	4
		General Studies Elective .....	<u>3</u>
			10

<u>Second Semester</u>			<u>Credits</u>
	MTH109	College Algebra .....	3
+	PET210	Injection Molding .....	<u>4</u>
			7

<u>Third Semester</u>			<u>Credits</u>
	MET103	Applied Geometry & Trigonometry .....	3
+	PET240	Injection Mold Tooling .....	<u>4</u>
			7

<u>Fourth Semester</u>			<u>Credits</u>
+	PET231	Plastics Materials Testing .....	4
+	QCT100	Quality Concepts .....	3
+		Plastics Elective .....	<u>4</u>
			11

### Plastics Electives:

	PET220	Advanced Injection Molding
	PET225	Extrusion, Blowmolding & Thermoforming
	PET231	Plastic Materials Testing
	PET250	Plastics Secondary Operations

+ **Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

# Associate of Technical Studies

## Plastics Machine Maintenance (ATS - Type A)

2007 - 2008

Polymers (Plastics) and Rubber is the number one industry in Ohio. This industry requires sophisticated production machinery. Maintenance Technicians are required to keep this type of machinery running. This program combines basic plastics courses as well as courses from the Industrial Maintenance programs.

The Associate of Technical Studies (ATS) degree is a recognized degree through the Ohio Board of Regents. The ATS is a customizable degree that is made up of two technical content areas, primarily for students that have educational goals that do not match traditional programs offered at NSCC. This degree is designed for a student who wishes to enter the field of Plastics Maintenance.

The degree consists of three different types of courses: General Courses (15 hrs.), Basic Courses (15 hrs.) and Technical Courses (30-43 hrs.). The General Studies core of classes is required of all graduates of NSCC. The Basic Courses are courses that basically prepare students for the technical courses. The Technical Courses are made up of two types of classes: Plastics and Industrial Electrical.

If students wish to transfer on to a University for a Bachelor degree, they must have each course evaluated individually by the University.

This is an excellent program for employees who are currently working in the maintenance department of a plastic company, or an employee of a plastic company wishing to get into the maintenance department.

To sign up for this program or to customize your own ATS degree, the student should meet with the Dean of the Engineering Technology Division.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Basic knowledge of polymers including history, current industry, recycling, types of polymers and properties.
2. Basic knowledge to the theory of common manufacturing processes used in the plastics industry.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Knowledge of reading and operating precision measuring devices and the ability to apply SPC practices to various processes within the plastics industry.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
6. Basic knowledge of the injection molding process and the ability to establish a production intent process and troubleshoot various defects.
7. Basic knowledge of the various properties associated with plastics and ability to perform functional tests used to determine properties.
8. Basic knowledge to the theory of common secondary operations used in the plastics industry primarily for assembly and decorating.

<u>First Semester</u>		<u>Credits</u>
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I** .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	PET110 Principles of Plastics .....	4
+	EET171 Industrial Electricity I .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		19

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II .....	3
	MTH109 College Algebra .....	3
+	PET210 Injection Molding .....	4
+	PET194 Industrial Electricity II .....	3
	Humanities Elective .....	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
+	EET281 Industrial Wiring (NEC) .....	3
+	MET232 Industrial Fluid Power I .....	3
+	PET220 Advanced Injection Molding .....	4
	PHY251 Physics: Mechanics & Heat .....	4
+	PLC200 Programmable Controller I .....	<u>3</u>
		17

<u>Fourth Semester</u>		<u>Credits</u>
+	PLC210 Programmable Controller II .....	3
+	EET265 Instrumentation & Controls I .....	3
+	EET276 Motors & Motor Controls .....	3
+	EET174 Electrical Prints & Troubleshooting .....	3
	General Studies Elective .....	3
+	Technical Elective .....	<u>3</u>
		18

### Technical Electives:

See Division Dean for Technical Electives

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

# Associate of Applied Science

# Industrial Management Technology

2007 - 2008

This program is designed to prepare graduates for careers as technicians, management trainees, or supervisors in manufacturing. Courses include a mixture of Business Management topics with an emphasis on Engineering Technologies.

### Career Outlook

Employment in Industrial Management Technicians and Electrical Engineering Technicians is expected to grow nationally and in the state of Ohio. The world is dependent on many types of electronic products and consumers continue to want newer and faster products. This need will ensure that manufacturers will continue to hire the technicians to improve the products.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Basic knowledge on operating system, networking, and computer hardware.
2. Proficiency in manipulating Computer-Aided-Design (CAD) software, in a hands-on environment.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic knowledge to the theory of common manufacturing processes.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.
6. Basic knowledge of polymers including history, current industry, recycling, types of polymers, properties, and common manufacturing processes used in the plastics industry.
7. Knowledge of reading measuring devices and the ability to apply SPC practices to various processes within the plastics industry.

<u>First Semester</u>		<u>Credits</u>
+	CAD111 CAD I .....	4
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I ** .....	3
+	MET110 Print Reading & Sketching .....	3
	MGT110 Management .....	3
	MTH109 College Algebra .....	<u>3</u>
		19

<u>Second Semester</u>		<u>Credits</u>
	BUS250 Labor Relations .....	3
	ENG112 Composition II .....	3
	MTH112 Trigonometry .....	3
+	PET110 Principles of Plastics .....	4
+	QCT100 Quality Concepts .....	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
	ACC111 Accounting I .....	4
	MGT210 Human Resource Management .....	3
	PHY251 Physics: Mechanics & Heat .....	4
	General Studies Elective .....	3
+	Technical Elective .....	<u>3</u>
		17

<u>Fourth Semester</u>		<u>Credits</u>
	Business Elective .....	3
	Humanities Elective .....	3
	Science Elective .....	4
	Social/Behavioral Science Elective .....	3
+	Technical Elective .....	<u>3</u>
		16

### Technical Electives:

CAD112	CAD II
MET134	Engineering Materials
MET232	Industrial Fluid Power
MET290	Engineering Tech. Co-Op/Internship
QCT141	Precision Measurement
QCT142	Advanced Concepts of GD&T
PET110	Principles of Plastics

### Business Electives:

Refer to the Engineering Technologies cover sheet in this section.

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Mechanical Engineering Technology Certificate

## Quality Control

2007 - 2008

The Quality Technician major prepares the student for a career as a Quality Technician in the Quality Control field. Quality Control refers to a system within an organization by which assurance is sought that the product or service conforms to a specific set of parameters. The technician may have to monitor the quality of incoming and outgoing products and will also be able to measure a process statistically and to coordinate the quality function across the entire organization.

### Career Outlook

Many diverse occupations find their origins in the mechanical field. These occupations include a variety of titles in the areas of drafting, production, testing, design and analysis, to name a few. Employment in the mechanical field should be quite good with job opportunities growing as fast as average nationally and in the state of Ohio. The largest need for mechanical engineering technicians will be in manufacturing, with companies continually wanting new or improved machinery.

### PROGRAM LEARNING OUTCOMES

Students earning a certificate from this program should demonstrate:

1. Basic knowledge leading to quality from management, practitioner and customer perspectives.
2. Concentration on quality problem solving and process control tools.
3. Basic understanding of probability and philosophies espoused by Deming, Crosby, and Juran.
4. Basic knowledge of quality, measurement system analysis and control charting principles.
5. Proper selection and use of measuring tool for the feature based upon the print specification.
6. Proficiency for dealing with tolerance stacks, another layer of G D & T.
7. Basic understanding more complex quality improvement methods by studying at least three of the following topics:
  - Advanced SPC
  - Six Sigma Start-up
  - DOE: Screening experiments measurement
  - Systems analysis, problem solving.

<u>First Semester</u>		<u>Credits</u>
+	MET110	Print Reading & Sketching ..... 3
	MTH109	College Algebra ..... 3
+	QCT100	Quality Concepts ..... <u>3</u>
		9

<u>Second Semester</u>		<u>Credits</u>
+	QCT141	Precision Measurement ..... 3
+	QCT243	Advanced Quality Improvement ..... 3
		General Studies Elective ..... <u>3</u>
		9

<u>Third Semester</u>		<u>Credits</u>
+	IET105	Industrial Computing I ** ..... 3
+	QCT142	Advanced Concepts of GD&T ..... <u>3</u>
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	PET110	Principles of Plastics ..... 4
+	QCT131	Quality for Lean Manufacturing ..... 3
+	QCT250	Certified Quality Technician/ Certified Mechanical Inspector Review... <u>3</u>
		10

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## HVAC-R (Climate Control) Certificate

2007 - 2008

HVACR: Heating, Ventilating, Air Conditioning, and Refrigeration, as a technical discipline, has made its transition to the “high-tech” field. Modern environmental control equipment presently use advanced controls involving pneumatic, electro-mechanical and direct digital control technologies. Today, common HVAC-R applications include the use of computers and computer network interfaces to facilitate building/space climate control and monitoring. Presently, manpower shortages exist for qualified personnel (see <http://www.mepatwork.com> for additional information). Men and women wanting to enter this field must understand these advanced technologies, their controls and communications networks if they are to be successful in this changing field.

### Career Outlook

A wide variety of employment possibilities exist for those individuals who have training in the Climate Control field. HVAC-R Installers and Service Technicians are always needed to support companies involved in product sales and service. These skilled tradespersons work in residential, commercial and industrial settings keeping related equipment operational throughout the climate seasons. Refrigeration Journeymen work in commercial and industrial settings providing support for the food industry. Air Balance Specialists work with Environmental Engineers to test and adjust newly installed and existing HVAC-R systems. Systems Integrators unify various sub-systems involving the HVAC-R and Fire Control-Life Safety technologies under one common control.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Basic knowledge on operating systems, networking, and computer hardware.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

### Upgrade to an Associate Degree

Get an Associate Degree in Quality Control, by creating a customized ATS (Associate of Technical Studies). See the Dean of Engineering Technologies for more details.

#### First Semester

			<u>Credits</u>
+	INT120	HVACR I .....	3
+	EET171	Industrial Electricity I .....	3
+	MET133	Industrial Pipefitting .....	<u>3</u>
			9

#### Second Semester

			<u>Credits</u>
+	IET105	Industrial Computing I** .....	3
+	INT220	HVACR II .....	3
+	EET194	Industrial Electricity II .....	<u>3</u>
			9

#### Third Semester

			<u>Credits</u>
+	INT221	HVACR III .....	3
+	MET232	Industrial Fluid Power I .....	3
		General Studies Elective .....	<u>3</u>
			9

#### Fourth Semester

			<u>Credits</u>
+	INT222	HVACR IV .....	3
+	INT223	HVACR V .....	3
+		Technical Elective .....	<u>3</u>
			9

#### Technical Electives:

Any EET, CAD, QCT or MET course

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## Programmable Controller (PLC) Certificate

2007 - 2008

Programmable Controllers have been a portion of a number of two-year degree programs in the past. The technology in this area is expanding at such a fast pace that companies across the country are now using hundreds of these units in their plants to control machinery. These units have replaced conventional relay controlled systems within the commercial and industrial manufacturing plants.

With the rapid rate of technological change in the industrial automation field, and with an aging workforce, companies are looking for a set curriculum or certification that they can utilize as a tool for advancing current employees, and as a filtering process for hiring new employees. This curriculum can serve both needs.

This certificate prepares the student to install, maintain and troubleshoot industrial grade PLC systems.

### Career Outlook

Many diverse occupations find their origins in the mechanical field. These occupations include a variety of titles in the areas of drafting, production, testing, design and analysis, to name a few. Employment in the mechanical field should be quite good with job opportunities growing as fast as average nationally and in the state of Ohio. The largest need for mechanical engineering technicians will be in manufacturing, with companies continually wanting new or improved machinery.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Basic knowledge on operating systems, networking, and computer hardware.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic ladder logic programming, addressing, editing, and troubleshooting.

### Upgrade to an Associate Degree

Get an Associate Degree in Quality Control, by creating a customized ATS (Associate of Technical Studies). See the Dean of Engineering Technologies for more details.

<u>First Semester</u>	<u>Credits</u>
+ EET171 Industrial Electricity I .....	3
+ IET105 Industrial Computing I** .....	<u>3</u>
	6

<u>Second Semester</u>	<u>Credits</u>
+ EET194 Industrial Electricity II .....	3
+ CAD111 CAD I .....	<u>4</u>
	7

<u>Third Semester</u>	<u>Credits</u>
+ PLC200 Programmable Controller I .....	3
Non-Technical Elective .....	<u>3</u>
	6

<u>Fourth Semester</u>	<u>Credits</u>
+ EET265 Instrumentation & Controls I .....	3
+ EET276 Motors & Motor Controls .....	<u>3</u>
	6

<u>Fifth Semester</u>	<u>Credits</u>
+ EET240 Engineering Programming .....	3
+ PLC210 Programmable Controller II .....	<u>3</u>
	6

<u>Sixth Semester</u>	<u>Credits</u>
+ PLC220 Programmable Controller III .....	3

### Non-Technical Electives:

- Any General Studies Elective
- Any Humanities Elective
- Any Social/Behavioral Science Elective

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## Industrial Electrician

2007 - 2008

The following degree program is an Associate of Industrial Technology degree in Industrial Electrician. This degree will focus on learning experiences for the student that will prepare he or she with the technical skills to work in the Industrial Electrical field in positions such as Industrial Electrician, Electrical Technician, Industrial Controls Technician, or Maintenance Technician.

Students in this program will be trained not only in traditional Electrician skills, but also how to operate and troubleshoot state-of-the-art programmable controller systems, solid state motor drives, instrument systems and industrial computer systems used by maintenance personnel in manufacturing and process plants.

Students will receive hands-on training on AC/DC motors, transformers, test equipment, basic hydraulic systems, and industrial wiring practices according to the National Electrical Code. Most of the technical classes will have 50% of the learning experience in the classroom, and the other 50% in the laboratory with hands-on training. This program focuses on basic fundamentals so that graduates can also adapt to the continuous changes in this technology.

### Career Outlook

As manufacturers invest in new highly technological equipment, the demand for the Industrial Electrician is great.

From the current Department of Labor, Ohio Workforce 411 data, wages aged to 2004, for Electricians range from \$16.66 to \$28.03/hr. with a projected long-term Ohio Employment Projections of +18.9% or a total annual openings of 1,196 Electricians through the year 2012.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate

1. Knowledge of electrical symbols and abbreviations.
2. Proficiency in basic electrical theory, motor starters, solenoid valves, various control devices, motor circuits, and variable frequency drivers.
3. Proficiency in the systematic elimination of the various parts of a system to locate a malfunctioning part safely but promptly.
4. Basic knowledge of PLC control systems, analog instrumentation, and Servo robotics systems.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	CAD111 CAD I .....	4
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I ** .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	EET171 Industrial Electricity I .....	3
+	MET130 Industrial Safety .....	<u>2</u>
		18

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II .....	3
+	EET194 Industrial Electricity II .....	3
+	MET232 Industrial Fluid Power I .....	3
+	EET277 Industrial Electronics .....	3
	General Studies Elective .....	3
+	Technical Elective .....	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+	INT120 HVACR I .....	3
	MTH109 College Algebra .....	3
+	PLC200 Programmable Controller I .....	3
+	EET281 Industrial Wiring (NEC) .....	3
	Humanities Elective .....	3
	Science Elective .....	<u>4</u>
		19

<u>Fourth Semester</u>		<u>Credits</u>
+	EET174 Electrical Prints & Troubleshooting .....	3
+	EET265 Instrumentation & Controls I .....	3
+	EET276 Motors & Motor Controls .....	3
+	PLC230 Servo/Robotic Systems .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		15

### Technical Electives:

MET290	Engineering Tech. Co-op/Internship
PET110	Principles of Plastics
MET181	Applied Welding Techniques

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Related Trades Certificate

## Industrial Electrical

2007 - 2008

This program will focus on learning experiences for the student that will prepare him or her with the technical skills to work in the Industrial Electrical field in positions such as Industrial Electrician, Electrical Technician, Industrial Controls Technician, or Maintenance Technician. All of these courses apply toward the comparable associate degree.

Students in the program will be trained not only in traditional Electrician skills, but also how to operate and troubleshoot state-of-the-art programmable controller systems, solid state motor drives, instrument systems and industrial computer systems used by maintenance personnel in manufacturing and process plans.

Students will receive hands-on training on AC/DC motors, transformers, test equipment, basic hydraulic systems, and industrial wiring practices according to the National Electrical Code. Most of the technical classes will have 50% of the learning experience in the classroom, and the other 50% in the laboratory with hands-on training. This program focuses on basic fundamentals so that graduates can also adapt to the continuous changes in technology.

### Career Outlook

As manufacturers invest in new highly technological equipment, the demand for the Industrial Electrician is great.

From the current Department of Labor, Ohio Workforce 411 data, wages aged to 2004, for Electricians range from \$16.66 to \$28.03/hr. with a projected long-term Ohio Employment Projections of +18.9% or a total annual openings of 1,196 Electricians through the year 2012.

### PROGRAM LEARNING OUTCOMES

Students earning a certificate from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Proficiency in basic electrical theory, motor starters, solenoid valves, various control devices, motor circuits, and variable frequency drivers.
3. Proficiency in the systematic elimination of the various parts of a system to locate a malfunctioning part safely but properly.
4. Basic knowledge of PLC control systems.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	EET171 Industrial Electricity I .....	3
+	MET130 Industrial Safety .....	<u>2</u>
		5

<u>Second Semester</u>		<u>Credits</u>
+	EET194 Industrial Electricity II .....	3
+	EET281 Industrial Wiring (NEC) .....	<u>3</u>
		6

<u>Third Semester</u>		<u>Credits</u>
+	EET277 Industrial Electronics .....	3
+	Technical Elective .....	<u>3</u>
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	IET105 Industrial Computing I ** .....	3
+	MET232 Industrial Fluid Power I .....	<u>3</u>
		6

<u>Fifth Semester</u>		<u>Credits</u>
	ENG214 Discussion & Conference Methods .....	3
+	PLC200 Programmable Controller I .....	<u>3</u>
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	EET265 Instrumentation & Controls I .....	3
+	EET276 Motors & Motor Controls .....	<u>3</u>
		6

<u>Seventh Semester</u>		<u>Credits</u>
+	EET174 Electrical Prints & Troubleshooting .....	3

### Technical Electives:

INT120	HVACR I
MET290	Engineering Tech. Co-op/Internship
PET110	Principles of Plastics
QCT100	Quality Concepts
MET181	Applied Welding Techniques

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## Maintenance Technician/Mechatronics

2007 - 2008

The Industrial Maintenance Technician not only troubleshoots and repairs the most highly advanced industrial equipment, but is responsible for the lay-out and installation. This individual will be versed in electrical, hydraulics, pneumatics, pipefitting, welding, machine repair and installation as well as motor control systems, PLC control systems, Instrumentation Control networking and Servo Robotics.

### Career Outlook

Employers, trying to stay competitive with an international marketplace are hard pressed to find a multi-crafted maintenance employee who can accomplish a multitude of vocational qualities (electrician, plumber, pipe fitter, hydraulics and pneumatics specialists, HVACR, machine set-up, machine installer, welder, systems troubleshooter and control systems programming). This program will provide those employers with such a skilled professional.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Proficiency in basic electrical theory, motor starters, solenoid valves, various control devices, motor circuits, and variable frequency drivers.
3. Proficiency in the systematic elimination of the various parts of a system to locate a malfunctioning part safely but promptly.
4. Basic knowledge of PLC control systems, analog instrumentation, and Servo robotics systems.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	IET105 Industrial Computing I **	3
+	EET171 Industrial Electricity I	3
	ENG111 Composition I	3
+	MET110 Print Reading & Sketching	3
+	MET143 Benchwork	2
	Humanities Elective	<u>3</u>
		17

<u>Second Semester</u>		<u>Credits</u>
+	EET194 Industrial Electricity II	3
	ENG112 Composition II	3
+	MET232 Industrial Fluid Power I	3
	MTH109 College Algebra	3
+	PLC200 Programmable Controller I	3
+	Technical Elective	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+	EET276 Motors & Motor Controls	3
	MET103 Applied Geometry & Trigonometry	3
+	MET133 Industrial Pipefitting	3
+	MET252 Industrial Fluid Power II	3
	General Studies Elective	3
	Social/Behavioral Science Elective	<u>3</u>
		18

<u>Fourth Semester</u>		<u>Credits</u>
+	EET265 Instrumentation & Controls I	3
+	MET144 Machine Repair	3
+	MET181 Applied Welding Techniques	3
+	PLC230 Servo/Robotic Systems	3
	Science Elective	4
+	Technical Elective	<u>3</u>
		19

### Technical Electives:

MET290 Engineering Tech. Co-op/Internship  
 PET110 Principles of Plastics

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Related Trades Certificate

## Industrial Maintenance

2007 - 2008

The Industrial Maintenance Technician not only troubleshoots and repairs the most highly advanced industrial equipment, but is responsible for the lay-out and installation. This individual will be versed in electrical, hydraulics, pneumatics, pipefitting, welding, machine repair and installation as well as motor control systems, PLC control systems, Instrumentation Control networking and Servo Robotics.

### Career Outlook

Many manufacturing companies across the country no longer employ segregated trades (electrician, millwright, machinist, etc.) Instead, they are moving to a multi-craft classification that will perform: electrical, mechanics, machining, welding, etc. Therefore, positions for general maintenance and industrial maintenance are currently in great demand.

### PROGRAM LEARNING OUTCOMES

Students earning a certificate from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Proficiency in basic electrical theory, motor starters, solenoid valves, various control devices, motor circuits, and variable frequency drivers.
3. Proficiency in the systematic elimination of the various parts of a system to locate a malfunctioning part safely but promptly.
4. Basic knowledge of PLC control systems.
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	MET110	Print Reading & Sketching ..... 3
+	PLC200	Programmable Controller I ..... <u>3</u>
		6

<u>Second Semester</u>		<u>Credits</u>
	MET103	Applied Geometry & Trigonometry ..... 3
+	MET143	Benchwork ..... <u>2</u>
		5

<u>Third Semester</u>		<u>Credits</u>
+	EET171	Industrial Electricity I ..... 3
+	MET144	Machine Repair ..... <u>3</u>
		6

<u>Fourth Semester</u>		<u>Credits</u>
	ENG113	Speech ..... 3
+	IET105	Industrial Computing I ** ..... 3
+	MET181	Applied Welding Techniques ..... <u>3</u>
		9

<u>Fifth Semester</u>		<u>Credits</u>
+	MET133	Industrial Pipefitting ..... 3
+	MET232	Industrial Fluid Power I ..... <u>3</u>
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	EET194	Industrial Electricity II ..... 3
+	EET276	Motors & Motor Controls ..... <u>3</u>
		6

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

+ **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## Millwright

2007 - 2008

The Millwright is trained to install, dismantle, or move machinery and heavy equipment according to engineered plans, blueprints or other drawings. The skill level of the Millwright ranges from rigger, welder and machine repairman to fabricator, pipefitter and machine reconitioner.

### Career Outlook

Openings for Millwrights will be found in areas where manufacturing is high. Related vocations are also a possibility with pipefitters and riggers, machine repairmen, structural iron and steel workers being in high demand through the year 2012.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of basic print reading skills including dimensioning practices, and calculations, sketching including, orthographic, isometric, sectional and auxiliary views.
2. Knowledge of basic machining principles using lathes, mills, drills, band saw, and various handtools.
3. Proficiency in machining and fabricating projects with an emphasis on safety, fixturing, feeds and speeds, tooling, precision, and accuracy.
4. Proficiency in welding with an emphasis on shielded metal arc (stick), oxy-acetylene, gas metal (MIG) and gas tungsten (TIG).
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

### First Semester

		<u>Credits</u>
	ENG111 Composition I .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	MET110 Print Reading & Sketching .....	3
+	MET130 Industrial Safety .....	2
+	MET143 Benchwork .....	2
	Humanities Elective .....	<u>3</u>
		16

### Second Semester

		<u>Credits</u>
	ENG112 Composition II .....	3
+	IET105 Industrial Computing I ** .....	3
+	MET122 Principles of Machining .....	3
+	MET144 Machine Repair .....	3
	MTH109 College Algebra .....	3
+	QCT141 Precision Measurement .....	<u>3</u>
		18

### Third Semester

		<u>Credits</u>
+	EET171 Industrial Electricity I .....	3
+	MET181 Applied Welding Techniques .....	3
+	MET221 Rigging & Erecting .....	2
	General Studies Elective .....	3
	Social/Behavioral Science Elective .....	<u>3</u>
		14

### Fourth Semester

		<u>Credits</u>
+	EET194 Instrumentation Electricity II .....	3
+	MET133 Industrial Pipefitting .....	3
+	MET231 Metallurgy & Heat Treatment .....	2
+	MET232 Industrial Fluid Power I .....	3
	Science Elective .....	4
+	Technical Elective .....	<u>3</u>
		18

### Technical Electives:

- MET290 Engineering Tech. Co-op/Internship
- PET110 Principles of Plastics
- Any EET or MET Course

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

## Related Trades Certificate

# Millwright

2007 - 2008

The Millwright is trained to install, dismantle, or move machinery and heavy equipment according to engineered plans, blueprints or other drawings. The skill level of the Millwright ranges from rigger, welder and machine repairman to fabricator, pipefitter and machine reconitioner.

### Career Outlook

Openings for Millwrights will be found in areas where manufacturing is high. Related vocations are also a possibility with pipefitters and riggers, machine repairmen, structural iron and steel workers being in high demand through the year 2012.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of basic print reading skills including dimensioning practices, and calculations, sketching including, orthographic, isometric, sectional and auxiliary views.
2. Knowledge of basic machining principles using lathes, mills, drills, band saw, and various handtools.
3. Proficiency in machining and fabricating projects with an emphasis on safety, fixturing, feeds and speeds, tooling, precision, and accuracy.
4. Proficiency in welding with an emphasis on shielded metal arc (stick), oxy-acetylene, gas metal (MIG) and gas tungsten (TIG).
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	MET110 Print Reading & Sketching .....	3
+	MET130 Industrial Safety .....	<u>2</u>
		5

<u>Second Semester</u>		<u>Credits</u>
	MET103 Applied Geometry & Trigonometry .....	3
+	MET143 Benchwork .....	<u>2</u>
		5

<u>Third Semester</u>		<u>Credits</u>
+	MET144 Machine Repair .....	3
+	EET171 Industrial Electricity I .....	<u>3</u>
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	MET122 Principles of Machining .....	3
+	MET181 Applied Welding Techniques .....	<u>3</u>
		6

<u>Fifth Semester</u>		<u>Credits</u>
	ENG214 Discussion & Conference Methods .....	3
+	QCT141 Precision Measurement .....	<u>3</u>
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	MET201 Industrial Applied Physics .....	3
+	MET232 Industrial Fluid Power I .....	<u>3</u>
		6

<u>Seventh Semester</u>		<u>Credits</u>
+	MET221 Rigging & Erecting .....	2
+	MET133 Industrial Pipefitting .....	<u>3</u>
		5

- + **Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Associate of Applied Science: Industrial Technology

## Machining CNC Programming

2007 - 2008

This program has a diversified audience. It is naturally intended for related trades students who have completed a four-year apprenticeship program leading to a journeyman's card. It provides them the opportunity to count apprentice coursework toward an associate degree in Industrial Technology.

The degree/certificate program can be used by anyone as a springboard into a career as a journeyman by using the certificate as leverage into a company that has an apprenticeship/training program, since it contains more than the contact hours required for related classroom hours in an apprenticeship program.

The Machining CNC Programmer creates machine parts. This person has a broad knowledge of tooling and its uses. Not only does he/she use mills, drills, and lathes, but may also be trained in the use of non-traditional machining techniques, such as Electron Discharge Machining.

### Career Outlook

Based on a highly technological global market the demand for machinists has fallen prey to a need to modernize the machinist vocation. Implementing up-to-date technology involving Computer-Numerical-Controls has become the only salvation for the trade. Contact with several regional machine shops has indicated a strong desire to bring jobs back which had already made their way to other countries.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of basic print reading skills including dimensioning practices, and calculations, sketching including, orthographic, isometric, sectional and auxiliary views.
2. Knowledge of basic machining principles using lathes, mills, drills, band saw, and various handtools.
3. Proficiency in machining and fabricating projects with an emphasis on safety, fixturing, feeds and speeds, tooling, precision, and accuracy.
4. Proficiency in welding with an emphasis on shielded metal arc (stick), oxy-acetylene, gas metal (MIG) and gas tungsten (TIG).
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
	ENG111 Composition I .....	3
+	IET105 Industrial Computing I ** .....	3
	MET103 Applied Geometry & Trigonometry .....	3
+	MET110 Print Reading & Sketching .....	3
+	MET130 Industrial Safety .....	2
+	MET143 Benchwork .....	2
	Humanities Elective .....	3
		19

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II .....	3
+	CAD100 CAD for Machining .....	4
+	MET122 Principles of Machining .....	3
+	MET150 Tooling & Fixtures .....	3
	MTH109 College Algebra .....	3
+	QCT141 Precision Measurement .....	3
		19

<u>Third Semester</u>		<u>Credits</u>
+	MET181 Applied Welding Techniques .....	3
+	MET222 Programming Computer Numerical Control 3 .....	3
+	MET226 Jig. Fixture & Mold Design .....	3
+	MET231 Metallurgy and Heat Treatment .....	2
	General Studies Elective .....	3
	Social/Behavioral Science Elective .....	3
		17

<u>Fourth Semester</u>		<u>Credits</u>
+	MET123 Machining Processes II .....	3
+	MET223 CAM I .....	4
+	MET232 Industrial Fluid Power I .....	3
	Science Elective .....	4
+	Technical Elective .....	3
		17

### Technical: Electives

- MET227 Die Theory & Design
- MET228 Patternmaking Fundamentals
- MET290 Engineering Tech. Co-op/Internship  
Any EET or MET Course

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of "C" in all courses with a '+' to progress in the program and to graduate.**

## Related Trades Certificate

# Machining

2007 - 2008

The Machining Related Trades Certificate is designed to meet the needs of a diverse vocational audience. Whether your interest is in Computer Numerical Control Programming, Tool and Die Maker or Patternmaker this program is designed to prepare the learner for a number of advantages as a skilled tradesman.

CNC or Computer Numerical Control Machining has literally replaced the Machinist trade. You will be trained in the proper use of mills, drills and lathes, the latest in programming software as well as set-up and operational procedures of CNC equipment to produce a precision part.

As a Patternmaker trainee you will learn the most up-to-date technology needed to build a pattern. To obtain this skill level the learner will become knowledgeable of the properties of metals, precision measurement and the fundamentals of repairing molds and dies.

The Tool and Die Maker will learn how to create tools, dies and fixtures. This individual will gain a broad understanding of tooling by learning how to properly use mills, drills, lathes and other machining related equipment including non-traditional machining techniques such as the Electron Discharge Machine.

### Career Outlook

From the current Department of Labor, Ohio Workforce 411 data, Wages Aged to 2004, for CNC Programming Machinists range from \$13.48 to \$20.07. Wages for Tool and Die Makers range from \$17.88 to \$28.16. Wages for Patternmakers range from \$15.78 to \$32.10.

### PROGRAM LEARNING OUTCOMES

Students earning an Associate degree from this program should demonstrate:

1. Knowledge of basic print reading skills including dimensioning practices, and calculations, sketching including, orthographic, isometric, sectional and auxiliary views.
2. Knowledge of basic machining principles using lathes, mills, drills, band saw, and various handtools.
3. Proficiency in machining and fabricating projects with an emphasis on safety, fixturing, feeds and speeds, tooling, precision, and accuracy.
4. Proficiency in welding with an emphasis on shielded metal arc (stick), oxy-acetylene, gas metal (MIG) and gas tungsten (TIG).
5. Knowledge of the physics of fluids, components, troubleshooting and design applications for hydraulic and pneumatic systems.

<u>First Semester</u>		<u>Credits</u>
+	MET110	Print Reading & Sketching ..... 3
+	MET130	Industrial Safety ..... <u>2</u>
		5

<u>Second Semester</u>		<u>Credits</u>
	MET103	Applied Geometry & Trigonometry ..... 3
+	MET143	Benchwork ..... <u>2</u>
		5

<u>Third Semester</u>		<u>Credits</u>
	ENG214	Discussion & Conference Methods ..... 3
+	MET181	Applied Welding Techniques ..... <u>3</u>
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	IET105	Industrial Computing I ** ..... 3
+	MET122	Principles of Machining ..... 3
+	QCT141	Precision Measurement ..... <u>3</u>
		9

<u>Fifth Semester</u>		<u>Credits</u>
+	MET123	Machining Processes II ..... 3
+	MET150	Tooling & Fixtures ..... <u>3</u>
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	MET222	Programming Computer Numerical Control 3
+	MET226	Jig , Fixture & Mold Design ..... <u>3</u>
		6

<u>Seventh Semester</u>		<u>Credits</u>
+	MET231	Metallurgy & Heat Treatment ..... 2

\*\* Prior to taking IET105, students should have basic computer literacy in Windows and at least one Windows application.

**+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.**

# Allied Health & Public Services

2007 - 2008

The field of Allied Health and Public Service is growing rapidly. Northwest State has many programs to help you see yourself in a whole new way.

## Prerequisites

All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the assessment test or take the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing.

Some courses listed in this program have specific prerequisites. See course descriptions for these prerequisites in the Course Description section of this publication.

## General Education

For Northwest State Core Requirements, see page 26. For the NSCC Transfer Module, see page 32.

## Course Sequence

This is a suggested sequence of course(s) for full-time students. If you are a part-time student or have transferred course(s) in from another school, you should generally complete the courses listed under semester 1 before moving on to semester 2, 3, then 4. Elective courses may be taken at any time. Please meet with your advisor if you need assistance to register. Your advisor can help you make any necessary changes to this recommended sequence.

## Math/Science Electives for Criminal Justice Majors:

BIO101	Principles of Biology
BIO115	Ecology
BIO131	Nutrition
BIO150	The Human Body
BIO180	Genetics
BIO210	Botany
BIO220	Zoology
BIO231	Anatomy & Physiology I
BIO232	Anatomy & Physiology II
BIO257	Microbiology
CHM101	Principles of Chemistry
CHM138	Principles of Forensics
CHM256	Principles of Biochemistry
MTH109	College Algebra
MTH112	Trigonometry
MTH213	Calculus I
MTH214	Calculus II
PHY101	Principles of Physical Science
PHY140	Astronomy
PHY150	Geology
PHY251	Physics: Mechanics & Heat
PHY252	Physics: Electricity & Magnetism
STA220	Statistics

## Career Outlook for Teachers

Employment of preschool teachers and child-care workers is projected to increase faster than the average through the year 2008, due to the expected increase in the number of children under the age of 5 between now and the year 2005. Qualified persons who are interested in this field will have little trouble finding employment.

## Career Outlook for Nurses

Nationally, and in the state of Ohio, employment of Registered Nurses is expected to grow. The number of middle-aged and elderly people who need more health care services is expected to rise rapidly. Home health care services will probably show the fastest growth area for Registered Nurses. Many people are choosing to stay home rather than go to a long-term care facility, and these individuals will need nurses highly skilled in doing complex tasks. Hospitals are the largest employers of Registered Nurses; however, with more patients recuperating at home, the largest future growth will probably be in outpatient care, especially in chemotherapy and rehabilitation.

