

2009-2010
Academic Catalog



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

WELCOME FROM THE PRESIDENT AND BOARD CHAIRMAN



President's Welcome

All of us at Northwest State Community College welcome you to our college community. Northwest State's goal is to be an innovative college that is creating ways to reach out to you. The college is proud to have an excellent staff, faculty and facilities with a full array of support services that are available to all of our students. At Northwest State it is all about you – your future, your career and your success.

At Northwest State, opportunities come in many forms – the Applied Associate Degrees, Associate of Arts and Science Degree, as well as pathways to careers or bachelor degree programs. These are made available through partnerships with local high schools, career centers, colleges and universities. There are opportunities for certificate programs, licensure preparation and industry certification in various fields, and continuing education for professional development and personal interest. Custom Training Solutions (CTS), a division of Northwest State, offers specialized and customized training for the business and industry workforce.

The Northwest State Community College community looks forward to assisting you throughout your college experience by providing a quality education that is accessible and flexible enough to fit your busy lifestyle. Whether you are entering college directly from high school or returning to college later in life, we thank you for making Northwest State your first choice for providing you with a relevant curriculum that will transform your life.

Best wishes,

Dr. Thomas Stuckey
President



Chairman's Welcome

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. As the Chancellor of the Ohio Board of Regents stated during his recent visit to Northwest State, "Community colleges are the backbone of our effort to increase educational attainment. They are the most accessible, affordable parts of our educational system."

We welcome the opportunity to serve you. Thank you for letting us help fulfill your educational needs. Northwest State Community College...it really Makes You Think!

Sincerely,

Philip McCartney
Board of Trustees Chair

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Northwest State Community College reserves the right to make changes to any item contained herein as deemed necessary without notice. You are advised to consult your academic advisor or the appropriate College official for confirmation of matters that are essential to your programs of study. To meet graduation requirements, students are expected to follow the curriculum listed in the catalog in the year which they start. If continuous enrollment is not maintained, the catalog year would be updated.

IMPORTANT DATES AND COLLEGE PHONE NUMBERS

2009 – 2010 CLASS CALENDAR

Summer Semester

June 7	Classes begin
July 2	Holiday – College Closed
July 31	Last Day of Semester
August 2	Grades Due by 10 a.m.

Fall Semester

August 26	Classes Begin
September 5-7	Labor Day Holiday
October 21	Second 8 weeks begins
November 25-29	Thanksgiving – No Classes
December 14-19	Exam Week
December 19	Last Day of Semester
December 21	Grades Due by 10 a.m.

Spring Semester

January 11	Classes Begin
January 18	MLK Day–College Closed
March 15	Second 8 weeks begins
March 8-14	Spring Break
May 3-8	Exam Week
May 8	Last Day of Semester
May 8	Commencement
May 10	Grades Due by 10 a.m.



College Phone Numbers

Main Number (419) 267-5511

www.northweststate.edu

Offices

President's Office:	(419) 267-1366
Business Office:	(419) 267-1311
Admissions Office:	(419) 267-1320
Financial Aid Office:	(419) 267-1389
	(419) 267-1333
Registrar's Office:	(419) 267-1315

Student Resource Center

General Number	(419) 267-1242
Transfer Advising:	(419) 267-1353
Accessibility Services:	(419) 267-1457
Career Services:	(419) 267-1330
Educational Planning:	(419) 267-1316
Success Center:	(419) 267-1447
Library Services:	(419) 267-1274
Student Activities:	(419) 267-1303

Academics

Vice President of Academics:	(419) 267-1301
Allied Health and Public Services:	(419) 267-1345
Arts & Sciences:	(419) 267-1247
Business Technologies:	(419) 267-1351
Engineering Technologies:	(419) 267-1394
Nursing:	(419) 267-1246

Northwest State is an affirmative action, equal opportunity employer and educator that does not discriminate on the basis of race, color, national origin, religion, disability, gender 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, or call (419) 267-5511.

ABOUT NORTHWEST STATE COMMUNITY COLLEGE

About Northwest State

Northwest State Community College is a state supported, public, two year college which awards the following degrees: Associate of Applied Business, Associate of Applied Science, Associate of Arts, Associate of Individualized Studies, Associate of Science and Associate of Technical Studies.

Progressive History

Northwest State Community College is located in the last region of the Buckeye State to be claimed by settlers. 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. The first classes were held in the west wing of Four County Joint Vocational School beginning in September of 1969. In 1972, Northwest Technical College moved into its own building (the current "A" 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.

Phase II of the College Master Plan in 1989 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 Division would now occupy the "B" wing, with those rooms available to other courses as needed. Student services, food services, an attractive conference room and an exercise area would now be housed in the "C" wing. Also, in fall of 1991, a new Child Development Center building was opened.

The State Community College status, earned in 1994, brought about growth which led to additional building and renovations that has continued to take place on the present 80 acre site.

- In 1994, a new Engineering Technology and Science Center was built. The 54,000 square foot facility allowed the College to provide significantly upgraded science and technology laboratories, as well as additional equipment to better serve the workforce development training needs of northwest Ohio.
- In January 2002, a new 12,000 square foot Technology Training Center was opened. The Center includes 5 technical labs that support the Plastics, Industrial Electrical and CAD Technologies.
- During the Spring and Summer of 2003, a total renovation of the first floor in the "A" building was begun. At that time the maintenance department had moved to its own building, making it possible for more classroom space to be added. The bookstore and food services areas were also enlarged, and more student seating was created.
- In 2004, classes were offered at a satellite location in Van Wert, Ohio.
- In 2006, classes were offered at additional satellite locations in Metamora and Defiance, Ohio.

- In the Spring of 2007, the second floor of "A" building was renovated to create a lab for the Medical Assisting program. In addition, five classroom and faculty offices were renovated.
- In 2008, classes were offered at satellite locations in Bryan and Paulding, Ohio.

Accreditations and Approvals

Northwest State Community College takes pride in its accreditation by The Higher Learning Commission and is 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 Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (CRB-AMMAE). CAAHEP 1361 Park Street, Clearwater, FL 33756, 727-210-2350.

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:

American Association of Collegiate Registrars and Admissions Officers, American Association of Community Colleges, American Association of Medical Assistants Endowment, Association of Collegiate Business Schools and Programs, Association of Community College Trustees, Community Colleges for International Development, Inc, Council for Higher Education, Council of North Central Two Year Colleges, International Association of Campus Law Enforcement Administrators, League for Innovation in Community Colleges, Midwest Institute for International/Intercultural Education, National Association for Developmental Education, National Association of College and University Business Officers, National Association of Colleges and Employers, National Association of

STUDENT RESOURCE CENTER

Student Financial Aid Officers, National Council for Marketing and Public Relations, National Institute for Staff and Organizational Development, National League for Nursing, North Central Association of Colleges and Schools, Ohio Association of Associate Degree Early Childhood Programs, Ohio Association of College Admissions Counselors, Ohio Association of Collegiate Registrars and Admissions Officers, Ohio Association of Community Colleges, Ohio Association for Developmental Education, Ohio Campus Law Enforcement Association, Ohio College Association, Ohio College Association of Human Service Educators, Ohio Controllers Group, Ohio Council of Associate Degree Nursing Education Administrators, Ohio Council of Chief Academic Officers, Ohio Two Year College Career Services Association, SESAC, Inc.

Chambers of Commerce Memberships: Napoleon/Henry County, Archbold, Paulding, Wauseon, Bryan Delta, Defiance and the Sylvania Area Chamber of Commerce, Montpelier Chamber of Commerce

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

Institutional/General Education

Learning Outcomes

Graduates from Northwest State Community College will become professional, lifelong learners and responsible global citizens through achievement of the following outcomes.

1. **Communication** – Graduates from Northwest State Community College will demonstrate effective communication skills.
2. **Computation** – Graduates from Northwest State Community College will perform basic algebraic problem-solving and interpret and communicate numerical data.
3. **Critical Thinking** – Graduates from Northwest State Community College will comprehend the implications of a topic or problem, draw on appropriate evidence, and construct well-reasoned conclusions.
4. **Diversity** – Graduates from Northwest State Community College will demonstrate awareness of the impact of cultural differences.

5. **Sustainability** – Graduates from Northwest State Community College will evaluate the impact of economic, political, social, and/or ecological systems on this and future generations.

Success Center

Student success is a priority at Northwest State Community College. The Success Center is designed to enhance 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 Success Center services and resources, as all are free of charge and easily accessible. The Success Center Welcome Desk is located on the first floor of the "A" building 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 Success Center 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 Success Center and request assistance.

The Success Center houses walk-in academic labs (Math, Writing, Life Sciences), Tutoring Services, Accessibility Services, and ABLE (Adult Basic Literacy Education) GED classes. The Success Center 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 Success Center 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.

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 next section.

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 submitted as soon as possible, preferably at least three months prior to the semester start date.

Upon delivery of documentation, each student is expected to:

1. Schedule an advising session with an academic advisor.
2. Schedule an appointment with the Accessibility Services Coordinator.
3. Apply for auditory books and other aids as necessary.

STUDENT RESOURCE CENTER

- Notify instructors of the disability during the first week of class and discuss which accommodations will be most beneficial.
- Make arrangements with instructors and Success Center Supervisor for testing accommodations, if applicable.

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.

Library Services

The Library has many resources 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.

The following are especially helpful to students working on class papers and projects:

- Statewide access to over 90 libraries in the state of Ohio
- Electronic delivery of full-text journal articles
- 100+ research databases on a variety of subjects
- Personalized research assistance on request (ask at the circulation desk)
- In-class research skills instruction on request of instructor

Career Services

What are you doing for the rest of your life? The Career Services Office offers a variety of services to help students with their educational goals. Whether you are confident in the career path you have chosen, or if you have some uncertainties about your major, we can help.

We specialize in career development, the process of helping you identify, plan for, and achieve your career goals. We do this by offering information, advice, training, and resources designed to help you select an educational path that leads to a financially rewarding and personally satisfying career. These services are available to prospective students, currently enrolled students, and alumni.

Career Services assists students in finding jobs while pursuing their degrees or upon completion of a program. This includes assistance in planning their job search, resume development, and improving interviewing skills. Career Services also assists employers who wish to post job listings on Northwest State's online job board.

Visit Career Services on Northwest State's website for more information!

Cooperative Education

Cooperative Education and Internships at Northwest State Community College combine 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 experience may be paid or unpaid and 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/ Internship may allow him/her to receive college credit for the work the student is currently doing. Co-op/Internship is available to students enrolled in the Business Division and in the Engineering Technologies Division, but students must arrange the position. For more information about Cooperative Education/Internship contact Dr. Larry Zachrich at (419) 267-1350 or Career Services at (419) 267-1330.

Educational Planning and Retention

At Northwest State we encourage all students to have an educational plan, a tool that can help identify goals, summarize strengths and weaknesses, and provide a link to campus support systems.

College students often start down an academic pathway only to find that succeeding means a lot more than just getting a good grade on a test. Today's students meet challenges in balancing work and family life along with classroom obligations. A car breaks down or a parent becomes ill. Worry, stress, and academic workloads sometime seem overwhelming. Research shows that having a good plan with stated goals is key to overcoming obstacles that may appear in your path.

Whether you are sure of your academic major or completely undecided on your area of study, Educational Planning may be able to assist you as a student at NSCC. Check the campus calendar for workshops, activities and resources or contact the main office at (419)-267-1242.

Student Activities

All students are encouraged to participate in campus-sponsored activities outside the classroom. Student Body Organization officers and members plan and supervise an ongoing calendar of activities.

Student Organizations and Activities

Students for Community Outreach & Awareness

The Students for Community Outreach & Awareness 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. This is done through educational activities or engaging in projects that help the local community.

Education for Sustainability (E4S) Student Group

This is 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.

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 and plan activities. Membership is open to all students. Regular meetings are held at which all students have a voice and a vote in the conducting of business.

STUDENT SUPPORT SERVICES

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.