# Associate of Applied Science: Early Childhood Development Child & Family Specialist

2007 - 2008

The Early Childhood Child & Family Specialist major blends human services courses and early childhood pre-kindergarten courses to better prepare individuals for non-classroom support roles. This program emphasizes skills in interviewing, training, and communicating with diverse families.

The student must have day-time availability for field and laboratory placements. All students are required to have a recent medical statement, conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification. The appropriate forms are available from ECD personnel and/or the Division Secretary. Specific program policies are stated in the ECD Student Handbook. Students must also show completion of standard first aid, community CPR, common childhood illness recognition, and child abuse and neglect training through additional college courses or approved community providers prior to graduation.

### PROGRAM LEARNING OUTCOMES

Students who complete the Child & Family Specialist program will:

1. Identify cognitive, affective, and psycho-motor developmental characteristics of children 0-8, recognizing indicators of developmental delays and giftedness.
2. Identify basic concepts of learning theories that influence early childhood practices as well as describe the history of early childhood programs in the U.S.
3. Utilize technology to enhance instruction and productivity.
4. Demonstrate awareness of respected authors, experts, advocates of early childhood, and publications which address early childhood issues and themes nationally and locally.
5. Communicate effectively with parents and other educational professionals.
6. Utilize various public and private human service agencies in the community, the organizational structure of the agencies, and its function.
7. Demonstrate an awareness of the special needs and issues of a diverse population.
8. Demonstrate basic knowledge, techniques and skills used in the group counseling process.
9. Work with parents dealing with child rearing issues such as discipline, sibling relationships and nutrition.
10. Demonstrate the basic principles and practices of interviewing parents as well as crises intervention in human service and family settings.

#### Computer Electives:

CIS114 Microsoft Applications or any 3 one credit hour computer courses.

#### Humanities:

Select any humanities course listed under the Northwest State Core IV. Requirements on page 26.

<u>Fall Semester</u>		<u>Credits</u>
+	ECD100 Principles of Early Childhood Education .	2
+	ECD101 Child Development Lab .....	2
	ENG111 Composition I .....	3
+	HST101 Principles of Human Services .....	3
	PSY110 General Psychology .....	3
	SSC101 Sociology .....	<u>3</u>
		16

<u>Spring Semester</u>		<u>Credits</u>
+	EDU120 Guidance & Classroom Management .....	3
	ENG112 Composition II .....	3
+	HST105 Counseling Techniques .....	3
+	HST112 Group Counseling .....	3
	PSY210 Abnormal Psychology .....	<u>3</u>
		15

<u>Summer Semester</u>		<u>Credits</u>
	Computer Elective .....	3

<u>Fall Semester</u>		<u>Credits</u>
+	ECD150 Infant Toddler Development .....	2
+	EDU110 Child and Youth Health .....	2
+	EDU220 Special Education .....	3
+	EDU230 Family, School, Community .....	2
+	HST208 Interviewing Techniques .....	3
+	HST212 Substance Abuse .....	<u>3</u>
		15

<u>Spring Semester</u>		<u>Credits</u>
+	ECD282 Child Care Field Experience .....	2
	ENG113 Speech .....	3
	HST242 Marriage & Family .....	3
	SSC210 Cultural Diversity .....	3
	Humanities Elective .....	<u>3</u>
		14

+ Refers to technical coursework

+ **Students must attain a minimum grade of "C" in all courses to progress in the program and graduate.**

# Associate of Applied Science: Early Childhood Development

## Pre-Kindergarten

2007 - 2008

The Early Childhood Development (ECD) Associate Degree program prepares individuals for teaching positions in child care facilities, Head Start centers, and Pre-Schools as well as provides professional training for in-home child care providers. The curriculum integrates classroom and laboratory experiences to provide the student with the opportunity to apply skills and techniques in fostering the young child's social, emotional, physical, creative, and cognitive growth.

This program is approved by the Ohio Department of Education for the Pre-Kindergarten Associate License. This license is the minimum certification required of those teaching preschool classes in public school systems and Head Start classrooms. An ECD student who wishes to be recommended for the license must formally apply for admission to the Pre-K Associate License program and meet the criteria of the program as stated in the ECD Student Handbook. Students must also show completion of standard first aid, community CPR, common childhood illness recognition, and child abuse and neglect training through additional college courses or approved community providers.

The student must have day-time availability for field and laboratory placements. Community preschools and child care centers are used for laboratory placements. All students are required to have a recent medical statement, conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification. The appropriate forms are available from ECD personnel and/or the Division Secretary. Specific program policies are stated in the ECD Student Handbook.

### PROGRAM LEARNING OUTCOMES

Students who complete the Pre-Kindergarten program will:

1. Identify cognitive, affective, and psycho-motor developmental characteristics of children 0-8, recognizing indicators of developmental delays and giftedness.
2. Identify basic concepts of learning theories that influence early childhood practices as well as describe the history of early childhood programs in the U.S.
3. Utilize technology to enhance instruction and productivity.
4. Demonstrate awareness of respected authors, experts, advocates of early childhood, and publications which address early childhood issues and themes nationally and locally.
5. Communicate effectively with parents and other educational professionals.
6. Plan, organize and implement language arts, science, math, social studies and fine arts curriculum for preschool age children based in best practices identified by the field.
7. Apply positive approaches in behavior and guidance of young children in group settings supporting independence, self-reliance, creativity, and social skills in one-to-one, small group, and large group situations.
8. Provide for basic health, safety, and physical growth needs of children in group settings.
9. Create and modify environments to accommodate needs of diverse group of learners, including children with special needs.
10. Assess the development of young children using a variety of informal and formal methods.
11. Analyze concepts of leadership, management, and teaching within the ethical-legal education standards, both state and nationally.

<u>Fall Semester</u>	<u>Credits</u>
+ ECD100 Principles of Early Childhood Education ..	2
+ ECD101 Child Development Lab .....	2
ECD150 Infant Toddler Development .....	2
+ EDU100 Introduction to Teaching .....	2
EDU110 Child and Youth Health .....	2
ENG111 Composition I .....	3
+ PSY230 Human Growth and Development .....	3
	16

<u>Spring Semester</u>	<u>Credits</u>
+ ECD201 PreK Curriculum & Methods .....	3
+ EDU120 Guidance & Classroom Management .....	3
+ EDU130 Phonics and Early Literacy .....	3
+ EDU210 Creative Arts Curriculum .....	3
ENG230 Children's Literature .....	3
MTH170 Survey of Mathematics .....	3
	18

<u>Summer Semester</u>	<u>Credits</u>
CIS114 Microsoft Applications .....	3
Humanities Elective .....	3
	6

<u>Fall Semester</u>	<u>Credits</u>
+ ECD202 Early Childhood Diversity Lab .....	3
+ EDU220 Special Education .....	3
+ EDU230 Family, School, Community .....	2
+ EDU240 Educational Psychology .....	3
ENG112 Composition II .....	3
SSC210 Cultural Diversity .....	3
	17

<u>Spring Semester</u>	<u>Credits</u>
+ ECD250 Early Childhood Program Administration	3
+ ECD290 PreKindergarten Practicum .....	3
+ EDU250 Education Seminar .....	2
+ EDU260 Instructional Technology .....	3
ENG113 Speech	3
	14

ODE Pre-K Associate License requires grade of "B" or higher in ECD101, ECD201, ECD202, and ECD290.

#### **Humanities Elective:**

Select any humanities course listed under the Northwest State Core IV requirements on page 26.

+ Refers to technical coursework

**Students must attain a minimum grade of "C" in all courses to progress in the program and graduate.**

# Associate of Applied Science: Early Childhood Development

## Program Administrator

2007 - 2008

This major in the Early Childhood Development (ECD) Associate Degree program is designed specifically for the individual who wants to provide child care services through ownership and /or management of a child care program. The degree blends the Early Childhood Pre-Kindergarten courses, emphasizing growth and development of the child from birth to age 8, with business courses emphasizing good management and supervision practices. Many preschool teachers who advance to director positions will find this technology helpful in making the transition from classroom teacher to program manager.

The student must have day-time availability for field and laboratory placements. All students are required to have a recent medical statement, conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification. The appropriate forms are available from ECD personnel and/or the Division Secretary. Specific program policies are stated in the ECD Student Handbook. Students must also show completion of standard first aid, community CPR, common childhood illness recognition, and child abuse and neglect training through additional college courses or approved community providers prior to graduation.

### PROGRAM LEARNING OUTCOMES

Students who complete the ECD Program Administrator program will:

1. Identify cognitive, affective, and psycho-motor developmental characteristics of children 0-8, recognizing indicators of developmental delays and giftedness.
2. Identify basic concepts of learning theories that influence early childhood practices as well as describe the history of early childhood programs in the U.S.
3. Utilize technology to enhance communication and productivity.
4. Demonstrate awareness of respected authors, experts, advocates of early childhood, and publications which address early childhood issues and themes nationally and locally.
5. Support staff who plan, organize and implement language arts, science, math, social studies and fine arts curriculum appropriate for children from birth through school age.
6. Apply and promote positive approaches in behavior and guidance of young children in group settings, maintaining self-control and even temperament in difficult situations with children, parents, and other professionals.
7. Maintain an environment and policies reflecting standards of nutrition, health, and safety in daily activities for staff and children as well as to accommodate needs of children with special needs.
8. Exhibit appropriate written and verbal skills in Communications with the public administrators, families, staff and children.
9. Use evaluation methods and critical thinking to assess Program and staff effectiveness.
10. Act decisively, competently, and responsibly with administrative policies, finances, records, staff, and schedules.
11. Advocate the specialness of childhood, demonstrating a commitment to children within the program and community and an awareness of the current professional, legal, and social issues facing early childhood.
12. Act responsibly in applying regulations governing children in group settings.

<u>Fall Semester</u>		<u>Credits</u>
+	ECD100 Principles of Early Childhood Education .	2
+	ECD101 Child Development Lab .....	2
	ECD150 Infant Toddler Development .....	2
+	EDU100 Introduction to Teaching .....	2
+	EDU110 Child and Youth Health .....	2
	ENG111 Composition I .....	3
+	PSY230 Human Growth and Development .....	3
		16

<u>Spring Semester</u>		<u>Credits</u>
	CIS114 Microsoft Applications .....	3
+	ECD250 Early Childhood Program Administration	3
+	EDU120 Guidance & Classroom Management .....	3
	ENG112 Composition II .....	3
+	MGT110 Management .....	3
		15

<u>Fall Semester</u>		<u>Credits</u>
	BUS110 Business Math & Calculators .....	3
+	EDU230 Family, School, Community .....	2
+	MGT210 Human Resource Management .....	3
+	Business Elective .....	3
	Humanities Elective .....	3
	Social/Behavioral Science Elective .....	3
		17

<u>Spring Semester</u>		<u>Credits</u>
	ACC102 Office Accounting .....	4
+	ECD291 Administrative Internship .....	3
	ENG113 Speech .....	3
+	MGT220 Entrepreneurship .....	3
		13

### Business Electives: For ECD Majors Only

BUS221	Business Law I
BUS250	Labor Relations
ECO211	Macroeconomics
ECO212	Microeconomics
MKT110	Marketing
MKT230	Salesmanship

### Humanities Elective:

Any humanities course listed under the Northwest State Core IV requirements on page 26.

+ Refers to technical coursework.

**+ Students must attain a minimum grade of "C" in all courses to progress in the program and graduate.**

# Associate of Applied Science Paraprofessional Education

2007 - 2008

The Paraprofessional Education Associate Degree program prepares individuals for instructional teacher assistant positions in Pre-K to grade 12 settings. The program was developed to meet the Ohio Department of Education standards for the Paraprofessional Associate License. This license meets the “No Child Left Behind” guidelines for “highly qualified” paraprofessionals. The curriculum integrates classroom and laboratory experiences to provide the student with the opportunity to apply skills and techniques with multiple age groups.

The program has approval from the Ohio Board of Regents and the Ohio Department of Education. A student who wishes to be recommended for the Paraprofessional Associate License must meet the criteria of the program as stated in the Paraprofessional Student Handbook. Students must also show completion of standard first aid training, community CPR, common childhood illness recognition and child abuse and neglect training through additional college courses or approved community providers to be eligible for licensure.

All students are required to have a recent medical statement, conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification. The appropriate forms are available from Education faculty and/or the Division Secretary. Specific program policies are stated in the Paraprofessional Student Handbook.

## PROGRAM LEARNING OUTCOMES

Students who complete the Paraprofessional Educator program will:

1. Perform clerical and organizational tasks.
2. Assist with classroom management.
3. Provide specific personal care for students with special needs.
4. Operate audio-visual equipment and computer technologies to support instruction.
5. Implement teacher designed instruction with individual students, small groups, and large groups.
6. Provide tutoring to individual students in basic reading, writing, and math skills.
7. Write observations and conduct simple assessments under supervision of classroom teacher.
8. Demonstrate ethical and professional behavior consistent with the role of para-educator.

<u>Fall Semester</u>		<u>Credits</u>
	CIS114 Microsoft Applications .....	3
+	EDU100 Introduction to Teaching .....	2
+	EDU110 Child and Youth Health .....	2
	ENG111 Composition I .....	3
	PSY110 General Psychology .....	3
	Natural/Physical Science Elective .....	4
		17

<u>Spring Semester</u>		<u>Credits</u>
+	EDP150 Child & Classroom Observation Skills ....	2
+	EDU120 Guidance & Classroom Management ....	3
+	EDU130 Phonics and Early Literacy .....	3
	ENG112 Composition II .....	3
	ENG230 Children’s Literature .....	3
	PSY230 Human Growth and Development .....	3
		17

<u>Fall Semester</u>		<u>Credits</u>
+	EDP200 Special Education Lab Experience .....	2
+	EDU220 Special Education .....	3
+	EDU230 Family, School, Community .....	2
+	EDU240 Educational Psychology .....	3
	ENG214 Discussion & Conference Methods .....	3
	SSC210 Cultural Diversity .....	3
		16

<u>Spring Semester</u>		<u>Credits</u>
+	EDP290 Paraprofessional Internship .....	2
+	EDU210 Creative Arts Curriculum .....	3
+	EDU250 Education Seminar .....	2
+	EDU260 Instructional Technology .....	3
+	MTH170 Survey of Mathematics .....	3
	PHI110 Critical Thinking & Logic .....	3
		16

Students must attain a minimum grade of “C” in all courses to progress in the program and to graduate. No course substitutions permitted in this program if planning to be eligible for the Ohio Department of Education Educational Paraprofessional Associate License.

For an ODE Paraprofessional Associate License, students must have a grade of “B” or higher in EDP150, EDP200, and EDP290.

+ Refers to technical coursework.

# Associate of Applied Science in Human Services

2007 - 2008

The Human Services program provides a foundation in social and behavioral sciences which will prepare students for challenging work in a variety of social services and correctional settings. The program is designed to integrate classroom work with practical, hands-on experience through method classes and practicums. These courses involve students in a supervised training and field placement experience in community social service agencies. The program meets the standards for the State of Ohio Counselor, Social Worker and Marriage & Family Therapist Board certification as a Social Work Assistant and Chemical Dependency certification.

Students must meet all program requirements outlined in the Human Services Student Handbook to be eligible for certification. The student must have day-time availability for field placements.

### Career Outlook

The need for Social Work Assistants is increasing at both the national and state level. As the older adult population increases, so will the need for increased social services to meet the demand. As crime rates, homelessness and substance abuse problems increase, so will the need for Social Work Assistants in a variety of settings. The field has seen an increase in community based services for vulnerable populations such as the mentally ill and developmentally disabled. As social service agencies become more aware of the skill level and competence of Social Work Assistants, we have seen an increase in employment, which is expected to continue.

### PROGRAM LEARNING OUTCOMES

Graduates will be able to demonstrate the following skills / behaviors.

1. Integrate knowledge from social and behavior sciences and social work theories which are relevant to associate degree generalist practice at the micro, mezzo, and macro levels.
2. Integrate counseling skills and problem analysis using ethical guidelines in individual, group or team settings with diverse populations.
3. Develop facilitative relationships with individuals of diversity in a variety of settings utilizing characteristics essential to the helping profession.
4. Identify and provide appropriate community resources using the knowledge, professional, ethical and legal aspects required of a human service worker.
5. Applies culturally sensitive interviewing techniques, assessment, documentation, and record keeping to human service worker practice.

### Math/Science Electives:

BIO101	Principles of Biology
BIO115	Ecology
BIO150	The Human Body
BIO180	Genetics
BIO210	Botany
BIO220	Zoology
BIO231	Anatomy & Physiology I
BIO232	Anatomy & Physiology II
BIO257	Microbiology
CHM101	Principles of Chemistry
MTH109	College Algebra
MTH112	Trigonometry
PHY101	Principles of Physical Science
STA220	Statistics

### First Semester

			<u>Credits</u>
	ENG111	Composition I .....	3
+	HST101	Principles of Human Services .....	3
+	HST108	Principles of Mental Retardation & Developmental Disabilities	
		or	
+	CJT130	Criminal Justice Principles .....	3
+	HST212	Substance Abuse .....	3
	PSY110	General Psychology .....	3
	SSC101	Sociology .....	<u>3</u>
			18

### Second Semester

			<u>Credits</u>
	CIS114	Microsoft Applications .....	3
	ENG112	Composition II .....	3
+	HST105	Counseling Techniques w/ Diverse Pop ..	3
+	HST112	Group Counseling .....	3
+	PSY210	Abnormal Psychology .....	3
	PSY230	Human Growth and Development .....	<u>3</u>
			18

### Third Semester

			<u>Credits</u>
+	HST208	Interviewing Techniques .....	3
+	HST210	Human Services Methods .....	6
+	HST240	Social Problems .....	3
	PHI222	Ethics in the Helping Profession .....	3
	SSC210	Cultural Diversity .....	<u>3</u>
			18

### Fourth Semester

			<u>Credits</u>
+	HST214	Human Services Case Management .....	3
+	HST242	Marriage and Family .....	3
+	HST290	Practicum I .....	6
		Math/Science Elective .....	<u>3</u>
			15

### Additional MR/DD Classes:

HST220	Principles of Work
HST221	Principles of Habilitation Programming

- + **Students must attain a 2.00 grade point average in each of these courses to graduate.**

**ALL coursework must be completed with a minimum grade of "C" or higher for state licensure.**

# Associate of Applied Science: Criminal Justice

## Corrections, Probation & Parole

2007 - 2008

The Criminal Justice Corrections, Probation & Parole major is designed to prepare students for careers in corrections and probation. Graduates will be prepared to work with offenders in supervised environments, group homes, drug centers, detention centers, probation departments, juvenile institution, jails and prisons. Upon completion of the two-year program, students will graduate with an Associate degree in Applied Science.

Students who have prior felony convictions may be excluded from numerous criminal justice career opportunities. Students who have prior misdemeanor charges or excessive civil infractions, including traffic citations, may also be denied an opportunity for employment within the criminal justice field. In addition, students should note that the people they associate with may inhibit the College from finding an adequate internship. Policies regarding the criminal justice program are available in the Criminal Justice Student Handbook. All students entering the program must adhere to the regulations within the handbook as well as the division's Substance Abuse Policy.

### Career Outlook

Employment of corrections officers is expected to grow faster than the average through the year 2008, both nationally and in the state of Ohio. Reduced parole and longer prison terms are keeping inmates incarcerated for longer periods of time, while at the same time there has been an increase in the number of people being convicted of crimes. The outlook of parole and probation officers will remain stable and is often dependent on government funding. Jobs for parole and probation officers are usually more abundant in small towns and rural areas.

### PROGRAM LEARNING OUTCOMES

At the completion of the program students will be able to:

1. Have a general understanding and appreciation of the role of the CJ system at local, state, and federal levels.
2. Demonstrate knowledge of appropriate codes of professional Ethics and the capability to critically and reflectively engage ethical issues in CJ, particularly questions of social responsibility and professional decision-making.
3. Demonstrate knowledge of the theories, principles, and practices of criminal justice, including constitutional principles, judicial and correctional processes, legal institutions, and methods of law enforcement.
4. Have a sound basic education in CJ for graduates who choose to pursue a bachelor's degree.

#### Humanities Elective:

Select any humanities course listed under the Northwest State Core IV requirements on page 26.

#### Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s).

#### Math/Science Elective:

See page 74 for list of courses

<u>First Semester</u>		<u>Credits</u>
+	CJT130 Criminal Justice Principles .....	3
	ENG111 Composition I .....	3
	HST101 Principles of Human Services .....	3
	PSY110 General Psychology .....	3
	Computer Elective .....	<u>3</u>
		15

<u>Second Semester</u>		<u>Credits</u>
+	CJT134 Criminal Law .....	3
+	CJT230 Corrections .....	3
	ENG112 Composition II .....	3
	PSY210 Abnormal Psychology .....	3
+	Technical Elective .....	3
	Math/Science Elective .....	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+	CJT136 Juvenile Delinquency .....	3
+	CJT240 Evidence and Procedures .....	3
	SSC101 Sociology .....	3
	Humanities Elective .....	3
	Human Service/Social Science Elective or SPN 111 .....	<u>3</u>
		15

<u>Fourth Semester</u>		<u>Credits</u>
+	CJT242 Probation and Parole .....	3
+	CJT244 Criminal Investigation .....	4
+	CJT290 Criminal Justice Practicum * .....	4
+	HST214 Human Service Cast Management .....	<u>3</u>
		14

\* Students currently employed full-time in a professional criminal justice setting may be allowed to substitute this course.

#### Technical Electives - Corrections, Probation & Parole

- CJT132 Criminal Justice Administration
- CJT140 Constitutional Law
- CJT252 Seminar in Criminal Justice

#### Human Service/Social Science Electives - For Criminal Justice

Majors only:

- HST105 Counseling Techniques with Diverse Populations
- HST212 Substance Abuse
- HST240 Social Problems
- HST242 Marriage & Family
- PSY220 Social Psychology
- PSY230 Human Growth & Development
- PSY260 Forensic Psychology
- SSC110 General Anthropology
- SSC120 American Government
- SSC210 Cultural Diversity

**+Students must attain a 2.00 grade point average in each of these courses to graduate.**

# Associate of Applied Science: Criminal Justice

## Computer Crimes Investigation

2007 - 2008

The Criminal Justice Computer Crimes Investigation major is designed to prepare students for careers in law enforcement with an emphasis on using technology for investigative processes. Technical skills including hardware, software and the Internet are also included. The program blends criminal justice courses with computer programming courses. Upon completion of the two-year program, students will graduate with an Associate degree in Applied Science.

Students who have prior felony convictions may be excluded from numerous criminal justice career opportunities. Students who have prior misdemeanor charges or excessive civil infractions, including traffic citations, may also be denied an opportunity for employment within the criminal justice field. In addition, students should note that the people they associate with may inhibit the College from finding an adequate internship. Policies regarding the criminal justice program are available in the Criminal Justice Student Handbook. All students entering the program must adhere to the regulations within the handbook as well as the division's Substance Abuse Policy.

### Career Outlook

Nationally and in the state of Ohio, employment of law enforcement officers is expected to grow as fast as the average through the year 2006. Growth is attributed to a more security-conscious society than in the past and an increased concern about drug-related crimes. Candidates who have college training in law enforcement should have the best chances of being hired.

### PROGRAM LEARNING OUTCOMES

At the completion of the program students will be able to:

1. Have a general understanding and appreciation of the role of the CJ system at local, state, and federal levels.
2. Demonstrate knowledge of appropriate codes of professional ethics and the capability to critically and reflectively engage ethical issues in CJ, particularly questions of social responsibility and professional decision-making.
3. Demonstrate knowledge of the theories, principles, and practices of criminal justice, including constitutional principles, judicial and correctional processes, legal institutions, and methods of law enforcement.
4. Have a sound basic education in CJ for graduates who choose to pursue a bachelor's degree.

#### Humanities Elective:

Select any humanities course listed under the Northwest State Core IV requirements on page 26.

#### Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s).

#### Math/Science Elective:

See page 74 for list of courses

\* Students currently employed full-time in a professional criminal justice setting may be allowed to substitute this course.

<u>First Semester</u>			<u>Credits</u>
+	CIS190	Comp. Op. Generic Operating Systems .	4
+	CJT130	Criminal Justice Principles .....	3
	ENG111	Composition I .....	3
	PSY110	General Psychology .....	3
		Computer Elective .....	<u>3</u>
			16

<u>Second Semester</u>			<u>Credits</u>
+	CJT134	Criminal Law .....	3
+	CJT230	Corrections .....	3
	ENG112	Composition II .....	3
	PSY210	Abnormal Psychology .....	3
+		Technical Elective #1 .....	3
		Human Service/Social Science Elective ..	<u>3</u>
			18

<u>Third Semester</u>			<u>Credits</u>
+	CJT240	Evidence and Procedures .....	3
	SSC101	Sociology .....	3
		Humanities Elective .....	3
		Math/Science Elective .....	3
+		Technical Elective #2 .....	<u>4</u>
			16

<u>Fourth Semester</u>			<u>Credits</u>
+	CJT244	Criminal Investigation .....	4
+	CJT250	Computer Crimes Investigation	4
+	CJT290	Criminal Justice Practicum * .....	4
		Human Service/Social Science Elective	
		or SPN111 .....	<u>3</u>
			15

#### Technical Electives- Computer Crimes Investigation

CIS155	Linux Networking I
CIS255	Linux Networking II
CIS272	Microsoft Networking I
CIS282	Microsoft Networking II
EET272	CISCO Networking I
EET282	CISCO Networking II

#### Human Service/Social Science Electives - For Criminal Justice

Majors only:

HST101	Principles of Human Services
HST105	Counseling Techniques with Diverse Populations
HST212	Substance Abuse
HST240	Social Problems
HST242	Marriage & Family
PSY220	Social Psychology
PSY230	Human Growth & Development
PSY260	Forensic Psychology
SC110	General Anthropology
SSC120	American Government
SSC210	Cultural Diversity

+ **Students must attain a 2.00 grade point average in each of these courses to graduate.**

# Associate of Applied Science: Criminal Justice Law Enforcement

2007 - 2008

The Criminal Justice Law Enforcement major is designed to prepare students for careers in law enforcement. Students may work as police officers, deputy sheriffs, dispatchers, record clerks, and parking enforcement officers. Many police agencies are beginning to require a minimum of an associate degree for new employees. Upon completion of the two-year program, students will graduate with an Associate degree in Applied Science.

Students who have prior felony convictions may be excluded from numerous criminal justice career opportunities. Students who have prior misdemeanor charges or excessive civil infractions, including traffic citations, may also be denied an opportunity for employment within the criminal justice field. In addition, students should note that the people they associate with may inhibit the College from finding an adequate internship. Policies regarding the criminal justice program are available in the Criminal Justice Student Handbook. All students entering the program must adhere to the regulations within the handbook as well as the division's Substance Abuse Policy.

### Career Outlook

Nationally and in the state of Ohio, employment of law enforcement officers is expected to grow as fast as the average through the year 2006. Growth is attributed to a more security-conscious society than in the past and an increased concern about drug-related crimes. Candidates who have college training in law enforcement should have the best chances of being hired.

### PROGRAM LEARNING OUTCOMES

At the completion of the program students will be able to:

1. Have a general understanding and appreciation of the role of the CJ system at local, state, and federal levels.
2. Demonstrate knowledge of appropriate codes of professional ethics and the capability to critically and reflectively engage ethical issues in CJ, particularly questions of social responsibility and professional decision-making
3. Demonstrate knowledge of the theories, principles and practice of criminal justice, including constitutional principles, judicial and correctional processes, legal institutions, and methods of law enforcement.
4. Have a sound basic education in CJ for graduates who choose to pursue a bachelor's degree.

#### Humanities Elective:

Select any humanities course listed under the Northwest State Core IV requirements on page 26.

#### Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s).

#### Math/Science Elective:

See page 74 for list of courses

\* Students currently employed full-time in a professional criminal justice setting may be allowed to substitute this course.

<u>First Semester</u>		<u>Credits</u>
	ENG111 Composition I .....	3
+	CJT130 Criminal Justice Principles .....	3
	PSY110 General Psychology .....	3
	Computer Elective .....	3
	Math/Science Elective .....	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+	CJT132 Criminal Justice Administration .....	3
+	CJT134 Criminal Law .....	3
+	CJT230 Corrections .....	3
	ENG112 Composition II .....	3
	PSY210 Abnormal Psychology .....	3
	Human Service/Social Science Elective ..	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+	CJT240 Evidence and Procedures .....	3
	SSC101 Sociology .....	3
	Human Services/Social Science Elective or SPN111 .....	3
	Humanities Elective .....	3
+	Technical Elective #1 .....	<u>3</u>
		15

<u>Fourth Semester</u>		<u>Credits</u>
+	CJT140 Constitution Law .....	3
+	CJT244 Criminal Investigation	4
+	CJT290 Criminal Justice Practicum * .....	4
+	Technical Elective #2 .....	<u>3</u>
		14

#### Technical Electives - Law Enforcement

- CJT136 Juvenile Delinquency
- CJT242 Probation and Parole
- CJT252 Seminar in Criminal Justice

Human Service/Social Science Electives - For Criminal Justice Majors only:

- HST101 Principles of Human Services
- HST105 Counseling Techniques with Diverse Populations
- HST212 Substance Abuse
- HST240 Social Problems
- HST242 Marriage and Family
- PSY220 Social Psychology
- PSY230 Human Growth & Development
- PSY260 Forensic Psychology
- SSC110 General Anthropology
- SSC120 American Government
- SSC210 Cultural Diversity

+ **Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Science: Criminal Justice

## Law Enforcement - Academy Option

2007 - 2008

The Criminal Justice Law Enforcement Academy option major will lead to State of Ohio Certification as a Peace Officer. The student must meet Academy qualifications to be accepted into the program. Students must be 19 years of age, with a high school diploma or GED. Students under 21 years of age will have limited employment opportunities. Students will be required to submit the Ohio Peace Officer Training Commission Student Enrollment Certification Record, a Statement of Understanding, physical form, training waiver and liability forms. Background and criminal record checks will be completed and an interview may be required. Students who have a weapons disability or have any felony, weapons, or domestic violence convictions or conviction of any related offenses as a result of Domestic Violence incidents will not be eligible for admission. To successfully complete the Academy, students must meet the attendance and physical conditioning requirements. Upon successful completion, students will graduate with an Associate degree in Applied Science and will be eligible to take the State certification exam. Students completing this major must successfully complete the Academy.

Policies regarding the criminal justice program are available in the Criminal Justice Student Handbook. All students entering the program must adhere to the regulations within the handbook as well as the division's Substance Abuse Policy.

### Career Outlook

Nationally and in the state of Ohio, employment of law enforcement officers is expected to grow as fast as the average through the year 2006. Growth is attributed to a more security-conscious society than in the past and an increased concern about drug-related crimes. Candidates who have college training in law enforcement should have the best chances of being hired.

### PROGRAM LEARNING OUTCOMES

At the completion of the program students will be able to:

1. Have a general understanding and appreciation of the role of the CJ system at local, state, and federal levels.
2. Demonstrate knowledge of appropriate codes of professional ethics and the capability to critically and reflectively engage ethical issues in CJ, particularly questions of social responsibility and professional decision-making.
3. Demonstrate knowledge of the theories, principles, and practices of criminal justice, including constitutional principles, judicial and correctional processes, legal institutions, and methods of law enforcement.
4. Have a sound basic education in CJ for graduates who choose to pursue a bachelor's degree.

### Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s).

### Math/Science Elective:

See page 74 for list of courses

<u>First Semester</u>		<u>Credits</u>
+	CJT130 Criminal Justice Principles .....	3
	ENG111 Composition I .....	3
	PSY110 General Psychology .....	3
	Computer Elective .....	3
	Humanities Elective .....	3
	Math/Science Elective .....	<u>3</u>
		18

<u>Second Semester</u>		<u>Credits</u>
+	CJT230 Corrections .....	3
	ENG112 Composition II .....	3
	PSY210 Abnormal Psychology .....	3
	SSC101 Sociology .....	3
	Human Service/Social Science Elective ..	3
	Human Service/Social Science Elective ..	<u>3</u>
		18

<u>Summer Semester</u>		<u>Credits</u>
+	CJT290 Criminal Justice Practicum .....	4

### Third and Fourth Semester

Law Enforcement Academy - All courses listed must be taken within the Academy hours.

+	CJT134 Criminal Law .....	3
+	CJT240 Evidence & Procedures .....	3
+	CJT244 Criminal Investigation .....	4
+	CJT246 Technical Skills for Officers .....	3
+	CJT281 Vehicle Patrol/Traffic Enforcement ...	4
+	CJT282 Firearms/Driving .....	4
+	CJT283 Defensive Tactics/Physical Fitness ....	3
+	CJT284 Human Conditions .....	4

### Humanities Elective:

Select any humanities course listed under the Northwest State Core IV requirements on page 26.

### Human Service/Social Science Electives - For Criminal Justice Majors only:

HST101	Principles of Human Services
HST105	Counseling Techniques with Diverse Populations
HST212	Substance Abuse
HST240	Social Problems
HST242	Marriage & Family
PSY220	Social Psychology
PSY230	Growth & Development
PSY260	Forensic Psychology
SSC110	General Anthropology
SSC120	American Government
SSC210	Cultural Diversity

**+ Students must attain a 2.00 grade point average in these technical courses to graduate.**

# Associate of Applied Science in Associate Degree Nursing (RN)

2007 - 2008

The Associate Degree Nursing program is designed to prepare students to demonstrate competency in providing nursing care in a variety of health care settings and for employment as a registered nurse. The five semester program incorporates lectures, labs, and clinicals to prepare the student to function as a member of the healthcare team. Students must meet all admission criteria prior to taking a clinical nursing course. Policies regulating the nursing program are available in the Student Nurse Handbook.

### Submit the following to the Admissions Office:

- a. Application to Northwest State Community College
- b. High School Transcript and/or G.E.D.
- c. Official College Transcript(s) (if you have college work)

### Admission to the Associate Degree Nursing Program:

1. Submit directly to the Nursing Office.
  - a. High school transcript or copy of GED
  - b. Application to the Associate Degree Nursing Program
  
2. All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the placement test or take the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing
  
3. Meet ONE criteria in each of the following areas to be assigned a starting date for the first Nursing course NRS106.
  - A. Academic Background  
High School graduate from a North Central accredited High School can satisfy the academic requirement by meeting one of the following:
    1. G.P.A. 2.5 or better on a 4.0 scale and maintain a 2.5 G.P.A. or better on any college work
    2. Complete 16 semester hours (24 quarter hours) of college work with 2.5 G.P.A. or better
    3. College degree with G.P.A. 2.5 or better
    4. Complete National League for Nursing Pre-admission Exam with a composite score of 50 percentile on the AD scale

Students from a non-accredited high school/program or with a GED can satisfy the academic requirement by meeting one of the following:

    1. An ACT composite score of  $\geq 23$
    2. Complete 16 semester hours (24 quarter hours) of college work with 2.5 G.P.A. or better
    3. College Degree with G.P.A. 2.5 or better
    4. Complete the National League for Nursing Pre-Admission Exam with a composite score of 50 percentile on the AD scale
  - B. Algebra
    1. Meets course placement results for MTH090 Intermediate Algebra proficiency
    2. MTH080 proficiency plus an ACT math score  $\geq 24$
    3. College equivalent (MTH090 Intermediate Algebra) with a minimum grade of "C"
  - C. Chemistry
    1. High School Chemistry with Lab with minimum grade of "B"
    2. High School Chemistry with a "C", plus an ACT science score of  $\geq 24$  or a NLN Pre-admission science raw score of  $\geq 42$
    3. College equivalent (CHM101) with minimum grade of "C"
  - D. Biology
    1. High School Biology with Lab with minimum grade of "B"
    2. High School Biology with a "C", plus an ACT science score of  $\geq 24$  or a NLN Pre-admission science raw score of  $> 42$
    3. College equivalent (BIO101) with minimum grade of "C"
  - E. Computer Competency
    1. High school microcomputer course with a minimum grade of "C" since 1992
    2. Successfully complete or proficiency CIS090 Introduction to Computers or equivalent
  - F. Keyboard competency
    1. High School keyboarding course with a minimum grade of "C"
    2. Successfully complete or proficiency OAS090, Keyboarding Basics or equivalent.