Kappa Beta Delta

A national honor society for students in a Business Technologies program who maintain a 3.5 GPA after completing 18 or more credit hours. Students are invited to become members and provide letters of recommendation from faculty.

Alumni Association

Membership in the Northwest State Alumni Association is automatically granted to any graduate of the college and to any former students who meet the credit hour criteria. The Alumni Association's mission is to engage alumni interest while promoting loyalty and strengthening relationships with students, community and alumni. For more information, contact Robbin Wilcox at (419) 267-1460.

Intramural Sports – NSCC offers a variety of intramural sports that compete with other colleges in the area. These sports include basketball, bowling, pool tournaments, flag football, indoor soccer, and volleyball

Child Development Center

Quality care for children ages 3 years to kindergarten is available at Northwest State Community College through Northwest Ohio Community Action Commission. 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 enroll your child at the center by calling (419)784-2150. The center is open year round from 6:00 a.m. to 6:00 p.m., Monday through Friday.

Bookstore

For the convenience of the students, a well-stocked bookstore is available on campus. In addition to textbooks, the bookstore also offers class supplies and materials, clothing items and grab-and-go snack and food items. The cost of books and supplies is separate from, and in addition to, instructional fees.

Food Service

The Snack Bar, located on the first floor of the "A" Building, is open from 7:45 a.m. to 6:00 p.m. Monday thru Thursday. The "E" Wing Luncheonette, located in the "E" Building, is open Monday thru Thursday 11:00 a.m. to 1:00 p.m. Both locations offer noon specials along with ala carte items in the "Grab and Go." Food services also keeps deli items available in the NSCC Bookstore at all times.

Student Facilities

The Fitness Room, located in C105, is for use of students & employees of Northwest State Community College

M - TH 7:30 a.m. - 10:00 p.m.

Friday 7:30 a.m. - 3:30 p.m.

Saturday 8:00 a.m. – Noon

Game Area - Atrium;
Food Court - A Wing;
Shower and Locker Rooms
Women's - C108,
Men's - C109



Student Insurance

A health insurance plan is available to 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 and Student Resources Offices.

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 photo I.D. cards. These cards are used to identify you as a current NSCC student, and are also used for student activities such as the ice cream social and bowling night. Additionally, these cards can be scanned for use in the library, bookstore and the snack bar. There is no charge for a Student I.D. card. However, if you lose your card, additional replacements will cost \$5.00. Photo I.D. cards are available through the Campus Police Department.

Adverse Weather – Closings or Delays

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 (including off-campus sites) 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 at www.northweststate.edu. A recorded message will be placed on the college phone system. To check this message, dial (419)267-5521.

ADMISSION REQUIREMENTS

Admission

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 Recruiter before you enroll at NSCC, but you may find it helpful. A Recruiter can suggest opportunities at the College, explain entrance requirements and answer any questions you may have about reaching your career goals.

Course Placement (COMPASS)

Prior to registration, all degree or certificate seeking students should be evaluated or show evidence of successful completion of college-level coursework in math and English. An appointment is required for the COMPASS Placement Test. Contact the Admissions Office at (419)267-1320 or go online to www.northweststate.edu 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-Composition II. 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:

- Take ENG111 and ENG112, or
- Take ENG112 and another writing intensive ENG course. The second writing course will be substituted for ENG111, and cannot also be used to meet a Humanities requirement. The approved list of writing courses is maintained by the Dean of Arts & Sciences.

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). PSEO students may have one retest per year.
2. A retest must be requested prior to enrolling in related developmental courses.
3. Retesting must be approved by the Dean of Arts & Science 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.

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.

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. See the college's website for more information about orientations, or call the Student Resource Center at (419) 267-1242.

Classification of Students

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

Certificate Seeking 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.

Degree Seeking 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.

Dual Enrollment Student

A high school student who has been recommended by his/her guidance counselor or principal to take college courses for college credit and high school credit. The course will be taught during the school schedule on the high school premises.

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.

Guest/Transient 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.

International Student

A student from another country who has met the requirements of the Student & Exchange Visitor Information System (SEVIS) as well as the requirements of NSCC. An international student must meet with an admissions representative before being admitted.

Non-Degree Student

A student who has indicated, at the time of application, the intent to pursue selected courses (i.e. personal enrichment).

TRANSFER INFORMATION

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.

Tech Prep Student

A high school student who has been recommended by his/her guidance counselor or principal to take technical college courses for college credit and high school credit. These courses prepare students for careers in the technical field.

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 the transfer coordinator prior to registering for classes.

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. 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.

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. For additional information, please visit www.transfer.org.

Transfer Advising at NSCC – The Student Resource Center offers one-on-one advising for students interested in transferring into a four-year institution. Please call 419-267-1242 to make an appointment.

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

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.

FINANCIAL AID

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.

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; 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.

Financial Aid Application Process

1. A pin may be obtained by students and parents at www.pin.ed.gov
2. File your FAFSA electronically at www.fafsa.ed.gov include Northwest State Community College Title IV School Code 008677
3. Financial Aid Data Sheet available on NSCC Financial Aid web page
4. Loan Request Form & Master Promissory Note – if interested in borrowing through the Federal Stafford Loan Program
5. Part-time Student Employment – If interested in part-time employment at the college, log onto www.collegecentral.com/nscc.

Federal Eligibility Requirements

To be eligible for financial aid students must:

- Have a high school diploma, GED, or complete a high school education in a home school setting approved under state law.
- Be enrolled in an eligible program as a degree-seeking student.
- Be a U.S. citizen or eligible non-citizen.
- Have a valid social security number.
- Register with selective service as required of male students.
- Maintain satisfactory academic progress.



FINANCIAL AID

Calculation of Financial Aid

- Your financial aid package is determined from the results of your FAFSA. The U.S. Department of Education calculates your Expected Family Contribution (EFC) based on the financial information from your FAFSA.
- Financial need is defined as the difference between the Cost of Attendance and your EFC.
- Cost of Attendance includes tuition, fees, books, supplies, transportation and living expense estimates as determined by the Financial Aid office in accordance with federal regulations. **Your individual estimated Cost of Attendance with be indicated on your Financial Aid award letter.**

Awarding Year

The financial aid-awarding year consists of the following terms: Summer 2009, Fall 2009, and Spring 2010.

If a student enrolls for the summer, fall and spring, the total loan amounts listed below will be divided into 3 semesters. If the student enrolls for two terms, the total loan amounts per year will be divided by 2 terms.

Federal Stafford Loans

The Federal Stafford Loan amounts listed below is the total amount that students may borrow for the entire financial aid awarding year.

- First year students (1-29 credit hours earned) \$3,500 per year
- Second year students (30+ credit hours earned) \$4,500 per year
- Additional Unsubsidized for *Dependent students \$2000 per year.
- Additional Unsubsidized for **Independent students \$6,000 per year

**Dependent students are classified as those who complete the FAFSA with parent information.*

***Independent students are classified as those who complete the FAFSA without parent information.*

Disbursement of Financial Aid

For students enrolled for fall and spring semester, one half of your financial aid for attending hours (grants and loans) will be credited toward the payment of tuition and fees each semester. Then:

1. If your financial aid is less than your total fees, you must pay the remaining amount according to the stated deadline on your invoice.
2. If the total amount of your financial aid exceeds your tuition and fees, you may elect to use your financial aid in the bookstore for the purchase of books and supplies.
3. Any remaining balance from your financial aid will generally be mailed to you during the seventh week of the semester for fall and spring and fourth week of the semester for summer semester.
4. Students must be ATTENDING 6 credit hours in order for their full financial aid award to disburse to their student account. If the student is NOT attending 6 hours, the additional funds will disburse upon start of additional hours. This may result in a late refund check.

Federal Verification

Approximately 30% of all financial aid applicants are selected for verification. If selected, students must complete a verification worksheet and bring in a signed copy of their federal income tax return to the Financial Aid Office. (Parent tax forms are also required for dependent students)

Special Circumstances

If a student can document (with check stubs, etc.) a projected loss of income for this year, you may submit a Special Condition Request form to the Financial Aid Office. If your request is approved, we will resubmit your FAFSA using projected income for this year rather than last year's income to determine your aid eligibility. Please complete the Special Condition form available in the Financial Aid Office or on the NSCC website.

Class Attendance

Class attendance is required for all financial aid recipients. Failure to attend classes will result in loss of financial aid (grants and/or loans). If you are considering withdrawing from all classes, you must first contact the Financial Aid Office to discuss the financial implications of withdrawing from all classes.

Complete Withdrawals and the Federal Financial Aid Refund Policy

Recipients of federal financial aid (grants and loans) will be required to repay 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 money to the college.

Students who withdraw from or stop attending all courses will also be placed on financial aid probation (or suspension) for the following semester.

Financial Aid Freeze Date and Dropping Courses

Dropping a course during the first 10 weeks prior to Financial Aid Freeze Date will result in a reduction of financial aid. The actual amount of aid a student receives will be based on the enrollment as of the financial aid census date. For the 2009-2010 year, this date falls at the beginning of the 10th week of classes. (See Academic Calendar) On that date, the financial aid office will **'freeze'** your enrollment and adjust your award to the correct amount based on actual hours enrolled on that date. If your award of aid includes a late-starting class, and you drop that class after receiving aid, you may be required to return a portion of the aid you received. If students are enrolled in the 8-week courses only, the census date will be prorated to the 3rd week of the 8-week time frame.

FINANCIAL AID

Satisfactory Academic Progress

Students receiving any form of federal financial aid (grants and/or loans) must maintain satisfactory academic progress toward a degree objective. Failure to do so will result in federal financial aid being withheld until satisfactory academic progress regardless of whether they have previously received federal financial aid.

Satisfactory academic progress is checked at the end of each semester. In order to receive federal financial aid, students must be making satisfactory academic progress regardless of whether they have previously received federal financial aid.

Students are maintaining satisfactory academic progress if they meet all three of the following criteria:

1. Successfully complete (with grades of A, B, C, D, S, or X) at least **67%** of all credit hours attempted in the last semester attended
2. Successfully complete (with grades of A, B, C, D, S, or X) at least **67%** of all credit hours attempted cumulatively
3. Maintain a minimum cumulative grade point average (GPA) as follows:

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

Students who do not meet all three of the above standards are placed on financial aid probation for one semester. Students who do not maintain Satisfactory Academic Progress while on financial aid probation will be placed on financial aid suspension, thereby losing their financial aid eligibility.

Please remember that a “W” grade is considered an unsatisfactory grade for financial aid purposes. Courses in which grades of W, F, U, I, P, NP, or NG are received will be used for computation of hours attempted, but are not considered to have been successfully completed.

Financial Aid Probation

Students, who have not maintained satisfactory academic progress, as defined above, will be placed on financial aid probation. Students will remain eligible for federal financial aid while on financial aid probation, but will not be allowed to purchase books in the bookstore with future financial aid until the first week of classes. Probation students must demonstrate passing grades before aid for future semesters can be used.

Maximum Time Frame

Eligibility for federal financial aid (Federal Pell Grant, Federal SEOG, Federal Stafford Loan, Federal Work Study or State Aid) may not exceed 150% of the published length of an academic program. This is called a student’s maximum time frame.

Since the average number of semester credit hours per associate

degree program is 70, the maximum time frame for receiving federal financial aid is 105 semester credit hours. The average number of semester credit hours per one-year certificate program is 38; the maximum time frame for receiving federal financial aid is 57 semester credit hours. This includes all credit hours attempted, including developmental courses, repeated courses, applicable transfer courses, and courses from which a student withdraws. Audited courses will not be included in the computation of hours attempted, nor will they be considered in determining enrollment status for financial aid purposes. Once a student reaches the maximum time frame, he/she is not eligible to receive additional federal financial aid. A student may request an extension of his/her maximum time frame. Students who complete the requirements for one associate degree or certificate program may have their maximum time frame extended for a second degree or certificate. (Contact the Financial Aid Office for appeal procedures and forms, or go to www.northweststate.edu.)