- G. Students will not be admitted to the program if a grade of less than "C" is received more than one time in any of the above courses.
  
4. Acceptance into the program is based on completion of criteria and review by the Admissions Committee. Applicants will be notified by letter regarding their acceptance into the program.
  - a. Consideration will be given to students having the greatest number of credit hours completed from the Associate Degree Nursing curriculum.
  - b. Priority will be given to students who have completed course work at NSCC.
  - c. Technical grade point average will be used to determine placement when criteria are equal.
  
5. If taken prior to admission, the student must provide official documentation that knowledge of BIO231, BIO232, and BIO257 is seven (7) years old or less. If coursework is older than seven years, current knowledge may be demonstrated by taking a re-qualifying exam or by retaking the course.
  
6. Upon acceptance and prior to entry into the program, the applicant must submit:
  - a. Nursing Acceptance deposit fee (\$100.00) to hold a seat in the assigned clinical class.
  - b. Completed health and immunization forms and verify current CPR with Red Cross (BLS) or American Heart Association BLS for the Healthcare Provider.
  - c. Verification of current STNA certification
  
7. This is a rigorous program. Full-time employment is not recommended during the clinical courses.
  
8. Guidelines from the Center for Disease Control state that "health care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care...until the condition resolves."
  
9. The following physical requirements are necessary to safely and accurately carry out the nursing duties:
  - Critical thinking ability sufficient for clinical judgment
  - Physical abilities sufficient to move from room to room and maneuver in small spaces
  - Tactile ability sufficient for physical assessment
  - Ability to prepare and administer medications
  - Ability to transfer patients
  - Ability to read medication labels and patient records
  - Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available)
  - Communicate English clearly enough for most patients to understand and understand the verbal communication of English speaking clients
  - Clear written communication
  
10. Anyone with a felony, misdemeanor, or a D.U.I. conviction will be required, after completing the nursing program, to attend a hearing before the Ohio State Board of Nursing to determine eligibility to sit for the national Licensure exam. Anyone who has been convicted of or pled guilty to aggravated murder, murder, voluntary manslaughter, felonious assault, kidnapping, rape, sexual battery, gross sexual imposition, aggravated arson, aggravated robbery or aggravated burglary will not be eligible for licensure in Ohio.
  
11. Clinical component must be completed within four (4) years.

+ **Program Learning Outcomes on Page 86.**

# Associate of Applied Science

# Associate Degree Nursing (RN)

2007 - 2008

## FALL SCHEDULE

<u>First Semester</u>	<u>Credits</u>
ENG111 Composition I .....	3
BIO231 Anatomy & Physiology I .....	4
+ NRS106 Nursing Perspectives .....	2
+ NRS107 Basic Concepts .....	6
	15

<u>Second Semester</u>	<u>Credits</u>
BIO232 Anatomy & Physiology II .....	4
+ NRS108 Nursing Care of Clients with Physiological Health Needs I .....	6
+ NRS110 Pharmacology .....	3
+ NRS131 Physical Assessment .....	2
PSY230 Human Growth and Development .....	3
	18

<u>Summer Semester</u>	<u>Credits</u>
+ NRS213 Nursing Care of the Childbearing Family	3
+ NRS214 Nursing Care of the Childrearing Family	3
PSY110 General Psychology .....	3
	9

<u>Third Semester</u>	<u>Credits</u>
BIO257 Microbiology .....	4
+ NRS215 Nursing Care of Clients with Psychosocial Health Needs .....	5
+ NRS216 Nursing Care of Clients with Physiological Health Needs II .....	3
SSC101 Sociology .....	3
or	
SSC210 Cultural Diversity .....	3
	15

<u>Fourth Semester</u>	<u>Credits</u>
ENG112 Composition II .....	3
+ NRS217 Nursing Care of Clients with Physiological Health Needs III .....	5
+ NRS218 Concepts in Management of Groups of Clients .....	4
PHI220 Ethics in Health Care .....	3
	15

+ Refers to technical coursework.

Students must attain a minimum grade of "C" in all courses to progress in the program and graduate. Students must also demonstrate the ability to be successful on the NCLEX-RN exam prior to completion of the program.

Program Learning Outcomes on Page 86.

## SPRING SCHEDULE

<u>First Semester</u>	<u>Credits</u>
ENG111 Composition I .....	3
BIO231 Anatomy & Physiology I .....	4
+ NRS106 Nursing Perspectives .....	2
+ NRS107 Basic Concepts .....	6
	15

<u>Second Semester</u>	<u>Credits</u>
BIO232 Anatomy & Physiology II .....	4
+ NRS108 Nursing Care of Clients with Physiological Health Needs I .....	6
+ NRS110 Pharmacology .....	3
+ NRS131 Physical Assessment .....	2
PSY110 General Psychology .....	3
	18

<u>Third Semester</u>	<u>Credits</u>
BIO257 Microbiology .....	4
+ NRS215 Nursing Care of Clients with Psychosocial Health Needs .....	5
+ NRS216 Nursing Care of Clients with Physiological Health Needs II .....	3
SSC101 Sociology .....	3
or	
SSC210 Cultural Diversity .....	3
PSY230 Human Growth and Development .....	3
	18

<u>Summer Semester</u>	<u>Credits</u>
ENG112 Composition II .....	3
+ NRS213 Nursing Care of the Childbearing Family	3
+ NRS214 Nursing Care of the Childrearing Family	3
	9

<u>Fourth Semester</u>	<u>Credits</u>
+ NRS217 Nursing Care of Clients with Physiological Health Needs III .....	5
+ NRS218 Concepts in Management of Groups of Clients .....	4
PHI220 Ethics in Health Care .....	3
	12

Graduates are eligible to take the National Council Licensure Exam (NCLEX-RN) for licensure as a Registered Nurse. Students who have prior misdemeanor, felony, or D.U.I. convictions may be denied the opportunity to take the NCLEX-RN. State Law (Senate Bill 38 and Senate Bill 160) requires certain agencies providing care to children or adults age 60 or older to require a Bureau of Criminal Identification and Investigation (BCI) check of past misdemeanors and felonies. Job seekers are prohibited from holding such jobs if they have previously been convicted of (or pleaded guilty to) a variety of offences.

The Associate Degree Nursing program is fully approved by the Ohio Board of Nursing and accredited by the National League for Nursing Accrediting Commission, 61 Broadway 33<sup>rd</sup> Floor, New York, NY 10006, (800)669-1656, extension 153.

# Associate of Applied Science

## LPN to RN Advanced Standing Program

2007 - 2008

### Admission to the College:

1. Submit to Admission Office:
  - a. Northwest State Community College application
  - b. High School Transcript or G.E.D.
  - c. Transcripts from Approved Practical Nursing School
  - d. Official College transcript(s) (if any)

### Admission to the LPN to RN Advanced Standing Program:

1. Submit directly to the Nursing Office:
  - a. Application to LPN to RN Advanced Standing Program
  - b. High School transcript
  - c. Transcript from approved PN school
2. Must be a graduate of a Practical Nursing program and have current Ohio LPN licensure without restrictions and with medication administration privileges. One year continuous nursing experience (minimum 800 hours) within the past three years is required.
3. All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the placement test or take the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing.
4. Meet ONE criterion in each of the following areas.
  - a. Algebra
    1. Meets course placement results for MTH090 Intermediate Algebra proficiency.
    2. MTH080 proficiency plus an ACT math score  $\geq 24$
    3. College equivalent (MTH090 Intermediate Algebra) with a minimum grade of "C"
  - b. Chemistry
    1. High School Chemistry with Lab with minimum grade of "B"
    2. High School Chemistry with a "C", plus an ACT science score of  $\geq 24$  or a NLN Pre-admission science raw score of  $\geq 42$
    3. College equivalent (CHM101) with minimum grade of "C"
  - c. Computer Competency
    1. High School micro computer course with minimum grade of "C" since 1992.
    2. Successfully complete or proficiency CIS090 Introduction to Computers or equivalent.
  - d. Keyboarding Competency
    1. High School keyboarding course with a minimum grade of "C".
    2. Successfully complete or proficiency OAS090 Keyboarding Basics or equivalent.
5. Complete the following courses with a "C" (2.0) grade or better prior to admission to advanced standing program:
  - a. BIO231 - Anatomy & Physiology I
  - b. BIO232 - Anatomy & Physiology II
  - c. PSY230 - Human Growth and Development
  - d. PSY110 - General Psychology
6. Students will not be admitted to the program if a grade of less than "C" is received more than one time in any of the above courses.
7. Pass with a maximum of 2 attempts, NLN Acceleration Challenge Exam I - Nursing Care During Childbearing and Nursing Care of the Child at a 70 decision score prior to the completion of NRS211, LPN-RN Transition Course. If unsuccessful, complete NRS209 Nursing Care During Childbearing & Childhood with a "C" grade or better. Course only offered Summer Semester.
8. Acceptance into the program is based on completion of criteria and review by the Committee. Applicants will be notified by letter regarding their acceptance into the program. When more qualified applicants have applied than seats available:

- a. Consideration will be given to students having the greatest number of credit hours completed from the Advanced Standing Curriculum.
  - b. Priority will be given to students who have completed coursework at Northwest State Community College.
  - c. Technical grade point average will be used to determine placement when criteria are equal.
9. If criteria (1 through 6) are not met, the LPN may apply to the generic ADN program.
  10. This is a rigorous program. Full-time employment is not recommended during the clinical courses.
  11. Upon acceptance and prior to entry into the program, the applicant must submit:
    - a. Nursing acceptance deposit fee (\$100.00) to hold a seat in the assigned clinical class.
    - b. Completed health and immunization forms and verify current CPR with either Red Cross BLS for the Professional rescuer or American Heart Association BLS for the Healthcare Provider.
  12. Guidelines from the Center for Disease Control state that "health care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care... until the condition resolves."
  13. The following performance standards are necessary to safely and accurately carry out nursing duties:
    - Critical thinking ability sufficient for clinical judgment
    - Physical abilities sufficient to move from room to room and maneuver in small spaces
    - Tactile ability sufficient for physical assessment
    - Ability to prepare and administer medications
    - Ability to transfer patients
    - Ability to read medication labels and patient records
    - Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available)
    - Communicate English clearly enough for most patients to understand and understand the verbal communication of English-speaking clients
    - Clear written communication
  14. Anyone with a felony, misdemeanor, or a D.U.I. conviction will be required, after completing the nursing program, to attend a hearing before the Ohio State Board of Nursing to determine eligibility to sit for the national Licensure exam. Anyone who has been convicted of or pled guilty to aggravated murder, murder, voluntary manslaughter, felonious assault, kidnapping, rape, sexual battery, gross sexual imposition, aggravated arson, aggravated robbery or aggravated burglary will not be eligible for licensure in Ohio. State Law (Senate Bill 38 and Senate Bill 160) requires certain agencies providing care to children or adults age 60 or older to require a Bureau of Criminal Identification and Investigation (BCI) check of past misdemeanors and felonies. Job seekers are prohibited from holding such jobs if they have previously been convicted of (or pleaded guilty to) a variety of offences.
  15. Clinical component must be completed within three (3) years.

# Associate of Applied Science: Associate Degree Nursing

## LPN to RN Advanced Standing Program

2007 - 2008

This three semester program is designed to prepare the Licensed Practical Nurse for licensure as a registered nurse. The program incorporates lectures, labs, and clinicals to prepare the student to function as a member of the health care team. Students must meet all admission criteria prior to taking a clinical nursing course. Policies regulating the nursing program are available in the Student Nurse Handbook.

Graduates are eligible to take the National Council Licensure Exam (NCLEX-RN) for licensure as a Registered Nurse. Students who have prior misdemeanor, felony, or D.U.I. convictions may be denied the opportunity to take the NCLEX-RN.

The Associate Degree Nursing program is fully approved by the Ohio Board of Nursing and accredited by the National League for Nursing Accrediting Commission, 61 Broadway 33<sup>rd</sup> Floor, New York, NY 10006, (800)669-1656, extension 153.

### SCHEDULE

<u>Spring Semester</u>		<u>Credits</u>
	ENG111 Composition I .....	3
+	NRS211 LPN to RN Transition Course .....	3
+	NRS212 LPN to RN BridgeCourse .....	<u>1</u>
		7

<u>Fall Semester</u>		<u>Credits</u>
	BIO257 Microbiology .....	4
+	NRS215 Nursing Care of Clients with Psychosocial Health Needs .....	5
+	NRS216 Nursing Care of Clients with Physiological Needs II .....	3
	SSC101 Sociology .....	3
	or	
	SSC210 Cultural Diversity .....	<u>3</u>
		15

<u>Spring Semester</u>		<u>Credits</u>
	ENG112 Composition II .....	3
+	NRS217 Nursing Care of Clients with Physiological Health Needs III .....	5
+	NRS218 Concepts in Management of Groups of Clients	4
	PHI220 Ethics in Health Care .....	<u>3</u>
		15

### **PROGRAM LEARNING OUTCOMES FOR ALL ASSOCIATE DEGREE NURSING PROGRAMS.**

1. Integrate knowledge from physical, biological, behavioral and nursing sciences and general studies in providing comprehensive nursing care.
2. Integrate the nursing process to maintain, restore, and promote health of individuals, families, and groups of all ages in a variety of settings.
3. Incorporate principles and techniques of effective interpersonal relationships with clients, colleagues, and health team members.
4. Adapt nursing practice to reflect the worth and dignity of clients within the ethical-legal obligations of associate degree nursing.
5. Assume responsibility for continued learning and personal growth in nursing practice.
6. Accept accountability and responsibility to clients, to the nursing profession, and to society for own nursing practice.
7. Analyze the past, present and emerging roles of the associate degree nurse.
8. Apply concepts of leadership and management in utilizing human and material resources for nursing practice as an associate degree nurse.

Students must attain a minimum grade of "C" in all courses to progress in the program and to graduate. Students must also demonstrate the ability to be successful on the NCLEX-RN exam prior to completion of the program.

NRS211 is considered a validation course and can only be taken one time. Students who are unsuccessful may apply to the two year associate degree program.

#### **Part-time Evening/Weekend Program**

The LPN to RN Advanced Standing Program is also offered at Vantage Career Center in Van Wert, Ohio through a unique collaboration between NSCC, Vantage Career Center and Wright State University (Lake Campus). Necessary remedial and all general education courses are offered at the Vantage site either by NSCC or Wright State University. All nursing courses are through NSCC. Contact the nursing division for specific details.

+ Refers to technical coursework

# Nursing Certificate in Practical Nursing (PN)

2007 - 2008

## Admission To The College

1. Submit to the Northwest State Community College Admissions Office:
  - a. Completed Application to Northwest State Community College
  - b. Completed high school transcript or G.E.D. Certificate
  - c. Official college transcript(s) if applicable

## Admission to The Practical Nursing Program

- a. Submit directly to the nursing office:
- b. Completed high school transcript or G.E.D.
- c. Application to the Practical Nursing Program

## Admission Criteria

1. All students are required to demonstrate proficiencies in reading, writing, and mathematics based on scores on the placement test or take the recommended classes. If you have not taken these tests, see the testing coordinator in room C104 for information or referral to testing; recommended courses must be completed
2. Must meet ONE criterion in each of the following areas to be assigned a starting date for the first nursing course PNE120:
  - a. GPA
    1. High school G.P.A.  $\geq 2.0$ .
    2. College G.P.A. of 2.0 or better (if applicable)
  - b. Algebra
    1. Course Placement Algebra score at the MTH080 level
    2. College equivalent (MTH080 Beginning Algebra) with grade of "S"
  - c. Science
    1. High school biology, with lab, with minimum grade of "C" and high school chemistry, with lab, with minimum grade of "C"
    2. High school biology and high school chemistry with a "C" within a curriculum not accredited by North Central and an ACT science score  $\geq 20$ .
    3. BIO101 Principles of Biology with minimum grade of "C"
  - d. Computer Competency
    1. High school microcomputer course since 1992 with minimum grade of "C"
    2. Successfully complete or proficiency CIS090 Introduction to Computers or equivalent.
  - e. Keyboarding Competency
    1. High School Keyboarding course with a minimum grade of "C"
    2. Successfully complete proficiency OAS090 Keyboarding Basics or equivalent.
3. **Acceptance into the nursing program will be by letter from the PN Admission Committee ONLY.**

When more qualified applicants have applied than seats are available:

  1. Consideration will be given to students having the greatest number of credit hours completed toward the nursing program.
  2. Priority will be given to students who have completed coursework at NSCC.
  3. Technical grade point average will be used to determine placement when criteria are equal.
4. **Upon acceptance and prior to entry into the program**, the applicant must submit:
  - a. The nursing acceptance deposit fee (\$100.00) to hold a seat in the assigned clinical class.
  - b. Completed health and immunization forms.
  - c. Verify current CPR with Red Cross (BLS) for the Professional Rescuer or American Heart Association BLS for the Healthcare Provider.
  - d. Verification of current STNA certification.
5. If taken prior to admission, the student must provide official documentation that coursework in The Human Body (BIO150) or Anatomy & Physiology I and II (BIO231 & BIO232) is seven (7) years old or less. If coursework is older than seven years, current knowledge may be demonstrated by taking the course(s) or the proficiency exam(s).
6. Anyone with a felony, D.U.I. or misdemeanor conviction will be required, after completing the program to attend a hearing before the Ohio State Board of Nursing to determine eligibility to sit for the national licensure exam in Ohio. Anyone who has been convicted of or pled guilty to aggravated murder, murder, voluntary manslaughter, felonious assault, kidnapping, rape, sexual battery, gross sexual imposition, aggravated arson, aggravated robbery, or aggravated burglary will not be eligible for licensure in Ohio. State Law (Senate Bill 38 and Senate Bill 160) requires certain agencies providing care to children or adults age 60 or older to require a Bureau of Criminal Identification and Investigation (BSII) check of past misdemeanors and felonies. Job seekers are prohibited from holding such jobs if they have previously been convicted (or pleaded guilty) to a variety of offenses.
7. Guidelines from the Center for Disease Control state that "health care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care...until the condition resolves."
8. Clinical component must be completed within two (2) years.
9. The following performance standards are necessary to safely and accurately carry out nursing duties:
  - Critical thinking ability sufficient for clinical judgment
  - Physical abilities sufficient to move from room to room and maneuver in small spaces
  - Tactile ability sufficient for physical assessment
  - Ability to prepare and administer medications
  - Ability to transfer patients
  - Ability to read medication labels and patient records
  - Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available)
  - Communicate English clearly enough for most patients to understand and understand the verbal communication of English-speaking clients
  - Clear written communication
10. The PN program has been designed to facilitate articulation and to enhance further study in a student's area of interest. Instead of BIO150 The Human Body, students who are planning to articulate to the Advanced Standing Program may choose to take BIO231 Anatomy & Physiology I and BIO232 Anatomy & Physiology II. When the two-semester sequence of A&P is chosen, BIO231 must be taken prior to entrance into the clinical courses.

Northwest State Community College is an affirmative action, equal opportunity employer and educator that does not discriminate on the basis of race, color, national origin, religion, disability, sex, or age.

# Nursing Certificate Practical Nursing (PN)

2007 - 2008

The Practical Nursing program is a one-year (12 month) certificate program designed to prepare qualified persons to perform nursing services in the prevention of illness, the care of the sick, and in rehabilitation at the direction of a registered nurse, a licensed physician, or dentist. The licensed practical nurse may find job opportunities not only in hospitals and nursing homes, but also in doctor's offices, community health and government agencies. The program incorporates lectures, labs, and clinicals to prepare the student to function as a member of the health care team. Students must meet all admission criteria prior to taking a clinical nursing course. Policies regulating the nursing program are available in the Student Nurse Handbook.

Graduates are eligible to take the National Council Licensure Exam (NCLEX-PN) for licensure as a Practical Nurse. Students who have prior misdemeanor or felony convictions may be denied the opportunity to take the NCLEX-PN. The Practical Nursing program is fully approved by the Ohio Board of Nursing.

### PROGRAM LEARNING OUTCOMES

1. Apply knowledge from the biological, physical, behavioral, and nursing sciences in providing individualized, safe, effective nursing care in structured, predictable settings within established legal and ethical guidelines.
2. Utilize effective verbal and written communication skills with patients, families, colleagues, and other members of the health care team.
3. Participate in the nursing process utilizing critical thinking skills to provide individualized nursing care to patients across the life span and health continuum.
4. Demonstrate responsibility for continued life-long learning and growth in nursing practice.

### Part-Time Evening/Weekend PN Program

A part-time evening/weekend Practical Nursing program is also offered at Vantage Career Center in Van Wert, OH through a unique collaboration between Northwest State Community College, Vantage Career Center, and Wright State University, (Lake Campus). Necessary remedial and all required general studies courses are offered at the Vantage site either by NSCC or Wright State University. All general studies courses within the curriculum must be completed prior to starting the three-semester clinical sequence. Clinical sites are in the Van Wert area. Contact the nursing division for specific details.

### FALL START COURSE SEQUENCE

<u>Fall Semester</u>	<u>Credits</u>
BIO150    The Human Body .....	4
or	
BIO232    Anatomy & Physiology II ** .....	4
ENG111    Composition I .....	3
+ PNE120    Essentials of Practical Nursing .....	8
PSY230    Human Growth & Development .....	3
	18

<u>Spring Semester</u>	<u>Credits</u>
BIO131    Nutrition .....	3
+ NRS110    Pharmacology .....	3
+ PNE121    Nursing Care of Mother and Newborn .....	2.5
+ PNE122    Nursing Care of the Child .....	2.5
+ PNE123    Nursing Care of Adults I .....	5
	16

<u>Summer Semester</u>	<u>Credits</u>
+ PNE124    Nursing Care of Adults II .....	5
PSY110    General Psychology .....	3
	8

### SPRING START COURSE SEQUENCE

<u>Spring Semester</u>	<u>Credits</u>
BIO150    The Human Body .....	4
or	
BIO232    Anatomy & Physiology II ** .....	4
ENG111    Composition I .....	3
+ PNE120    Essentials of Practical Nursing .....	8
PSY230    Human Growth & Development .....	3
	18

<u>Summer Semester</u>	<u>Credits</u>
+ NRS110    Pharmacology .....	3
+ PNE123    Nursing Care of Adults I .....	5
	8

<u>Fall Semester</u>	<u>Credits</u>
BIO131    Nutrition .....	3
+ PNE121    Nursing Care of Mother and Newborn .....	2.5
+ PNE122    Nursing Care of the Child .....	2.5
+ PNE124    Nursing Care of Adults II .....	5
PSY110    General Psychology .....	3
	16

\*\* Required for Advanced Standing ADN program (LPN to RN):

Prerequisite for BIO232 is BIO231 in a preceding semester; equivalent of BIO101 - Principles of Biology required, CHM101 Principles of Chemistry strongly recommended.

Students must attain a minimum grade of "C" in all courses to progress in the program and to graduate.

+ Refers to technical coursework

**Associate of Applied Science**  
**Emergency Medical Services Certificate**

2007 - 2008

This program prepares students for entry level career positions as EMT-B's and EMT-I's. Emergency Medical Technicians administer lifesaving care at the scene of accidental injury or sudden illness. The program leads to eligibility for state and national certification. The EMT-Basic (EMS101) and EMT-Intermediate (EMS110) classes are held at Four County Career Center, Archbold, Ohio and require additional fees.

**PROGRAM LEARNING OUTCOMES**

Students completing the certificate program are able to:

1. Initiate advanced patient assessment and appropriate intravenous procedures and use specific pharmacological agents for pain, respiratory, cardiac, and diabetic emergencies.
2. Challenge the certification exam and meet the standards set forth by the Ohio Board of EMS.
3. Perform all duties of an EMT - Intermediate.
4. Apply principles of effective oral and written communication skills with patients, their families and other health care providers.

<u>Fall Semester</u>		<u>Credits</u>
BIO101	Principles of Biology .....	4
EMS101*	EMT Basic .....	6
EMS105	Effective Communication Skills for the Health Care Professionals .....	1
ENG111	Composition I .....	3
NRS105	Math for Nurses .....	1
PSY110	General Psychology .....	3
		18

<u>Spring Semester</u>		<u>Credits</u>
EMS110*	EMT Intermediate .....	6
ENG113	Speech or	
ENG214	Discussion & Conference Methods .....	3
HST212	Substance Abuse .....	3
PHI220	Ethics in Health Care .....	3
SSC210	Cultural Diversity .....	3
		18

\* Courses taught at Four County Career Center. Students need to submit verification of current EMT-B and EMT - I Certification to receive credit for the courses.

# Associate of Applied Science

# MEDICAL ASSISTING (PROPOSED)

2007 - 2008

Medical Assistants are multi-skilled allied, health professionals specifically trained to work in ambulatory settings, such as physicians' offices, clinics, and group practices, performing administrative and clinical procedures.

This program will utilize administrative courses already developed through the Business division and add seven additional courses specific to the medical assistant. Accreditation will be sought through the Commission on Accreditation of Allied Health Education Programs and the American Association of Medical Assistants.

<u>Fall Semester</u>		<u>Credits</u>
ACC102	Office Accounting .....	4
CIS114	Microsoft Applications .....	3
ENG111	Composition I .....	3
OAS101	College Keyboarding .....	3
+ OAS110	Records Management .....	3
OAS180	Medical Terminology .....	<u>3</u>
		19

### PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of human structure and function and recognize common disorders of the body.
2. Completely perform clinical duties associated with assisting a physician in the diagnosis and treatment of patients in an ambulatory setting.
3. Understand the legal concepts and ethical responsibilities associated with patient care and the documentation of health information; display professionalism with interpersonal situations and business functions.
4. Understand and apply principles of office management; planning, policy development, supervisory process, personnel training, equipment and facility maintenance, and time management.
5. Apply principles of effective oral and written communication skills with patients, their families and other health care providers; teach patients methods of health promotion.
6. Demonstrate competence in performing administrative clerical duties and managing medical practice finances.
7. Demonstrate proficiency in computer operations and applications relative to patient care and the management of a medical office.
8. Think rationally, systematically, and logically; solve problems through proper means of analysis / synthesis.

#### Admission Requirements for the Program:

- High School Biology with a grade of "C" or higher or BIO101 Principles of Biology with a "C" grade or higher
- COMPASS testing. Complete any developmental courses needed.
- Course placement Algebra score at the MTH080 level or successful completion of MTH080
- GPA 2.0 or higher

<u>Spring Semester</u>		<u>Credits</u>
BIO150	The Human Body .....	4
+ MEA101	Medical Assisting Clinical I .....	3
+ MEA105	Microbiology for Medical Assistants .....	2
+ MEA108	Administrative Medical Office Procedures .....	3
+ OAS221	Medical Information Coding .....	3
PHI220	Ethics in Health Care .....	<u>3</u>
		18

<u>Fall Semester</u>		<u>Credits</u>
+ MEA110	Pharmacology for Allied Health Professionals .....	3
+ MEA200	Medical Assisting Administrative Extern .....	4
+ MEA205	Disease Conditions .....	3
+ OAS281	Medical Insurance Reporting and Accounting .....	3
PSY110	General Psychology .....	<u>3</u>
		16

<u>Spring Semester</u>		<u>Credits</u>
ENG112	Composition II .....	3
+ MEA201	Medical Assisting Clinical II .....	3
+ MEA202	Medical Assisting Clinical Extern .....	4
+ OAS222	Intermediate Medical Information Coding .....	<u>3</u>
		13

**Felony Conviction Disclosure:** Previous conviction of a felony may prevent an applicant from being eligible for the certification exam given by the American Association of Medical Assistants. "Individuals who have been found guilty of a felony or pleaded guilty to a felony are not eligible to take the Certified Medical Assistants exam. However, the certifying board may grant a waiver based upon mitigating circumstances."

Students must maintain a minimum grade of "C" in all courses to progress in the program and graduate.

+ Refers to technical course work.

# Associate of Technical Studies Degree Program

2007 - 2008

The Associate of Technical Studies Degree program provides the student an opportunity to develop a tailor-made program of instruction which may include already learned skills, life experiences, and course credits from appropriate trade schools, colleges, and universities. Such program needs may not necessarily fit into traditional program offerings.

## Admission Requirements

Admission requirements will adhere to the full requirement of the College. Upon application, the student will be advised and counseled in a program which matches the student's interest and aptitude in so far as possible. High school records, equivalency exams, and Course Placement Test scores will be evaluated.

Students may apply for the ATS program by presenting their intent to the appropriate department Dean or Department Chair, who will assist them in planning an individualized program of study. The program may be denied if:

1. Standards are not comparable to other technologies offered at Northwest State Community College.
2. The proposed ATS program duplicates an existing technology offered at Northwest State Community College.

For cases in which the College does not offer technical courses needed to fulfill the degree requirements, cooperative arrangements may be entered into with approved public and private colleges, as well as accredited correspondence schools, vocational centers, and schools conducted by business and industry. Transfer credits, credits by examination, or credit by any other acceptable method in current use at NSCC may be granted.

## Graduation Requirements

Graduation requirements for the ATS program will adhere to the same requirements of any technical program at NSCC.

1. Minimum of 60 semester credit hours of coursework.
2. Fifteen credit hours in general education, including 8 credit hours in communication skills, and 6 credit hours in behavioral and social sciences as approved by the faculty advisor.
3. Fifteen credit hours in basic studies.
4. Thirty plus credit hours in technical studies of which 15 are to be concentrated in a single discipline. (This is the area of study where ATS students will have the greatest input to define their occupational goals.)
5. Minimum of 2.00 grade point average overall.
6. A minimum of 30 semester credit hours of supervised coursework after acceptance into the ATS program.
7. A maximum of 12 semester credit hours can be earned through portfolio assessment.

## Community and Workforce Development

Some things in life aren't that serious — basket weaving and cartooning, for example. Other things, though, mean a lot — career planning, supervisory skills, conflict resolution at work. The range, from cartoons to conflict, may look like a lot, but Northwest State's Community Service Division covers it all.

## Professional Continuing Education Credits

Whether you sell real estate or insurance, or practice law, the state requires you to earn continuing education credits. Northwest State offers approved classes for professionals in these areas. Keep your license current. Meet state requirements. Attend our continuing education classes for professionals in real estate, insurance, law, or accounting.

## Workforce Development

It's a competitive world out there — and very competitive in the office across the hall. How do you stay sharp? What are the latest trends in computer training, management skills, and technical training? Are you current? Can you deal with difficult situations on the job? Confronting today's workplace issues and developing today's workplace skills can make a big difference in today's business climate. Northwest's workforce development seminars and technical training, basic or advanced, on-campus or at your company, can help you keep a competitive edge.

## EnterpriseOhio Network

Northwest State Community College Business and Industry Training Division is a member of the EnterpriseOhio Network. This network of 53 two-year college campuses across Ohio partners with Ohio employers to provide employee training, implement new technologies and improve quality and production. One phone call by business can access all of the training resources across the state. Call the Business and Industry Training Division at Northwest State to see how your company can get involved.

Our Business and Industry Training Division prides itself on meeting community needs. Call (419) 267-1332 for further information.



Two-Year Campuses in Partnership – Making Learning for the Workplace Count

# Course Descriptions

2007 - 2008

## How to Use the Course Description Section

This section of the catalog is arranged in alphanumeric order. In general, the following list may be used to find the courses offered within each technology:

ACC	Accounting
ART	Art
ATS	Associate of Technical Studies
BAN	Banking and Finance
BIO	Biological Sciences (Biology, Botany, A & P, etc.)
BUS	Business
CAD	Computer Aided Design
CAO	Career/Academic Option
CHM	Chemistry
CIS	Computer and Information Systems
CJT	Criminal Justice
ECD	Early Childhood
ECO	Economics
EDP	Paraprofessional
EDU	Education
EET	Electrical Engineering Technologies
EMS	Emergency Medical Services
ENG	Communications (Composition, Speech, Literature)
GEO	Geography
GSD	General Studies
HIS	History
HPF	Beginning Western/English Horsemanship
HST	Human Services
HUM	Humanities
IET	Industrial Engineering Technology
MEA	Medical Assisting
MET	Mechanical Engineering Technologies
MGT	Management
MKT	Marketing
MTH	Mathematics
NRS	Associate Degree Nursing
PAR	Paralegal
PET	Plastics Engineering Technology
PHI	Philosophy, Ethics, Logic, Religions
PHY	Physics
PLC	Programmable Logic Controllers
PNE	Practical Nursing Program
PSY	Psychology
QCT	Quality Control Technology
REA	Real Estate
OAS	Office Administrative Services
SPN	Spanish
SSC	Social Sciences (Sociology, Political Science, etc.)
STA	Statistics
TRN	Transportation
VCT	Visual Communications

Most of the course descriptions include one of the following abbreviations to indicate when the course is usually taught:

- F - Fall Semester
- S - Spring Semester
- SU - Summer Semester

The parentheses at the end of each course description indicate the lecture and lab hours respectively. Example: (3+1) indicates a course with 3 lecture hours and 1 lab hour.