Financial Aid Suspension

Students who do not maintain satisfactory academic progress, while on 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 may continue to take courses at their own expense until reaching the minimum GPA and/or the number of successfully completed credit hours required to re-establish satisfactory academic progress. However, it is possible to appeal your financial aid suspension status. (Contact the Financial Aid Office for appeal procedures and forms, or go to www.northweststate.edu.)

Appeal Process

Students may appeal their Financial Aid Suspension status or request an extension of their Maximum Time Frame by submitting an appeal form to the Financial Aid Office. The Director of Financial Aid may or may not approve the request, depending upon the existence of extenuating circumstances.

Students for whom financial aid is reinstated as a result of appeal of their financial aid suspension status will be placed on probation for one semester. Continuation of federal financial aid for subsequent semesters is dependent upon satisfactory academic progress being attained.



FINANCIAL AID

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).

	Programs	Type/Criteria	Application	Maximum Amt*	Minimum Enrollment
GRANTS	Academic Competitive Grant	Federal Grant/Need	FAFSA	\$750-\$1,300	Full-Time Pell Grant Eligible
	Federal Pell Grant	Federal Grant/Need	FAFSA	\$4,732	Full-Time Part-Time
	Federal SEOG Grant	Federal Grant/Need	FAFSA	Varies	Full-Time Part-Time
	Ohio College Opportunity Grant	State Grant/Need	FAFSA	Varies	Full-Time Part-Time
SCHOLARSHIPS**	Presidential	Academic 3.50 GPA, ACT score of 23, Required COMPASS Score	NSCC Scholarship Application	Full-Tuition	Full-Time (15 Credit Hours)
	Dean's	Academic 3.50 GPA, Required COMPASS Score	NSCC Scholarship Application	Half-Tuition	Full-Time (12 Credit Hours)
	NSCCEA Horizon	Academic	NSCC Scholarship Application	Varies	Part-Time, 2nd year
	Max Covert	Academic	NSCC Scholarship Application	Varies	Part-Time, 2nd year
	Toledo Edison	Academic Need	NSCC Scholarship Application	Varies	Part-Time, 2nd year
	Marie Richey	Secretarial Major	NSCC Scholarship Application	Varies	Full-Time Part-Time
	George Isaac Business	Business Major	NSCC Scholarship Application	Varies	Part-Time
	Arrow Tru-Line Presidential	Engineering Technologies Major	NSCC Scholarship Application	Full-Tuition	Full-Time
	NW Ohio Chapter of APICS	Academic Need, Business Major	NSCC Scholarship Application	Varies	Part-Time
	Judy Brubaker Early Childhood Development	Early Childhood Major	NSCC Scholarship Application	Varies	Full-Time Part-Time
	Jean Cox Nursing Scholarship	Nursing Major (Certificate or Associate)	NSCC Scholarship Application	Varies	Full-Time Part-Time
	Maumee Valley Vending Scholarship	High School Senior from Five County Area with Academic 3.0 GPA	NSCC Scholarship Application	Varies	Full-Time Part-Time
	McDougle ADN Nursing Scholarship	Nursing Associate Degree Major	NSCC Scholarship Application	Varies	Full-Time Part-Time
	William L. Beck Scholarship	Engineering Technologies or Nursing Associate Degree	NSCC Scholarship Application	Varies	Full-Time First Year
Williams County 40&8 Voiture 879 Nursing Scholarship	Nursing Major (Certificate or Associate)	NSCC Scholarship Application	Varies	Full-Time, Part-Time Semester of Clinical Completed	
LOANS	Federal Stafford Loan	Student Loan Need	FAFSA and Stafford Loan Application	Freshman: \$3,500/yr Sophomore: \$4,500/yr	Half-Time (6 Credit Hours)
	Federal Unsubsidized Stafford Loan	Student Loan Need	FAFSA and Stafford Loan Application	Dependent: \$2,000 Independent: \$4,000	Half-Time (6 Credit Hours)
	Federal PLUS Loan	Parent Loan	Plus Loan Application	Cost of Attendance	Half-Time (6 Credit Hours)
	Charles E. Schell Foundation Loan	Short-Term Loan	None (See Financial Aid Office)	Tuition & Books	Part-Time
EMPL	Federal Work Study	Campus Employment Need	FAFSA & FWS Application	Varies	Part-Time

* Dollar amounts are subject to change due to federal & state funding. **Scholarship applications can be found at www.northweststate.edu.

FEES AND REFUND POLICY

The Tuition and Fee Installment Plan (TIP)

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 for 16-week terms and in two installments for 8-week terms. 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 reminder notice 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 are covered by this program. Courses added after the first payment is made are not covered. Courses (including flexibly scheduled courses) paid for after late registrations 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 and classroom space is available. The student is responsible for student and lab fees. Complete the "Senior Citizen Fee Waiver" form in the Business Office, in Room C107 and bring your driver's license or Golden Buckeye Card. (You will need to do this each semester you register for a class.)

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 credit card. 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 \$50.00 graduation and diploma fee 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 15 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 obtained at a later date.

Refund of Student Fees

All withdrawals from class(es) may be done through a student's myNSCC account or 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 non-refundable. 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 Chief Fiscal Officer.

FEES AND REFUND POLICY

Courses that are 16 weeks or more have the following policy:

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

Courses that are 8-15 weeks have the following policy:

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

Courses that are 2-7 weeks have the following policy:

Week 1	100% Refund
Week 2	No Refund

Courses that are 1 week or less have the following policy:

Must be dropped the day before the course begins for a 100% refund

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

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

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.

1. 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.
2. 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.

FEES AND REFUND POLICY

3. 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 is or 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.
4. 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.
5. 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.

Criteria evidencing lack of residency:

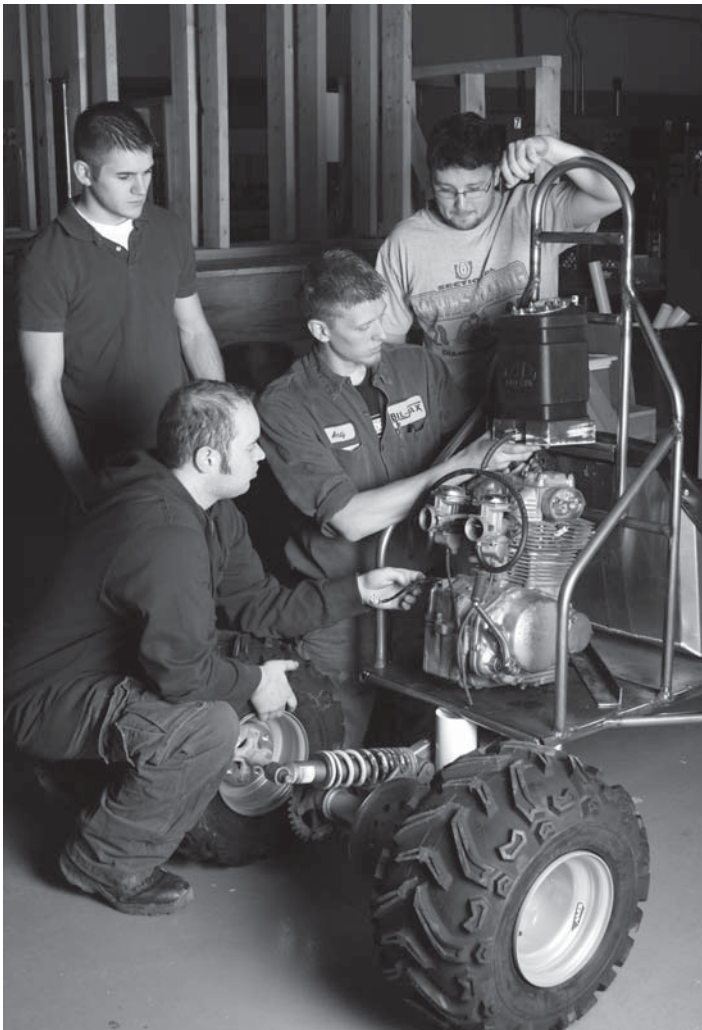
- a. If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
- b. If a person is a 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 or discuss academic problems. Advisors are available to answer any questions you may have regarding class schedules or other College policies and procedures. Each advisor has regular office hours set aside for student appointments.

Academic Amnesty

A student may repeat coursework for which he or she earned a D, U, or an F 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.

Repeating a course may affect financial aid. Students receiving Veteran educational benefits or other students who receive financial assistance from an outside agency should check for any agency rules that do not permit payment for courses that are taken more than once. Veteran educational benefits, for example, will not cover a third attempt for a failed course.

Credit by Transfer or Examination or Documentation

A student must have submitted an application for admission to the College and paid the application fee before any type of credit is posted to the transcript.

A. Transfer Credit

Transfer credit will be allowed for any previous courses in which a "D" or better grade was earned from a U.S. or Canadian regionally accredited institution of higher learning. Some course prerequisites and program requirements may only be fulfilled with a "C" grade or better.

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. –(414)289-3400; World Education Services –(312)222-0882; Josef Sliney & Associates –(305)273-1616 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 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.

B. 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 seventy (70) percent of any degree requirement.

C. College Level Examination Program (CLEP), Advanced Placement (AP), and DANTES (DSST) Credit

1. Full college credit may be granted or prerequisite courses waived based upon College Level Examination Program (CLEP), Advanced Placement (AP), or DANTES (DSST) test results. A list of courses will be maintained by the Vice President for Academics.
 - a. Credit will be granted for equivalent courses for a score of 3 or higher on the AP test.
 - b. An AP score of at least 4 may be required for highly dependent sequence of courses in a STEM area.
 - c. A score of 3 or higher on an AP foreign language area will provide credit for at least the first year of a foreign language.
 - d. Credits earned via AP exams are transferable in Ohio according to the state's transfer module. (The NSCC AP code is 1235).
 - e. CLEP and DANTES credit will be granted for equivalent courses based on the American Council on Education minimum score.
2. Credit awarded through CLEP, AP, or DSST scores may not exceed 70% of any degree or certificate requirement.
3. Upon presentation of CLEP, AP, or DSST scores in the same area, credit will be awarded for either CLEP, AP, or DSST based upon the higher number of credit hours. In no case will CLEP, AP, and DSST credits be combined. In the event that the credit hours to be awarded through CLEP, AP, or DSST are equal, the individual department will award the appropriate credit at their discretion.

D. Proficiency Examination

1. Students may complete an application for a proficiency examination in an available subject area. The \$45.00 exam fee must be paid prior to the examination.
2. If enrolled in the course in which examination is requested, the exam must be completed before the end of the fourth week of a regular semester and before the end of the second week of a summer session.

ACADEMIC POLICIES AND PROCEDURES

3. A student cannot proficiency in a course previously taken (successfully or unsuccessfully).
4. A student may make application for a Proficiency Examination ONE TIME PER COURSE.
5. Students certified as proficient, who are enrolled in the proficiency course, will be refunded the appropriate credit hour tuition charge for the course.
6. Credit for the course for a satisfactory proficiency examination will become part of the student's permanent record, and a grade of "CR" will be assigned.
7. 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.
8. A student may make application for proficiency examination, if not enrolled in the particular course for which examination is requested, at any time during the regularly scheduled semesters by completing the application process outlined above. All other policies will apply with the exception of refund of instructional charges.

E. Credit by Documentation

Northwest State Community College recognizes that students may have knowledge and skills, based on prior learning and experiences, which could be considered for college credit. Prior learning assessment is a means to review prior learning, to identify concepts already acquired, and to appropriately place students into the sequence of courses toward a degree.

Examples of documentation that may identify successful accomplishment of course learning outcomes include but are not limited to: a portfolio of work samples, reference letters, employment verification, licensure, and certifications. Documentation requirements are determined by the Division Dean and faculty teaching the course.

A student may not receive credit by documentation for a course previously completed (successfully or unsuccessfully). A \$45 documentation fee must be paid to have the course entered on the transcript.

Dean's List

For the purposes of the Dean's List calculations, a full-time student is defined as a student carrying at least 12 graded credit hours for the semester. A half-time student is defined as a student carrying between 6 -11.99 graded credit hours for the semester.

Each full-time student earning a grade point average of 3.50 or above on a 4.00 scale will be named to the Full-time Dean's List for that semester. Each half-time student earning a grade point average of 3.50 or above on a 4.00 scale will be named to the half-time Dean's List for that semester.

Academic Standing

Academic Standing is verified at the end of each semester. Students remain in good academic standing with a grade point average of 2.0 or higher. Students are placed on Academic probation or suspension when the cumulative grade point average falls below minimum levels.

Students on probation or suspension will work with the retention coordinator to develop academic success plans.

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	1.40
16 – 30	1.60
31 – 45	1.80
46 +	2.00

Students will remain on academic probation until such time as their cumulative GPA meets or exceeds the minimum levels referenced above. While on probation, students may register for a maximum of 12 credit hours. **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 2.00 or the student shows significant progress, as determined by the Vice President for Academics.

The period of suspension will be for one academic semester, excluding summer session. Students will be required to develop a success plan that is approved by the Division Dean prior to being released from academic suspension by the Vice President for Academics. A student may register for 6 credit hours the first semester returning from suspension.

Academic or Financial Aid Probation or Suspension Using Financial Aid Funds in the Bookstore

No student on academic or financial aid probation or suspension can make purchases in the bookstore with financial aid funds until after the current semester grades have been posted. Students will remain eligible for federal financial aid while on financial aid probation, but will not be allowed to purchase books in the bookstore with future financial aid until the first week of classes. 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 or Dropping Classes

Students register for classes through **myNSCC** at www.northweststate.edu.

A student takes full responsibility for adding or dropping courses. Failure to attend classes or give proper written intention to withdraw will result in failure of a course. Students will be academically and/or financially responsible for any "W" or "F" grades received. The adding or dropping of courses requires the student to contact the Financial Aid Department and/or the Business Office to adjust the aid or make payment.

ACADEMIC POLICIES AND PROCEDURES

Adding Classes

Regular classes can be added online through the end of the first week of the semester during fall or spring and do 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.

Registering for more than 20 credit hours in the fall/spring terms or more than 10 hours in the summer term require a student to obtain permission from the Dean or Vice President for Academics.

Dropping Classes

Student's drop courses using myNSCC through the 100% tuition refund period for a specific course.

Withdrawing from class(es)

Dropping a course after the 100% tuition refund period is a "withdrawal," which may be completed by using myNSCC, in-person, by faxing the request to the Registrar's Office at (419) 267-5604, or by mailing the request which must be post marked on or before the last date for a "W" deadline. 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" or "F" grade received.

The withdrawal period for 16 week courses is at the end of the sixth week and at the end of the third week for eight week courses. Courses that are 4 - 7 weeks in duration have until the end of the second week to officially withdraw. Courses that are 2-3 weeks in duration must drop the course during the first week, which is a full drop and not a withdrawal. Courses that are less than 1 week do not have withdrawals.

Military Withdrawal

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 fee for the semester, and any "W" grade will be changed to a "WM" to signify a military withdrawal on the transcript. Upon returning to college the student is required to submit copy of the DD214.

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. Students whose placement scores indicate a need for developmental courses may be limited to twelve credit hours until satisfactory ("S") academic status is achieved. Developmental courses do not count towards graduation requirements and are graded as Satisfactory or Unsatisfactory (S/U).

Academic Honesty

Students and faculty are expected to engage in their academic work with integrity and respect for others. Students are expected to submit academic work that reflects their own original thought and is their own. Any misrepresentation in academic work, including plagiarism, is a form of academic dishonesty.

Examples of academic dishonesty include but are not limited to:

- Plagiarism – representing the words or ideas of another person as your own without identifying the source.
 - Using the exact words from a source, including cutting and pasting from a Web site, without both quotation marks to indicate the extent of the material borrowed and a citation of the original source.
 - Paraphrasing or summarizing ideas from a source without proper citation. Submitting work written or created by another, whether such work is written by a friend, an author, or is downloaded from the internet.
 - Quoting from an unacknowledged source during an oral presentation.
 - Patching together a work using phrases and ideas borrowed from a number of different sources.
 - Accepting assistance or collaborating with other students beyond what is explicitly permitted by the faculty.
- 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.
- Cooperating with another person in academic dishonesty, such as, taking an exam for another student, having another student take an exam for you, or exchanging information with another student during or after an exam.
- Copying from or looking at another person's exam or allowing another student to copy your exam.
- Obtaining unauthorized copies of an exam prior to exam time.
- Intentionally falsifying information in an academic exercise or clinical/laboratory record.
- Unauthorized re-submission of coursework for more than one course.

Disciplinary Penalties for Academic Dishonesty

- A. The faculty member who detects academic dishonesty and the division dean will handle the discipline. In the event the faculty member is the dean, the Vice President for Academics handles the discipline. Each action will be documented in writing and the faculty member will be notified.
- B. For a first time offense, a grade of "F" will 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.

ACADEMIC POLICIES AND PROCEDURES

- C. 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 Vice President for Academics will inform the faculty member of the second offense, and the faculty member will impose the grade. The Vice President for Academics will inform the student.
- D. 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 (3) offenses, not necessarily in the same course or semester, will be dismissed from the College immediately for one (1) 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 Vice President for Academics will be responsible for imposing dismissal.
- E. The student may appeal any disciplinary action by following the steps of the grievance procedure.

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 the time of registration or take action to change to audit during the refund period for that class length. (Class length: 1 week or less = enroll as audit; 2 wks to 7 wks = 1 week to change to audit; 8 wk - 16 wks = 3 weeks to change to audit) 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.

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

A change of major, address or name is made by completing the Change of Student Information form in the Registrar’s Office. A name change is completed by submitting the legal or court issued documents such as a marriage certificate, divorce decree or other documentation of legal action to the Registrar’s Office.

Attendance Policy

Student attendance is essential to success in the course. Faculty may issue a failing grade to students who incur excessive absences and who have not filed an official withdrawal from a course.

Excessive absences are defined as three consecutive absences or sporadic absences that impair satisfactory student progress in a course.

For those students, instructors should report excessive absences and last date of attendance to Student Resources.

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. Failure to attend classes will result in loss of financial aid (grants and/or loans). Students considering withdrawing from all classes should contact the Financial Aid Office to discuss the financial implications of withdrawing from all classes.

The last date of attendance may be determined from attendance records, tests taken, or homework assignments submitted. Faculty will be required to report the student’s last date of attendance when a final grade of “F” or “U” is assigned. All Title IV refunds will be calculated using the student’s last date of attendance.

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 maximum credit load for a student enrolled in a fall or spring terms is 20 credit hours and 10 credit hours during a summer term, except upon recommendation of his/her advisor and approval of the Department Dean and/or Vice President for Academics. A student is considered to be enrolled full-time for a fall or spring term when enrolled in at least 12 credit hours and at least 6 credit hours for a summer term.

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. Please refer to the Grading System for point system.

Example:

Course	Credits	Grade	Points
ENG111	3	B	9
CIS119	1	A	4
CHM101	4	B	12
MTH109	<u>4</u>	C	<u>8</u>
	12 credits		33 points
			$33 \div 12 = 2.75$ cumulative GPA

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

Academic Fresh Start Policy

Once in a lifetime, a student may apply for a change of grade from D, F, U, or WF to a W in 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.
4. The application for Academic Fresh Start must be in writing and is subject to review and approval by the Division Dean and Vice President for Academics.
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

Once in a lifetime, due to catastrophic personal health/medical circumstances, students may be eligible to retake at no additional cost, classes that they failed (earned an "F" or "U" grade) as a result of their medical condition. The requirements are as follows:

1. The student's incapacitation must have exceeded two weeks in duration.
2. A medical fresh start only applies to illness/injury experienced by the student.
3. Petition for medical fresh start within two weeks of the end of the semester in which the event occurred. The petition must be in writing and is subject to review and approval by committee(s). The Medical Fresh Start form and instructions are available in Registrar's office.
4. The student had to be passing course(s) prior to the event.
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. A non-refundable petition fee of \$20 must be paid at the time of the application.
8. Upon registration for the affected courses, the student must submit their course schedule to the registrar so that a fee waiver can be completed for those courses.

Grade Reports

Grades are accessed electronically through **myNSCC** link at www.northweststate.edu.



Graduation Requirements

The associate degree is awarded upon the successful completion of any of the two-year programs. A certificate is awarded upon the successful completion of any of the one-year certificate programs.

Students must:

- Successfully complete all required courses in their program. Certain majors require a "C" grade or better in certain courses to meet graduation requirements. Each required course in which an "F" grade is received must be repeated.
- Attain a 2.0 grade point average in their technical courses.
- Maintain an accumulative grade point average of 2.0 in all courses.
- Completion of thirty percent of the credits from Northwest State Community College.
- Students starting in the fall 2007 term are required to complete one online course (must be 1-3 credit hours from any subject area).
- Submit the \$50 non-refundable graduation fee with the application for graduation.

Students are eligible to receive only one degree within a technology but may have more than one major. All majors are listed on the student's transcript. Diplomas are issued for each degree within a technology. Students wishing to receive dual degree/dual technologies must meet with their academic advisor to fulfill their programs of study.

All petitions for graduation must be completed by the date established by the Office of the Registrar. Students, who do not complete requirements for a degree or certificate within the academic year of submitting a petition, must reapply for graduation. The graduation fee is waived for reapplications. A graduation application is available on the Registrar's Office web page and in the office.

Each graduate is expected to attend the graduation exercises after the application for graduation has been approved. Students who are unable to attend graduation exercises should notify the College by contacting the Registrar's Office at least two weeks prior to Commencement.

ACADEMIC POLICIES AND PROCEDURES

The Vice President for Academics may waive the repeating of an “F” grade in special circumstances where a course is no longer available for the student to repeat and/or a reasonable substitution can be made. Students may, with written permission of their Division Dean or Vice President for Academics, 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.

If a student received a grade of “D”, “F”, “I”, or “U”, 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.

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.

Completing a Second Major

When a student completes a second major at any time within the same technology area, the second major will be added to the transcript. Students must complete a graduation application, including the fee, if the second major is completed after the initial degree was awarded. A graduation application is available on the Registrar’s Office link at www.northweststate.edu or in the office located in C106.

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 Division 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.

Grading 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.

A	Superior Quality (<i>4.0 Credit Points</i>)
B	High Quality (<i>3.0 Credit Points</i>)
C	Average (<i>2.0 Credit Points</i>)
D	Below Average (<i>1.0 Credit Points</i>)
F	Failing (<i>0.0 Credit Points</i>)
I	Incomplete (<i>Not computed in grade point average</i>)
NG	No Grade (<i>Reported by Instructor</i>)
NP	In Progress (<i>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.</i>)
W	Withdrawal (<i>Prior to the end of the twelfth week; not computed in the grade point average</i>)
WM	Military Withdrawal
S	Satisfactory
U	Unsatisfactory
AU	Audit; no credit
CR	Credit Given
SC	Satisfactory Credit (<i>Satisfactory work for an elective course taken on a pass/fail basis</i>)
UC	Unsatisfactory Credit (<i>Unsatisfactory work for an elective course taken on a pass/fail basis</i>)

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

Pass/Fail Option

Students are permitted to select Satisfactory Credit or Unsatisfactory Credit grade (SC/UC) 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

ACADEMIC POLICIES AND PROCEDURES

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.

Student Directory Information

Right to Inspect and Review Records

The Family Education Rights and Privacy Act of 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. A request to inspect and review record shall be made in writing to the Registrar.

Directory Information

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

Name	Major	Full-time or Part-time status
Address*	Birth Date	Dates of Attendance
Email*	Honors	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.

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 Vice President for Academics.

Access to Student Records

It is College policy for a student to have the 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 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 or 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.
 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 President's 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.

COLLEGE POLICIES

Hearing procedures:

1. The hearing will be conducted by the President or 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.

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.

Second-Year Student Status

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



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.

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.