*The College reserves the right to change courses as needed. Course description, semesters offered, and prerequisites are effective for the academic year of this catalog.*

## **DEVELOPMENTAL COURSES ARE GRADED PASS/FAIL (S/U) AND DO NOT MEET COURSE REQUIREMENTS FOR GRADUATION**

**ACC090 INTRO TO ACCOUNTING 3 Cr. Hrs.**  
This course is designed for students who have had no previous accounting instruction or for those desiring an introductory course before beginning the accounting sequence. This course covers accounting terminology, financial statement concepts, intensive drills on debits/credits, and a brief overview of the accounting cycle.  
(3+0) F - Day & Eve, S - Day

**CIS090 INTRODUCTION TO COMPUTERS 1 Cr. Hr.**  
This course is a beginner's introduction to computers (PC's). The text covers most of the fundamental concepts associated with computers including terminology, hardware and software issues, and introduces the student to some elementary skills via some of the well-known software applications. Students will practice basic computer skills using word processing and spreadsheets, as well as explore the Internet. No prior computer knowledge is necessary for this course.  
(1+1) F - Day & Eve, S - Day & Eve

**ENG080 READING COMPREHENSION 3 Cr. Hrs.**  
ENG080 is a critical reading and thinking course for improving comprehension and vocabulary needed in college level course requirements. Emphasizing skills for efficient, independent learning from textbooks and other college reading materials, this course will emphasize a variety of skills including vocabulary in context, main ideas and supporting details, implied main ideas, relationships, facts and opinion, inferences, tone and purpose, and argument.  
(3+0) F, S, SU

**ENG090 BASIC COMPOSITION 3 Cr. Hrs.**  
This course provides an understanding of the writing process and English fundamentals to ensure success in college writing assignments. It reviews grammar, usage, punctuation, and spelling. However, the emphasis is on writing, with the primary goal of paragraph composition and development, culminating in the five paragraph essay. Some familiarity with computers and word processing is definitely an asset  
(3+0) F, S, SU

**MTH050 BASIC MATHEMATICS 4 Cr. Hrs.**  
Designed to improve basic computation skills, as well as introduce the student to computational techniques related to their degree and preliminary algebraic concepts. The material will cover operations with whole numbers, fractions, decimals, integers, and application problems.  
(4+0) F, S, SU

**MTH080 BEGINNING ALGEBRA 3 Cr. Hrs.**  
Designed for students with no previous algebra experience or those needing a review of basic algebraic techniques before taking MTH090. Introduces the properties, rules and basic techniques of algebra as well as translation between English and the language of algebra. Topics include integers and operations, variables and operations, algebraic expressions, equations, percent's, word problems, and graphing.  
(3+0) F, S, SU  
Prerequisite: MTH050, high school equivalent, or satisfactory score on Course Placement Test

MTH090	INTERMEDIATE ALGEBRA	3 Cr. Hrs.	ACC140	INDIVIDUAL INCOME TAX ACCOUNTING	3 Cr. Hrs.
<p>Intended for those students who have passed a previous algebra class. Designed to review topics introduced in MTH080 but at an accelerated pace and with more depth and rigor. Introduces many new topics including functions, several types of inequalities, radical expressions and equations, rational exponents and the quadratic formula. (3+0) F, S, SU Prerequisite: MTH080, high school equivalent, or satisfactory score on Course Placement Test</p>			<p>Major emphasis is on individual income tax laws and regulations. The course is designed to have both a personal and vocational value, covering tax return preparation, tax planning, and research. (3+0) S - Day &amp; Eve</p>		
OAS090	KEYBOARDING BASICS	1 Cr. Hr.	ACC211	INTERMEDIATE ACCOUNTING I	3 Cr. Hrs.
<p>This is a beginning keyboarding course on the computer designed for students in any program. Major objectives are to develop touch control of the keyboard and proper typing techniques, while building basic speed and accuracy. This course is useful for beginning keyboarding students as well as those who want to review the basics of the computer keyboard. (1+0) F - Day &amp; Eve, S - Day &amp; Eve, SU - Day &amp; Eve</p>			<p>This course is a review and expansion of concepts learned in accounting principles. Topics studied are the accounting cycle, financial statements, revenue recognition, cash, receivables, and inventories. (3+0) F - Day &amp; Eve Prerequisite: ACC112 with grade of "C" or better.</p>		
ACC102	OFFICE ACCOUNTING	4 Cr. Hrs.	ACC212	INTERMEDIATE ACCOUNTING II	3 Cr. Hrs.
<p>This course is designed for Office Administrative Services and Early Childhood Development majors. It may not be used as a substitute for</p>			<p>This course is a continuation of Intermediate Accounting I. Subject matter includes: debt and equity financing, noncurrent assets, long term investments, income tax allocation, employee compensation, and additional disclosures. (3+0) S - Day &amp; Eve Prerequisite: ACC211</p>		
ACC111	FINANCIAL ACCOUNTING	4 Cr. Hrs.	ACC221	COST ACCOUNTING I	3 Cr. Hrs.
<p>The primary emphasis of this course will be on a sole proprietorship operating a service business and a merchandising business. The course includes a study of the accounting cycle, beginning with the business transaction and ending with the preparation of the financial statements and all of the necessary end of the period procedures. Other topics include bank reconciliations, petty cash funds, and cash change funds. Considerable emphasis will also be placed on payroll. Students will be able to calculate payrolls and be familiar with all of the necessary payroll forms. Students will complete a computerized payroll simulation. (4+0) F-Day, S-Day &amp; Evening</p>			<p>This course teaches determination of product costs using different cost systems: primarily job order costing and process costing. Additional topics include: cost estimation, cost-volume-profit analysis, activity-based budgeting, standard costing, operational performance measures, flexible budgeting, and management of overhead activity costs. (3+0) F - Day &amp; Eve Prerequisite: ACC112 with a grade of "C" or better.</p>		
ACC111	FINANCIAL ACCOUNTING	4 Cr. Hrs.	ACC222	COST ACCOUNTING II	3 Cr. Hrs.
<p>The course includes a study of the accounting cycle beginning with the business transaction and ending with the preparation of financial statements along with other period end procedures for both sole proprietors as well as corporations. Other topics include: receivables, inventory, depreciation, liabilities, investments, and stock. (4+0) F - Day &amp; Eve, S - Day &amp; Eve, SU - Day &amp; Eve</p>			<p>This course is a continuation of Cost Accounting I. Topics studied are activity-based costing and management, responsibility accounting, investment centers, transfer pricing, relevant costs and benefits in decision making, cost analysis for pricing decisions, capital expenditure decisions, absorption costing, variable costing, and allocation of support activity costs and joint costs. (3+0) S - Day &amp; Eve Prerequisite: ACC221</p>		
ACC112	MANAGERIAL ACCOUNTING	4 Cr. Hrs.	ACC230	AUDITING	3 Cr. Hrs.
<p>This course begins with the Statement of Cash Flows and then focuses on managerial topics. These areas of study include: job order and process costing, activity based costing, cost behavior and cost-volume-profit analysis, budgeting, variance analysis, evaluation for decentralized operations, differential analysis, and product pricing, and capital investment analysis. (4+0) F - Day &amp; Eve, S - Day &amp; Eve, SU - Day Prerequisite: ACC111 with a grade of "C" or better</p>			<p>This is a study of theories, procedures, and practices employed in audits. The course includes studies on auditor's reports, internal control procedures, tests, and generally accepted auditing standards used in the profession. (3+0) S - Day &amp; Eve Prerequisite: ACC112</p>		
ACC120	PAYROLL ACCOUNTING	3 Cr. Hrs.	ACC240	BUSINESS INCOME TAX ACCT.	3 Cr. Hrs.
<p>This course includes the various phases of the Social Security Act, unemployment compensation, and federal withholding tax, with considerable emphasis on the study of timekeeping systems and systems of accounting used in keeping payroll and wage records. Students complete the necessary federal and state tax reports and apply payroll accounting concepts to microcomputer applications. (3+0) F - Day &amp; Eve, S - Day Prerequisite: High school accounting, work experience, or concurrent registration in ACC090 or ACC111</p>			<p>This course teaches fundamentals of federal taxation in relation to business forms and rules. Studies include preparation of partnership, subchapter "S", and corporation returns with related income tax forms. (3+0) F - Day</p>		

ACC261	QUICK BOOKS	1 Cr. Hr.	ART210	OIL/ACRYLIC PAINTING	3 Cr. Hrs.
<p>In this course students learn the capabilities of Quick Books software. Using a case study approach, the course covers core product features from writing checks and creating reports to theories of basic business accounting, including managing accounts payable/receivable, invoicing, inventory management, and payroll. Each of the 15 lessons begins with lesson objectives and suggested instructor preparation, followed by step-by-step educator instructions. Students learn all the key concepts through hands-on learning and practice. (1+0) F - Day &amp; Eve</p>			<p>An introductory painting class emphasizing building stretcher frames, preparing painting surfaces, using oil/acrylic media, using color, and framing. (0+6) F</p>		
ACC262	PEACHTREE	1 Cr. Hr.	ATS101	PORTFOLIO DEVELOPMENT	3 Cr. Hrs.
<p>In this course Peachtree software is used to apply the basic principles and procedures of accrual accounting. Computer accounting applications include general ledger, accounts receivable, accounts payable, invoicing, payroll, inventory, and job costs. (1+0) F - Day &amp; Eve.</p>			<p>This course is designed for the student interested in developing a portfolio for submission and review for college credit. The student will work with his/her advisor in the development of the portfolio. (3+0) Prerequisite: Course offered on demand with approval of the Dean of Engineering.</p>		
ACC263	QUICKEN	1 Cr. Hr.	BAN110	BANK MANAGEMENT	3 Cr.Hrs.
<p>This course gives students an introduction to the capabilities of Quicken. Using a case study approach, the materials cover core Quicken features from check writing to tracking investments and creating reports. Each of the 17 lessons begins with lesson objectives and suggested instructor preparation, followed by step-by-step education instructions. (1+0) F- Day &amp; Eve</p>			<p>A study of the commercial banking industry and the interrelationships between the various types of financial institutions. Special emphasis is given to branch banking, bank financial statements, methods of evaluating bank performance, lending policies, and the management of deposit liabilities and loan assets. The regulatory environment receives significant emphasis throughout. (3+0) S</p>		
ACC264	DUNPHY INCOME TAX PREPARATION	1 Cr. Hr.	BAN210	CREDIT MANAGEMENT	3 Cr. Hrs.
<p>This course teaches the use of income tax preparation software using Dunphy Systems, Inc. Business and personal applications are taught, including federal, state, school district, and city income tax returns. (1+0) S</p>			<p>An examination of the concept of credit with particular emphasis given to the process of credit management for both consumers and businesses. Also explored are the processes of granting and reviewing credit, collection practices, as well as the examination of financial statements leading to the credit decision. Dun and Bradstreet's business services, as well as those of the major consumer credit organizations, receive in-depth treatment. (3+0) F</p>		
ACC271	INTERMEDIATE QUICK BOOKS	1 Cr. Hr.	BAN220	INVESTMENT MANAGEMENT	3 Cr. Hrs.
<p>In this course students learn specialized capabilities of Quick Books software. Using a case study approach, the course covers product features such as recording special transactions, exporting and importing data, and customizing reports. Students learn key concepts through hands-on learning and practice. (1+0) F, S, SU Prerequisite: ACC261 or instructor permission</p>			<p>A study of the types of investment vehicles available to the individual investor or business investment officer. The major emphasis of study is on various types of stocks and bonds, but convertibles, options, futures, commodities, and mutual funds are also studied. In addition, several special concepts receive emphasis, such as strategies associated with margin accounts and short-selling. Valuation of the firm and related financial analysis also receive appropriate treatment. Algebra proficiency is recommended. (3+0) S</p>		
ACC272	ADVANCED QUICK BOOKS	1 Cr. Hr.	BIO101	PRINCIPLES OF BIOLOGY	4 Cr. Hrs.
<p>In this course students learn specialized capabilities of Quick Books software. Using a case study approach, the course covers product features which apply to accounting procedures. Students learn key concepts through hands-on learning and practice. (1+0) F, S Prerequisite: ACC111 and ACC271 or instructor permission</p>			<p>An introduction to principles and concepts of life, including topics on cell biology, genetics, diversity of life, and ecology. Laboratory work reinforces lecture. (3+2) F, S, SU</p>		
ACC291	ACCOUNTING INTERNSHIP	3 Cr. Hrs.	BIO115	ECOLOGY	4 Cr. Hrs.
<p>This course is a job-related accounting experience in which the student works for a department within the college, a business, or an industrial organization. The student is chosen for this course on the basis of academic progress or job experience. Enrollment only with instructor permission. (1+20) F, S, SU</p>			<p>An introduction to the field of ecology, including the organization, interrelationships and dynamic of populations, communities and ecosystems. A major emphasis on the relationship of humans to the environment. Lab includes field trips and the study of local aquatic and terrestrial communities. (3+2) Seven years Prerequisite: High School Biology or BIO101 or consent of instructor.</p>		
ART103	BEGINNING DRAWING	3 Cr. Hrs.			
<p>A basic drawing class facilitating students' abilities to see objects rationally, developing expressive drawing skills using various approaches and a wide variety of graphic media. (0+6) S</p>					

- BIO131 NUTRITION** 3 Cr. Hrs.  
A study of nutrition and its role in promoting good health throughout the life span. Includes the study of proper nutrients and the various functions of the nutrients in the body's metabolism.  
(3+0) F, S, SU
- BIO150 THE HUMAN BODY** 4 Cr. Hrs.  
An integrated course in the normal structure and function of the human body. It forms a basis for the later understanding of dysfunctional conditions. Each body system is presented individually, then the interrelationships between body systems are studied.  
(4 + 0) F, S  
Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better.
- BIO180 PRINCIPLES OF GENETICS** 4 Cr. Hrs.  
The fundamentals of classical genetics and the basic principles of human genetics are reviewed. Topics covered include plant and animal genetics, cancer genetics, genetic engineering, genetics in human medicine and criminology, and ethical issues raised by DNA technology.  
(3+2) F even years  
Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better.
- BIO210 BOTANY** 4 Cr. Hrs.  
A study of fungi, algae, and plants. Focuses on the vascular plants, primarily their morphology, physiology, growth, development, nutrition, ecology, and phylogeny. Emphasizes life forms important to humans. Laboratory reinforces and supplements lectures.  
(3+2) S - odd years  
Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better.
- BIO220 ZOOLOGY** 4 Cr. Hrs.  
A comparative study of the major phyla within the animal kingdom, including animal classification, structure, function, ecology, and behavior. Laboratory work reinforces lecture and includes animal dissections.  
(3+2) F - odd years  
Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better.
- BIO231 ANATOMY & PHYSIOLOGY I** 4 Cr. Hrs.  
Anatomical and physiological aspects of cells and tissues and the integumentary, skeletal, muscular, and nervous systems of the human body. Lab emphasizes human anatomy and physiology and includes cat dissection.  
(3+2) F, S, SU  
Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better, or equivalent; strongly recommend CHM101
- BIO232 ANATOMY & PHYSIOLOGY II** 4 Cr. Hrs.  
A continuation of BIO231, which focuses on anatomical and physiological aspects of the endocrine, digestive, respiratory, circulatory, cardiovascular, lymphatic, urinary, and reproductive systems of the human body. Lab emphasizes human anatomy and physiology and includes cat dissection.  
(3+2) F, S, SU  
Prerequisite: BIO231 with a grade of "C" or better
- BIO257 MICROBIOLOGY** 4 Cr. Hrs.  
A study of anatomy, physiology, taxonomy, identification, growth, and control of microorganisms, including bacteria, viruses, algae, fungi, and selected human parasites. Additional topics include bacterial metabolism, microbial genetics, immune responses, host defense mechanisms, and the spread of infectious diseases. Laboratory includes culture staining and identification of microorganisms.  
(3+3) F, S, SU  
Prerequisite: BIO101 or high school biology and chemistry with minimum grade of "C"
- BUS110 BUSINESS MATH/CALCULATORS** 3 Cr. Hrs.  
Business Math/Calculators briefly reviews mathematical operations, then applies these fundamentals to realistic business problems involving discounts, markups/markdowns, payroll/deductions, simple interest, promissory/discount notes, compound interest and present value, installment buying, APR, Rule of 78, credit card accounts, mortgage payments/amortization schedules, and property taxes. In addition, 10-key skills are developed as well as the efficient use of table-model calculators.  
(2+2) F - Day & Eve, S - Day & Eve, SU - Day & Eve  
Prerequisite: MTH050
- BUS160 INTERNATIONAL & GLOBAL BUSINESS** 3 Cr. Hrs.  
This course focuses on the economics, social and cultural considerations of doing business overseas. The globalization of markets and the growth of overseas business ventures is explored. The need to develop varied techniques for managing people from other cultural backgrounds, the means of minimizing risks in financial transactions, and development of systems for coordinating and controlling operations will be stressed. Techniques to overcome international business barriers are covered. Upon completion, students should be able to demonstrate an understanding of the economic, social and cultural considerations of doing business worldwide.  
(3+0) F
- BUS221 BUSINESS LAW** 3 Cr. Hrs.  
This course is a study of the U.S. legal system and dispute resolution. Major units of study include: sources of law, torts and crimes, contract and sales law, personal property law, employment law, consumer credit/bankruptcy law, and a study of business organizations. In addition, units on ethics, cyber law, e-contracts, intellectual property law, and alternative dispute resolutions are presented. Cases and media presentations are used to highlight important concepts.  
(3+0) F, S, SU
- BUS250 LABOR RELATIONS** 3 Cr. Hrs.  
This is a study of unions and their relationship with management. Major topics include negotiating and administering labor contracts, wages, benefits, and working conditions, as well as their impact on contract negotiations.  
(3+0) F - Eve, S - Day
- BUS257 GLOBAL ECONOMICS** 3 Cr. Hrs.  
This course covers the economic analysis of international trade and foreign investment, including theories of international trade, balance of payments, exchange rates and international monetary arrangements, adjustments of payments disequilibrium, and government policies on trade and aid. Upon completion, students should be able to demonstrate an understanding of the international economic environment.  
(3+0) F

<p><b>BUS260 INTERNATIONAL TRADE</b> 3 Cr. Hrs. This course is a study in how to do business internationally. Topics include international terms, credits, export/import paperwork, and currency exchange. International marketing, distribution, and financing are emphasized, as well as cultural effects and local customs. (3+0) S</p>	<p><b>CAD299 SPECIAL TOPICS</b> 1-5 Cr. Hrs. This is a special topics course in the Computer Aided Design discipline that could be used for special student or class projects, with the student receiving college credit for the experience. The course would typically be different each time it is offered. An example of this course would be a special project design for industry that would not align with an existing CAD course. On Demand</p>
<p><b>BUS280 FINANCE</b> 3 Cr. Hrs. This course is an in-depth study covering three units on the concepts of financial analysis and forecasting. The first unit emphasizes the reading and construction of business financial statements coupled with the concept of budgeting and pro forma statements. The second unit is a study of the concept of working capital and various ways which a firm can choose to appropriately finance this need. The third unit is a study of present and future values as they relate to capital budgeting and cash flow analysis. The entire course involves heavy use of accounting terminology and techniques. (3+0) S - Day &amp; Eve Prerequisite: ACC111, MTH080</p>	<p><b>CAO110 CAREER DECISION MAKING</b> 2 Cr. Hrs. This class is designed for students' undecided in their career choice. They will investigate the world of work in relation to their career goals. Activities will include exploration of interests, values, personality, aptitudes and abilities as they relate to career decision making. By examining the results of these activities, students can learn how to effectively determine the right major and career options for them. Individual career plans will be designed. (2+0) F</p>
<p><b>CAD100 CAD FOR MACHINING</b> 3 Cr. Hrs. A course in the fundamentals of Computer-Aided Design, utilizing state of the art microcomputer hardware and AutoCAD software. Covers fundamental Windows XP system commands and AutoCAD application commands. Gives the student the opportunity to become proficient, in a hands-on environment, in developing fundamental 3D solid models and producing fundamental 2D drawings from the solid models. (1 + 2) Spring, Summer &amp; Fall Prerequisite: IET105 or instructor permission</p>	<p><b>CAO210 JOB SEARCH SKILLS</b> 1 Cr. Hr. Develops basic job search techniques related to letter writing, resume writing, interview skills, employment applications, and resources of job/company. Presents information about employment agencies, affirmative action concerns, stress during job search, and dealing with employer rejection. (1+0) F</p>
<p><b>CAD111 CAD I</b> 4 Cr. Hrs. A course in the fundamentals of Computer-Aided Design, utilizing state-of-the-art microcomputer hardware and AutoCAD software. Covers fundamental Windows NT system commands and AutoCAD application commands. Gives the student the opportunity to become proficient, in a hands-on environment, in developing fundamental 2D drawings and utilizing an industrial quality CAD system. (3+3) F - Day &amp; Eve, S - Eve, SU - Day</p>	<p><b>CHM101 PRINCIPLES OF CHEMISTRY</b> 4 Cr. Hrs. A basic review of the field of chemistry, focusing on concepts, theory, and application. Topics include the study of atomic structure, ionization, chemical reactions, isotopes, chemical analysis, bonding, and other topics related to chemistry. Laboratory reinforces and supplements lectures. (3+3) F, S, SU</p>
<p><b>CAD112 CAD II</b> 4 Cr. Hrs. A continuation of CAD I. The student progresses to more advanced commands and design features of the AutoCAD software. The student utilizes plotting equipment for finished projects. The goal is to become proficient in the operation of a CAD system to develop complex assemblies to learn the interrelationship of detailed and purchased parts and how it all comes together in a final set of working drawings. (3+3) S - Day &amp; Eve Prerequisite: CAD111 or instructor permission, MET 103 Recommended: MET110</p>	<p><b>CHM138 PRINCIPLES OF FORENSICS</b> 4 Cr. Hrs. Forensics is the application of the natural sciences to all phases of criminal investigation. The study of basic chemistry and biology are now an important aspect of modern forensic science. Current topics in forensics as DNA investigation, hair analysis, blood, grass and soil, body fluids, fingerprint analysis, drug analysis, arson, accelerants, explosives, toolmarks and firearms. (3+2) F, even years</p>
<p><b>CAD213 CAD III</b> 4 Cr. Hrs. Expanding on CAD II, students will develop and plot advanced 3D models, 2D details drawings and 3D assembly drawings as used in the modern industry today. Students will also learn how to link their 3D models to develop design tables and bill of materials. This course is an advanced course in mastering the commands utilizing SolidWorks 3D feature-based parametric solid modeling design tool software. (3+3) F-Day &amp; Eve, S-Day Prerequisite: CAD112</p>	<p><b>CHM256 PRINCIPLES OF BIOCHEMISTRY</b> 3 Cr. Hrs. An introductory course that deals with inorganic and organic biomolecules. Emphasizes the synthetic and degradative reactions of carbohydrates, lipids, nucleic acids, and proteins. Examines the roles of water, buffers, enzymes, vitamins, minerals, and organic salts in cellular metabolism. Laboratory reinforces and supplements lectures. (2+2) F Prerequisite: CHM101 or equivalent</p>
	<p><b>CIS100 GAME THEORY AND SOFTWARE DEVELOPMENT</b> 4 Cr. Hrs. This course involves the students in creating a computer "arcade style" game beginning with a written description and plan of the game. The second phase is the document design phase, or a more detailed description including sprites, game flow, sounds, controls, scoring, and difficulty levels. The goal of the course is to be able to create software games based upon in class lectures and hands on lab experience. (3+2)</p>



**CIS150 PROGRAMMING C++** 4 Cr. Hrs.  
 This is an introduction to structured programming using the Borland ANSI C/C++ programming environment. Use of the environment tools, logic structures, and primary library functions of the language is emphasized. Additional subjects covered include variable types and declarations, math and logical operators, parameter passing, arrays and string handling and pointers.  
 (3+3) F - Day & Eve

**CIS155 LINUX NETWORKING I** 4 Cr. Hrs.  
 This course is the first in a series that will cover data communications and operating system technology as implemented in a Linux environment. Subjects covered include the history, theory, administration, and installation of Linux and its associated software. This class will focus on the administration of Linux workstations. This class makes extensive use of lab projects to reinforce essential concepts. This class utilizes course materials used to prepare for LPI (Linux Professional Institute) Certification.  
 Prerequisite: CIS190

**CIS161 C #** 4 Cr. Hrs.  
 This course is a continuation of structured programming using the Borland ANSI C/C++ programming environment. Use of the environment tools, logic structures, and primary logic functions of the language are emphasized. Additional subjects covered include variable types and declarations, math logical operators, parameter passing, arrays, and string handling pointers.  
 (3+3) S-Day & Eve (even years)  
 Prerequisite: CIS150

**CIS165 JAVA PROGRAMMING** 4 Cr. Hrs.  
 This course utilizes the Java Programming Language and emphasizes object-oriented programming concepts. As a general purpose programming language Java can be utilized in traditional programming environments and support applications developed for a variety of computers. This course includes hands on laboratory assignments requiring students to complete and submit programming projects.  
 (3+3) S

**CIS180 COMPUTER OPERATIONS AND CL PROGRAMMING** 4 Cr. Hrs.  
 This is a course in operating a computer system and ancillary equipment. The course includes organization of a typical computer, CL language programming, creating, storing, and executing programs, use of files, and error detection and correction. The computer used for this course is the IBM AS/400 minicomputer.  
 (3+3) F- Eve (odd years), S-Day

**CIS190 COMPUTER OPERATIONS GENERIC OPERATING SYSTEMS** 4 Cr. Hrs.  
 This class is an intensive study of operating systems and PC Hardware. Topics include study of the theory and tasks commonly assigned to system software, basic disk and program commands, configuration and installation commands and techniques, management of resources, and security. Hardware issues are also addressed, including memory allocation and interrupts, communications and I/O, and peripherals. This class will prepare the student for the Comp TIA A+ Certification Exams.  
 (3+3) F - Day & Eve  
 Prerequisite: CIS090 or CIS114 and OAS090

**CIS230 PROGRAMMING RPG** 4 Cr. Hrs.  
 This is a course in structured RPGIV(ILE) using programming with emphasis on business-oriented programs. Topics include input/output processing, arithmetic calculations, control break processing, and table and array manipulations. Laboratory experiences include writing, debugging, and executing programs demonstrating proficiency in the above areas. The computer used is the IBM AS/400 minicomputer.  
 (3+3) F - Day (odd years) & Eve (even years)

**CIS255 LINUX NETWORKING II** 4 Cr. Hrs.  
 This course is the second in a series that will cover data communications and operating system technology as implemented in a Linux environment. Subjects covered include the history, theory, administration, and installation of Linux and its associated software in a networked environment. This class will focus on the administration of Linux servers. This class makes extensive use of lab projects to reinforce essential concepts. This class utilizes course materials used to prepare for LPI (Linux Professional Institute) Certification.  
 Prerequisite: CIS155

**CIS256 LINUX NETWORKING III** 4 Cr. Hrs.  
 This course is the third in a series that will cover data communications and operating system technology as implemented in a Linux environment. Subjects covered include the history, theory, administration, and installation of Linux and its associated software in a networked environment. This class will focus on the administration of Linux servers. This class makes extensive use of lab projects to reinforce essential concepts.  
 Prerequisite: CIS255

**CIS272 MICROSOFT NETWORKING I** 4 Cr. Hrs.  
 This class teaches the basic and advanced concepts needed to manage Windows XP workstations in both a network and stand-alone environment. This class also teaches the student the basics of managing a Windows 2003 server in an Active Directory environment. This class makes extensive use of lab projects to reinforce essential concepts. Topics covered in this class map directly to Microsoft Certification Exams 70-270 and 70-290.  
 (3+3) S - Day & Eve  
 Prerequisite: CIS190

**CIS282 MICROSOFT NETWORKING II** 4 Cr. Hrs.  
 This class is a continuation of Microsoft Networking I. The class covers network concepts such as the OSI reference model as well as advanced TCP/IP concepts such as subnetting. The class covers most of the services included with Windows 2003 including DHCP, DNS, Certificate Services, RAS, routing, IPSEC and WINS. This class makes extensive use of lab projects to reinforce essential concepts. Topics covered in this class map directly to Microsoft Certification Exams 70-290 and 70-293.  
 (3+3) F - Day & Eve  
 Prerequisite: CIS272

**CIS283 MICROSOFT NETWORKING III** 4 Cr. Hrs.  
 This is a continuation of Microsoft Networking I. The class covers advanced topics in Active Directory such as backing up, restoring and replicating. In the class the student will learn advanced security concepts such as how to secure a web server and the theory and usage of PKI. The class also includes an introduction to database administration using either Oracle or Microsoft SQL server. This class makes extensive use of lab projects to reinforce essential concepts. Topics covered in this class map directly to Microsoft Certification Exams 70-294 and 70-297.  
 (3+3) S  
 Prerequisite: CIS272

<p>CIS290 INFORMATION TECHNOLOGY INTERNSHIP 4 Cr. Hrs. This is a job-related computer experience in which the student works for a department within the college, a business, or an industrial organization. The student is chosen for this course on the basis of academic progress or job experience. Enrollment only with instructor permission. (1+30) F, S, SU</p>	<p>CJT240 CRIMINAL EVIDENCE AND PROCEDURE 3 Cr. Hrs. An overview of criminal procedure and law including constitutional provisions, rules of evidence, trial and pre-trial procedures, arrest, search and seizure, admissibility and confessions. (3+0) F Prerequisite: CJT130 and CJT134</p>
<p>CJT130 CRIMINAL JUSTICE PRINCIPLES 3 Cr. Hrs. Students will become familiar with the criminal justice system by exploring theories of criminology, examining the development of criminal and procedural law, understanding the roles of law enforcement, court, and correctional personnel, and by investigating critical issues surrounding criminal justice including multi-cultural and gender issues. (3+0) F, S</p>	<p>CJT242 PROBATION AND PAROLE 3 Cr. Hrs. This course will explore the philosophies and guidelines utilized in both the juvenile and adult probation setting. The dilemma of surveillance involving custody/control factors verses supervision and treatment will be examined. A strong emphasis will be placed on developing citizen agency relationships in utilizing citizen volunteer programs to help rehabilitate offenders. (3+0) S Prerequisite: CJT130 and CJT230</p>
<p>CJT132 PRINCIPLES OF CRIMINAL JUSTICE ADMINISTRATION 3 Cr. Hrs. Students will be examining the role of management versus leaders in the American criminal justice system focusing on the organization of bureaucratic systems, their basic principles, and the interrelationships between the major players. Students will also become familiar with organizational theory, leadership skills, disciplinary action and union issues. (3+0) S</p>	<p>CJT244 CRIMINAL INVESTIGATION 4 Cr. Hrs. A study of investigative procedures; initial contact by the investigator, interviewing, case development, follow-up investigation, handling of leads, hot or cold information, in custody interviews and procedures. Crime scene labs will be incorporated into this class. (3+2) S Prerequisites: CJT130, CJT134</p>
<p>CJT134 CRIMINAL LAW 3 Cr. Hrs. This course is designed as a study of the development and implementation of criminal law. Emphasis will be placed on exploring elements of criminal statutes, understanding Ohio's criminal statutes, investigating affirmative defenses and sentencing practices. Students will analyze the law based on their own personal opinions and beliefs by critically examining and discussing certain laws, procedures, court cases, and case outcomes. (3+0) S Prerequisite: CJT130</p>	<p>CJT246 TECHNICAL SKILLS FOR OFFICERS 3 Cr. Hrs. This course will focus on developing technical skills necessary for the performance of jobs in the Criminal Justice field. Topics covered will include Report Writing, Sketching, Interrogation, and Testifying in Court. (3+0) F Prerequisite: Admission to Law Enforcement Academy</p>
<p>CJT136 JUVENILE DELINQUENCY PRINCIPLES 3 Cr. Hrs. This course examines the problems of today's "youth in trouble", with an emphasis placed on prevention, causes and methods of approach and disposition of cases. (3+0) F Prerequisites: CJT130</p>	<p>CJT250 INTERNET SECURITY &amp; COMPUTER CRIME INVESTIGATION 4 Cr. Hrs. This is a network and computer security-based course. The course will include securing networks as well as identifying techniques used by offenders who compromise them. The tracking of information as well as data retrieval will also be covered. This course will place special emphasis on tasks useful to investigation of criminal cases in the criminal justice field, and will include a laboratory component to assist the student in developing practical skills. (3+2) S CJT240, CIS190, and two of the following courses: CIS155, CIS272, CIS255, CIS282, EET272, or EET282 Co-requisite: CJT244</p>
<p>CJT140 CONSTITUTIONAL LAW 3 Cr. Hrs. This course is a study of contemporary constitutional issues. Discussed are critical issues in criminal justice including detention, arrest, search and seizure, interrogations and confessions, self-incrimination, due process and right to counsel. Also included are constitutional aspects of criminal and civil liabilities of justice personnel, and constitutional and civil rights in the workplace. (3+0) S Prerequisite: CJT130</p>	<p>CJT252 SEMINAR IN CRIMINAL JUSTICE 3 Cr. Hrs. An examination of current critical issues in criminal justice. Topics to be considered for discussion and analysis include: terrorism, capital punishment, restorative justice, ethics, race and class issues, drugs, the decision making process, issues in policing and the future of crime and justice. (3+0) F Prerequisite: CJT130, CJT134</p>
<p>CJT230 CORRECTIONS 3 Cr. Hrs. A survey of the general field of corrections, including the institutions and resources which are used. A historical overview of corrections is explored. (3+0) S Prerequisite: CJT130</p>	

<p>CJT 281 VEHICLE PATROL/TRAFFIC ENFORCEMENT 4 Cr. Hrs. Police academy cadets will become familiar with O.P.O.T.C. requirements for proper patrol techniques including identifying traffic offenses and correct tactical procedures for stopping and approaching vehicles. (3+3) F,S Prerequisite: Admission to Law Enforcement Academy</p>	<p>ECD150 INFANT TODDLER DEVELOPMENT 2 Cr. Hrs. An understanding of the important role of adults in controlling, intervening and interpreting the environment so that infants and toddlers receive protective care, stimulation, and relaxation necessary to enhance physical, social, emotional, cognitive, and language development. (2 + 0) F</p>
<p>CJT 282 FIREARMS/DRIVING 4 Cr. Hrs. Police academy cadets will become proficient in O.P.O.T.C. firearms techniques including identification of firearms and nomenclatures, secure handling of firearms, and will become certified in the firing of firearms. Students will also become adept in defensive and pursuit driving techniques and vehicle maneuverability. (2+6) F, S Prerequisite: Admission to Law Enforcement Academy</p>	<p>ECD201 PRE K CURRICULUM &amp; METHODS 3 Cr. Hrs. This courses focuses on the role of the teacher in connecting content, teaching and learning for preschool children when building curriculum based on best practices. Ohio's PreK Early Learning Standards will be used as students compare and contrast a variety of curriculum models. Students will apply understandings of how children learn to create healthy, respectful, supportive, and challenging learning environments for all children. Participation in a preschool classroom seven hours each week will give students an opportunity to develop, implement and reflect on lesson plans that they selected and prepared to meet the needs of individual children and the group. ( 2 + 7) S Prerequisites: ECD100, ECD101, PSY230 Co-requisite: EDU120</p>
<p>CJT 283 DEFENSIVE TACTICS/PHYSICAL FITNESS 3 Cr. Hrs. Police academy cadets will become experienced with several levels of defensive tactics including hand to hand and baton techniques as well as weapon retention. Students will also become physically ready to pass the O.P.O.T.C. physical fitness standards. (1+6) F, S Prerequisite: Admission to Law Enforcement Academy</p>	<p>ECD202 EARLY CHILDHOOD DIVERSITY LAB 3 Cr. Hrs. This lab will give students experience working with and interacting with toddlers (age 18 months - 36 months), preschool children in the Head Start program including going on home visits and children in the integrated special needs preschool programs. Students will develop an understanding of how their knowledge of student background and experiences are used to support planning of relevant learning experiences. Students will rotate through three different lab sites for a total accumulation of 105 lab hours. (2+7) F Prerequisites: ECD101, EDU120, PSY230 Co-requisites: EDU220, EDU230</p>
<p>CJT 284 HUMAN CONDITIONS 4 Cr. Hrs. Police academy cadets will become certified in first aid and CPR techniques. Students will also identify cultural differences and how to effectively interact and communicate in diverse settings. Cadets will also become knowledgeable in preventing and controlling civil disorders. (3+3) Prerequisite: Admission to Law Enforcement Academy</p>	<p>ECD250 EARLY CHILDHOOD PROGRAM ADMINISTRATION 3 Cr. Hrs. The course reviews philosophy, organizational structure, personnel issues, policy formation, record keeping, and budgeting as related to start up of a child care program. Emphasis will be placed on understanding major differences in programs reflecting minimum licensing standards and accreditation standards. Students will develop a business plan for hypothetical program for children 0 - 6. (3 + 0) S Prerequisites: ECD100</p>
<p>CJT290 CRIMINAL JUSTICE PRACTICUM I 4 Cr. Hrs. A basic exposure to a particular criminal justice agency through observation and limited participation. This course will provide an understanding of how this agency fits into the entire criminal justice system and local community. (3+8) F, S</p>	<p>ECD270 SPECIAL TOPICS IN EARLY CHILDHOOD 3 Cr. Hrs. An independent study course permitting the student to explore issues affecting children and families. May be required by ECD faculty to assist students in meeting requirements for the Ohio Department of Education Pre-Kindergarten Associate License. (3+0) F, S Prerequisite: Determined by ECD Coordinator's recommendation</p>
<p>ECD100 PRINCIPLES OF EARLY CHILDHOOD EDUCATION 2 Cr. Hrs. This course provides an overview of teaching young children in today's schools. An emphasis will be placed on the history of early childhood education and theories which influence program and curriculum development. Ohio's Early Learning Standards for Preschool children and Content and Achievement standards for K-3 will be introduced. (2 + 0) F, S</p>	<p>ECD280 CHILD CARE FIELD EXPERIENCES 3 Cr. Hrs. A 60-hour field experience appropriate to student's focused interest area. May be required by ECD faculty to assist students in meeting requirements for the Ohio Department of Education Pre-Kindergarten Associate License. (1+4) F, S Prerequisite: Determined by ECD Coordinator's recommendation</p>
<p>ECD101 CHILD DEVELOPMENT LAB 2 Cr. Hrs. This lab experience places the student at a child care center observing the development of young children. The lab will consist of observation and gradually move the student into interaction experiences with preschoolers. Through the study and application of various observation methods the student will be able to understand how social groups function and to recognize factors and situations that are likely to promote student motivation and learning. ( 1 + 3) F, S Prerequisites: Documentation file Co-requisites: ECD100, PSY230</p>	

**ECD282 EARLY CHILDHOOD FIELD EXPERIENCE** 2 Cr. Hrs.  
A 105-hour field experience appropriate to student's focused interest area. Placement of 8 weeks in two different sites will give the student a broad view of services available.