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 expected to:

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

Harassment Policy Statement

General Policy Statement

It is the policy of the Board of Trustees of NSCC to maintain an education and work environment which is free from all forms of unlawful harassment, including sexual harassment. This commitment applies to all College operations, programs and activities. All students, administrators, faculty, staff, and all other College personnel share responsibility for avoiding, discouraging and reporting any form of unlawful harassment. This policy applies to unlawful conduct occurring on College property, or at another location if such conduct occurs during an activity sponsored by the College.

The College will vigorously enforce its prohibition against harassment based on sex, race, color, national origin, religion, disability, or any other unlawful basis, and encourages students to report any violations of this policy. The College will investigate all allegations of harassment and in those cases where unlawful harassment is substantiated the College will take immediate steps to end the harassment. Individuals who are found to have engaged in unlawful harassment will be subject to appropriate disciplinary action.

Reports and Complaints of Harassing Conduct

Students are encouraged to promptly report incidents of harassing conduct to the Vice President for Academics, the Dean of your Division, Faculty or Administrators so that the College may address the conduct before it becomes severe, pervasive or persistent.

Confidentiality

The College will make reasonable efforts to maintain the confidentiality of the parties involved in a harassment investigation. Confidentiality, however, cannot be guaranteed.

A full copy of the NSCC Anti-Harassment Policy is available in the Office of the Vice President for Academics.

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.

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 and Non-Academic Matter

Informal discussion between the student and the faculty member or administrator 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.

**An instructional day is defined as any day, Monday through Saturday, that NSCC holds classes, during the regular fall, spring, and summer (8 week) term.*

***A grade challenge date of occurrence will be the date posted to the transcript.*

Step 1 - Formal Appeal Process

- i. 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.

COLLEGE POLICIES

- ii. 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.
- iii. The faculty member/administrator will issue a written response to the student within six (6) instructional days after the meeting.
- iv. 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

- i. 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 Vice President for Academics.
- ii. 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 Vice President for Academics may attend this meeting at his/her discretion.
- iii. 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 Vice President for Academics.
- iv. 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.
- v. If the problem is not resolved, the student may proceed to Step 3.
- vi. 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

- i. Within six (6) instructional days of receiving the written response from Step 2, the student may request a formal hearing by notifying the Vice President for Academics. 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.
- ii. *Within six (6) instructional days of receiving the request, the Vice President for Academics will appoint an ad hoc due-process committee to hear the grievance.
 - 1. 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 must be a present student, faculty member, or other employee of the college).
 - 2. Alternate committee members may be appointed as well by the Vice President for Academics. Grade level I, II, and III include vice presidents, division deans, and student service professionals.
 - 3. The Vice President for Academics will appoint one member of the ad hoc committee to act as chair for the proceedings.
- iii. *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.

1. Provide all ad hoc committee members with copies of the written grievance prior to the meeting.
2. 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.
3. Inform the student and the individual involved that they may present witnesses and additional written documentation at the hearing.
4. 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.)
 - a. Select a recorder.
 - b. Review the grievance and hearing procedures. This segment will be closed to the grievant and faculty member.
 - c. Invite the student to be heard. The student may present witnesses and additional written documentation at this time. This segment will be closed to the faculty member / administrator.
 - d. 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.
 - e. 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.
5. 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, and the Vice President for Academics, who will implement the ruling.
6. The decisions rendered by the ad hoc due-process committee will be final. All committee members will need to sign the decision on Step 3 Form at the time the decision is made.
7. All original documentation will be kept on file in the Vice President for Academics' office.

**Timelines for step 3, iii. are not strictly enforced during the summer semester – student would be notified of altered timeframe.*

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 Vice President for Academics and file a transient student form signed by the Vice President for Academics 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.

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. Research proposals must be reviewed and approved prior to any research activity. Contact the Vice President for Academics for more information.

Smoking and Tobacco Use Policy

Smoking and the use of other tobacco products is prohibited at all times in all Northwest State Community College buildings and fleet vehicles. This also applies to branch and remote campus sites or other locations where classes are conducted. Smoking is permitted in the courtyard south of the E Building on the Archbold Campus near the vending area and in campus parking lots. Smoking is not permitted within 50 feet of any NSCC location or near any building entrance.



NORTHWEST STATE CORE REQUIREMENTS

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
	ENG240	Introduction to Poetry
	ENG241	Introduction to Fiction
	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
MTH080	Beginning Algebra
MTH090	Intermediate Algebra
CIS090	Introduction to Computers
ENG090	Basic Composition
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



ARTS & SCIENCES DIVISION

If you are trying to identify a program that will help you increase your knowledge, skills and abilities while enhancing your career options then the Arts & Sciences Division has programs to meet your needs.

Develop your critical thinking skills, sharpen your writing ability and enhance your knowledge by completing a degree in Arts & Sciences. Position yourself to compete for jobs in the global economy by choosing the first step toward a bachelor's degree and a successful career.

The Associate of Arts (AA), Associate of Science (AS) and the Transfer Module(TM) programs are all designed to transfer into various bachelor degree programs. The future demands highly-skilled and knowledgeable people who are adaptable, flexible and capable of embracing change in a fast-paced world. Choosing to pursue an AA, AS or the TM will help you develop the skills and knowledge required to be a highly sought-after graduate – by both universities and employers. Sign up and take the first step on your journey to success! Whatever goals you want to accomplish, our courses will help you develop the ability to achieve them.

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 Northwest State Core Requirements for all graduates, see page 28.

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, stop by the Admissions Office in C102 or call (419)267-1320 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

ARTS AND SCIENCES DIVISION

<u>English and Composition</u>		<u>Credit Hours</u>
2 courses required		
ENG111	Composition I (“C” or better required)	3
ENG112	Composition II (Required)	3

<u>Humanities:</u>		<u>Credit Hours</u>
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
ART210	Oil Acrylics*	3
ART220	Beginning Sculpture*	3
ENG223	Interpretation of Literature	3
ENG230	Children’s Literature	3
ENG234	Narrative Literature of the Old Northwest Territory	3
ENG240	Introduction to Poetry	3
ENG241	Introduction to Fiction	3
ENG250	American Literature Through the Mid-19th Century	3
ENG251	American Literature Since the Mid-19th Century	3
ENG260	British Literature Through the 18th Century	3
ENG261	British Literature 19th Century to Present	3
ENG271	Non-Western Literature	3
HIS101	US History Pre-1876	3
HIS102	US History Post-1876	3
HIS203	US Since 1945	3
HIS210	The Modern World	3
HUM121	Concert Band*	1
HUM209	Humanities and Cultures: Ancient & Medieval Worlds	3
HUM210	Humanities and Cultures: Renaissance to Present	3
HUM221	Music Appreciation	3
HUM230	Art Appreciation	3
PHI110	Critical Thinking and Logic	3
PHI201	Introduction to Philosophy	3
PHI210	Ethics	3
PHI220	Ethics in Health Care	3
PHI230	World Religions	3

<u>Social/Behavioral Sciences</u>		<u>Credit Hours</u>
15 credit hours required		
- PSY110 and SSC101 are required		
ECO211	Macroeconomics	3
ECO212	Microeconomics	3
GEO110	World Geography	3
GEO210	Geography - US & Canada	3
HST212	Substance Abuse	3
HST240	Social Problems	3
HST242	Marriage and the Family	3
PSY110	General Psychology (required)	3
PSY210	Abnormal Psychology	3
PSY220	Social Psychology	3
PSY230	Human Growth & Development	3
PSY240	Psychology of Organizational Behavior	3

PSY260	Forensic Psychology	3
SSC101	Sociology (required)	3
SSC110	General Anthropology	3
SSC120	American Government	3
SSC130	Comparative Government	3
SSC210	Cultural Diversity	3

<u>Mathematics and Science</u>		<u>Credit Hours</u>
10 credit hours required		
- STA 140 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
BIO115	Ecology*	4
BIO150	The Human Body	4
BIO180	Genetics*	4
BIO210	Botany*	4
BIO220	Zoology*	4
BIO231	Anatomy & Physiology I*	4
BIO232	Anatomy & Physiology II*	4
BIO257	Microbiology*	4
CHM101	Principles of Chemistry*	4
CHM201	General Chemistry I*	5
CHM256	Principles of Biochemistry*	3
PHY101	Principles of Physical Science*	4
PHY140	Astronomy*	4
PHY150	Geology*	4
PHY251	Physics: Mechanics & Heat*	4
PHY252	Physics: Electricity & Magnetism*	4
MTH109	College Algebra	3
MTH112	Trigonometry	3
MTH213	Calculus I	5
MTH214	Calculus II	5
STA140	Introduction to Statistics (required)	3

<u>Computer Literacy</u>		<u>Credit Hours</u>
3 credit hours required		
CIS114	Microsoft Applications	3
CIS119	Microsoft PowerPoint	1
CIS116	Outlook	1
CIS118	Access	1

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

ARTS & SCIENCES DIVISION

English CompositionCredit Hours

2 courses required

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

HumanitiesCredit Hours

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
ART210	Oil Acrylics*	3
ART220	Beginning Sculpture*	3
ENG223	Interpretation of Literature	3
ENG230	Children's Literature	3
ENG234	Narrative Literature of the Old Northwest Territory	3
ENG240	Introduction to Poetry	3
ENG241	Introduction to Fiction	3
ENG250	American Literature Through the Mid-19th Century	3
ENG251	American Literature Since the Mid-19 th Century	3
ENG260	British Literature Through the 18th Century	3
ENG261	British Literature 19th Century to Present	3
ENG271	Non-Western Literature	3
HIS101	US History Pre-1876	3
HIS102	US History Post-1876	3
HIS203	US Since 1945	3
HIS210	The Modern World	3
HUM121	Concert Band*	1
HUM209	Humanities and Cultures: Ancient & Medieval Worlds	3
HUM210	Humanities and Cultures: Renaissance to Present	3
HUM221	Music Appreciation	3
HUM230	Art Appreciation	3
PHI110	Critical Thinking and Logic	3
PHI201	Introduction to Philosophy	3
PHI210	Ethics	3
PHI220	Ethics in Health Care	3
PHI230	World Religions	3

Social/Behavioral SciencesCredit Hours

12 credit hours required

- PSY110 and SSC101 are required

ECO211	Macroeconomics	3
ECO212	Microeconomics	3
GEO110	World Geography	3
GEO210	Geography - US & Canada	3
HST212	Substance Abuse	3
HST240	Social Problems	3
HST242	Marriage and the Family	3
PSY110	General Psychology (Required)	3
PSY210	Abnormal Psychology	3
PSY220	Social Psychology	3
PSY230	Human Growth & Development	3
PSY240	Psychology of Organizational Behavior	3

PSY260	Forensic Psychology	3
SSC101	Sociology (Required)	3
SSC110	General Anthropology	3
SSC120	American Government	3
SSC130	Comparative Government	3
SSC210	Cultural Diversity	3

Mathematics and ScienceCredit Hours

16 credit hours required

- STA 140 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
BIO115	Ecology*	4
BIO150	The Human Body	4
BIO180	Genetics*	4
BIO210	Botany*	4
BIO220	Zoology*	4
BIO231	Anatomy & Physiology I*	4
BIO232	Anatomy & Physiology II*	4
BIO257	Microbiology*	4
CHM101	Principles of Chemistry*	4
CHM201	General Chemistry I*	5
CHM256	Principles of Biochemistry*	3
PHY101	Principles of Physical Science*	4
PHY140	Astronomy*	4
PHY150	Geology*	4
PHY251	Physics: Mechanics & Heat*	4
PHY252	Physics: Electricity & Magnetism*	4
MTH109	College Algebra	3
MTH112	Trigonometry	3
MTH213	Calculus I	5
MTH214	Calculus II	5
STA140	Introduction to Statistics (required)	3

Computer LiteracyCredit Hours

3 credit hours required

CIS114	Microsoft Applications	3
CIS119	PowerPoint	1
CIS116	Outlook	1
CIS118	Access	1

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.

HISTORIC PRESERVATION ASSOCIATE OF ARTS

ARTS AND SCIENCES DIVISION

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.

Humanities Electives:

ART103	Beginning Drawing
ART210	Oil Acrylics
HIS290	Historic Preservation Internship
HUM209	Hum. & Cultures: Ancient & Mid. Worlds
HUM210	Hum. & Cultures: Renaissance to Present
HUM230	Art Appreciation

<u>First Semester</u>		<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>
		14

<u>Second Semester</u>		<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

<u>Third Semester</u>		<u>Credits</u>
ENG250	American Literature 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

<u>Fourth Semester</u>		<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

Math/Science Electives:

- Must take 2 prefixes, one lab course denoted with an asterisk*

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*
CHM201	General Chemistry I*
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

NORTHWEST STATE TRANSFER MODULE

ARTS & SCIENCES DIVISION

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
ENG112	Composition II (required)	3

Mathematics Electives

Credit Hours

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

Social/Behavioral Sciences

Credit Hours

- Select a minimum of 3 courses from at least 2 areas on the following list:

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

Arts & Humanities

Credit Hours

- Select a minimum of 3 courses from the following list:

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

Natural and Physical Sciences

Credit Hours

- Select a minimum of 6 credits from the following list:

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



BUSINESS TECHNOLOGIES



BUSINESS TECHNOLOGIES DIVISION

The Business Technologies Division at Northwest State offers a variety of degree, certificate and licensing programs that provide the skills needed to help students who are seeking a new and rewarding career in business. These programs also benefit students who are interested in advancing their current careers.

Many of the associate degrees offered in the Business Technologies Division offer a two-plus-two option. This means that students can earn the first two years of a bachelor's degree at Northwest State and transfer seamlessly into their junior year at a four-year college or university.

Degree and Certificate programs offered through the Business Technologies Division include:

Associate of Applied Business

- Accounting (p40)
- Accounting Weekend College (p41)
- Forensic Accounting (p42)
- Business Management (p44)
- Business Management Weekend College (p45)
- Paralegal Studies (p66)
- Pre Business Administration (p39)
- Visual Communications Technologies (p67)

Business Management

- Banking & Finance (p46)
- Entrepreneurship (p48)
- Human Resource Management (Proposed) (p49)
- International/Global Business (p50)
- Logistics and Supply Chain Management (p51)
- Marketing & Retailing (p47)
- Straight Truck Transportation (p54)
- Tractor Trailer Transportation (p55)

Information Technology

- Computer Programming (p56)
- Internet Security (p57)
- Network Administration (p58)
- Web Site Administration (p59)

Office Administrative Services

- Office Administration (p61)
- Office Administration – Legal Support (p62)
- Office Administration – Medical Support (p63)
- Office Administration – Office Management (Proposed) (p64)

Certificate Programs

- Accounting Assistant (p43)
- Computer Technician (p60)
- Logistics and Supply Chain Management (p52)
- Office Assistant (p65)
- Real Estate (p53)

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

General Studies Electives:

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 Electives:

- ENG223 Interpretation of Literature
- ENG230 Children's Literature
- ENG240 Poetry
- ENG241 Fiction
- 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 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 Electives:

- 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, stop by the Admissions Office in C102 or call (419)267-1320 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 28. For the NSCC Transfer Module, see page 34.

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.

PRE-BUSINESS ADMINISTRATION ASSOCIATE OF APPLIED SCIENCE

BUSINESS TECHNOLOGIES DIVISION

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

Social/Behavioral Science Electives:

- PSY110 General Psychology
- SSC101 Sociology
- SSC120 American Government

<u>First Semester</u>		<u>Credits</u>
ACC111	Financial Accounting	4
ECO212	Microeconomics	3
ENG111	Composition I.....	3
MGT110	Management.....	3
	Humanities Elective	<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
	Humanities Elective	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
MTH213	Calculus I	5
SSC210	Cultural Diversity.....	3
	Humanities Elective	3
	Natural Science Elective	4
	Social/Behavioral Science Elective.....	<u>3</u>
		18

<u>Fourth Semester</u>		<u>Credits</u>
ECO211	Macroeconomics	3
STA220	Statistics	3
	Humanities Elective	3
	Literature Elective.....	3
	Natural Science Elective	<u>4</u>
		16

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

ACCOUNTING

ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

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 make managerial decisions based on their interpretation of financial statements.
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.

Business Electives:

BUS160	International & Global Business
BUS250	Labor Relations
BUS260	International Trade
CIS113	Microsoft Excel
CIS118	Access
CIS119	Power Point
CIS122	Intermediate Excel
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT230	Salesmanship

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

<u>Second Semester</u>		<u>Credits</u>
+	ACC112	Managerial Accounting 4
+	ACC140	Individual 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 Electives (3) 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

Computer Accounting Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
ACC272	Advanced Quick Books

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

ACCOUNTING WEEKEND COLLEGE ASSOCIATE OF APPLIED SCIENCE

BUSINESS TECHNOLOGIES DIVISION

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 make managerial decisions based on their interpretation of financial statements.
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.

Accounting Electives:

- ACC240 Business Income Tax Accounting
- ACC291 Accounting Internship

Computer Accounting Electives:

- ACC261 Quick Books
- ACC262 Peachtree
- ACC271 Intermediate Quick Books
- ACC272 Advanced Quick Books

Mathematics Electives:

- BUS110 Business Math/Calculators
- MTH109 College Algebra

<u>Fall Semester</u>		<u>Credits</u>
+	ACC111	Financial Accounting 4
	MGT110	Management 3
		Mathematics Elective <u>3</u>
		10

<u>Spring Semester</u>		<u>Credits</u>
+	ACC112	Managerial Accounting 4
	BUS221	Business Law 3
	CIS114	Microsoft Applications <u>3</u>
		10

<u>Fall Semester</u>		<u>Credits</u>
+	ACC240	Business Income Tax Accounting ... 3
	ENG111	Composition I 3
		Social/Behavioral Science Elective. <u>3</u>
		9

<u>Spring Semester</u>		<u>Credits</u>
+	ACC120	Payroll Accounting 3
+	ACC140	Individual Income Tax Accounting. 3
		General Studies Elective <u>3</u>
		9

<u>Fall Semester</u>		<u>Credits</u>
+		Computer Accounting Elective 3
		Humanities Elective <u>3</u>
		6

<u>Spring Semester</u>		<u>Credits</u>
+	ACC230	Auditing 3
	ENG112	Composition II <u>3</u>
		6

<u>Fall Semester</u>		<u>Credits</u>
+	ACC211	Intermediate Accounting I 3
+	ACC221	Cost Accounting I <u>3</u>
		6

<u>Spring Semester</u>		<u>Credits</u>
+	ACC212	Intermediate Accounting II 3
+	ACC222	Cost Accounting II <u>3</u>
		6

Weekend College is offered on Friday and Saturday.

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

FORENSIC ACCOUNTING

ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

Forensic Accounting is a combination of accounting and investigation skills that provide students with both litigation support and investigative support skills. Forensic accountants testify in courtrooms in clear and concise manner and present evidence for financial investigations. The investigations performed may include traditional audits or a court-required examination of records to provide evidence use to resolve a legal issue. Forensic accountants may find employment with police agencies, banks and financial institutions, insurance companies, or within various governmental agencies. The Forensic Accountant will use their skills to gather, analyze, and present information that is clear and understandable. The analyst's skills include accounting and reporting of financial information, use of computer applications, and good communication.

Career Outlook

Employment both nationally and in the state of Ohio is expected to grow about as fast as 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 transactions.

General Studies Electives:

Choose a 3 hour course with a prefix in the following areas:
BIO, CHM, ENG, GEO, HIS, HUM, MTH, PHI, PHY, SPN, SSC

Business Electives:

ACC222	Cost Accounting II
BUS160	International & Global Business
BUS250	Labor Relations
BUS260	International Trade
CIS113	Microsoft Excel
CIS118	Access
CIS119	Power Point
CIS122	Intermediate Excel
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT230	Salesmanship

Mathematics Electives:

BUS110	Business Math with Calculators
MTH109	College Algebra

First Semester

		<u>Credits</u>
+ ACC111	Financial Accounting	4
+ ACC120	Payroll Accounting.....	3
ENG111	Composition I.....	3
	Mathematics Elective	3
	Social/Behavioral Science Elective.....	<u>3</u>
		16

Second Semester

		<u>Credits</u>
+ ACC112	Managerial Accounting	4
ENG112	Composition II	3
+ FRA100	Fraud Detection and Deterrence.....	3
	Computer Elective.....	2
	Humanities Elective	<u>3</u>
		15

Third Semester

		<u>Credits</u>
+ ACC211	Intermediate Accounting I.....	3
+ ACC221	Cost Accounting I.....	3
+ FRA200	Fraud Examination	3
	Business Elective	3
	Computer Accounting Electives (3).....	<u>3</u>
		15

Fourth Semester

		<u>Credits</u>
+ ACC212	Intermediate Accounting II	3
BUS221	Business Law	3
+ FRA210	Legal Elements of Fraud.....	3
+ FRA220	Corporate Internal Control & Governance	3
	General Studies Elective	<u>3</u>
		15

Computer Accounting Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
ACC272	Advanced Quick Books

Computer Electives:

- Choose 3 credit hours from the following list:
- | | |
|--------|------------------------|
| CIS112 | Microsoft Word |
| CIS113 | Microsoft Excel |
| CIS114 | Microsoft Applications |
| CIS118 | Access |
| CIS119 | Power Point |
| CIS122 | Intermediate Excel |

Humanities Electives:

Choose a 3 hour course with a prefix in the following areas:
ART, ENG, HIS, HUM, PHI

Social Behavioral Science Electives:

Choose a 3 hour course with a prefix in the following areas:
ECO, GEO, HST, PSY, SSC

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

ACCOUNTING ASSISTANT CERTIFICATE

BUSINESS TECHNOLOGIES DIVISION

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 make managerial decisions based on their interpretation of financial statements.
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
+		Accounting Elective 3
		Business Elective 3
		Mathematics Elective <u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+	ACC112	Managerial Accounting 4
+	ACC140	Individual Income Tax Accounting. 3
	BUS221	Business Law 3
	CIS114	Microsoft Applications 3
+		Computer Accounting Electives (3) <u>3</u>
		16

Accounting Electives:

ACC240	Business Income Tax Accounting
ACC291	Accounting Internship

Business Electives:

BUS160	International & Global Business
BUS250	Labor Relations
BUS260	International Trade
CIS113	Microsoft Excel
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis
MKT230	Salesmanship

Computer Accounting Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
ACC272	Advanced Quick Books

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

BUSINESS MANAGEMENT

ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

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	Individual Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS160	International & Global Business
BUS260	International Trade
ECO211	Macroeconomics
MGT221	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
REA210	Real Estate Principles
VCT182	Photography

<u>First Semester</u>		<u>Credits</u>
+	ACC111 Financial Accounting	4
	ECO212 Microeconomics	3
	ENG111 Composition I.....	3
+	MGT110 Management.....	3
	Mathematics Elective.....	<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
+	MGT210 Human Resource Management	3
+	Business Elective	3
	Computer Elective.....	1
	Humanities Elective	3
	Social/Behavioral Science Elective.....	<u>3</u>
		16

<u>Fourth Semester</u>		<u>Credits</u>
+	BUS250 Labor Relations	3
+	MGT280 Business Climate Analysis	3
+	MKT230 Salesmanship.....	3
	Business Analysis Elective.....	3
	Business Elective	3
	Computer Elective.....	<u>1</u>
		16

Business Analysis Electives:

ACC221	Cost Accounting I
STA220	Statistics

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS113	Microsoft Excel
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

BUSINESS MANAGEMENT WEEKEND COLLEGE ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

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:

ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS160	International & Global Business
BUS260	International Trade
MGT221	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
REA210	Real Estate Principles
VCT182	Photography

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

<u>Fall Semester</u>		<u>Credits</u>
+ ACC111	Financial Accounting	4
+ MGT110	Management.....	3
	Mathematics Elective	<u>3</u>
		10

<u>Spring Semester</u>		<u>Credits</u>
+ ACC112	Managerial Accounting	4
BUS221	Business Law	3
CIS114	Microsoft Applications.....	<u>3</u>
		10

<u>Fall Semester</u>		<u>Credits</u>
ENG111	Composition I.....	3
MKT110	Marketing	3
	Social/Behavioral Science Elective.....	<u>3</u>
		9

<u>Spring Semester</u>		<u>Credits</u>
+ ACC140	Individual Income Tax Accounting.....	3
	General Studies Elective	<u>3</u>
		6

<u>Fall Semester</u>		<u>Credits</u>
ECO211	Macroeconomics	3
	Computer Electives	2
	Humanities Elective	<u>3</u>
		8

<u>Spring Semester</u>		<u>Credits</u>
ENG112	Composition II	3
MGT280	Business Climate Analysis	<u>3</u>
		6

<u>Fall Semester</u>		<u>Credits</u>
+ BUS250	Labor Relations	3
STA220	Statistics	<u>3</u>
		6

<u>Spring Semester</u>		<u>Credits</u>
+ MGT210	Human Resource Management	3
+ MKT230	Salesmanship.....	3
	Business Elective	<u>3</u>
		9

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

Weekend College is offered on Fridays and Saturdays.