(1+ 7) S

Prerequisites: ECD Coordinator Permission

**ECD290 PREKINDERGARTEN PRACTICUM** 3 Cr. Hrs.  
Participation in a preschool center. Planning and carrying out specific activities providing experiences in working with children individually and in groups. Principles are assimilated through practical experiences.

(1+14) S

Prerequisite: Completed training in First Aid, CPR, Common Childhood Illness Recognition, Child Abuse Recognition; per ODJFS requirement; Practicum application and requirements filed with ECD coordinator by October 1; and attend practicum orientation meeting in December. Student must demonstrate that the PreK Associate Degree can be completed within 6 months of completing practicum.

**ECD291 ADMINISTRATOR INTERNSHIP** 3 Cr. Hrs.

Directed field experience where the student participates in minimum of 14 hours per week at an early childhood program where the administrator's role is regulated by ODJFS Revised Code 5101:2-12-25. The student will have two placement sites during the semester arranged by NSCC faculty.

(1+14) S

Prerequisite: 75% completion of degree requirements

**ECO211 MACROECONOMICS** 3 Cr. Hrs.

Macroeconomics is a study of the U.S. economy emphasizing supply and demand, total production, total employment, and the general price level. Issues of inflation, recession, international trade, and federal budget deficits are also investigated. Economic solutions through fiscal policy and monetary policy are included.

(3+0) F - Day, S - Eve, SU - Day & Eve

**ECO212 MICROECONOMICS** 3 Cr. Hrs.

Microeconomics is a study of the U.S. economy emphasizing supply and demand, the individual firm, competition, and the industry. Issues of revenue, expense, profit, loss, and break-even are also investigated. Decisions such as price determination and production output are included.

(3+0) F - Eve (odd years), S - Day

**EDP150 CHILD AND CLASSROOM  
OBSERVATION SKILLS** 2 Cr. Hrs.

The lab will consist of observation and gradually move the student onto interaction experiences with children. Through the study and application of various observation methods the student will be able to understand how social groups function and to recognize factors and situations that are likely to promote student motivation and learning.

(1+3) S

Prerequisites: EDU100

Co-requisites: EDU 120, PSY230

**EDP200 SPECIAL EDUCATION LAB EXPERIENCE** 2 Cr. Hrs.

This special education lab experience is designed to give the student diverse experiences at different age and ability levels. These include early intervention, integrated pre-school, early childhood, middle school and secondary education through age 21. The student will obtain knowledge of and be given the opportunity to apply effective instructional strategies to assist teaching and learning in these various settings. Also stressed in this lab is the importance of family involvement and the IFSP and IEP process.

(1+7) F

Prerequisites: EDP150, EDU120, PSY230

Co-requisites: EDU220

**EDP290 PARAPROFESSIONAL INTERNSHIP** 2 Cr. Hrs.

This experience requires the student to be available for a continuous experience in a school system for not less than 14 hours per week. Assignments will be coordinated through local schools so that the student has the opportunity to apply knowledge and develop skills appropriate to the role of the educational paraprofessional.

(0 + 14) S

Prerequisites: 75% completion of degree requirements

Co-requisite: EDU 250

**EDU100 INTRODUCTION TO TEACHING** 2 Cr. Hrs.

Students will investigate the teaching profession and the many reforms which affect teacher preparation and licensure. Philosophies and the organization of American schools will be viewed both historically and in contemporary society. Students will access internet to research relevant topics.

(2+0) F, S.

**EDU110 CHILD AND YOUTH HEALTH  
EDUCATION** 2 Cr. Hrs.

A multi-disciplinary approach to health, safety and nutrition education for children of all ages. Included in this class is an in-depth study of subject matter as well as health methods and classroom activities to give students the tools they need to become successful health educators. Course does not substitute for ODJFS rule 5101:2-12-27.

(2+0) F

**EDU120 GUIDANCE AND CLASSROOM  
MANAGEMENT** 3 Cr. Hrs.

Classroom management is a major concern of all educators from the preschool classroom through secondary education. This course explores various guidance theories providing a variety of techniques to be used in the development of a personal philosophy that can be put into practice in the classroom.

(3+0) S

Prerequisites: EDU100 or ECD100

**EDU130 PHONICS AND EARLY LITERACY** 3 Cr. Hrs.

Emphasis is placed on the understanding of phonics and its role in beginning reading and writing instruction. Students will explore strategies to teach the relationship between letters and sounds.

(3 + 0) S

Prerequisites: PSY110 or PSY230

## EDU210 CREATIVE ARTS CURRICULUM 3 Cr. Hrs.

This course is designed to teach theory and practice supporting play to develop children's creative expression in music, drama, art, and movement. Principles and elements of the arts are introduced as the student advances own understanding of the arts and their contribution to child development and learning.

(3+0) S

Prerequisites: PSY230

## EDU220 SPECIAL EDUCATION 3 Cr. Hrs.

All students have the right to an effective education and the majority of students with disabilities can receive an appropriate education if programs are designed with the needs of individual student in mind. This Special Education teacher class addresses the teaching of the gifted and talented child, the preschooler with disabilities, the at risk infant, as well as the child from a different culture or ethnic background and the adult with disabilities. Disabilities of different developmental areas are explored to prepare the future teacher for working with a variety of students.

(3+0) F

Prerequisites: EDP150 (Para only), ECD100 or EDU100, PSY230 or PSY110

## EDU230 FAMILY, SCHOOL, AND COMMUNITY 2 Cr. Hrs.

This teacher preparation class prepares the teacher to work with students and their families. There is in-depth information focusing on the diversity of families and strategies for building partnerships with families.

Emphasis will be placed on communication that results in collaboration, not conflict.

(2+0) F

Prerequisites: ECD100 or EDU100, PSY110 or PSY230

## EDU240 EDUCATIONAL PSYCHOLOGY 3 Cr. Hrs.

An introduction to educational psychology that provides a review of scientific information and practical ideas about instructional techniques. Theory, research, and application are all emphasized. Students will investigate applying the appropriate theories for specific learning situations. Learner differences are studied and instructional strategies are considered for a variety of learning environments.

(3+0) F

Prerequisites: PSY110 or PSY230

## EDU250 EDUCATION SEMINAR 2 Cr. Hrs.

This class will meet once a week placing ECD 290 and EDP 290 students together for discussions of success in the classroom. Practical daily issues as well as professional development concerns will be the focus. Students will look ahead at what is necessary to present themselves for employment and be ready for that first teaching position. Eligibility is determined through an application process with your advisor. Application must be completed by May 1 for Fall Semester and October 15 for Spring Semester participation.

(2+0) S

Prerequisites: EDU110, EDU120, EDU130, EDU220, EDU230, EDU240  
Co-requisite: ECD290 or EDP290

## EDU260 INSTRUCTIONAL TECHNOLOGY 3 Cr. Hrs.

This is a hands-on course addressing technology's role in education at all grade levels. The focus is on processes and tools that are available to teachers to enhance classroom organization, instruction, and assessment. Students will research pedagogical issues regarding appropriate use of computers with young children and in the classroom.

(2+2) S

Prerequisites: CIS114, EDU100, EDU240

## EET171 INDUSTRIAL ELECTRICITY I 3 Cr. Hrs.

A beginning course in electrical theory. Topics covered include electron flow, conductors, sources of electricity, electrical components, Ohm's Law dealing with voltage, current and resistance in the series, parallel and series-parallel circuits. Also briefly covers motors, generators and transformers. Lab work includes use of meters and how to measure circuit variables.

(Formerly RTI171)

(2+2) F

Prerequisite: MTH050 or satisfactory score on Course Placement Test.

## EET174 ELECTRICAL PRINTS &amp; TROUBLESHOOTING 3 Cr. Hrs.

This course is a study of the systematic elimination of the various parts of a system or process to locate a malfunctioning part. To locate and correct a problem the skilled troubleshooter follows a logical plan that aids in the discovery of a malfunction promptly but safely. When the malfunction is discovered, the part is repaired and preventive maintenance is performed to prevent further problems.

(3+0) S

Prerequisites: EET194 or instructor permission

## EET194 INDUSTRIAL ELECTRICITY II 3 Cr. Hrs.

This course is an advanced study of Industrial Electricity providing comprehensive coverage of the control devices used in contemporary industrial electrical systems. It begins with basic electrical theory, motor starters, solenoid valves, various control devices, motor circuits, power distribution systems, programmable controllers, accelerating and decelerating devices and variable frequency drives. During class time, the learner will be given hands-on instruction wiring relay and timer circuits as well as learning basic ladder logic wiring concepts, single and three phase distribution systems.

(2+2) S

Prerequisite: EET171

## EET221 DIGITAL ELECTRONICS 4 Cr. Hrs.

An introduction to logic, using the theorems from Boolean Algebra. Truth tables of logic expressions are used to design logic circuits using TTL and CMOS Logic IC's. Additionally flip-flops, numbering systems, codes, counters, multiplexers, decoders, timers, and displays will be studied. Laboratory experience allows a chance to build up circuits designed and observe the properties of the logic families.

(3+3) F - Day &amp; Eve (odd years)

Prerequisite: EET121

## EET240 ENGINEERING PROGRAMMING 3 Cr. Hrs.

This course is the study of the popular Visual Basic 6.0 programming language. The focus will be on the student learning statement language and visual programming. Projects and learning activities will include Engineering and Industrial Maintenance applications.

(2+2) F

Prerequisite: EET121 or EET171, IET105, MTH 121 or instructor permission

**EET265 INSTRUMENTATION & CONTROLS I 3 Cr. Hrs.**

This course is a study of the operation and troubleshooting of Industrial Instrumentation systems. The focus will be on analog monitoring and controlled devices, connected to stand alone and PLC based controller systems. The concepts of temperature, pressure, level and flow will be discussed, as well as the transmitters that connect the analog sensor signals to the analog I/O. (Formerly RTI265)

(2+1) S

Prerequisite: EET171, PLC200

**EET272 CISCO NETWORKING I 4 Cr. Hrs.**

This class is designed to teach students the skills to configure and maintain a small to medium sized, multi-protocol, routed and/or switched network. Specific topics covered include the OSI reference model and how it relates to real world protocols such as Ethernet, Token Ring, TCP/IP, and others. Logical and physical network topologies are discussed. TCP/IP addressing topics such as subnet masks are covered. Several TCP/IP routing protocols such as RIP and OSPF are covered. The materials and labs cover the use of Cisco equipment and help to prepare the student for the testing needed to seek CCNA (Cisco Certified Network Administrator) certification.

(3+3) S-Day

**EET276 MOTORS AND MOTOR CONTROLS 3 Cr. Hrs.**

This course is a study of the operation of DC & AC Motors and the devices that control and protect the motors. Students will wire, program, and troubleshoot solid state motor drive systems. A focus will be on how the drive is interfaced to a PLC system. Motor soft starts and reversing circuits will also be discussed.

(Formerly RTI276)

2+2) S

Prerequisite: EET194

**EET277 INDUSTRIAL ELECTRONICS 3 Cr. Hrs.**

This course is a study of the electronic devices used in modern day industrial machinery. Solid state switching devices will be discussed, that includes transistors, SCRs and Triacs, as well as the firing devices used in current controlled circuits. Power supply circuits and basic amplifier circuits using Operational Amplifiers will also be discussed. Students will focus on operation, application and troubleshooting of the various electronic devices.

(Formerly RTI277)

(2+2) F

Prerequisite: EET171

**EET281 INDUSTRIAL WIRING (NEC) 3 Cr. Hrs.**

The primary purpose of this course is to acquaint the learner with a ready source of information relevant to the NEC (National Electric Code), IEC (International Electrotechnical Commission), AISI (American Iron and Steel Institute), NFPA, (National Fire Protection Association), ANSI (American National Standards Institute), UL (Underwriters Laboratories, Inc.), OSHA (Occupational Safety and Health Act), and various Local Codes. This information will focus primarily on the electrical design and engineering of most site work including, but not limited to, industrial, commercial, and residential occupancies.

(2+2) F

Prerequisite: EET171 or instructor permission

**EET282 CISCO NETWORKING II 4 Cr. Hrs.**

This class is designed to teach the student how to configure and maintain Internetworking data communication equipment in an enterprise environment. Topics include multi-protocol routing, advanced distance vector routing, advanced link state routing, border gateway protocol routing, LAN switch placement, Virtual LAN filtering and tagging, LAN switch architecture and advanced LAN switch troubleshooting. The materials and labs cover the use of Cisco equipment and help to prepare the student for the testing needed to seek CCNA (Cisco Certified Network Administrator) certification.

(3+3) F-Eve

Prerequisite: EET272 or instructor permission

**EET289 SYSTEMS INTEGRATION 3 Cr. Hrs..**

This course is a capstone for the Manufacturing Maintenance, Industrial Electrical, PLC Certificate and Maintenance Technician/Mechatronics programs. Upon the completion of the requirements for the previously mentioned programs, the learner will display his/her newly developed skills by designing an industrially related system, install the appropriate electrical and mechanical devices and troubleshoot the system to 100% of the design specifications.

(2 + 2) Spring & Fall

Prerequisites: PLC200 & MET232

**EMS101 EMT BASIC 6 Cr. Hrs.**

This course will overview the components of the Emergency Medical Services system, roles and responsibilities of the Basic EMT. Topics include basic medical emergency management, patient assessment and triage, multi-system trauma management, patient stabilization and transportation. Includes hands-on laboratory and clinical experiences. This course is taught at Four County Career Center; students must submit verification of current certification to receive credit for the course. (5+3)

**EMS105 EFFECTIVE COMMUNICATION SKILLS FOR THE HEALTH CARE PROFESSIONAL 1 Cr. Hr.**

The ability of health care professionals to communicate accurately and effectively in the context of a helping relationship is vital. The course provides tools with which to establish open therapeutic communication with clients, foster teamwork with colleagues, and deal with conflict and aggression in a constructive manner.

(1+0) F

**EMS110 EMT INTERMEDIATE 6 Cr. Hrs.**

This course emphasizes the roles and responsibilities of the EMT-I. Includes medical / legal considerations, basic pharmacology, medication administration, airway management, patient assessment, emergency medical treatment procedures for trauma and various medical emergencies. The laboratory component includes procedures necessary for the care of patients requiring invasive therapy techniques. This course is taught at Four County Career; students must submit verification of current certification to receive credit for the course. (5+3)

Prerequisite: EMS101

ENG111 COMPOSITION I 3 Cr. Hrs.  
An expository composition course emphasizing the expectations of college-level writing, including thesis development, support, and coherence. Students will gain experience using a variety of rhetorical modes. In addition to a number of full-length essays, a short documented paper, based on research materials and using parenthetical references, is required.  
(3+0) F, S, SU  
Prerequisite: Satisfactory score on Course Placement Test or completion of ENG090.

ENG112 COMPOSITION II 3 Cr. Hrs.  
Building on the skills learned in Composition I, this course further develops the student's writing and research experience, with an emphasis on analytical writing in response to critical reading and class discussion. Using MLA parenthetical documentation techniques, the student will write a number of essays, usually including summary - response, analysis - evaluation, synthesis, and argument. A research paper is required.  
(3+0) F, S, SU  
Prerequisite: Must have received a "C" or better in ENG111

ENG113 SPEECH 3 Cr. Hrs.  
This course provides experience in public speaking in a small group situation and emphasizes interpersonal communications, the organization and presentation of a public speech, and group discussion skills. Improvement of listening skills and the use of visual aids are important parts of the course. Student speeches are analyzed and critiqued for effectiveness.  
(3+0) F, S, SU

ENG210 TECHNICAL COMMUNICATIONS 3 Cr. Hrs.  
This course develops written and oral communication skills needed in technical fields, focusing on producing documents, effectively conducting group discussions, and giving presentations. It includes formal individual and group technical reports as well as shorter documents common to technical fields, emphasizing clear, concise, and logical communication strategies, format and visual aids.  
(3+0) F  
Prerequisite: ENG112 or permission of instructor

ENG214 DISCUSSION AND CONFERENCE METHODS 3 Cr. Hrs.  
Focuses on the elements of communication and small group theory as employed in a group discussion situation with emphasis on the individual's responsibility in the discussion setting. Focuses on the development of the leadership abilities within the group, including analysis of group interaction in the decision-making process for task-oriented groups.  
(3+0) F

ENG220 BUSINESS WRITING 3 Cr. Hrs.  
Using interpersonal and administrative communication skills, concise and organized business letters, memoranda, and reports are written, emphasizing tone, format, content, and use of graphic aids. The analytical, problem-solving report and oral presentation, based upon library research, field experience, and interviews and/or questionnaires, are required.  
(3+0) S  
Prerequisite: ENG112 or instructor permission

ENG223 INTERPRETATION OF LITERATURE 3 Cr. Hrs.  
Introduces the elements of critical reading of literature, specifically fiction, poetry, and drama. Topics such as structure, character, point of view, style, theme, tone, and symbolism first are defined, then applied to selected pieces of literature. Examines the importance of historical, cultural, and literary contexts for understanding literature.  
(3 + 0) S  
Prerequisite: ENG111

ENG230 CHILDREN'S LITERATURE 3 Cr. Hrs.  
Reading and evaluation of nonfiction and fiction, folklore, myth, poetry, and illustrated books for children and adolescents from critical and multicultural points of view.  
(3+0) F, S  
Prerequisite: ENG111

ENG234 NARRATIVE LITERATURE OF THE OLD NORTHWEST TERRITORY 3 Cr. Hrs.  
Explores non-fiction narrative accounts from early travelers and settlers ranging from the Ohio River to the Upper Great Lakes as revealed through journals, diaries, oral histories, and novels by such writers as Schoolcraft, Thoreau, Eckhart, Edward, Dickens, Goldthwaite, and others.  
(3+0) S  
Prerequisite: ENG111

ENG240 INTRODUCTION TO POETRY 3 Cr. Hrs.  
Introduces the elements of critical reading of poetry, including poetic language, imagery, and forms. Focuses on poems as expressions of important themes of human experience and as products of their historical and cultural contexts.  
Prerequisite: ENG111

ENG241 INTRODUCTION TO FICTION 3 Cr. Hrs.  
Focuses on a critical reading of fiction, particularly short stories, examining formal elements, including plot, character, setting, point of view, and theme. Introduces various critical perspectives for the interpretation of fiction, including the importance of historical, cultural, and literary contexts for understanding fiction.  
Prerequisite: ENG111

ENG250 AMERICAN LITERATURE THROUGH THE MID-19th CENTURY 3 Cr. Hrs.  
Surveys American literary works ranging from recorded Native American oral tradition through the literature of the Civil War period. Places works in historical and cultural contexts, focusing on the development of major themes and movements in American literature.  
(3+0) F  
Prerequisite: ENG111

ENG251 AMERICAN LITERATURE SINCE THE MID-19th CENTURY 3 Cr. Hrs.  
Surveys American literary works from the late nineteenth century through the contemporary period. Places works in historical and cultural contexts, focusing on the development of major themes and movements in American literature.  
(3+0) S  
Prerequisite: ENG111

ENG260 BRITISH LITERATURE THROUGH THE 18th CENTURY 3 Cr. Hrs.

Focuses on British literature from the Old English period through the Restoration and eighteenth century examining writers and representative literary texts, including poetry, drama, and prose fiction and non-fiction, as they reflect cultural and historical contexts.

(3+0) F

Prerequisite: ENG111

ENG261 BRITISH LITERATURE 19th CENTURY TO PRESENT 3 Cr. Hrs.

Focuses on British literature from the Romantic period through the twentieth century, examining writers and representative literary texts, including poetry, drama, and prose fiction and non-fiction, as they reflect cultural and historical contexts.

(3+0) S

Prerequisite: ENG111

ENG271 NON-WESTERN LITERATURE 3 Cr. Hrs.

Examines twentieth-century, non-western writers and literary works that contribute to an understanding of the experiences of non-Western peoples. Provides an overview of literary figures and forms in their historical and cultural contexts, with emphasis on their significance to our understanding of global issues. Reading selections emphasize examples from Asia, Africa, Latin America, and the Middle East.

(3+0) F

Prerequisite: ENG111

GEO110 WORLD GEOGRAPHY 3 Cr. Hrs.

This course conveys the nature, challenges, and component interrelatedness of the discipline of geography. The geographic method of inquiry is used to describe, explain, and analyze our environment. The principal goal of the course is to give the student a global perspective from which he or she can view the uniqueness of the discipline. Thus the student is introduced to the tools, vocabulary, and the spatial orientation used by the geographer.

(3+0) F, S, SU

GEO210 GEOGRAPHY-US & CANADA 3 Cr. Hrs.

A study of the human geography of the U.S. and Canada, covering the geographic influence on the demographic, economic, political, and cultural themes of these neighboring countries, which share a common geography and history in many respects. Major focus is on human patterns and the interaction among these patterns as well as the actual physical environment.

(3+0) F, S, SU

GSD100 SUCCESS SEMINAR 1 Cr. Hr.

This course teaches self-management principles and practices for life-long learning that increase a student's success in college and in life by enhancing the student's skills in time management, effective living and learning skills, technology skills, effective study habits, note taking, and test anxiety reduction. Students will examine factors which impact learning, select relevant methods of enhancing learning and thinking processes, and develop strategies for maximizing effectiveness in college, work, and community settings.

Required course for students who test into either MTH050 or MTH080 and either ENG080 or ENG090; required for students on Academic Probation; required for students returning from Academic Suspension.

This course is open to any student and could be used as a 1 credit General Studies elective.

(1 + 0)

GSD101 GENERAL STUDIES PORTFOLIO DEVELOPMENT 3 Cr. Hrs.

This course is designed for students who wish to apply for college credit by developing a portfolio of prior learning and/or personal and professional competencies. The student will work with the course instructor and his/her advisor in the development of the portfolio. The prior learning portfolio may be used to request additional college-level academic credit in a specific program area. The career portfolio may be used to demonstrate personal and professional competencies for career advancement or job candidacy purposes.

(3+0)

Prerequisite: To take this course, the student must demonstrate college-level reading, writing, and mathematics skills by satisfactory score on the college placement exam; completion of English 111 required.

HIS101 US HISTORY PRE-1876 3 Cr. Hrs.

A study of the social, political, and economic development of the United States through the Post Civil War period. Several critical periods in early American History are examined: colonization, settlement, rebellions, revolutions, constitution making, Jeffersonian and Jacksonian democracy, slavery, the westward movement, the Indian problems, and the Civil War.

(3+0) F, SU - even years; S - odd years

Co-requisite: ENG111

HIS102 US HISTORY POST-1876 3 Cr. Hrs.

United States from the Reconstruction period to the present. Topics include reconstruction, impact of industrialization, agricultural revolution, populism, rise of monopoly capital in the "progressive" era, the age of imperialism, WWI, Great Depression, WWII, the New Deal, the Welfare State, the Vietnam War and the popular protests, the civil rights movement, the rejection of the welfare state and rise of Neo-Conservatism.

(3+0) F, SU - odd years; S - even years

Co-requisite: ENG111

HIS203 US SINCE 1945 3 Cr. Hrs.

A contemporary history of the United States which provides a balanced account of foreign affairs, domestic politics, and social and cultural change. Presents change from U.S. global hegemony to a truly global economy as the backdrop for the replacement of the liberal-welfare state with the neo-conservative state. Relates this important transition to the form and content of popular protest since 1945. Topics include the New Deal, the Cold War, confronting the Third World, struggles for equality, and mass media effects on popular culture.

(3+0) F, S, SU

Co-requisite: ENG111

HIS210 THE MODERN WORLD 3 Cr. Hrs.

Joins a study of the history of the modern world with students' understanding of their place in the contemporary world. Competing histories of the modern world's origins are followed by a comparative study of western and non-western societies and the forces giving rise to modernism, reaction, revolution, and post modern tendencies from the 13th century to the present times.

(3+0) S

Co-requisite: ENG111

HIS234 HISTORY OF THE OLD NORTHWEST TERRITORY 3 Cr. Hrs.

Explores the many historical and cultural influences in this area beginning with the generations of Indian tribes through the Euro/American arrival beginning with early missionaries, explorers, traders and the multi-ethnic settlement that overwhelms the area in the early 20th. century. The course includes a coverage of the rapid transformation of this still rural landscape into the continents manufacturing core. The old Northwest and its development is still responsible for stamping the unique characteristics of what we call "American culture."  
Strongly recommend ENG111  
(3+0)

HPF106 BEGINNING WESTERN/ENGLISH HORSEMANSHIP 1 Cr. Hr.

This course is designed for the novice or beginner who has had little or no exposure to horses or riding. Students will learn horses and riding from the "ground-up" in which the very basics of horsemanship is taught. The instructor tries to match each students abilities with specific horse while keeping in mind everyone's safety is of the highest concern. All classes conducted at Sanderson Stables, located on the corner of Union and Washington Streets, Cygnet, Ohio 43413; phone 655-2253. Sanderson Stables owns and maintains horses, tack, and grounds specifically for appropriate instruction. This course can also be taken as many times as the student desires. This course is many times used to fulfill the physical education requirement at the university level.  
(1+0) F, S, SU

HST101 PRINCIPLES OF HUMAN SERVICES 3 Cr. Hrs.

Examines the field of human services, study of social work, social policy, and social welfare organizations, their history and fields of practice. This course includes the goals of the human services delivery system, the role of the paraprofessional and social work assistant, and an overview of the various public and private human services agencies in the community, the organizational structure of the agencies, its function, client services, and role of worker in the agency.  
(3+0) F, S

HST105 COUNSELING TECHNIQUES WITH DIVERSE POPULATIONS 3 Cr. Hrs.

This course describes special needs and diverse issues of the following populations: African American, Asian American, Native American, and Hispanic/Latin American in addition to persons with disabilities, diversity with sexual orientation, women, children/adolescence and the elderly.  
(3+0) S  
Prerequisites: HST101, PSY110  
Co-requisites: SSC101

HST108 PRINCIPLES OF MRDD 3 Cr. Hrs.

A principles course in the field of Mental Retardation and Developmental Disabilities and the historical and legal perspectives within the field. Course includes service delivery models, current trends, prevention issues, causes, conditions and characteristics.  
(3+0) F, S

HST112 GROUP COUNSELING 3 Cr. Hrs.

Basic knowledge, techniques, and skills to be used in the group counseling process. Group dynamics, counseling practices, and techniques will be examined and applied to a variety of group situations. The use of group counseling techniques and use in the treatment of clients is explored as one of the many social work interventions available to the human service worker.  
(3+0) S

HST208 INTERVIEWING TECHNIQUES 3 Cr. Hrs.

Presents the basic principles and practices of interviewing clients, as well as crisis intervention in human services settings. The basic principles of oral communication are examined as the impact on effective interviewing techniques along with developing basic crisis intervention skills and techniques.  
(3+0) F  
Prerequisites: PSY110, HST101, HST105

HST210 HUMAN SERVICES METHODS 6 Cr. Hrs.

A practical, in-house lab experience meant to prepare students for their actual experience in a human service agency. Seminar format provides for discussion and integration of experiences with academic courses. Open only to Human Services Technology majors who have completed 18 credit hours of Human Services technical courses with a grade of "C" or better. Labs for this course will consist of supervised labs—lab hours to be arranged in-house along with field lab hours. Supervised by Master Level Social Worker, State Licensed.  
(4+4) F  
Prerequisites: HST101, HST105, PSY210, HST112  
Co-requisite: HST208

HST212 SUBSTANCE ABUSE 3 Cr. Hrs.

Presents substance abuse and addictive problems from an addictions model approach. A historical, cultural, and social context is presented as well as an overview of the theories of addiction. Other major topics: recognizing early signs and symptoms of substance abuse, differences in counseling strategies with substance abusers, and other derivative problems. This is a foundation course with a scientific base. Family systems are reviewed.  
(3+0) F, S

HST214 HUMAN SERVICES CASE MANAGEMENT 3 Cr. Hrs.

Provides the experience and knowledge of the human service worker providing case management functions. Areas of concentration include service provisions when working with special populations. The provisions include, but are not limited to, client identification, individual assessment and diagnosis, determining service needs of the client, service planning and resource identification, linking the client to appropriate services, service implementation, how to monitor service delivery, how to advocate, and evaluation of service delivery. Special emphasis is on specific target populations, and services available.  
(3+0) S  
Prerequisite: HST101, PSY210

HST220 PRINCIPLES OF WORK 3 Cr. Hrs.

This course will provide students with skills and knowledge for preparing persons with disabilities for productive work. The emphasis of the course will be on the development of supported work options. The course will address principles and practices of: supported work options, job analysis, job development, marketing, job training and relevant state and federal requirements. This course will satisfy Adult Services MR/DD Certification Program  
(3+0) F even

<p>HST221 PRINCIPLES OF HABILITATION PROGRAMMING 3 Cr. Hrs. This course will provide the student with knowledge and performance objectives in the field of habilitation programming related to understanding the special needs of individuals with disabilities in relations to legal issues, community based training, habilitation programming, assessment and identification, and minority issues. This course will satisfy Adult Services MR/DD Certification Program. (3+0) S odd</p>	<p>HST290 PRACTICUM I 6 Cr. Hrs. Practical experience in a human services agency. Two-hour seminar provides for discussion and integration of experiences with academic courses. Open only to Human Services Technology majors who have completed a minimum of 45 credit hours of work and have completed 24 credit hours of Human Services technical courses with a grade of "C" or better. (2+16) S Prerequisite: HST208, HST210 Co-requisite: HST214</p>
<p>HST222 ETHICS IN THE HELPING PROFESSIONS 3 Cr. Hrs. The practice of counseling and related helping professions is regulated both by law and by professional standards of practice or codes of ethics, which provide only general guidelines. This course will look at historical and contemporary theories of relevant ethical theories and provide exposure to real-life ethical issues from a multi disciplinary approach. (3+0) F, S Prerequisite: HST101</p>	<p>HUM121 CONCERT BAND 1 Cr. Hr. Provides an opportunity to experience music from easy to difficult as a performing member of a large ensemble. Will be expected to perform portions of music literature during examination period. Course meets at Defiance College and will require Sunday afternoon concerts as well as rehearsals. Can be repeated for credit but only 3 hours may be used toward Humanities requirement for AA and AS degrees. (1+0) F, S Prerequisite: Ability to play band instrument</p>
<p>HST240 SOCIAL PROBLEMS 3 Cr. Hrs. An examination of the major social problems existing in western society and how various conditions within society come to be defined as social problems. Topics include such areas as poverty, racism, sexism, unemployment, AIDS, and abusive behaviors (physical, psychological, sexual abuse, and neglect). Analysis of each of these problems along with the social welfare system's responses and the role of the human services worker. (3+0) F, SU</p>	<p>HUM209 HUMANITIES AND CULTURES: ANCIENT AND MEDIEVAL WORLDS 3 Cr. Hrs. Surveys Western and non-Western humanities of the ancient and medieval worlds. Examines creative expression, such as art, literature, and philosophy, as evidence of the evolution of ideas which serve as the roots of modern cultures. (3+0) F Co-requisite: ENG111</p>
<p>HST242 MARRIAGE AND THE FAMILY 3 Cr. Hrs. Introduction to the impact of society on marriage, relationships, and family dynamics. The content includes a history of the family both traditional and non-traditional settings, and family relations throughout the life span. (3+0) F, S</p>	<p>HUM210 HUMANITIES AND CULTURES: RENAISSANCE TO PRESENT 3 Cr. Hrs. Examines various Western and non-Western creative traditions, including art, literature, and philosophy, during and after the Renaissance. Focuses on the interaction of ideas and traditions in the modern world. (3+0) S Co-requisite: ENG111</p>
<p>HST280 SPECIAL PROBLEMS IN HUMAN SERVICES I 1-6 Cr. Hrs. Human Services instructor. Content, methodology, and purpose to be arranged on an individual basis. Credit will be determined by the nature and extent of the independent study. F, S, SU Prerequisite: Permission of Instructor</p>	<p>HUM221 MUSIC APPRECIATION 3 Cr. Hrs. The study of vocal and instrumental music from the standard repertoire primarily through listening. Previous music training is not required, but regular listening is part of the course. (3+0) S Co-requisite: ENG111</p>
<p>HST282 SPECIAL PROBLEMS IN HUMAN SERVICES II 1-6 Cr. Hrs. An independent study which focuses on a topic or individual selected problems in Human Services. Subject to approval and supervision of an assigned Human Services instructor. Content, methodology, and purpose to be arranged on an individual basis. Credit will be determined by the nature and extent of the independent study. F, S, SU Prerequisite: Permission of Instructor</p>	<p>HUM230 ART APPRECIATION 3 Cr. Hrs. Theories and philosophies of art history and aesthetics covering prehistoric art to modern art. Students will learn to analyze and respond actively to art, using appropriate artistic concepts and vocabulary. (3+0) F Co-requisite: ENG111</p>
	<p>IET105 INDUSTRIAL COMPUTING I 3 Cr. Hrs. This course is a study of the application of computer systems as found in an industrial environment. The focus of this class will be on operating systems, networking and computer hardware. This class will be taught at an applied level for the Skilled Trades Person, Technician, and Engineer. (2+2) F - Day &amp; Eve, S - Day &amp; Eve, SU - Day</p>

IET107 INDUSTRIAL COMPUTING II 3 Cr. Hrs.  
An advanced study of industrial computer and networking technology. The focus of this class will be an in depth study on factory floor networking including Ethernet, DeviceNet, Profibus and ControlNet. Students will learn how to terminate and install networking components, and systems. A focus will also be how these networks interface to modern day PLC systems used in automation.  
(2 + 2) Fall  
Prerequisite: PLC200 & IET105 (2+2)