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

BANKING & FINANCE

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

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
	ECO212 Microeconomics	3
	ENG111 Composition I.....	3
+ MGT110	Management.....	3
	Mathematics 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
	MGT120 Supervision.....	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
+ BAN210	Credit Management.....	3
+ BUS221	Business Law	3
	ECO211 Macroeconomics	3
	MKT110 Marketing	3
+ REA210	Real Estate Principles.....	3
	Computer Elective.....	<u>1</u>
		16

<u>Fourth Semester</u>		<u>Credits</u>
+ BAN220	Investment Management.....	3
+ MGT280	Business Climate Analysis	3
+ MKT230	Salesmanship.....	3
	Computer Elective.....	3
	General Studies Elective	1
	Humanities Elective	<u>3</u>
		16

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS113	Microsoft Excel
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

MARKETING & RETAILING

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

The graduate of the Marketing & Retailing 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 in marketing and retailing practices.

<u>First Semester</u>		<u>Credits</u>
ECO212	Microeconomics	3
ENG111	Composition I.....	3
+ MGT110	Management.....	3
+ MGT230	Retail Management	3
	Mathematics Elective	<u>3</u>
		15

<u>Second Semester</u>		<u>Credits</u>
CIS114	Microsoft Applications.....	3
ENG112	Composition II	3
+ MGT120	Supervision.....	3
+ MKT110	Marketing	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
+ MKT210	Advertising.....	3
	Computer Elective.....	1
	Social/Behavioral Science Elective.....	<u>3</u>
		17

<u>Fourth Semester</u>		<u>Credits</u>
+ ACC112	Managerial Accounting	4
+ MGT221	Entrepreneurship	3
+ MGT280	Business Climate Analysis	3
+ MKT230	Salesmanship.....	3
	Humanities Elective	<u>3</u>
		16

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS113	Microsoft Excel
CIS118	Access
CIS119	PowerPoint
CIS121	Intermediate Word
CIS122	Intermediate Excel
CIS129	Web Page Development

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

ENTREPRENEURSHIP

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

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 a drive, vision and skills to provide new and creative services.

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 28. For the NSCC Transfer Module, see page 34.

Program Learning Outcomes

1. Students will identify entrepreneurial opportunities.
2. Students will develop and present a feasible business plan.
3. Students will demonstrate understanding of the major styles of management.
4. Students will exhibit work skills of attendance, work ethic, and self-motivation.
5. Students will demonstrate understanding of business ethics.

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

First Semester		Credits
	ECO212	Microeconomics..... 3
	ENG111	Composition I..... 3
+	MGT110	Management..... 3
		Mathematics Elective..... 3
		Technical Elective..... 3
		<u>15</u>

Second Semester		Credits
	CIS114	Microsoft Applications..... 3
	ENG112	Composition II..... 3
+	MGT120	Supervision..... 3
+	MKT110	Marketing..... 3
		General Studies Elective..... 3
		<u>15</u>

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

Fourth Semester		Credits
+	ACC112	Managerial Accounting..... 4
+	MGT221	Entrepreneurship..... 3
+	MGT280	Business Climate Analysis..... 3
+		Business Elective..... 3
		Computer Elective..... 1
		Humanities Elective..... 3
		<u>17</u>

Business Electives:

BUS250	Labor Relations
MGT290	Business Management Internship
MKT210	Advertising
MKT230	Salesmanship

Technical Electives:

CAD111	CAD I
IET105	Industrial Computing I
MET110	Print Reading & Sketching
MGT130	Retail Management
PET110	Principles of Plastics
QCT100	Quality Concepts

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS113	Microsoft Excel
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.

HUMAN RESOURCE MANAGEMENT (PROPOSED)

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

In an environment that is very fast paced and dynamic requires Human Resource Professionals that are able to help manage a productive and efficient workforce. The Human Resource Professional is a critical member of the management team and has direct responsibility for managing employee relations, wage and salary administration, benefits, as well as contract negotiations. The Ohio demand for professionals in the time period 2006 to 2016 is expected to grow at 14% compared to a national average of 11% for Human Resource Managers.

Career Outlook

Employees working in this field have an educational attainment as follows: some college 27.8% and bachelors degree or higher at 57.5%. The salary range for the National and Ohio area is as follows:

Location	Pay Period	2007		
		25%	Median	75%
United States	Hourly	\$34.06	\$44.57	\$58.16
	Yearly	\$70,800	\$92,700	\$121,000
Ohio	Hourly	\$36.48	\$45.22	\$57.52
	Yearly	\$75,900	\$94,100	\$119,600

Source: careerinfonet.org

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 the Human Resource Function.

<u>First Semester</u>		<u>Credits</u>
ECO212	Microeconomics	3
ENG111	Composition I.....	3
+ MGT110	Management.....	3
	General Studies Elective	3
	Mathematics Elective	<u>3</u>
		15

<u>Second Semester</u>		<u>Credits</u>
CIS114	Microsoft Applications.....	3
ECO211	Macroeconomics	3
ENG112	Composition II	3
+ MGT120	Supervision.....	3
+ MKT210	Human Resource Management	<u>3</u>
		15

<u>Third Semester</u>		<u>Credits</u>
ACC111	Financial Accounting	4
ACC120	Payroll Accounting.....	3
+ BUS221	Business Law	3
	Computer Elective.....	1
	Social Behavioral Science Elective.....	<u>3</u>
		14

<u>Fourth Semester</u>		<u>Credits</u>
ACC112	Managerial Accounting	4
+ BUS223	Employment Law, Safety & Security	3
+ BUS250	Labor Relations	3
+ MGT290	Business Management Internship ...	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.

INTERNATIONAL/GLOBAL BUSINESS

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

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.

Business Electives:

ECO211	Macroeconomics
MGT130	Retail Management
MGT290	Business Management Internship
MKT210	Advertising
MKT230	Salesmanship

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

<u>First Semester</u>		<u>Credits</u>
	ECO212	Microeconomics..... 3
	BUS160	International & Global Business..... 3
	ENG111	Composition I..... 3
+	MGT110	Management..... 3
		Mathematics Elective..... 3
		15

<u>Second Semester</u>		<u>Credits</u>
	CIS114	Microsoft Applications..... 3
	ENG112	Composition II..... 3
	GEO110	World Geography..... 3
+	MKT110	Marketing..... 3
		General Studies Elective..... 3
		15

<u>Third Semester</u>		<u>Credits</u>
+	ACC111	Financial Accounting..... 4
+	BUS221	Business Law..... 3
+	BUS257	Global Economics..... 3
	SSC210	Cultural Diversity..... 3
		Computer Elective..... 1
		Humanities Elective..... 3
		17

<u>Fourth Semester</u>		<u>Credits</u>
+	ACC112	Managerial Accounting..... 4
+	BUS260	International Trade..... 3
+	MGT281	Global Business Climate Analysis.. 3
+	MKT230	Salesmanship..... 3
		Business Elective..... 3
		Computer Elective..... 1
		17

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
CIS113	Microsoft Excel
CIS118	Access
CIS119	Power Point
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.

LOGISTICS AND SUPPLY CHAIN MANAGEMENT ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

A career in Supply Chain Management deals with a dynamic environment of efficiently facilitating the delivery of goods to customers through a variety of intermediaries. The process is known as channel management and is only a small part of Supply Chain Management. Supply Chain Management deals with the entire array of sourcing, procurement, conversion, and logistics management activities. Organizations must rely on effective supply chains to coordinate the vast array of inputs and outputs of globally networked companies. The combination of Information Technology and outsourcing have created organizations like Dell and Wal-Mart adept at forming alliances and/or performing specific strategic tasks to take advantage of market conditions.

Career Outlook

Employment outlook appears strong through 2014 for front line Supervisors/Managers of Production/Operating Workers with 860 new jobs per year and hourly rates of pay at \$24.15. Upper management positions including General and Operations Managers will experience an average annual growth of 1,894 workers per year and wage rates of \$45.63 and would require additional education and experience.

Program Learning Outcomes

Students who complete the Logistics Supply Chain Management program will be employable in a variety of management positions in which they can:

1. Demonstrate an understanding of Supply Chain management.
2. Differentiate between an internal and external supply chain.
3. Differentiate between make to stock and make to order strategies.
4. Differentiate between a push and pull manufacturing system.

Computer Electives:

CIS112	Microsoft Word
CIS113	Microsoft Excel
CIS114	Microsoft Applications

Business Electives:

ACC140	Personal Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS160	International & Global Business
BUS260	International Trade
ECO211	Macroeconomics
MGT221	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
REA210	Real Estate Principles
VCT182	Photography

<u>First Semester</u>		<u>Credits</u>
+	ACC111 Financial Accounting	4
	ENG111 Composition I.....	3
+	MGT110 Management.....	3
	MTH109 College Algebra.....	3
+	SCM220 Operations Management	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+	ACC112 Managerial Accounting	4
+	SCM200 Supply Chain Management.....	3
	ENG112 Composition II	3
+	MKT110 Marketing	3
	Computer Elective.....	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
+	BUS221 Business Law	3
	ECO212 Microeconomics.....	3
+	SCM210 Purchasing and Materials Management.....	3
+	STA220 Statistics	3
	Humanities Elective	<u>3</u>
		15

<u>Fourth Semester</u>		<u>Credits</u>
+	MGT120 Supervision.....	3
+	SCM230 Physical Distribution Logistics	3
+	Business Elective	3
	General Studies Elective	3
	Social Behavioral Science Elective.....	<u>3</u>
		15

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

LOGISTICS AND SUPPLY CHAIN MANAGEMENT CERTIFICATE

BUSINESS TECHNOLOGIES DIVISION

A career in Supply Chain Management deals with a dynamic environment of efficiently facilitating the delivery of goods to customers through a variety of intermediaries. The process is known as channel management and is only a small part of Supply Chain Management. Supply Chain Management deals with the entire array of sourcing, procurement, conversion, and logistics management activities. Organizations must rely on effective supply chains to coordinate the vast array of inputs and outputs of globally networked companies. The combination of Information Technology and outsourcing have created organizations like Dell and Wal-Mart adept at forming alliances and/or performing specific strategic tasks to take advantage of market conditions.

Career Outlook

Employment outlook appears strong through 2014 for front line Supervisors/Managers of Production/Operating Workers with 860 new jobs per year and hourly rates of pay at \$24.15. Upper management positions including General and Operations Managers will experience an average annual growth of 1,894 workers per year and wage rates of \$45.63 and would require additional education and experience.

Program Learning Outcomes

Students who complete the Logistics Supply Chain Management program will be employable in a variety of management positions in which they can:

1. Demonstrate an understanding of Supply Chain management.
2. Differentiate between an internal and external supply chain.
3. Differentiate between make to stock and make to order strategies.
4. Differentiate between a push and pull manufacturing system.