INT120 HVACR I 3 Cr. Hrs.  
An introductory Heating, Ventilation, Air Conditioning and Refrigeration course for skilled trades personnel. The course is a study of basic thermo-dynamic principles, with a practical approach to applications in a residential, commercial and industrial environment. The course will cover basic heating and cooling concepts, refrigerant properties, Psychometrics, terminology, safety, troubleshooting and applications of basic mechanical heating and cooling components and their electric / mechanical control.  
(2+2) On Demand  
Prerequisites: EET171

INT220 HVACR II 3 Cr. Hrs.  
An intermediate study of the HVAC field. Studies will include commercial and industrial designs and equipment, Load Calculations and System Sizing. Concepts of equipment control will be introduced featuring Low Voltage, Pneumatic and DDC methodologies.  
(2+2) F  
Prerequisites: INT120

INT221 HVACR III HEATING SYSTEMS 3 Cr. Hrs.  
Learning outcomes to be developed in this course focus on the heating aspect of climate control. Topics to be covered would include "forced air" heating applications including natural gas, propane, fuel oil, electric resistance and heat-pump systems and their controls. Other heating topics would include Hydronics applications; i.e. residential, commercial and institutional boiler systems and their controls. Heat-pump technology will feature both "air-to-air" and geothermal technologies.  
(2+2)  
Prerequisite: INT220

INT222 HVACR IV ADVANCED HVAC CONTROL SYSTEMS 3 Cr. Hrs.  
Learning outcomes to be developed in this course will focus on the various controls now being applied to HVAC-R systems. Electro-mechanical, pneumatic and Direct Digital Control (DDC) will be featured during this coursework with particular attention to DDC applications. The Programmable Logic Controller and its networking capabilities and user interface will be explored. Other topics explored will be the integration of fire/life safety systems with modern environmental equipment as well as system controlled environmental quality.  
(2+2)  
Prerequisite: INT221

INT223 HVACR V ADVANCED TOPICS IN HVAC 3 Cr. Hrs.  
Learning outcomes to be developed in this course will focus on some of the advanced and alternative energy efficient designs affecting climate control systems. Other topics to be covered may include energy auditing and energy management, energy procurement and energy cost accounting and advanced building architectural blue print interpretation.  
(2+2)  
Prerequisite: INT222

INT230 HIGH PRESSURE WELDING 3 Cr. Hrs.  
The high pressure pipe welding course is designed to prepare the student for welding qualification and certification in accordance with the ANSI/ASME Boiler and Pressure Vessel Code, Section IX. Through classroom and hands-on skill training the student will be afforded the opportunity to develop the knowledge and skill necessary to weld high pressure pipe, utilizing the shielded metal arc welding (SMAW) process in all four welding positions. Uphill welding progression will be utilized for the vertical welding.  
(2 + 2) On Demand  
Prerequisite: MET181

MEA101 MEDICAL ASSISTING CLINICAL I 3 Cr. Hrs.  
This course is designed to provide the basic knowledge assisting physicians, or medical office staff with medical exam room preparation, routine patient examination preparation, as well as assisting with basic clinical procedures and in office diagnostic testing.  
(1+4) S  
Co requisites: BIO150, MEA105

MEA105 MICROBIOLOGY FOR MEDICAL ASSISTANTS 2 Cr. Hrs.  
This course is designed to introduce common medical laboratory procedures. It involves the study of the interactions between microbes and humans and the practice of handling medically important microbes, blood and body fluids. Practical experiences include aseptic techniques in the collecting, handling, and testing of specimens.  
(1+3) S  
Prerequisites: HS Biology or BIO101

MEA108 ADMINISTRATIVE MEDICAL OFFICE PROCEDURES 3 Cr. Hrs.  
This course will provide a basic understanding of the administrative duties and responsibilities that pertain to the medical office. This includes instruction and medical correspondence and records, case histories of patients, filing, telephone procedures, appointment scheduling, receptionist duties, processing mail, collection practices, and financial practices. This course will also familiarize the student with computer applications in the health care setting. It is designed to provide the student with basics of operations and application of computer usage within the health care provider office. This course includes simulated data entry for patient's record, appointment scheduling and day sheet transactions.  
(2+2) S  
Prerequisites: ENG111, OAS101

MEA110 PHARMACOLOGY FOR ALLIED HEALTH PROFESSIONALS 3 Cr. Hrs.  
The most common medications used and prescribed in a physician's office are studied. The actions, side effects, contraindications, and administration implications are emphasized. Content related to writing prescriptions, storing of meds, handling of narcotics and searching of pharmaceutical references is included.  
(3+0) F  
Co requisites: BIO150

**MEA200 MEDICAL ASSISTING ADMINISTRATIVE EXTERN 4 Cr. Hrs.**

This course provides opportunities to observe, perform, and discuss various administrative competencies under supervision, with learning experiences obtained in selected physicians offices, clinics or hospitals. (2+6) F

Pre-requisites: OAS110, OAS160, OAS221  
Co-requisites: OAS281

**MEA201 MEDICAL ASSISTING CLINICAL II 3 Cr. Hrs.**

Clinical II is a continuation of Clinical I. Following the Clinical II experience students will be able to administer various forms of medication, demonstrate proper technique for venipuncture for purpose of obtaining blood specimens and preparing intravenous medications and fluids and demonstrate skills in assisting with minor surgical procedures. (1+4) S

Pre requisites: MEA101, MEA110, MEA205

**MEA202 MEDICAL ASSISTING CLINICAL EXTERN 4 Cr. Hrs.**

This course provides opportunities to observe, perform, and discuss various clinical competencies under supervision, with learning experiences obtained in selected physician's offices, clinics or hospitals. This course will also review the following basic principles of psychology as they apply to the medical assistant: developmental stages of the life cycle, hereditary, cultural and environmental influences on behavior, mental health and applied psychology. (2+6) S

Prerequisites: MEA101  
Co requisites: MEA201

**MEA205 DISEASE CONDITIONS 3 Cr. Hrs.**

This course presents the basic concepts of diseases, their courses and function disturbances as they relate to body systems. This course includes the precipitating risk factors and appropriate methods of patient education regarding various disease processes. (3+0) F

Pre requisites: BIO150

**MET102 APPLIED ALGEBRA 2 Cr. Hrs.**

Basic elementary algebra. Material covered includes fundamental operations of positive and negative numbers, grouping symbols, algebraic axioms, equations, formula manipulation, special products, factoring, quadratic equations and related applications to the shop. (Formerly RTI102)

(2+0) F, S, SU

Co-requisite: MTH050 or instructor permission

**MET103 APPLIED GEOMETRY & TRIGONOMETRY 3 Cr. Hrs.**

Geometry includes definitions and descriptions of geometric terms, axioms, theorems, propositions dealing with straight lines, triangles, polygons, and circles, as well as perpendicular and parallel relationships. Trigonometry includes definitions of basic trigonometric functions, use of trigonometric tables, solutions of right triangle and oblique triangle problems, use of sine, cosine, tangent and their reciprocals in the solutions of unknown angles, logarithms, and practical shop problems, (Formerly RTI103)

(2+2) F,S,SU

Prerequisite: MET102, MTH080 or instructor permission

**MET107 MAINTENANCE TEST PREP CLASS 3 Cr. Hrs.**

The focus of this course is to prepare the learner to take an entry-level exam for a position as a Maintenance Technician. Students will learn about basic mechanical mechanisms and systems, spatial skills, basic math, geometry, and reading comprehension. Students will also create a resume and learn basic interview skills. (3 + 0) Spring & Fall

Prerequisites: MET102 or MTH 080; MET103

**MET110 PRINT READING AND SKETCHING 3 Cr. Hrs.**

Print reading and sketching including the alphabet of lines, orthographic projection, ordinary views, section views, auxiliary views, pictorial sketching, dimensioning, tolerancing, screw threads and fasteners, mathematics for design and an introduction to geometric dimensioning and tolerances. (Formerly RTI121)

(2+2) F, S, SU

**MET113 MECHATRONICS I 3 Cr. Hrs.**

This class will introduce the student to the new field of engineering called Mechatronics. Mechatronics is the study of mechanics, hydraulics, pneumatics, and electronics. The student will build lab assignments that will incorporate these disciplines. The students will build, design, and troubleshoot machines using – pneumatics, hydraulics, and electronics. (2+2) S

Prerequisite: MET122

**MET121 MANUFACTURING PROCESSES 3 Cr. Hrs.**

The focus of this course is to provide the student with an introduction to the theory of the common major manufacturing processes. The major manufacturing processes (methods used to convert raw materials into finished products) are described and compared. Emphasis is placed on how each process works and its relative advantages and disadvantages. Students will have the opportunity to observe processes via field trips as such opportunities are available. (2+3)

**MET122 PRINCIPLES OF MACHINING 3 Cr. Hrs.**

A laboratory course which provides hands-on work with the traditional machine shop processes. Laboratory work with the lathes, mills, drills, and grinders is emphasized. Students will be required to manufacture assigned projects utilizing the equipments in the machine shop laboratory. An emphasis is placed on safety, fixturing, feeds and speeds, tooling, precision, and accuracy. (Formerly RTI152)

(2+3) F & S

Prerequisite: MET110

**MET123 MACHINING PROCESSES II 3 Cr. Hrs.**

This class is focused more on applying the machine shop equipment to manually machine projects that apply to the machining, tooling and print reading technologies. Students will manually machine industrial parts from well documented and professional prints, as well as well documented sketches created on a factory floor. Students will be assessed by their accuracy, efficiency and finished product. (2+2) S

Prerequisite: MET122

- MET130 INDUSTRIAL SAFETY** 2 Cr. Hrs.  
This is a course in hazard recognition based on OSHA recommended standards. Although students learn to identify potential hazards in the workplace, they will also develop a greater awareness of hazards in their environment. Students will also certify in CPR through the American Heart Association  
(2+2) F & S
- MET133 INDUSTRIAL PIPEFITTING** 3 Cr. Hrs.  
A study of the specifications, application, installation, and maintenance of various kinds of pipe, fittings, valves, pumps, and hand tools. The analysis of job requirements in terms of materials, time utilization and sequence of operation is discussed. (Formerly RTI233)  
(2+2) F
- MET134 ENGINEERING MATERIALS** 3 Cr. Hrs.  
This course combines major elements of ferrous and non-ferrous metallurgy with polymeric materials, organics and refractories. Student learns basic physical and chemical properties of common engineering materials and their design considerations.  
(3+0) S - Day & Eve (odd years)
- MET140 APPLIED STATISTICAL METHODS** 2 Cr. Hrs.  
This course is intended for Related Trades students or as a technical elective in other programs. Class work reveals reasons for and philosophies behind statistical applications integral to a quality system. Study covers how to use probability, X-bar and R charts, and ANSI/ASQ Z1.4, acceptance sampling, for quality systems applications. The course is designed for Independent Study. Three modules are delivered via the web. The fourth module, Acceptance Sampling is completed by studying instructor furnished materials and passing materials and passing a multiple choice test.  
Prerequisite: MTH080 or MET102 & Ability to access Web courses  
(2+0)
- MET143 BENCH WORK** 2 Cr. Hrs.  
This is the first machine shop course. Students learn the use of hand and power hack saws, burring, layout work on the bench, shearing a drilled section, filing and polishing, use of hand taps, and cutting threads with a die. (Formerly RTI143)  
(2+0) F, S, SU  
Prerequisite: MET110 or instructor permission
- MET144 MACHINE REPAIR** 3 Cr. Hrs.  
Basic fundamentals of methods and means to rebuild a production machine such as realignment of columns of tables, scraping of ways, replacing spindles, gears, bearings, gibs, etc. (Formerly RTI144)  
(2+2) F, S  
Prerequisite: MET143
- MET150 TOOLING AND FIXTURES-LUBRICANTS AND COOLANTS.** 3 Cr. Hrs.  
Tooling and fixtures are an integral part of modern machine practices. This course will provide the student with a basic foundation in tooling and fixture application and theory. Tool selection, tool application, tooling speeds and feeds will be emphasized. Fixture application will introduce the student to the use of fixtures in machining practices, datums of fixtures, and choice of fixtures for specific applications. The function, use, and types of lubricants and coolants will be covered in depth.  
(2+2) F & S  
Prerequisite: MET122 or instructor permission
- MET181 APPLIED WELDING TECHNIQUES** 3 Cr. Hrs.  
A general orientation of three non-pressure processes commonly used in industry to join metal fusion alone - the oxy-acetylene, arc, and TIG methods. Topics covered include welding theory and practice, study of equipment safety measures, welding symbols and techniques, electrode classification, types of welds, and fusion of various types of metals. (Formerly RTI181)  
(2+2) F, S  
Prerequisite: MET110 or instructor permission
- MET201 INDUSTRIAL APPLIED PHYSICS** 3 Cr. Hrs.  
Includes the application of Laws of Physics to machine operations, fluids, material properties, electricity, rigging and erecting, the efficient use of levers, gears, pulleys, parallel and non-parallel forces, uniformly accelerated motion and momentum in machining operations, machinery installation, and safe working methods in today's modern factory. Also includes properties of solids, liquids, and gases, expansion of materials, friction, and heat. (Formerly RTI201)  
(2+2) S  
Prerequisite: MET103 or instructor permission
- MET221 RIGGING AND ERECTING** 2 Cr. Hrs.  
Applies the Laws of Physics to moving, setting up, and securing machines. Leverage and mechanical advantage, and the care and selection of equipment are other considerations in this course. Learners also will calculate weight and center of gravity of various machines and equipment using static equilibrium, site preparation, vibration control, and anchoring, moving and setting, leveling, and aligning, checking and the "test" running of equipment.  
(2+0) F (even years)
- MET222 PROGRAMMING COMPUTER NUMERICAL CONTROL** 3 Cr. Hrs.  
The student will view a blueprint of a mechanical part to determine the datums, the order of operations and appropriate fixturing to make the part. A G-code program will be written and loaded to the lathe or mill which will create the machined surfaces of the part. Conversational programming will be demonstrated on both a lathe and a mill. A familiarity with computers and CAD is helpful.  
(2+3) F - Day & Eve.  
Prerequisite: MET122, MET103, IET105
- MET223 CAM I** 4 Cr. Hrs.  
This course is a study in the basic fundamentals of Computer-Aided-Manufacturing-Machining (CAM). The student will become proficient in the use of manipulating CAM software in a hands-on environment. The goal is machining center. Datums, tool selection, speeds, feeds, and part identification will be emphasized.  
(3+3) S - Day & Eve  
Prerequisite: MET 122, MET 222 or instructor permission
- MET226 JIG, FIXTURE & MOLD DESIGN** 3 Cr. Hrs.  
To study and learn the function and design of basic drilling, boring, milling, and welding jigs, and fixtures that are either standardized or commercial, plus special applications from problems occurring in shop situations. (Formerly RTI226)  
(2+2) S  
Prerequisites: MET103, MET110 or instructor permission

**MET227 DIE THEORY & DESIGN FUNDAMENTALS** 3 Cr. Hrs.

This course investigates the details and techniques of die design theory and practice. Included is a study of forming and cutting dies and their component parts such as die blocks, strippers, stock guides, shredders, knockouts, nest gages, pushers, die stops, strip layout die sets, stock utilization and engineering formulas. A die design project will be required in which manipulative skills of design will be developed. Project areas include piece dies, blank dies, compound dies, progressive dies, forming dies, trim dies, cam dies and press dies.

(Formerly RTI227)

(2+2) F (even years)

Prerequisites: MET103, MET110 or instructor permission

**MET228 PATTERNMAKING FUNDAMENTALS** 3 Cr. Hrs.

The selection, use, and maintenance of hand tools, pattern shop tools and the materials used in building patterns for industry. Also included are the concepts of shop theory as applied to the molder and core maker. It includes the processes from melting to the production of cores, sand types and binders, metallurgy, cooling and heat treatment.

(Formerly RTI228)

(2+2) S (even years)

Prerequisite: MET226, course should be taken near end of apprenticeship program.

**MET231 METALLURGY AND HEAT TREATMENT** 2 Cr. Hrs.

A basic course covering the nature and behavior of metals, crystalline structure, theory of alloys, principles of heat treatment, properties of metals and alloys and testing applications. The Rockwell and Brinell hardness testers will be used. (Formerly RTI231)

(2+0) S, SU

Prerequisite: MTH080 or MET102

**MET232 INDUSTRIAL FLUID POWER I** 3 Cr. Hrs.

Fluid power is an efficient way to move energy without mechanical belts, chains, or levers. The physics of fluids, components, troubleshooting and design applications for hydraulic & pneumatic systems are covered in this class. (Formerly RTI234)

(2+3) F - Day, S - Eve (even years)

Prerequisite: MET103

**MET234 STRENGTH OF MATERIALS** 3 Cr. Hrs.

Learn how to analyze the mechanical and thermal loads on structures, beams, and columns, and how to calculate stress, strain, and deflection. Application of formulas and design considerations are stressed.

(3+0) S-Day & Eve (odd years)

Prerequisite: MET235, PHY251

**MET235 STATICS** 3 Cr. Hrs.

A study of resolution of forces on rigid bodies using conditions of equilibrium and vector analysis. Includes the analysis of trusses, friction, and moments of inertia.

(3+0) S-Day & Eve. (even years)

Prerequisite: PHY251

**MET252 INDUSTRIAL FLUID POWER II** 3 Cr. Hrs.

In this class, the student will use electro-pneumatic valves, programmable logic controllers (PLCs), in/out boxes, and various types of electrical switching devices. The students will build, design, and troubleshoot machines using – pneumatics, hydraulics, and electronics.

(2+2) S

Prerequisite: MET232

**MET260 CAM II** 3 Cr. Hrs.

A continuation of CAM I. The student will use the skills learned in CAM I to create geometry and tool paths with the CAM software for a CNC lathe. This is an advanced course that also introduces the students to 3D drawings and Solids. 3D Geometry and Solids will be generated with the CAM software. Tool paths and NC files will be created to the 3D drawings and Solids with CAM. The tool paths created with CAM will be used to machine a part on a CNC machining center.(2+2) S

Prerequisite: MET223

**MET262 CAD/CAM PROJECT** 4 Cr. Hrs.

This is a capstone class that requires the student to design, fabricate and test a working machine component. Solid Modeling and CAM technology will be the focus, with supporting CMM technology. The students will be required to apply the technology they learned in individual technology classes.

(3+2) S

Prerequisite: CAD213, MET223, QCT141

**MET265 MACHINE DESIGN** 3 Cr. Hrs.

This course is designed to assist students with the basic approach to machine design through the analysis of static and dynamic stresses. The course will focus on the strength of materials and how they relate to machine design. Design projects will be included.

(3+0) S - Day, S - Eve (even years)

Prerequisite: PHY251

**MET290 ENG. TECH. CO-OP/INTERNSHIP** 1-4 Cr. Hrs.

The Co-op/Internship is a job-related experience in which the student works in a position consistent with the program major. The student is expected to integrate skills learned in the educational program with job responsibilities, while applying work experience to classroom activities. Primary work duties are documented through a work log, incident summary, and a focused report. Enrollment only with permission of the instructor.

F, S, SU

**MGT110 MANAGEMENT** 3 Cr. Hrs.

Management is an introductory course in the principles of coordinating an organization's objectives. Major emphasis is devoted to planning, organizing, directing, and controlling skills. Issues such as decision making, communication, motivation, and leadership are addressed.

(3+0) F - Day & Eve, S - Day & Eve, Su - Day & Eve

**MGT210 HUMAN RESOURCE MANAGEMENT** 3 Cr. Hrs.

This course focuses on the supervisor/employee relationship. Primary topics include motivation, goal setting, performance appraisal, and management of a team of employees.

(3+0)

<p>MGT210 HUMAN RESOURCE MANAGEMENT 3 Cr. Hrs.</p> <p>This course is a study of personnel management. Major topics include planning, job design, recruitment, employee selection, training, performance appraisal, and contract administration. Safety and government regulations are included. (3+0) F - Day, S - Eve</p>	<p>MKT110 MARKETING 3 Cr. Hrs.</p> <p>Marketing is an introductory course in the principles of anticipating customer needs and directing goods and services to customers. Major topics of study focus on customer behavior and the corresponding marketing functions of manufacturing organizations, service organizations, and nonprofit organizations. (3+0) F - Eve, S- Day</p>
<p>MGT221 ENTREPRENEURSHIP 3 Cr. Hrs.</p> <p>This course is a study of opportunities and challenges facing entrepreneurs in a dynamic marketplace. Topics include Recognizing and Exploiting viable business opportunities, Writing a Business Plan, Managing Inventory, Cash Management, Employee Management (including Hiring, Training, and Evaluation), Marketing, and using technology. Emphasis is placed on Self Employment and the issues of efficiently and effectively running a business Prerequisite: MGT110 S</p>	<p>MKT210 ADVERTISING 3 Cr. Hrs.</p> <p>This is a study of sales promotion. Major topics include audience identification, ad preparation, media selection, budgeting, and research. Emphasis is placed upon coordination of advertising efforts and sales promotion. (3+0) F - Day (even years), S - Eve (odd years)</p>
<p>MGT230 RETAIL MANAGEMENT 3 Cr. Hrs.</p> <p>Retail management is an overview of retailing functions. Major topics include organizational structure, merchandising practices and procedures, physical layout, buying, and store control. Issues of chain stores and franchising are included. (3+0) F - Day (odd years), S - Eve (even years)</p>	<p>MKT230 SALESMANSHIP 3 Cr. Hrs.</p> <p>This course focuses upon persuasion and personal promotion. Major topics include the preparation of a presentation and the techniques of effective delivery. Students will develop and participate in a sales presentation. (3+0) F - Eve (odd years), S - Day</p>
<p>MGT280 BUSINESS CLIMATE ANALYSIS 3 Cr. Hrs.</p> <p>This course includes research, analysis, and summary of the business climate in a specific region. Students will assess regional, cultural, political, commercial, and financial issues. They will also investigate availability of manufacturing, transportation, labor, and technological resources. Students are required to travel to the region and develop a Business Climate Summary. The finished product will be developed and presented by a team of students. (3+0) S</p>	<p>MTH109 COLLEGE ALGEBRA 3 Cr. Hrs.</p> <p>This course is designed for those students who have mastered the fundamental manipulations of algebra. Algebraic topics include: non-linear equations and inequalities; linear, quadratic, polynomial, rational, exponential and logarithmic functions; complex numbers; and introduction of conics. The use of a graphing calculator is a required component in the course. (3+0) F, S, SU Prerequisite: MTH090 or satisfactory score on the Course Placement Test</p>
<p>MGT281 GLOBAL BUSINESS CLIMATE ANALYSIS 3 Cr. Hrs.</p> <p>This course includes research, analysis, and summary of the business climate in a specific region. Students will assess regional, cultural, political, commercial, and financial issues. They will also investigate availability of manufacturing, transportation, labor, and technological resources. Students are required to travel to the international region and develop a Business Climate Summary. The finished product will be developed and presented by a team of students. (3+0)</p>	<p>MTH112 TRIGONOMETRY 3 Cr. Hrs.</p> <p>This course is designed to follow MTH109 and replaces MTH110. Topics include both right triangle and circle definitions, solving all types of triangles, trigonometric identities and equations, selected vector and complex number problems, and the polar coordinate system. The use of a graphing calculator is a required component in the course. (3+0) F, S Co-requisite: MTH 109 or satisfactory score on the Course Placement Test</p>
<p>MGT290 BUSINESS MANAGEMENT INTERNSHIP 3 Cr. Hrs.</p> <p>This is a management experience related to the student's program of study. The student is accepted on the basis of academic progress and available work site. Enrollment only with instructor permission. (1+20) F, S, SU</p>	<p>MTH170 SURVEY OF MATHEMATICS 3 Cr. Hrs.</p> <p>This course presents a variety of mathematical ideas and concepts to give students an idea of the breadth and vitality of mathematics. Among others, topics will include geometry, number theory, statistics and probability. Although some manipulative techniques will be reviewed, this course is not intended for improvement of algebra skills or other specific content. Instead the emphasis is on understanding how fundamental concepts of mathematics work together as a unified whole. This course is specific to education majors preparing for early childhood or middle grade teaching. (3 + 0) S Prerequisites: MTH080, high school equivalent, or satisfactory score on course placement exam.</p>
<p>MGT295 MANAGEMENT CASE STUDIES 3 Cr. Hrs.</p> <p>This is a study of the decision making process in current management issues. Major topics include defining problems, identifying alternatives, establishing criteria, evaluating alternatives, and resolving decisions. Case examples are used to highlight major concepts. (3+0) S - Day &amp; Eve (odd years) Prerequisites: ACC111, MGT110</p>	

<p>MTH213 CALCULUS I 5 Cr. Hrs. Designed for those students who have mastered algebra and trigonometry and who are planning to pursue a four-year degree program. Topics include a review of functions, limits, derivatives of algebraic and transcendental functions, applications of derivative, and an introduction to integrals. (5+0) F Prerequisite: MTH110, MTH 112 or MTH122, or satisfactory score on the Course Placement Test</p>	<p>NRS110 PHARMACOLOGY 3 Cr. Hrs. Pharmacological theory of broad classifications of common medications in current use with application to nursing. Includes federal drug legislation and the responsibility of drug administration. (3+0) F, S, SU Prerequisite: NRS107 or PNE120 or permission of Nursing Department</p>
<p>MTH214 CALCULUS II 5 Cr. Hrs. This course is designed for those students who have completed MTH 213. Topics include techniques of integration, applications of integrals, sequences and series, introduction to differential equations, conics, and parametric and polar graphing. (5+0) S Prerequisite: MTH213</p>	<p>NRS131 PHYSICALASSESSMENT 2 Cr. Hrs. The course focuses on the application of the nursing process related to physical assessment and history taking skills with emphasis on the adult client. (1+3) F, S Prerequisites: NRS106, NRS107, BIO231, ENG111 Co-requisite: BIO232</p>
<p>NRS100 NURSE AIDE CERTIFICATION 4 Cr. Hrs. This course will prepare students for employment as a nurse aide. Students are eligible to take the state certification exam upon successful completion of the program. This course is taught in cooperation with Four County Career Center and includes 24 clinical hours held at a local long-term healthcare facility. (3.5+0.5)</p>	<p>NRS133 CARDIOPULMONARY RESUSCITATION (CPR) HEALTH 1 Cr. Hr. A basic course in cardiopulmonary resuscitation for cardiac arrest and respiratory emergencies. Includes infant, child, adult, and two-man CPR. Certificate issued upon completion. (1+0) F, S</p>
<p>NRS105 MATH FOR NURSES 1 Cr. Hr. This math course is designed for the student who will be in a nursing health care technology. It includes study of metric, apothecary, and household systems of weights and measures relating to the calculation and administration of medications. The course emphasizes solving oral and parenteral drug dosage problems as they might occur in the clinical area. (1+0) F, S Prerequisite: MTH080</p>	<p>NRS209 NURSING CARE DURING CHILDBEARING &amp; CHILDHOOD 3 Cr. Hrs. This course will substitute for NRS213 and NRS214 for the LPN graduate who is not successful on the Nursing Care During Childbearing and Nursing Care of the Child NLN ACE I. This course focuses on the development and application of knowledge and skills in providing care for the child-bearing family. The nursing process is used to assist clients of the developing family to adapt to their changing role. (3+0) SU Prerequisite: Permission by nursing department</p>
<p>NRS106 NURSING PERSPECTIVES 2 Cr. Hrs. This course introduces the student to concepts related to the history of nursing, selected roles of the nurse, the nursing process, selected professional issues and educational trends. Included in this course is an examination of theory-based nursing concepts with an emphasis on the Roy Adaptation Model. (2+0) F, S Prerequisite: Admission to the Nursing Program Co-requisites: BIO231, ENG111, NRS107</p>	<p>NRS211 LPN TO RN TRANSITION 3 Cr. Hrs. This three-credit hour course is designed to enable the student to explore integrative concepts in nursing and to assist the student in the transition from licensed practical nurse to registered nurse. Students refine and update previous learning in addition to identifying goals for a successful transition into the registered nursing program. Combined with classroom and nursing laboratory experience, the student learns through the application of concepts. The student will demonstrate the ability to solve problems through the use of the nursing process with a focus on client assessment and to communicate more effectively. This course meets requirements of the Ohio Nursing Articulation Model. (2 + 2) S</p>
<p>NRS107 BASIC CONCEPTS IN NURSING 6 Cr. Hrs. This course introduces the student to concepts of theory-based nursing with the emphasis on the nursing process and application of the Roy Adaptation Model. Included will be presentation and application of basic care concepts, use of computers in nursing and related medical terminology in dealing with common stimuli experienced by the adult client. (3+9) F, S Prerequisite: Admission to the Nursing Program Co-requisites: BIO231, ENG111, NRS106</p>	<p>NRS212 LPN TO RN BRIDGE COURSE 1 Cr. Hr. This course is designed to meet the needs of the LPN who will be entering the Associate Degree Program at the second level. The focus of the course will be on the Roy Adaptation Model for Nursing and its use within the nursing process. Utilization of computers within nursing will also be completed. (1+0) S</p>
<p>NRS108 NURSING CARE OF CLIENTS WITH PHYSIOLOGICAL HEALTH NEEDS I 6 Cr. Hrs. The course provides for the development and application of concepts of nursing for assisting clients in adapting to the physiological mode and related health needs. (3+9) F, S Prerequisites: NRS106, NRS107, BIO231, ENG111 Co-requisites: NRS110, NRS131, BIO232, PSY230 or PSY110</p>	<p>NRS213 NURSING CARE OF THE CHILDBEARING FAMILY 3 Cr. Hrs. This course focuses on the development and application of knowledge and skills in providing care for the mother/parents and newborn. The nursing process is used to assist clients of the developing family to adapt to their changing role. (3+9) SU Prerequisites: NRS108, PSY230 Co-requisites: PSY110 or ENG112</p>

<p>NRS214 NURSING CARE OF THE CHILDREARING FAMILY 3 Cr. Hrs.</p> <p>This course focuses on the development and application of knowledge and skills in providing care for the child and the child-rearing family. The nursing process is used to assist clients of the developing family to adapt to their changing role.</p> <p>(3+9) SU Prerequisites: NRS108, PSY230 Co-requisites: PSY110 or ENG112</p>	<p>NRS221 SPECIAL PROBLEMS IN NURSING II 1-4 Cr. Hrs.</p> <p>An independent study which focuses on a topic or selected problem in nursing, subject to the approval and supervision of an assigned nursing instructor. Content and methodology to be arranged on an individual basis. Credit will be determined by the nature and extent of the independent study.</p> <p>F,S,SU, Prerequisite: Permission of the Dean of Allied Health &amp; Public Service</p>
<p>NRS215 NURSING CARE OF CLIENTS WITH PSYCHOSOCIAL HEALTH NEEDS 5 Cr. Hrs.</p> <p>The focus is on the development and application of knowledge and skills in providing nursing care to clients with common psychosocial health needs within a variety of settings.</p> <p>(3+6) F, S Prerequisites: NRS108 or NRS211/212, PSY110 Co-requisites: SSC101 or SSC210</p>	<p>OAS101 COLLEGE KEYBOARDING 3 Cr. Hrs.</p> <p>This is a mandatory course for OAS majors which introduces students to basic keyboarding and formatting techniques, editing and proofreading of keyed copy, and the development of key stroking accuracy and speed. Correct format for keying business documents will be stressed.</p> <p>(3+0) F - Day &amp; Eve Prerequisite: OAS090</p>
<p>NRS216 NURSING CARE OF CLIENTS WITH PHYSIOLOGICAL HEALTH NEEDS II 3 Cr. Hrs.</p> <p>The focus is on the development and application of knowledge and skills in providing nursing care to clients with common long-term physiological health needs within a variety of settings.</p> <p>(1+7) F, S Prerequisites: NRS108 or NRS211/212 Co-requisite: BIO257</p>	<p>OAS102 KEYBOARDING APPLICATIONS 3 Cr. Hrs.</p> <p>This keyboarding course on the computer leads students toward higher speed, greater accuracy, improved communication skills, and refinement of formatting ability using computer software. The Cortez Peters method for developing keyboarding accuracy and speed is introduced.</p> <p>(3+0) S - Day &amp; Eve Prerequisites: OAS101 within the previous five years</p>
<p>NRS217 NURSING CARE OF CLIENTS WITH PHYSIOLOGICAL HEALTH NEEDS III 5 Cr. Hrs.</p> <p>This course provides for further development and application of concepts of nursing for assisting clients in adapting to the physiologic mode and related health needs.</p> <p>(3+6) F, S Prerequisites: NRS213, NRS214, NRS215, NRS216 Co-requisite: PHI220</p>	<p>OAS105 DOCUMENT EDITING AND PROOFREADING 2 Cr. Hrs.</p> <p>This is a course in which the students develop skills in proofreading, editing, and formatting written business communications. Topics covered include use of possessives, spelling, capitalization, subject-verb agreement, pronouns, adjectives, verbs, sentence structure and wording, as well as proper use of punctuation marks. The student will be more proficient in proofreading documents keyed in any word processing program on the computer. Editing of documents using proofreader's marks will also be stressed. There is no prerequisite, although basic computer knowledge will be helpful in completing at-the-computer editing projects.</p> <p>(2+0) F - Eve, (odd years), S</p>
<p>NRS218 CONCEPTS IN MANAGEMENT OF GROUPS OF CLIENTS 4 Cr. Hrs.</p> <p>This course provides an introduction to the skills and knowledge necessary to manage care of a group of clients in a cost-effective manner. Content includes organization of care, principles of working with others, concepts of leadership, research, management and organizational structure. Current issues in the political and cultural systems which impact the nursing profession are examined. The transition from student to practitioner is facilitated through course concepts and clinical placement.</p> <p>(1+9) F, S Prerequisites: NRS213, NRS214, NRS215, NRS216 Co-requisites: NRS217, PHI220</p>	<p>OAS110 RECORDS MANAGEMENT 3 Cr. Hrs.</p> <p>This is a course in the field of records management emphasizing principles and practices for manual and automated records systems. A practice set is used in which students practice card filing and correspondence filing using the alphabetic, subject, numeric and geographic filing systems. Computer applications are used in applying alphabetic indexing rules to a computer records database.</p> <p>(3+0) F - Day, S - Eve (odd years)</p>
<p>NRS220 SPECIAL PROBLEMS IN NURSING I 1-4 Cr. Hrs.</p> <p>An independent study which focuses on a topic or selected problem in nursing, subject to the approval and supervision of an assigned nursing instructor. Content and methodology to be arranged on an individual basis. Credit will be determined by the nature and extent of the independent study.</p> <p>F, S, SU Prerequisite: Permission of the Dean of Allied Health &amp; Public Service</p>	<p>OAS140 WORDPERFECT 3 Cr. Hrs.</p> <p>Students learn to operate the WordPerfect word processing software package on the personal computer. All basic program functions are introduced, as well as various advanced features such as columns, tables, and an introduction to graphics.</p> <p>(2+2) F - Day Prerequisites: OAS090</p>

- OAS160 OFFICE PROCEDURES** 3 Cr. Hrs.  
This is a comprehensive course based on the knowledge and skills necessary to perform duties in a modern office. Practical experiences and simulated work experiences are included. Telephone techniques, mail processing, creation of other business document information, and case studies are addressed. Development of the career professional will be included.  
(3+0) F - Eve (even years), S - Day  
Prerequisites: ENG111 and OAS102
- OAS180 MEDICAL TERMINOLOGY** 3 Cr. Hrs.  
This is a study of prefixes, suffixes, and word roots used in developing a medical vocabulary. Special emphasis is placed upon the usage, spelling, and pronunciation of these terms as they apply to the major body systems in terms of health and disease.  
(3+0) S - Day
- OAS200 SPEEDBUILDING** 1 Cr. Hr.  
This course emphasizes the development of speed and accuracy at the keyboard through timed writings and corrective drills at the computer. This course may be repeated for further improvement in keying speed and accuracy.  
(1+0) F  
Prerequisite: OAS101
- OAS221 MEDICAL INFORMATION CODING** 3 Cr. Hrs.  
This is a course in the coding of diseases and operations using International Classification of Disease — 9th Revision — Clinical Modification (ICD-9-CM), and coding for reimbursement of procedures using Current Procedural Terminology-4 (CPT-4). Information will be covered regarding basic rules, sequencing, and coding principles. The use of a computerized encoding system will be demonstrated and used by the student to properly code examples from the clinical setting.  
(3+0) F - Day  
Prerequisite: OAS180
- OAS222 INTERMEDIATE MEDICAL INFORMATION CODING** 3 Cr. Hrs.  
This is a course in which students develop further skills in the coding of diseases and operations using the International Classification of Diseases - 9th. revision - Clinical Modification (ICD-9-CM) and coding for reimbursement of procedures using the Current Procedural Terminology - 4 (CPT04). Students will use a computerized encoding system to gain practice in coding and will learn abstracting and DRG assignment on the encoding system. Prospective Payment reimbursement methodologies for several different health care settings will be discussed and practiced. An overview of other coding systems will be presented.  
(3+0) S - Day  
Prerequisites: OAS221 or instructor permission
- OAS230 MACHINE TRANSCRIPTION** 3 Cr. Hrs.  
This course is designed to develop skill in listening and transcribing recorded dictation using machine transcription equipment. A variety of business correspondence is transcribed at the computer with an emphasis on developing language arts skills such as grammar, spelling, word usage, and vocabulary. The importance of mailable documents is stressed.  
(3+0) S  
Prerequisites: ENG111, OAS102, and CIS112 Microsoft Word or CIS114 Microsoft Applications
- OAS249 ADVANCED MICROSOFT SUITE APPLICATIONS** 3 Cr. Hrs.  
This is a comprehensive course stressing the refinement of word processing, spreadsheet, database management, and presentation concepts and procedures; along with reviewing workplace requirements, updating of skills, and prioritizing work assigned. The assignments will go beyond the mechanics of the software. Students will learn design layout, writing, problem solving, analysis, critical thinking, and information management skills. This course is based on prior experience in Microsoft Office: Word, Excel, Access, PowerPoint, Outlook; keyboarding; records management; and office procedures.  
(3+0) F  
Prerequisite: CIS112 Word and CIS113 Excel  
Co-requisites: CIS118 Access and CIS119 PowerPoint
- OAS250 INTEGRATED BUSINESS PROJECTS** 3 Cr. Hrs.  
This is designed to prepare students to complete a variety of projects using Microsoft Office Suite. Emphasis is on the integration and teamwork of gathering information to be used in working on the projects.  
(3+0) S - Day, S - Eve. (even years)  
Prerequisite: CIS114 or OAS249
- OAS281 MEDICAL INSURANCE REPORTING AND ACCOUNTING** 3 Cr. Hrs.  
This course orients the student to special medical office procedures. Included are skills in managing accounts receivable, techniques of recording financial accounts, and abstracting information from patient records to complete insurance claim forms. The use of procedure and diagnostic coding for professional services will be covered.  
(3+0) S - Day  
Prerequisites: OAS221 and ACC102
- OAS282 MEDICAL MACHINE TRANSCRIPTION** 3 Cr. Hrs.  
This course uses transcription equipment to develop skill for accurately transcribing medical dictation on a computer. Dictation will cover patient history and physical examinations, discharge summaries, surgical, pathology, and laboratory reports. Knowledge of medical terminology, keyboarding accuracy, and speed of transcription will be expanded.  
(3+0) F - Day  
Prerequisites: ENG111, OAS180, OAS102, and either OAS140 or CIS114
- OAS290 SECRETARIAL INTERNSHIP I** 3 Cr. Hrs.  
This is a job-related internship in which the student is employed in a position related to student's major in Administrative Office Services technology. Student may work within the College or an outside organization. Second-year student or instructor permission expected.  
(1+20) F, S, SU
- OAS291 SECRETARIAL INTERNSHIP II** 1 Cr. Hr.  
This internship is a continuation of the job-related office services experience. The student is responsible for actively seeking the position within the College or for an outside organization. Second-year student or instructor permission expected.  
(1+10) F, S, SU
- OAS292 SECRETARIAL INTERNSHIP III** 1 Cr. Hr.  
This internship is a continuation of the job-related office services experience. The student is responsible for actively seeking the position within the College or for an outside organization. Second-year student or instructor permission expected.  
(1+10) F, S, SU

<p>PAR100 INTRODUCTION TO PARALEGAL 3 Cr. Hrs. This course covers the basics of legal assisting, emphasizing the fundamental concepts of the legal system. The course includes an overview of the legal assistant career and ethical considerations related to the job. (3+0) F - Day (odd years) &amp; Eve (even years)</p>	<p>PAR220 CRIMINAL LAW 3 Cr. Hrs. The Ohio Criminal Code and Rules of Criminal Procedure will be the foundation of this examination of the pretrial procedures in a criminal case. Students are exposed to the criminal justice system from the elements of offenses through post-conviction remedies. The drafting of motions and other documents associated with criminal matters are included. (3+0) S - Day (even years) &amp; Eve (odd years)</p>
<p>PAR101 LAW OFFICE MANAGEMENT 3 Cr. Hrs. This is an introduction to the day-to-day operation of a law office. Emphasis is placed on the development of accurate management systems, common procedures and structures of various law firms emphasizing time keeping, client files, record maintenance and retrieval, planning, billing, collections, and software usage. (3+0) F - Day (odd years) &amp; Eve (even years)</p>	<p>PAR221 BANKRUPTCY 3 Cr. Hrs. This course focuses on the procedures required and forms necessary to file in bankruptcy. The course identifies the skills necessary to gather information and assemble materials for a typical client file. (3+0) S - Eve</p>
<p>PAR110 CIVIL PROCEDURES 3 Cr. Hrs. This is a study of the Federal and State Rules of Evidence and civil procedures. The basic elements of civil claims will be discussed and the initial phase of an action, the complaint, and the discovery process are examined. Emphasis is placed on the role and responsibilities of paralegals in discovery procedure and trial practice. (3+0) S - Day (even years) &amp; Eve (odd years)</p>	<p>PAR222 ESTATES, TRUSTS, &amp; WILLS 3 Cr. Hrs. This is a practical examination of the procedures for drafting wills and probating estates in Ohio. It is a study of the law as applied to the more common forms of wills, trusts, and intestacy. Organization and jurisdiction of the probate court are examined. The documents that must be prepared for the courts, the mechanics of probating the estate, and related accounting matters are examined. (3+0) S - Day (odd years) &amp; Eve (even years)</p>
<p>PAR115 FAMILY LAW 3 Cr. Hrs. This course covers domestic relations law including marriage, divorce, annulment, separation, adoption, and the rights of children. The paralegal is introduced to the various documents and procedures used pertaining to these family matters. (3+0) S - Day (odd years) &amp; Eve (even years)</p>	<p>PAR290 PARALEGAL INTERNSHIP 3 Cr. Hrs. This is a legal work experience related to the student's program of study. The student is accepted on the basis of academic progress and available work site. Enrollment only with instructor permission. (1+20) F, S, SU</p>
<p>PAR205 REAL ESTATE TRANSACTIONS 3 Cr. Hrs. This course introduces the student to the law and terminology involved in real estate and real estate conveyances. The course also examines various contracts, mortgages, deeds, and leases. A case project is included in which students prepare an abstract of title by examining recorded documents. The course is designed to acquaint students with basic real property law, ownership, easement, and mortgages. Course also covers problems arising from sales agreements. (3+0) F - Eve</p>	<p>PET110 PRINCIPLES OF PLASTICS 4 Cr. Hrs. The class is an overview of the Plastics industry. Topics covered include basic polymer construction, types, and properties. Different plastic manufacturing processes and the equipment used both primarily and for secondary operations. Quality, defects, causes and monitoring methods including testing. Safety and environmental issues affecting the Plastics industry will also be covered. (3+2) F</p>
<p>PAR210 LEGAL RESEARCH AND WRITING 3 Cr. Hrs. This course provides the student with the basic research abilities which are necessary in law offices. Students use a law library including reporter systems, legal encyclopedias, codes, and computer searching systems. (3+0) F - Day (even years) &amp; Eve (odd years)</p>	<p>PET210 INJECTION MOLDING 4 Cr. Hrs. A hands-on study of plastics injection molding techniques. The study of the theory of injection molding will be supplemented by extensive laboratory exercises using plastics injection molding machines. The operation, set-up, optimization, and programming of the injection molding process will be performed using several different molds which students will remove and install. Injection molding molds will be discussed, including basic mold design principles. (3+2) S Prerequisite: PET110</p>
<p>PAR215 TORT LAW 3 Cr. Hrs. This course covers the traditional civil wrongs, from both the plaintiff and defendant standpoints. Actual cases will be briefed and discussed. The course stresses the importance of preparation prior to trial. (3+0) F - Day (even years) &amp; Eve (odd years)</p>	<p>PET220 ADVANCED INJECTION MOLDING 4 Cr. Hrs. The class is a continuation of the basic injection molding class. Topics covered are process optimization and troubleshooting. Special injection molding processes including co-injection, lost core, gas-assisted, injection-compression, structural foam, and others will be discussed also. Knowledge of these topics will be gained through text, computer simulations and hands-on lab exercises. (3+2) F &amp; S Prerequisite: PET210</p>

- PET225 EXTRUSION, BLOWMOLDING & THERMOFORMING** 3 Cr. Hrs.  
This class is a basic overview of the plastics extrusion, blow molding, and thermoforming processes. Topics covered will include the materials and properties important to the process, the equipment used in extrusion, blow molding, and thermoforming processes, both primary and secondary, and basic dies, molds, and tooling used for those processes. Job setting and establishing the process will be a large focus of the class. Knowledge of these topics will be gained through text, hand-outs, computer simulations, and hands-on lab exercises.  
(2+2) F & S  
Prerequisite: PET110
- PET231 PLASTIC MATERIALS TESTING** 4 Cr. Hrs.  
The class is an overview of the more common plastic material properties and performance tests used in industry today. The properties covered will include mechanical, physical optical, and other properties including a section on color specification and color testing. ASTM and ISO standard test methods will be used to establish and document tests and results. The class will also cover methods of determining an unknown material and general quality standards. Knowledge of these topics will be gained through text, demonstrations and hands-on lab exercises.  
(3+2) F  
Prerequisite: PET110, MTH090
- PET240 INJECTION MOLD TOOLING** 4 Cr. Hrs.  
An overview of the tooling used in injection molding. The study will cover general mold construction and materials used in the mold. Topics will include the different mold styles such as 2-plate, 3-plate, hot runner, and cold runner. The different systems of a mold including runners, gates, vents, cooling, and ejection will be studied. Part design for acceptable tooling along with tooling practices used in current industry will also be studied. Knowledge of these topics will be gained through text, lecture, and some lab time.  
(3+2) F  
Prerequisite: PET210, MET103
- PET250 PLASTICS SECONDARY OPERATIONS** 4 Cr. Hrs.  
The course is an overview of the different secondary processes and equipment used in the plastics industry. Topics will include thermoforming equipment and processes. Fabrication methods including welding and bonding will be covered. Processes such as hot stamping, pad printing, and other methods of decorating will be covered. Also, secondary operations such as trimming and forming will be discussed. The course will be taught as a lecture with some demonstration and hands-on labs.  
(3+2) S  
Prerequisite: PET110
- PHI110 CRITICAL THINKING & LOGIC** 3 Cr. Hrs.  
An introduction to the principles of valid reasoning, emphasizing both deductive and inductive logic. Includes analyzing and evaluating arguments, as well as creating arguments in the form of the short, argumentative essay.  
(3+0) S  
Co-requisite: ENG111
- PHI201 INTRODUCTION TO PHILOSOPHY** 3 Cr. Hrs.  
Examines enduring human concerns such as religion, science, knowledge, identity, morality, and justice, using a variety of philosophical perspectives.  
(3+0) F  
Co-requisite: ENG111
- PHI210 ETHICS** 3 Cr. Hrs.  
An introduction to basic ethical theories and their applications. Students examine the relationship between personal and social values in particular cultural contexts.  
(3+0) S  
Co-requisite: ENG111
- PHI220 ETHICS IN HEALTH CARE** 3 Cr. Hrs.  
Ethics in health-related issues will be explored. Includes the impact of scientific and technological advances on health care decisions.  
(3+0) F, S  
Co-requisite: ENG111
- PHI222 ETHICS IN THE HELPING PROFESSIONS** 3 Cr. Hrs.  
The practice of counseling and related helping professions is regulated both by law and by professional standards of practice or codes of ethics, which provide only general guidelines. This course will look at historical and contemporary theories of relevant ethical theories and provide exposure to real-life ethical issues from a multi disciplinary approach.  
(3+0) F, S  
Prerequisite: HST101  
Co-requisite: ENG111
- PHI230 WORLD RELIGIONS** 3 Cr. Hrs.  
Study and comparison of the major attitudes toward life, human existence and the world embodied in major religions of the world. Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam will be several of the religions examined along with the cultural backgrounds of lands of their development.  
(3+0) F  
Co-Requisite: ENG111
- PHY101 PRINCIPLES OF PHYSICAL SCIENCE** 4 Cr. Hrs.  
An introduction to the basic principles of the physical sciences. Includes subjects of physics, chemistry, geology, astronomy, and meteorology. Understanding of basic concepts is developed through emphasis on scientific methods and basic laboratory procedures and report writing. Includes simple problem solving, lab work and a research paper.  
(3+2) F  
Prerequisite: MTH080 or satisfactory score on college math placement
- PHY140 ASTRONOMY** 4 Cr. Hrs.  
An introduction to the science of astronomy. The course will cover elements of the history and development of astronomy, our new understanding of the solar system, stellar astronomy, the galaxies and the structure of the universe. Laboratory reinforces and supplements lectures.  
(3+2) S
- PHY150 PRINCIPLES OF GEOLOGY** 4 Cr. Hrs.  
An introduction to the field of geology and the study of the earth. Covers minerals and rocks and their formation within the context of the earth's geologic history. Emphasis on rocks, soils, and land formations, plate tectonics and natural disasters such as earthquakes. Lab includes field trips and the identification of rocks and minerals. Some chemistry is recommended.  
(3+2) F

<p>PHY251 PHYSICS: MECHANICS AND HEAT 4 Cr. Hrs. An algebra based course covering mechanics including force, work, energy, and simple machines, heat and basic thermodynamic concepts, wave motion and sound. It includes problem solving, laboratory work and the writing of technical lab reports. (3+3) F Prerequisite: MTH109, MTH112</p>	<p>PLC231 ROBOTIC SYSTEMS II 3 Cr. Hrs. This course studies the various electrical components, theory of operation and troubleshooting procedures focused on the ABB S4C+ controller and an ABB IRB 1400 series robot. Study will include servo and robotic theory regarding hardware, firmware, software, design and maintenance, as well as the origins and future of robotic systems in industry. Hands on set-up and programming are included in the training. (2 + 2) On demand Prerequisite: PLC230</p>
<p>PHY252 PHYSICS: ELECTRICITY AND MAGNETISM 4 Cr. Hrs. An algebra based course covering electricity and magnetism, light and optical concepts, and basic concepts of modern physics. It includes problem solving, laboratory work and the writing of technical lab reports. (3+3) S Prerequisite: MTH109, MTH112</p>	<p>PLC270 INSTRUMENTATION &amp; CONTROLS II 3 Cr. Hrs. This course is an advanced study of the operation and troubleshooting of Industrial Instrumentation and Control systems. The focus will be on the programming of stand alone controllers and PLC based control systems. The concepts of temperature, pressure, level and flow will be discussed, as well as the transmitters that connect the analog sensor signals to the analog I/O. (2 + 2) Spring Prerequisites: EET265, PLC200 or instructor's permission</p>
<p>PLC200 PROGRAMMABLE CONTROLLER I 3 Cr. Hrs. A study of the installation, programming and troubleshooting of programmable controlled systems, currently used in an industrial environment. The primary PLC used for this class will be the Allen Bradley SLC-500 and PLC-5 units, using RSLogix and RSLinx software. The focus will be on Engineering and Maintenance tasks performed with PLC systems. This course was formerly RTI279 &amp; EET251. (2+2) F &amp; S Prerequisite: EET194 or EET131</p>	<p>PNE105 EFFECTIVE COMMUNICATION SKILLS FOR THE HEALTH CARE PROFESSIONAL 1 Cr. Hr. The ability of health care professionals to communicate accurately and effectively in the context of a helping relationship is vital. The course provides tools with which to establish open therapeutic communication with clients, foster teamwork with colleagues, and deal with conflict and aggression in a constructive manner. (1+0) SU</p>
<p>PLC210 PROGRAMMABLE CONTROLLER II (AB) 3 Cr. Hrs. This course is an advanced study of the Allen Bradley SLC-500 and PLC-5 Programmable Controller instruction set, and hardware interface systems. PLC networks such as Remote I/O and DH+ are discussed, as well as Ethernet interfaces. Students will study industrial applications of the PLC's focusing on problem solving and project completion. This course was formerly EET253 (2+2) S Prerequisite: PLC200</p>	<p>PNE110 SPECIAL TOPICS IN PRACTICAL NURSING 1-4 Cr. Hrs. An independent study which focuses on a topic or selected problem in nursing, subject to the approval and supervision of an assigned nursing instructor. Content and methodology to be arranged on an individual basis. Credit will be determined by the nature and extent of the independent study. F, S, SU Prerequisite: Permission of the Dean of Allied Health &amp; Public Service</p>
<p>PLC220 PROGRAMMABLE CONTROLLER III 3 Cr. Hrs. An advanced study of human machine interfaces (HMIs) and peripherals to the industrial PLC. Students will learn how to create programs for hard panels (Panelview) units and computer based HMIs (Wonderware). Students will also be introduced to HMI scripting with a VBA type of interface. Students will learn how to setup, install and troubleshoot these systems. Students will study industrial applications of the PLC/HMI, focusing on problem solving and project design. (2+2) Prerequisite: PLC210, EET240</p>	<p>PNE120 ESSENTIALS OF PRACTICAL NURSING 8 Cr. Hrs. An introduction to the body of nursing knowledge and skills essential for safe and accurate delivery of care utilizing the nursing process. Basic therapeutic communication, multicultural concepts, IV therapy, fluid and electrolyte balance, and ethical concepts are introduced. (4+12) F, S Prerequisites: Admission to the Practical Nursing Program Co-requisites: BIO150 or BIO232, ENG111, PSY230</p>
<p>PLC230 SERVO/ROBOTIC SYSTEMS 3 Cr. Hrs. A course to study the various types of motion control in an industrial manufacturing environment. The focus will be on the operation and troubleshooting of DC and AC servo systems, as well as the associated sensors used in motion. The students will also learn the basics of robotic systems programming. (2+2) Prerequisite: PLC200, EET276, or Instructor Permission</p>	<p>PNE121 NURSING CARE OF MOTHER AND NEWBORN 2.5 Cr. Hrs. This course focuses on nursing care of women related to reproductive health patterns. Emphasis is placed on pregnancy, childbirth, postpartum, and the newborn with nursing care directed in a family-centered holistic approach. Selected women's health issues and potential complications are included that pertain to the childbearing cycle. Legal and ethical directives are reviewed. (3+6) F, S Prerequisites: PNE120, PSY230 Co-requisites: BIO131, NRS110, PNE122</p>

- PNE122 NURSING CARE OF THE CHILD** 2.5 Cr. Hrs.  
This course focuses on nursing care of the child from infancy through adolescence with health care needs. Emphasis is placed on growth and developmental concepts with nursing care directed in a family-centered holistic approach. Health promotion, maintenance, and restoration of the child are examined. Legal and ethical directives are reviewed.  
(3+6) F, S  
Prerequisites: PNE120, PSY230  
Co-requisites: BIO131, NRS110, PNE121
- PNE123 NURSING CARE OF ADULTS I** 5 Cr. Hrs.  
Focuses on the care of adults with both acute and chronic medical and surgical conditions. A body systems approach is utilized. Mental health concepts and basic concepts of bioterrorism are introduced. Students continue to develop skills in problem solving through the use of the nursing process as applied to individual situations.  
(6+12) S, SU  
Prerequisites: PNE120  
Co-requisite: NRS110
- PNE124 NURSING CARE OF ADULTS I** 5 Cr. Hrs.  
The course builds on previous knowledge and concepts. Acute and chronic conditions of adults are presented over the remaining body systems. Legal issues in practical nursing are discussed as well as the leadership / management role of the practical nurse in caring for groups of individuals.  
(6+16) F, SU  
Prerequisites: PNE120, NRS110, PNE121, PNE122, PNE123  
Co-requisite: PSY110
- PSY110 GENERAL PSYCHOLOGY** 3 Cr. Hrs.  
This course examines the complex individual, the many factors believed to drive the individual and the resulting behavior. Students discuss empirical investigation and learn how to use these methods as tools in the discovery of individual functioning. This class also explores specific area of inquiry such as cognition, social and developmental psychology, learning, perception, consciousness, organizational, and health psychology. Personality, abnormal behavior, and psychological therapies are discussed.  
(3+0) F, S, SU  
Co-requisite: ENG111
- PSY210 ABNORMAL PSYCHOLOGY** 3 Cr. Hrs.  
This course is designed to provide students with an understanding of maladaptive behavior, its causes and consequences. Emphasis is on research methods and clinical assessment skills. Utilizing the DSMIV, special emphasis is placed on symptom recognition and treatment planning of psychological disorders. The impact of mental illness on the client's interpersonal relationships as well as cultural differences and societal response to mental illness will be explored.  
(3+0) F, S, SU  
Prerequisite: PSY110  
Co-requisite: ENG111
- PSY220 SOCIAL PSYCHOLOGY** 3 Cr. Hrs.  
This course provides students with the opportunity to explore the influences of other people, groups, and situations on the individual. Students should also gain a basic understanding of the research process and how it is used to investigate social psychological issues. Topics covered in this class include social perception and cognition, social influence, social relationships and applied social psychology. Students will have many opportunities to apply their new knowledge to critical thinking exercises and group projects.  
(3+0) S  
Prerequisite: PSY110
- PSY230 HUMAN GROWTH AND DEVELOPMENT** 3 Cr. Hrs.  
This course addresses the study of human development over the entire life span. Topics included in this course are emotional, cognitive, moral, social, and biological development. In addition to these topics, this course offers an analysis of the interaction of human characteristics within the individual and the relationship between individuals, environment, and culture at various stages of development.  
(3+0) F, S, SU  
Prerequisite: PSY110
- PSY240 PSYCHOLOGY OF ORGANIZATIONAL BEHAVIOR** 3 Cr. Hrs.  
This course is designed to introduce the students to the psychological and social influences in the work world. Emphasis is on communication, motivation, beliefs, values, attitude, structure, and changes as these influence the behavior of management and employees. A special emphasis will be placed on small group dynamics.  
(3+0) F  
Prerequisite: PSY110
- PSY260 FORENSIC PSYCHOLOGY** 3 Cr. Hrs.  
This course allows students to appreciate the interaction between psychology and the criminal justice field. Students will become familiar with the application of psychological theory, principles, and concepts to both the civil and criminal justice system.  
Prerequisite: PSY110
- QCT100 QUALITY CONCEPTS** 3 Cr. Hrs.  
This class examines reasons for and philosophies leading to quality. We will look at quality from management, practitioner, and customer perspectives.  
Students concentrate on quality problem solving and process control tools. Course work includes measurement system analysis and control charting principles. In addition, the student is introduced to probability and studies philosophies espoused by Deming, Crosby, and Juran.  
(3+0) F  
Prerequisite: MTH090
- QCT131 QUALITY FOR LEAN MFG** 3 Cr. Hrs.  
This course deals with managing production operations in manufacturing plant. Two topics, "The 5S's: Workplace Organization" and "Mistake-Proof It!" prepare the student for a "Lean Manufacturing" project. Course is web based. Instructor is available for consultation via e-mail and telephone.  
(2+2) On Demand  
Prerequisite: QCT100 & Ability to Access Web Courses

- QCT141 PRECISION MEASUREMENT** 3 Cr. Hrs.  
This course provides the student with theory and skills needed to perform dimensional inspections. Students will learn to study a part print, select, and use the proper measuring tool(s). Concepts introduced include precision, discrimination, accuracy and calibration. Previously learned print reading skills are expanded to include Geometric Dimensioning and Tolerancing.  
(3+0) F, S, SU  
Prerequisite: MET110 or RTI121 or work with part drawings in occupation. MET 103, Applied Geometry & Trigonometry recommended.
- QCT142 ADVANCED CONCEPTS OF G D & T** 3 Cr. Hrs.  
This second course in geometric dimensioning and tolerancing requires the student to already have an understanding of the basics of GD&T. There are more in depth discussions on select topics not covered in detail in fundamentals classes. Examples are more complex and include explanations of concepts that create problems in the workplace. A method for dealing with tolerance stacks, another layer of GD&T expertise, will be demonstrated and practiced.  
(2+2) F-Day, S-Eve  
Prerequisite: MET110 or QCT141
- QCT243 ADVANCED QUALITY IMPROVEMENT** 3 Cr. Hrs.  
This course is one of a series of quality classes. The student learns more complex quality improvement methods by studying at least three of the following distinct topics:  
Advanced SPC; Six Sigma Start-Up; DOE: Screening Experiments Measurement Systems Analysis; and Problem Solving.  
Topics are selected based on student's work experience and previously completed quality course content.  
All but two sessions may take place via the internet. Two, three hour laboratory workshops, are planned for Design of Experiment and Cp, CpK practice.  
(2+3) S - Day  
Prerequisite: QCT100 & Ability to Access Web Courses
- QCT250 CERTIFIED QUALITY TECHNICIAN/  
CERTIFIED MECHANICAL INSPECTOR REVIEW** 3 Cr. Hrs.  
Review of the requirements and topics to become certified as an American Society for Quality Control Technician or Mechanical Inspector.  
(3+0) On Demand  
Prerequisite: QCT100, QCT141
- REA210 REAL ESTATE PRINCIPLES** 3 Cr. Hrs.  
This is an introductory course taught in accordance with guidelines set by the National and Ohio Real Estate Associations, and the Ohio Real Estate Commission. It is designed for professional real estate people, as well as the general public. The course covers elementary characteristics of real estate and various influences on real estate values and basic real estate math. It also is a foundation for further study and preparation of securing a sales license.  
(3+0) F - Weekend, S - Weekend
- REA220 REAL ESTATE LAW** 3 Cr. Hrs.  
This is a study of all the areas of law dealing with real estate. Emphasis is on the law of agency as applied to real estate brokers and salespersons.  
Law of fixtures, estates, leases, conveying of real estate, real estate managers, license laws of Ohio, zoning, cooperatives, and condominiums are also included. This prepares students for sales license testing.  
(3+0) F - Weekend, S - Weekend
- REA230 REAL ESTATE FINANCE** 3 Cr. Hrs.  
This is an examination of the nature of financing real estate. Primary consideration is understanding mortgage loans and the mortgage market. The effects of governmental monetary and fiscal policies are also considered. Qualifying applicants and loan procedures are discussed throughout. This is a required course to prepare students for sales license testing.  
(3+0) F - Weekend, S - Weekend
- REA240 REAL ESTATE APPRAISAL** 3 Cr. Hrs.  
Theory and principles of appraising urban real property using the three basic techniques of appraising are studied in depth. A term project is assigned to give the students practical experiences in applying these techniques. This is a required course to prepare students for sales license testing.  
(3+0) F - Weekend, S - Weekend
- SPN111 SPANISH I** 4 Cr. Hrs.  
Introduction to Spanish through oral-aural drills, controlled conversations, reading and writing, with attention paid to grammatical structures and cultural awareness. Spanish I is the first half of a two-semester sequence designed primarily for beginners.  
(4+0) F
- SPN112 SPANISH II** 4 Cr. Hrs.  
Continuation of Introduction to Spanish with practice in speaking, reading, writing, and listening comprehension conducted within a culturally significant framework.  
(4+0) S  
Prerequisite: SPN111 or permission of instructor
- SSC101 SOCIOLOGY** 3 Cr. Hrs.  
An introduction to the sociological perspective with a focus on the United States. "Order" and "conflict" theories are applied to broad areas of sociological concern, such as social inequality, sexual inequality, work and family, law and crime, race and ethnic relations, education and popular culture, modern urbanism, politics of food, health care, and the global society.  
(3+0) F, S, SU  
Co-requisite: ENG111
- SSC110 GENERAL ANTHROPOLOGY** 3 Cr. Hrs.  
Introduction to anthropological theory and observation. Topics will include a range of cultural phenomena, including evolution, adaptation, ecology, language, kinship, religion, and status systems. Emphasis is placed on cross-cultural perspectives.  
(3+0) S  
Co-requisite: ENG111
- SSC120 AMERICAN GOVERNMENT** 3 Cr. Hrs.  
A study of power as it occurs in the formation and implementation of public policy in the United States; based on the recognition that politics is an activity that creates the "realm of we" and molds personal identities. Special attention is given to the concepts of politics, justice, and democracy as a basis for examining our responsibility in the public realm. Topics covered are media, interest groups, political parties and campaigns, federal government structure and process, effects of power in domestic and foreign affairs, and making democracy.  
(3+0) F, SU  
Co-requisite: ENG111

SSC130 COMPARATIVE GOVERNMENT	3 Cr. Hrs.	VCT111 LAYOUT & DESIGN	3 Cr. Hrs.
A study of contemporary political systems, processes and policies of Western and non-Western countries. This will include aspects of political processes such as interest groups, political parties, elections, political socialization, and political culture. (3+0) S Co-requisite: ENG111		This course covers the relationship among various design elements: balance, proportion, typography, and layout. Message composition, art presentation, copy layouts, the design process, and page makeup will be analyzed using current layout software. Lab Fee (2+2) S	
SSC210 CULTURAL DIVERSITY	3 Cr. Hrs.	VCT182 PHOTOGRAPHY	3 Cr. Hrs.
Explores ways that our society has served as a context for either more or less "cultural diversity." Emphasizes how historical relations among different people have affected images of "self" and "others" in U.S. society. Topics include thinking about culture, historical patterns and methods, the "American dilemma," race and class, and culture and gender. (3+0) F, S, SU Co-requisite: ENG111		This course is an introductory course, teaching basic camera and PhotoShop skills. The main emphasis of this course will be on camera operations and the capture of visual situations on film. PhotoShop techniques will be limited to cropping, contrast and brightness, removal of unwanted flaws, and other correcting procedures. (1+4) F - Day, S - Eve	
STA220 STATISTICS	3 Cr. Hrs.	VCT204 CONCEPTS OF VISUAL COMMUNICATIONS	3 Cr. Hrs.
This is an introductory course in the principles of collecting, presenting, and analyzing data. Major topics of study include mean, median, mode, standard deviation, proportion, probabilities, and sampling. Methods of statistical analysis involve estimation, hypothesis testing, regression, correlation, and analysis of variance (ANOVA). (3+0) F - Day & Eve, S - Day & Eve, SU - Day & Eve Prerequisite: MTH080		This is an overview of advanced visual communication concepts including problem solving, research, ideation, design, script writing, storyboarding, training techniques, proposal preparation, cost estimating, and analysis. Overall project management techniques and environmental factors are covered in depth. (2+2) S	
TRN100 TRACTOR-TRAILER DRIVER REFRESHER	5 Cr. Hrs.	VCT205 VISUAL COMMUNICATION	2 Cr. Hrs.
This course will provide students with a classroom refresher and additional driving experience. This program consists of 100 hours, including 50 hours of classroom study and 50 lab hours of driving and observing on the range and on the road. Students who successfully complete the course, in addition to TRN200, will be eligible for CDL testing.		An overview designed to teach the student about the world of visual communication-how visual communication changes the world, how to use it effectively, and how it impacts the way we live. (1+2) S	
TRN150 STRAIGHT TRUCK DRIVER	7 Cr. Hrs.	VCT260 3D COMPUTER ANIMATION	3 Cr. Hrs.
This course will provide students with the basic knowledge and practical skills to become an entry-level straight truck driver. This program consists of 150 hours, including 50 hours of classroom study and 100 lab hours of driving and observing on the range and on the road. Students who successfully complete the course will be eligible for CDL testing.		An introduction of the basics necessary to create 3-dimensional images and animated presentations. The student will be able to create realistic still images and animated presentations using 3-dimensional modeling, rendering, and animation. Computer experience required. Lab Fee (2+2) F	
TRN200 TRACTOR-TRAILER DRIVER	9 Cr. Hrs.	VCT266 MULTIMEDIA PRODUCTION	3 Cr. Hrs.
This course will provide students with the basic knowledge and practical skills to become an entry-level tractor-trailer driver. This program consists of 200 hours, including 50 hours of classroom study and 150 lab hours of driving and observing on the range and on the road. Students who successfully complete the course will be eligible for CDL testing. F, S, SU		This is the study of multimedia through student exploration and experimentation in various visual presentation technologies including digital media. Emphasis will be on design and production of total presentations by planning content and using a variety of software and hardware. (2+2) S Prerequisite: CIS129 and VCT268	
VCT108 PHOTO EDITING	2 Cr. Hrs.	VCT268 VIDEO PRODUCTION	3 Cr. Hrs.
This course introduces the student to the fundamental process of creating camera-ready copy and art, color separation and proofing, image manipulation, scanning, and photo conversion methods. Various software packages, including Photoshop, will be investigated. Basic computer knowledge required. Should be taken in conjunction with Photography. Lab Fee (1+2) F		The study of video production is to provide a basic knowledge of the process used in pre-production, production, and post-production activities. Video recording theory, concept planning, and production techniques, and linear and non-linear editing will be studied using a variety of hardware and software to accomplish the project objectives. (2+2) F	
		VCT289 VCT CO-OP EXPERIENCE	3 Cr. Hrs.
		This is a work experience in visual communications. The student is accepted on the basis of academic progress and available work site at the College or an outside organization. Enrollment with instructor permission. (1+20) F, S, SU	

# Notes

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# Notes

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# Personnel Directory

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## BOARD OF TRUSTEES

Steven Lankenau ..... Napoleon  
Joan M. Aschliman ..... Archbold  
Sue Derek ..... Antwerp  
Peter C. Beck ..... Napoleon  
Vond Hall ..... Archbold  
Michael J. Faber ..... Defiance  
Jean Hubbard ..... Defiance  
Philip R. McCartney ..... Bryan

## EXECUTIVE ADMINISTRATION

### BETTY YOUNG, President

A.S., Ohio University  
B.B.A. Ohio University  
M.Ed. Ohio University  
Ph.D., Ohio University  
J.D. Capital University Law School  
L.L.M. Capital University Law School  
09/01/03

### LYNDA VONDEYLEN, Executive Secretary President's Office

A.A.B., Northwest Technical College  
10/10/83

### THOMAS L. STUCKEY, Executive Vice President

B.S., Goshen College  
M.S., Bowling Green State University  
Ph.D., Bowling Green State University  
08/10/98

### MICHAEL BROWN, Director of Public Relations & Marketing

B.A., Saint Michael's College  
05/02/05

### LINDA CARR, Chief Learning Officer

B.A., Morehead State University  
M.A., Morehead State University  
Ph.D., Ohio University  
09/25/06

### DENIS CIACIUCH, Director of Human Resources

B.S. University of Toledo  
09/07/05

### JEFFREY FERREZAN, Associate Vice President for Community and Legislative Relations

B.S. Youngstown State University  
M.B.A. Franklin University  
02/09/04

### NOREEN MULLENS, Special Assistant to the President for Initiatives

B.S., Ohio University  
M.Ed., University of Toledo  
01/03/06

### MARTIN WHITE, Chief Information Officer

B.A. University of Toledo  
M.S. Eastern Michigan University  
12/10/01

### ROBBIN WILCOX, Director of Development

A.A.B. Jackson Community College  
B.A., Tri-State University  
08/01/06

## DEANS

### LANA EVANS, Dean of Arts & Sciences

B.B.A. Marshall University  
M.Ed., University of Toledo  
07/22/02  
Kellogg Certified Developmental Educator

### CINDY KRUEGER, Dean of Allied Health and Public Service

A.D.N., Owens Technical College  
B.S.N., Bowling Green State University  
M.S.N., Medical College of Ohio  
08/01/89

### THOMAS WYLIE, Dean of Engineering Technologies/Associate V.P. of Workforce Development

B.S., Bowling Green State University  
M.Ed., Bowling Green State University  
09/01/00

### LAWRENCE ZACHRICH, Dean of Business

B.S., Bowling Green State University  
M.Ed., Bowling Green State University  
Ph.D., Bowling Green State University  
03/27/78

## STAFF

### CATHY ANKNEY, Food Preparation Worker

10/08/01

### ROBERT AUSTERMILLER, Custodian

07/01/83

### LETTY BADENHOP, Financial Aid Counselor

A.A.B., University of Toledo  
Community & Technical College  
06/03/96

### HOLLY BARTON, Allied Health Department Chair

A.A.S., Michigan College  
B.S., Tri-State University  
M.S., Indiana Wesleyan University  
01/03/06

### DOUG BECK, Director of Plant Operations

07/14/86

### STACY BELKNAP, CAS Coordinator

A.A.B. Northwest State Community College  
10/25/04

### KRISTINE BELTZ, Custodian

12/08/92

KAREN BLEEKS, Tech Prep Director  
 B.A., Bowling Green State University  
 M.A., Bowling Green State University  
 08/02/99

GRETCHEN BOOSE, Admissions Coordinator/Student Success Advocate  
 B.A., University of Oklahoma  
 M.A., Heidelberg College  
 07/17/00

NATALIE BRANDON, Coordinator Career Services/Student Success Advocate  
 B.S., Defiance College  
 M.A., Bowling Green State University  
 09/18/86

MARSHA BUEHRER, Secretary - Allied Health & Public Services  
 A.A.B., Northwest State Community College  
 03/22/93

CHERYL BURKE, Custodian  
 A.A.S., Northwest State Community College  
 12/06/93

DANIEL BURKLO, Engineering Tech Department Chair  
 A.A.S. University of Toledo  
 B.S. I.P.F.W. Purdue University Branch  
 01/14/02

RACHEL COBB, Food Preparation Worker  
 10/09/06

KYLE COOPER, Director of Technology  
 A.A.S. Northwest State Community College  
 4/18/05

JENNIFER CORDES, Copy Center Assistant  
 04/02/97

KATHY DOMINIQUE, Secretary, Arts & Sciences  
 A.A.B., Northwest Technical College  
 07/11/78

TRACY DOPP, Copy Center Assistant  
 10/01/02

NANCY DUNSON, Accountant  
 B.A. Bluffton University  
 A.A.B., Northwest State Community College  
 08/29/90

ANGELA DURHAM, Copy Center Operator/Mailroom Clerk  
 Diploma, International Business College  
 10/02/86

DREAMA ECK, Food Preparation Worker  
 09/18/06

MELISSA FABER, Arts & Sciences Department Chair  
 B.S., Defiance College  
 Ph.D., University of Toledo  
 08/18/98

AMY A FRANCIS, Director of Financial Aid/Registrar  
 B.S., The Defiance College  
 03/27/06

CHERYL GEER, Administrative Assistant/Student Success Advocate Liaison (Metamora)  
 B.I.S., Lourdes College  
 05/01/06

JULIE GILGENBACH, Bookstore Clerk, Office  
 08/20/90

GLORIA GRABER, Secretary Engineering Technologies  
 A.A.B., Northwest State Community College  
 12/02/85

BETSY GRAHN, Secretary, Admissions  
 A.A.S., Northwest State Community College  
 B.S. Defiance College  
 10/26/98

VICKI GRIESER, Food Preparation Worker  
 09/18/06

HEATH GRIM, Technology/Network Technician  
 A.A.B., Northwest State Community College  
 05/10/04

BRADLY HATHAWAY, Technology/ Help Desk  
 B.A. Bowling Green State University  
 6/27/02

DAVID HEER, Maintenance Technician  
 01/24/05

C. ANN HELM, Coordinator of Practical Nursing  
 A.S.N., Ball State University  
 B.S.N., Ball State University  
 M.S.N., Medical College of Ohio  
 07/22/04

LOU HELSEL, Registrar's Assistant  
 A.A.B., Northwest Technical College  
 09/01/88

CHRIS HESTERMAN, Receptionist/Switchboard Scheduler  
 04/30/91

LOU HISSONG, Switchboard/Receptionist  
 A.A.B., Northwest State Community College  
 10/11/04

JAMES HOOPS, Assistant Chief Financial Officer/Chief Operations Officer  
 B.S., Northwest State University of Louisiana  
 08/01/06

BETTE HUGHES, Nursing Lab Coordinator A.D.N., Northwest Technical College B.S.N., Bowling Green State University M.S.N., Medical College of Ohio 08/16/04	ROBERTA OBERLIN, Food Preparation Worker 10/06/06
TERRY KING, Director of Information Systems & Institutional Research 02/01/78	JOHN ORDWAY, Maintenance Technician 02/04/91
MARILYN KINSMAN, Coordinator of Food Service 08/21/89	AMANDA POTTS, Public Relations & Marketing Assistant B.S., Bowling Green State University 3/27/06
CONNIE KLINGSHIRN, Assistant Registrar/Financial Aid M.B.O.L., Defiance College 08/16/06	RICHARD POWELL, Industrial Technologies Department Chair B.S., The Defiance College M.A., Winebrenner Theological Seminary 01/11/99
JOHN KROCHMALNY, Industrial Training Specialist A.T.S. Terra Community College B.S., Bowling Green State University 10/15/01	JUDY PRESTON, Training Coordinator Business and Industry B.S., Waynesburg College 07/01/04
MARY KRUSE, PT Secretary Allied Health A.A.B., University of Toledo Community & Technical College 06/09/99	LISA RAMIREZ, Administrative Secretary, Human Resources A.A.B., Owens Community College 10/18/04
JENNY LOVETT, Director of Grants and Research B.A., Cornell University Ph.D., Washington University 10/02/06	ENCIL REBEAU, Chief of Police Diploma, Ohio State Patrol Academy 06/03/02
PAT MAASSEL, Food Preparation Worker 08/07/95	GEORGE RETCHER, Custodian 08/02/99
ALVIN MANZ, Programmer I A.A.B. Northwest State Community College 05/20/02	JASON RICKENBERG, Student Success Advocate B.B.A., Tiffin University M.B.O.L., The Defiance College 03/07/05
KELLY MATTIN, Student Accounts Assistant A.A.B., Northwest State Community College 09/30/91	MINERVA RIVAS, Library Assistant A.A.B., Northwest Technical College 11/22/88
DAVID NIESE, Custodian 02/23/98	CHERIE RIX, Student Success Center Tutoring Lab Supervisor A.A.B., Northwest State Technical College B.S., Defiance College 08/23/04
VICTORIA NIESE, Food Preparation Worker 03/17/03	BEVERLY ROBINSON, Secretary, Business A.A.B., Northwest Technical College 09/02/86
TAMARA NORRIS, Computer Training Coordinator B.Ed., The University of Toledo M.B.A., The University of Toledo 10/17/05	ROSALIE ROSEBROCK, Administrative Secretary, Executive Vice President B.S.C., International Business College A.T.S. Northwest Technical College 11/17/87
ANNETTE OBERHAUS, Clinical Teaching Assistant Clinical Teaching Assistant B.S.N. Bowling Green State University 8/30/06	KRISTIANA ROTROFF, Director of Library B.A., The Ohio State University M.L.S., Kent State University 10/28/02
LOWELL OBERHAUS, Programmer A.A.B., Northwest Technical College 06/01/93	MICHAEL SCHNEIDER, Network/Systems Administrator A.A.S., Parkland College 11/08/04

CAROL SCHWARTZ, Coordinator of Distance Learning  
 A.A., Lourdes College  
 B.S., University of Toledo  
 M.Ed., University of Toledo  
 04/10/06

KAREN SHORT, Director of Practical Nursing Program  
 B.S.N., Goshen College  
 M.S.N., Medical College of Ohio  
 09/01/89

REBECCA SLATTMAN, Receptionist  
 03/04/02

DEB SMITH, Bookstore Clerk  
 09/15/00

SANDRA SMITHHISLER, Custodian  
 02/10/97

KATHY SOARDS, Director of Finance & Business Services  
 A.A.B., Northwest Technical College  
 03/30/98

LYNN SPEISER, Staff Accountant  
 B.S., Bowling Green State University  
 04/23/03

MARK THOMPSON, Director of Admissions and Alumni Relations  
 B.A., Thiel College  
 09/01/05

GUILLERMINA TIJERINA, Student Accounts  
 A.A.B., Northwest Technical College  
 05/23/83

JILL VANHORN, Bookstore Clerk  
 01/03/94

KEITH VANHORN, Coordinator Student Activities, Testing, & Counseling  
 B.A., College of Wooster  
 M.S., St. Francis College  
 11/03/86

BETHANY VARGAS, Administrative Assistant – CLO & CIO  
 10/23/06

PETER WILHELM, Arts and Historic Preservation Department Chair  
 B.S., Bowling Green State University  
 M.A., Bowling Green State University  
 07/01/00

MARY ANN WINTERS, Food Preparation Worker  
 10/06/06

ALAN WORD, Interim Chief of Police  
 B.S., The Defiance College  
 01/03/06

LORI YODER, Secretary, Division - Community and Workforce Development  
 A.A.B., Northwest State Community College  
 03/07/05

LARRY ZUVERS, Bookstore Manager  
 B.S., Defiance College  
 07/09/90

## FACULTY

PATTI ALTMAN, Instructor Nursing  
 B.S.N., Bowling Green State University  
 M.S.N., Medical College of Ohio  
 05/29/90

DIANE BECHTEL, Instructor Business Technologies  
 B.A., California State College  
 B.S., Bowling Green State University  
 M.B.A., Bowling Green State University  
 12/10/79

GERALD BERGMAN, Instructor Arts & Sciences  
 A.A., Oakland Community College  
 B.S., Wayne State University  
 M.Ed., Wayne State University  
 M.A., Bowling Green State University  
 Ph.D., Wayne State University  
 M.S.B.S., Medical College of Ohio  
 M.P.H., NW Ohio Consortium (Bowling Green State University, Medical  
 College of Ohio, and University of Toledo)  
 M.S., Medical College of Ohio  
 09/02/86

LORI BIRD, Instructor Nursing  
 B.S.N., University of Cincinnati  
 M.S., Ball State University  
 08/29/88

CAROLYN BROWN, Instructor Business Technologies  
 B.S., University of Toledo  
 M.Ed., Bowling Green State University  
 08/28/73

WILLIAM CHAPLIN, Industrial Trainer Engineering Technologies  
 B.A., University of Toledo  
 M.B.A., University of Toledo  
 08/18/98

CYNTHIA CONAWAY-MAVROIDIS, Instructor, Arts & Sciences  
 B.S. Eastern Michigan University  
 M.S. Cleveland State University  
 08/25/03

CHERYL CONWAY, Instructor Arts & Sciences  
 B.A., College of Wooster  
 M.A. Ed., University of Akron  
 09/01/89

CHRISTINE COPPLE, Instructor Arts & Sciences  
 B.S. Valparaiso University  
 M.S. Indiana University  
 01/12/04

- WILLIAM CULBERTSON, Instructor Arts & Sciences  
B.S., Bowling Green State University  
M.A., Bowling Green State University  
Ph.D., University of Toledo  
09/02/86
- STEVE DICK, Instructor, Engineering Technologies  
B.S. Eastern Michigan University  
M.L.S. Eastern Michigan University  
08/25/03
- PAMELA DONALDSON, Instructor  
Human Services  
B.S.S.W., Bowling Green State University  
M.S.S.A., Case Western Reserve  
University  
08/23/94
- COLIN DOOLITTLE, Instructor, Engineering Technologies  
A.T.S. Northwest State Community College  
08/16/06
- WILLIAM EICHENAUER, Instructor Business Technologies  
A.A.B., Northwest Technical College  
B.S., Defiance College  
M.B.A., Indiana University  
01/05/99
- KENNETH A. ESTERLINE, Instructor Business Technologies  
B.S., Bowling Green State University  
M.B.E., Bowling Green State University  
09/02/86
- SHERRIE GEITGEY, Instructor  
Business Technologies  
B.S., Bowling Green State University  
M.O.D., Bowling Green State University  
09/02/86
- CATHY GRITEMAN, Instructor Nursing  
B.S.N., Bowling Green State University  
M.S.N., Medical College of Ohio  
09/01/92
- DEBORAH HARTZELL, Instructor Nursing  
R.N., Parkview Hospital  
B.S.N., Bowling Green State University  
M.S.N., Medical College of Ohio  
09/03/91
- DONNA HERSHBERGER, Instructor Early Childhood Development  
B.S., West Virginia University  
M.A., West Virginia University  
03/30/88
- CHRISTINE HIGBIE, Instructor Nursing  
A.A.S., Owens Community College  
B.S., University of Phoenix  
01/09/06
- TONY HILLS, Instructor Business Technologies  
A.A.B., Northwest State Community College  
B.S., Defiance College  
08/18/94
- PATRICIA HOFBAUER, Instructor Early Childhood Development  
B.S., Bowling Green State University  
M.Ed., Bowling Green State University  
09/01/87
- SHERRY HOWARD, Instructor Arts & Sciences  
B.A., Harvard and Radcliffe Colleges  
M.A., Bowling Green State University  
08/23/94
- GARY KADESCH, Instructor Engineering Technologies  
A.A.S., Stautzenberger College  
09/02/86
- MIKEAL KOS, Instructor Nursing  
A.A.S., University of Rio Grande  
B.S., University of Akron  
M.S.N. University of Pheonix  
01/09/06
- ANDREW KOZAL, Instructor Criminal Justice  
B.A. Siena Heights University  
M.S., Bowling Green State University  
M.S.N. University of Pheonix  
08/19/02
- DANIEL LIGHT, Instructor Business Technologies  
B.S., Ohio State University  
M.A., Asbury Seminary  
09/02/86
- MINDY MANAHAN, Instructor Nursing  
A.A.S. Northwest State Community College  
B.S.N. Bowling Green State University  
M.S.N., Medical College of Ohio  
8/20/01
- PATTY MICHAELIS, Instructor Business Technologies  
B.S., Defiance College  
01/03/84
- JO McCORMICK, Instructor Arts & Sciences  
B.A. Adrian College  
M.A., Western Illinois University  
M.S.Ed., Western Illinois University  
Kellog Certified Developmental Educator
- DEBRA MIGNIN, Instructor Nursing  
B.S.N., Bowling Green State University  
M.S.N., Medical College of Ohio  
08/20/96
- CAROL MOORE, Instructor Business Technologies  
B.S., University of Toledo  
M.B.E., Bowling Green State University  
09/14/83

MARTHA PHILLIPS, Instructor Human Services  
B.S., Otterbein College  
M.S.S.A., Case Western Reserve University  
09/04/91

TERRY PHILLIPS, Instructor, Engineering Technologies  
B.S. University of Findlay  
08/25/03

VON PLESSNER, Instructor Business Technologies  
A.A.B., Northwest Technical College  
B.S., Defiance College  
M.B.A., University of Toledo  
09/03/85

CHRISTINE ROBINSON, Instructor Business Technologies  
A.A.B., Northwest Technical College  
B.S., Defiance College  
M.A., Bowling Green State University  
09/19/96

CHARLES ROONEY, Instructor Arts & Sciences  
B.A., State University of New York College at Potsdam  
M.A., University of Arkansas  
07/01/80

J. RICHARD SEALSCOTT, Instructor Business Technologies  
B.S., Bowling Green State University  
M.B.A., University of Dayton  
09/03/85

EDWARD SINGER, Instructor Arts & Sciences  
B.A., University of Notre Dame  
M.S., Ohio State University  
Ph.D., Ohio State University  
09/02/86

JON SPEER, Instructor Arts & Sciences  
B.S., Ohio Northern University  
Ohio Professional Engineer  
09/03/85

GREG TEFFT, Instructor Arts & Sciences  
B.A. Kentucky Christian College  
B.S., Bowling Green State University  
M.S. University of Toledo  
08/18/98

DIANNE WENDT, Instructor Nursing  
B.S.N., Ohio State University  
M.S.N., Medical College of Ohio  
11/30/92

# NSCC Advisory Committees

2007 - 2008

## BUSINESS MANAGEMENT ADVISORY COMMITTEE

Lance Bowsher Edgerton, Ohio	Jan Lauro Defiance County Juvenile Probation Bryan, Ohio
Valda Colbart Rurban Financial Corp. Defiance, Ohio	Jerry Mannin Defiance, Ohio
Doug Daoust Daoust Drugs, Inc. Defiance, Ohio	Linda Nofziger First Federal Savings & Loan Montpelier, Ohio
Bill Eichenauer NSCC Archbold, Ohio	Brent Schlegel Toledo, Ohio
Kenneth Esterline NSCC Archbold, Ohio	Bruce Vanarsdalen ITW Tomco Bryan, Ohio
Larry Harsila TRUFAST Corporation Bryan, Ohio	Greg Whitacre Bryan, Ohio
Jill Jacoby Autoform Tool & Mfg., Inc. Fremont, Indiana	Dr. Larry Zachrich NSCC Archbold, Ohio

## ACCOUNTING ADVISORY COMMITTEE

Diane Bechtel NSCC Archbold, Ohio	Toni Neuenschwander Archbold, Ohio
Pat Michaelis NSCC Archbold, Ohio	Jennifer Roth Napoleon, Ohio Randy Schroeder Farmers & Merchants State Bank Archbold, Ohio
Carol Moore NSCC Archbold, Ohio	Richard Sealscott NSCC Archbold, Ohio
Chris Lee Defiance City Schools Defiance, Ohio	Cindy Wendell Defiance, Ohio
Janet Wagner CK Technologies Montpelier, Ohio	Sue Irving Napoleon, Ohio

## EARLY CHILDHOOD ADVISORY COMMITTEE

Sherry Dewyer Hope School McClure, Ohio	April McNeil Hope School McClure, Ohio
Janet Engler NOCAC Defiance, Ohio	Deb Middleton NOCAC Defiance, Ohio
Toni Goeltenleuchter NOCAC	Pat Mobley Popular Ridge Training Station Defiance, Ohio
Donna Hershberger NSCC Archbold, Ohio	Melissa Rupp Enrichment Center Montpelier, Ohio
Elaine Krauss TLC Child Care Wauseon, Ohio	Marilyn Sachs OSU Extension Bryan, Ohio
Fred Coulter Defiance College Defiance, Ohio	Carole Schultz Lourdes College Sylvania, Ohio
Julie Mangas Four County Career Center Archbold, Ohio	Janet Yaros NOCAC Defiance, Ohio

## PARALEGAL ADVISORY COMMITTEE

Erwin Bandy Paulding, Ohio	Jennifer Eitnrear Oakwood, Ohio Pat Michaelis NSCC Archbold, Ohio
Judge Michael J. Bumb Fulton County Courthouse Wauseon, Ohio	Kathy Reed University of Toledo Toledo, Ohio Catherine Aldrich
Paul Croy Croy & Hendel Perrysburg, Ohio	

# NSCC Advisory Committees

2007 - 2008

## INFORMATION TECHNOLOGY ADVISORY COMMITTEE

NWOCA Defiance, Ohio	Nathan Nally Defiance, Ohio
Kevin Anderson Bryan, Ohio	Sam Petros Toledo, Ohio
Bill Brandt Defiance, Ohio	Von Plessner NSCC Archbold, Ohio
Kyle Cooper NSCC Archbold, Ohio	John Robinson RDSI Banking Systems Defiance, Ohio
Joe Ferrall Northwest Ohio Computer Association Archbold, Ohio	Mary Beth Royal Royal Computers Sales & Service New Bavaria, Ohio
Tony Hills NSCC Archbold, Ohio	Sandra Smith Edgerton Local Schools Edgerton, Ohio
Jim Hornyak Bryan, Ohio	Kati Weaks Liberty Center High School Liberty Center, Ohio
Terry King NSCC Archbold, Ohio Dan Light NSCC Archbold, Ohio Larae Meyer Napoleon, Ohio	Martin White NSCC Archbold, Ohio
David Nafziger Fulton Co. Auditor's Office Wauseon, Ohio	Bill Wolfrum The Ohio Art Company Bryan, Ohio Carolyn Brown

## OFFICE SERVICES ADVISORY COMMITTEE

NSCC Archbold, Ohio	Tenneco Automotive Napoleon, Ohio
Kathy Dominique NSCC Archbold, Ohio	Patsy Rittenhouse Alex Products, Inc. Ridgeville Corners, Ohio
Janello Donato Archbold Hospital Archbold, Ohio	Chris Robinson NSCC Archbold, Ohio
Tim Funchion Arrow Tru-Line, Inc. Archbold, Ohio	Sue Ruby Spherion Employment Agency Defiance, Ohio
Caitlyn Geren Henry County Hospital Napoleon, Ohio	Sheila Santiago Archbold Container Corp. Archbold, Ohio
Tim Iorio HR on Demand Toledo, Ohio	Marleen Shumaker Bryan, Ohio
Barb Lause NSCC Archbold, Ohio	Tim Iorio HR On Demand Toledo, Ohio (Currently being established)
Vida Ordaz	

# NSCC Advisory Committees

2007 - 2008

## CRIMINAL JUSTICE ADVISORY COMMITTEE

Judge Michael Bumb  
Fulton County Courthouse  
Wauseon, Ohio

Jim Dennis  
CCNO  
Stryker, Ohio

Jill Dewitz  
Adult Parole Authority  
Tiffin, Ohio

Don Knueve  
Defiance College  
Defiance, Ohio

Andrew Kozal  
NSCC  
Archbold, Ohio

Cindy A. Krueger  
NSCC  
Archbold, Ohio

Steve Lab  
Bowling Green State University  
Bowling Green, Ohio

Connie Maassel  
Adult Parole Authority  
Defiance, Ohio

Darryl Miller  
Four County Career Center  
Archbold, Ohio

Sheriff John Nye  
Henry County Sheriff Dept.  
Napoleon, Ohio

Steve Sonderguard  
Defiance College  
Defiance, Ohio

Susan Restiva  
Four County Career Center  
Archbold, Ohio

Asst. Chief Tim Tobias  
Defiance Police Department  
Defiance, Ohio

Chief Norman Walker  
Defiance Police Department  
Defiance, Ohio

Sheriff David Westrick  
Defiance Co. Sheriff Dept.  
Defiance, Ohio

## SUCCESS CENTER ADVISORY COMMITTEE

Charles Rooney  
NSCC  
Archbold, Ohio

Natalie Brandon  
NSCC  
Archbold, Ohio

Cheryl Conway  
NSCC  
Archbold, Ohio

Cathy Dukes  
Adult Basic Literacy Ed.  
Coordinator  
Four County Career Center

Darrell Handy  
General Tire  
Defiance, Ohio

Elisha Higginbotham  
Archbold, Ohio

Jan Lauro  
Defiance Co. Juvenile Probation  
Bryan, Ohio

Cecily Rohrs  
NSCC  
Archbold, Ohio

## ARTS AND SCIENCES ADVISORY COUNCIL

Representatives from the following sectors will be invited to serve on the Advisory Council:

Current Student (1)  
Program Graduates (2)  
Business and Industry (2)  
K-12 Education (2)  
Four-Year Private University (1)  
Four-Year Public University (1)

## PARAPROFESSIONAL ADVISORY COMMITTEE

Patricia Devlin Ed. D  
University of Toledo  
Toledo, Ohio

Jean Hefflinger  
NWOESC  
Wauseon, Ohio

Wendy Hogrefe  
NSCC  
Archbold, Ohio

Dennis Myers  
Wms. Co. Enrichment Ctr.  
Montpelier, Ohio

Sherry Dewyer  
Hope School  
McClure, Ohio

Donna Hershberger  
NSCC  
Archbold

Kathy Link  
NWOESC  
Wauseon, Ohio

Carol Shultz  
Lourdes College  
Sylvania, Ohio

Kerri Gearhart  
NWOESC  
Bryan, Ohio

Pat Hofbauer  
NSCC  
Archbold, Ohio

April McNeil  
Hope School  
McClure, Ohio

# NSCC Advisory Committees

2007 - 2008

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## HUMAN SERVICES ADVISORY COMMITTEE

Pat Deatrich-Daily, L.S.W.,  
C.C.D.C. III  
First Call For Help  
Napoleon

Pam Donaldson, L.I.S.W.  
NSCC  
Archbold, Ohio

Karen Moore, LISW  
The Turning Point  
Paulding, Ohio

Angie Franklin  
Northwest Ohio Community  
Action Commission  
Defiance, Ohio  
Marty Phillips, L.I.S.W  
NSCC  
Archbold, Ohio

Connie Planson, L.P.C.C.  
Maumee Valley Guidance Center  
Bryan, Ohio

Linda Schlacter-McDonald,  
CCDCII  
Five County Alcohol/Drug Program  
Bryan, Ohio

Dr. Deb Stanforth  
Easy Living  
Defiance, Ohio

## VISUAL COMMUNICATIONS TECHNOLOGY ADVISORY COMMITTEE

Rick Bolman  
Sauder Woodworking  
Archbold, Ohio

Tom Born  
Sherwood, Ohio

Jim Buchholz  
Four County Career Center  
Archbold, Ohio

Yvonne Dale  
Yvonne Dale Graphics  
Defiance, Ohio

Katie Delay  
Four County Career Center  
Archbold, Ohio

Sherrie Geitgey  
NSCC  
Archbold, Ohio

Kelly Goyings  
Natural Designs &  
Graphics  
Paulding, Ohio

Jeff Jameson  
Archbold, Ohio

Rex Lavoie  
Lavoie's Photograph, Inc.  
Bryan, Ohio

Chris Robinson  
NSCC  
Archbold, Ohio

Tera Newton  
Defiance High School  
Defiance, Ohio

# NSCC Advisory Committees

2007 - 2008

## NURSING ADVISORY COMMITTEE

Patti Altman, R.N.  
NSCC  
Archbold, Ohio

Lori Bird, R.N.  
NSCC  
Archbold, Ohio

Kathleen Boff, R.N., D.O.N.  
Defiance Regional Medical Center  
Defiance, Ohio

Cathy Carrier, R.N.

Annette Crews, R.N.  
St. Luke's Hospital  
Maumee, Ohio

Jan David, R.N., D.O.N.  
Community Hospital & Wellness  
Centers  
Bryan, Ohio

Cathy Day, R.N.  
Community Hospital & Wellness  
Centers  
Bryan, Ohio

Paul Dennison, L.P.N.  
Community Hospital & Wellness  
Center

Deborah Hartzell, R.N.  
NSCC  
Archbold, Ohio

Cindy Krueger, R.N.  
NSCC  
Archbold, Ohio

Jonathon Liechty, R.N.  
Parkview Hospital  
Fort Wayne, Indiana

Mindy Manahan  
NSCC  
Archbold, Ohio

Lynn Miser, R.N.  
Community Health Services  
Montpelier, Ohio

Susie Moore  
Harborside  
Bryan, Ohio

Karen Niese  
Defiance Regional Medical Center  
Defiance, Ohio

Sharon Reddington, R.N.  
Fulton County Health Center  
Wauseon, Ohio

Jo Short, R.N.  
Fulton County Health Center  
Wauseon, Ohio

Karen Short, R.N.  
NSCC  
Archbold, Ohio

Mary Jo Smallman, R.N.  
Fulton Manor  
Wauseon, Ohio

Beckey Snyder, R.N.  
Wms. County Combined Health  
Department

Dodi Thompson  
Mercy Hospital of Defiance  
Defiance, Ohio

Karen Walker, R.N.  
Four County Career Center  
Archbold, Ohio

Dianne Wendt, R.N.  
NSCC  
Archbold, Ohio

# Notes

2007 - 2008

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## COURSES ALREADY COMPLETED

FIRST SEMESTER

GRADE

SECOND SEMESTER

GRADE

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

THIRD SEMESTER

GRADE

FOURTH SEMESTER

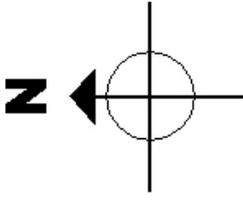
GRADE

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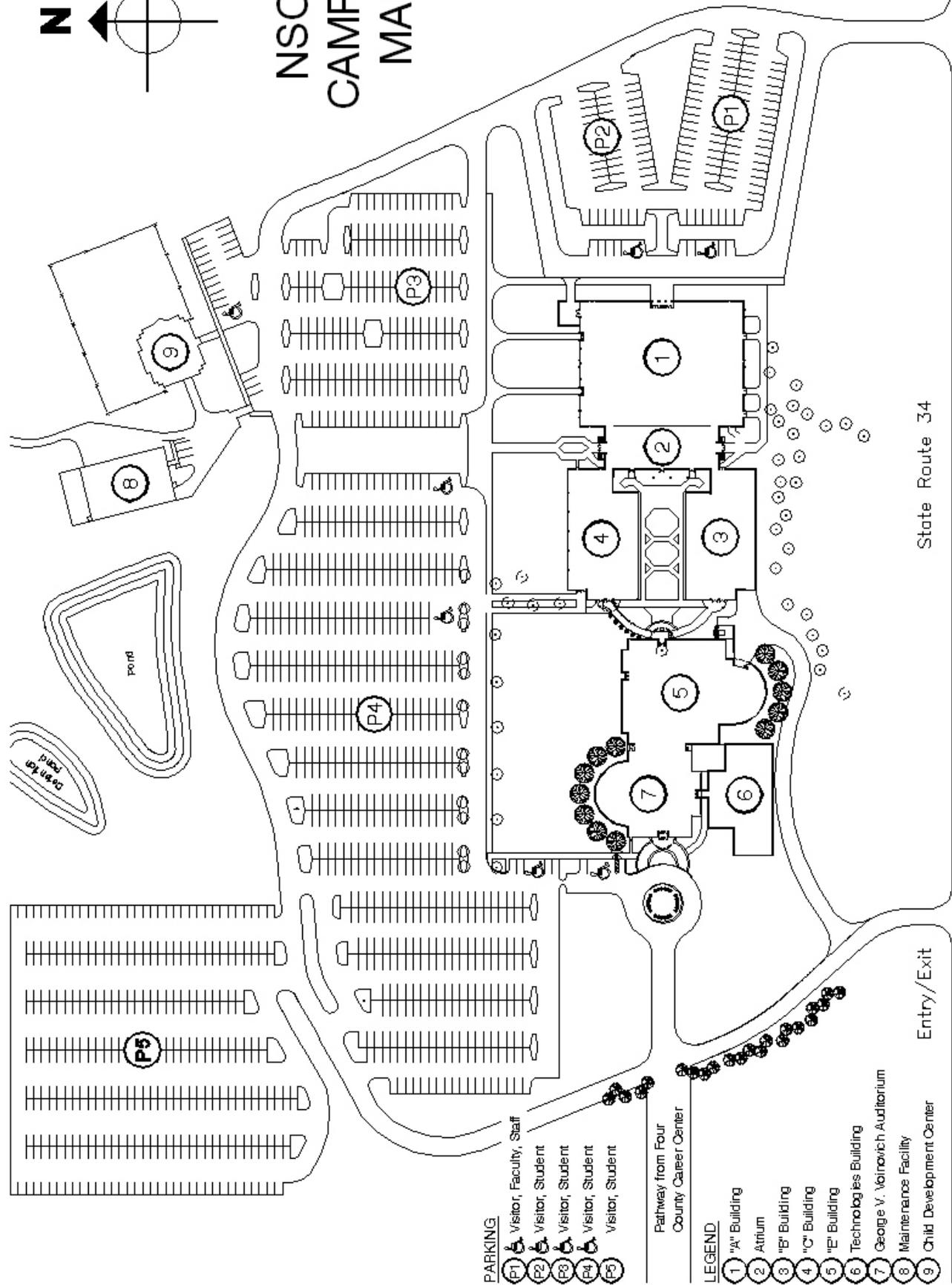
# ACADEMIC CALENDAR

2007 - 2008

SUMMER 2007		FALL 2007	
(W,TH) May 9 & 10	Open Registration 9:00 a.m. - 5:30 p.m.	(W) August 22	Classes Begin
(M) May 14	Summer Session I - Classes Begin \$15.00 late fee applies	(W-T) August 22 – 28	100% Refund
(F) May 25	Payment due by 4:00 pm to guarantee classes	(W-T) August 29 - September 4	75% Refund
(F) May 25	Bump day, students can be “bumped” for non-payment at 9:00 pm	(M) September 3	Holiday - College Closed
(M) May 28	Holiday - College Closed	(W-T) September 5- September 11	50% Refund
(M - F) May 29-June 1	Summer Open Registration	(W) September 12	No Refund
(M) June 4	Summer III - Classes Begin \$15.00 late fee applies	(W-SUN) November 21 - Thanksgiving Break - College Closed November 25	
(M-M) June 4-10	100% Refund	(M-SAT) December 10- December 15	Final Exam Week
(T-M) June 11-17	50% Refund	(SAT) December 15	Last day of semester
(M) June 25	Summer Session II - Classes Begin \$15.00 late fee applies		
(T) June 18	No Refund		
(T) June 26	Last day to withdraw (automatic “W”)		
(W) July 4	Holiday - College Closed		
(F) July 6	60% point of the semester, all financial aid earned		
(SAT) July 28	Last day of semester		



# NSCC CAMPUS MAP



**PARKING**

- P1 Visitor, Faculty, Staff
- P2 Visitor, Student
- P3 Visitor, Student
- P4 Visitor, Student
- P5 Visitor, Student

Pathway from Four  
County Career Center

**LEGEND**

- 1 "A" Building
- 2 Atrium
- 3 "B" Building
- 4 "C" Building
- 5 "E" Building
- 6 Technologies Building
- 7 George V. Voinovich Auditorium
- 8 Maintenance Facility
- 9 Child Development Center

Entry/Exit

State Route 34

Entry/Exit



**22600 State Route 34  
Archbold, Ohio 43502-9542  
(419) 267-5511  
[www.northweststate.edu](http://www.northweststate.edu)**

**It Makes  
You Think!**

A small yellow lightbulb icon is positioned above the word 'Think!' in the slogan.