<u>First Semester</u>		<u>Credits</u>
+	ACC111 Financial Accounting	4
+	BUS221 Business Law	3
+	MGT110 Management	3
	MTH109 College Algebra.....	3
+	SCM220 Operations Management	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
	ENG111 Composition I.....	3
+	MGT120 Supervision.....	3
+	SCM200 Supply Chain Management	3
+	SCM230 Physical Distribution Logistics	3
	STA220 Statistics	<u>3</u>
		15

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

REAL ESTATE CERTIFICATE

BUSINESS TECHNOLOGIES DIVISION

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.

<u>First Semester</u>		<u>Credits</u>
+ ACC111	Financial Accounting	4
BUS110	Business Math/Calculators.....	3
	or	
MTH109	College Algebra.....	3
ECO212	Microeconomics	3
+ REA210	Real Estate Principles.....	3
+ REA220	Real Estate Law.....	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+ ACC112	Managerial Accounting	4
CIS114	Microsoft Applications.....	3
MKT110	Marketing	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.

STRAIGHT TRUCK TRANSPORTATION

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

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 West Unity, 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	Individual Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS160	International & Global Business
BUS260	International Trade
ECO211	Macroeconomics
MGT220	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising

<u>First Semester</u>		<u>Credits</u>
ECO212	Microeconomics.....	3
BUS110	Business Math/Calculators.....	3
or		
MTH109	College Algebra.....	3
+ MGT110	Management.....	3
TRN150	Straight Truck Driver	<u>7</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
ENG112	Composition II	3
+ MGT210	Human Resource Management	3
	Computer Elective.....	1
	Social/Behavioral Science Elective.....	<u>3</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

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
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.

TRACTOR-TRAILER TRANSPORTATION

ASSOCIATE OF APPLIED BUSINESS IN BUSINESS MANAGEMENT

BUSINESS TECHNOLOGIES DIVISION

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 West Unity, 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	Individual Income Tax Accounting
ACC221	Cost Accounting I
ACC240	Business Income Tax Accounting
BUS160	International & Global Business
BUS260	International Trade
ECO212	Microeconomics
MGT220	Entrepreneurship
MGT230	Retail Management
MGT290	Business Mgt. Co-Op/Internship
MKT210	Advertising
TRN100	Tractor-Trailer Driver Refresher

<u>First Semester</u>		<u>Credits</u>
BUS110	Business Math/Calculators.....	3
or		
MTH109	College Algebra.....	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

Computer Electives:

ACC261	Quick Books
ACC262	Peachtree
ACC271	Intermediate Quick Books
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.

COMPUTER PROGRAMMING

ASSOCIATE OF APPLIED BUSINESS IN INFORMATION TECHNOLOGY

BUSINESS TECHNOLOGIES DIVISION

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. 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 Internet 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 2010, 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 gain an understanding of structured programming concepts.
2. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
3. Students will demonstrate software skills.
4. Students will write and debug programs.

Business Electives:

BUS160	International & Global Business
BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis

Business Analysis Electives:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

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

<u>Second Semester</u>		<u>Credits</u>
+	CIS109 Database Management	4
	CIS114 Microsoft Applications.....	3
+	CIS165 Java Programming.....	4
	ENG112 Composition II	3
	Business Elective	<u>3</u>
		17

<u>Third Semester</u>		<u>Credits</u>
+	ACC111 Financial Accounting	4
+	CIS108 Internet Scripting.....	4
+	CIS150 Programming C++.....	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

Technical Electives:

CAD111	CAD I
CIS155	Linux Networking I
CIS161	C #
CIS180	Computer Operations & CL
CIS230	Programming RPG
CIS255	Linux Networking II
CIS256	Internet Security
CIS272	Microsoft Networking I
CIS282	Microsoft Networking II
CIS283	Microsoft Networking III
CIS290	Information Technology Internship

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

INTERNET SECURITY

ASSOCIATE OF APPLIED BUSINESS IN INFORMATION TECHNOLOGY

BUSINESS TECHNOLOGIES DIVISION

An Internet Security professional assists in securing networks and computers from unauthorized activity. This program will teach students how to monitor networks using packet sniffing, secure networks using firewalls, secure network file systems, manage passwords, encrypt files, encrypt network traffic, and deal with threats such as spyware, malware and viruses.

Career Outlook

Career opportunities are numerous for individuals in this field. All organizations, large and small, use the computer as an integral part of their 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 Internet Security Specialist, Network Security Analyst, Security Administrator or Computer Security Specialist.

Program Learning Outcomes

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

1. Students will gain an understanding of structured programming concepts.
2. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
3. Students will demonstrate software skills.
4. Students will implement procedures designed to counteract current Computer and Network security risks.

Business Electives:

BUS160	International & Global Business
BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis

Business Analysis Electives:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

<u>First Semester</u>		<u>Credits</u>
+	CIS150	Programming C++..... 4
+	CIS190	Computer Operations GOS 4
	ENG111	Composition I..... 3
	MTH109	College Algebra..... 3
		14

<u>Second Semester</u>		<u>Credits</u>
+	CIS114	Microsoft Applications..... 3
+	CIS272	Microsoft Networking I..... 4
	ENG112	Composition II 3
		Business Elective 3
		Humanities Elective 3
		16

<u>Third Semester</u>		<u>Credits</u>
	ACC111	Financial Accounting 4
+	CIS155	Linux Networking I..... 4
+	CJT130	Criminal Justice Principles..... 3
+		Technical Elective 4
		15

<u>Fourth Semester</u>		<u>Credits</u>
	ACC112	Managerial Accounting 4
+	CIS256	Internet Security..... 4
		Business Analysis Elective..... 3
		Social/Behavioral Science Elective. 3
+		Technical Elective 4
		18

Technical Electives:

CAD111	CAD I
CIS108	Internet Scripting
CIS109	Database Management
CIS111	Visual Basic Programming
CIS161	C #
CIS165	Java Programming
CIS180	Computer Operations & CL
CIS230	Programming RPG
CIS255	Linux Networking II
CIS282	Microsoft Networking II
CIS283	Microsoft Networking III
CIS290	Information Technology Internship

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

NETWORK ADMINISTRATION

ASSOCIATE OF APPLIED BUSINESS IN INFORMATION TECHNOLOGY

BUSINESS TECHNOLOGIES DIVISION

The Network Administration major provides the skills and training necessary to install and maintain networks using Microsoft and Linux Operating Systems. The program provides the student with training in current programming languages such as C++, Java, C#, and Visual Basic. Graduates are eligible to sit for certification tests leading to certification as a Microsoft Certified Professional, a Microsoft Certified System Engineer, TIA Linux+ Certification, and A+ Certification.

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

Business Electives:

BUS160	International & Global Business
BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis

Business Analysis Electives:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

<u>First Semester</u>		<u>Credits</u>
+	CIS150	Programming C++..... 4
+	CIS190	Computer Operations GOS 4
	ENG111	Composition I..... 3
		Mathematics Elective 3
		14

<u>Second Semester</u>		<u>Credits</u>
+	CIS114	Microsoft Applications..... 3
+	CIS272	Microsoft Networking I..... 4
	ENG112	Composition II 3
		Business Elective 3
+		Technical Elective 4
		17

<u>Third Semester</u>		<u>Credits</u>
	ACC111	Financial Accounting 4
+	CIS155	Linux Networking I..... 4
		General Studies Elective 3
+		Technical Elective 4
		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 4
		17

Technical Electives:

CAD111	CAD I
CIS108	Internet Scripting
CIS109	Database Management
CIS111	Visual Basic Programming
CIS161	C#
CIS165	Java Programming
CIS180	Computer Operations & CL Programming
CIS230	Programming RPG
CIS255	Linux Networking II
CIS256	Internet Security
CIS282	Microsoft Networking II
CIS283	Microsoft Networking III
CIS290	Information Technology Internship

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

WEB SITE ADMINISTRATION

ASSOCIATE OF APPLIED BUSINESS IN INFORMATION TECHNOLOGY

BUSINESS TECHNOLOGIES DIVISION

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 gain an understanding of structured programming concepts.
2. Students will install and troubleshoot current Personal Computer hardware and current Operating System software.
3. Students will demonstrate software skills.
4. Students will develop and edit web pages.

Business Electives:

BUS160	International & Global Business
BUS221	Business Law
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis

Business Analysis:

ACC221	Cost Accounting I
BUS280	Finance
STA220	Statistics

Mathematics Electives:

BUS110	Business Math/Calculators
MTH109	College Algebra

First Semester		Credits
+ CIS108	Internet Scripting	4
+ CIS114	Microsoft Applications	3
+ CIS190	Computer Operations GOS	4
ENG111	Composition I	3
	Mathematics Elective	<u>3</u>
		17

Second Semester		Credits
+ CIS109	Database Management	4
+ CIS129	Web Site Development	3
+ CIS272	Microsoft Networking I	4
ENG112	Composition II	3
+ VCT268	Video Production	<u>3</u>
		17

Third Semester		Credits
ACC111	Financial Accounting	4
+ CIS155	Linux Networking I	4
+ CIS282	Microsoft Networking II	4
+ VCT266	Multimedia Production	<u>3</u>
		15

Fourth Semester		Credits
	Business Elective	3
	Business Analysis Elective	3
	General Studies Elective	3
	Humanities Elective	3
	Social/Behavioral Science Elective	<u>3</u>
		15

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

COMPUTER TECHNICIAN CERTIFICATE

BUSINESS TECHNOLOGIES DIVISION

The Computer Technician must have experience working on personal computers, experience working on networks and some programming experience. Technicians are acquainted with software packages such as word processors and spreadsheets. The computer technician must be knowledgeable in computer operations and computer systems.

Career Outlook

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

Program Learning Outcomes

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

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

<u>First Semester</u>		<u>Credits</u>
	CIS108 Internet Scripting.....	4
+	CIS150 Programming C+.....	4
+	CIS190 Computer Operations GOS	4
	ENG111 Composition I.....	<u>3</u>
		15

<u>Second Semester</u>		<u>Credits</u>
+	CIS114 Microsoft Applications.....	3
+	CIS165 Java Programming.....	4
+	CIS272 Microsoft Networking I.....	4
	ENG112 Composition II	3
	Business Elective	<u>3</u>
		17

Networking Electives:

CIS155	Linux Networking I
CIS272	Microsoft Networking I

Business Electives:

BUS221	Business Law
BUS160	International & Global Business
BUS260	International Trade
ECO211	Macroeconomics
ECO212	Microeconomics
MGT110	Management
MGT210	Human Resource Management
MGT280	Business Climate Analysis

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

OFFICE ADMINISTRATION

ASSOCIATE OF APPLIED BUSINESS IN OFFICE ADMINISTRATIVE SERVICES

BUSINESS TECHNOLOGIES DIVISION

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 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 develop proficient keyboarding skills.
2. Students will create documents using language arts skills such as proofreading, grammar, and punctuation.
3. Students will develop and formulate documents using computer software skills.
4. Students will develop time management and organizational skills.
5. Students will create financial statements, reports, and schedules.
6. Students will apply mathematical operations to realistic business problems.

<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.....	<u>3</u>
		14

<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>
	ACC102 Office Accounting	4
	CIS119 PowerPoint.....	1
+	OAS200 Speedbuilding.....	1
	Mathematics Elective.....	3
+	Technical Elective	<u>3</u>
		12

<u>Fourth Semester</u>		<u>Credits</u>
	ACC261 Quick Books.....	1
+	OAS249 Advanced Microsoft Suite.....	3
+	OAS290 Internship.....	2
	General Studies Elective	3
	Humanities Elective	3
	Social/Behavioral Science Elective.	<u>3</u>
		15

Mathematics Electives:

BUS110	Business Math with Calculators
MTH109	College Algebra

Technical Electives:

ENG220	Business Writing
OAS230	Transcription

* 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.

LEGAL SUPPORT

ASSOCIATE OF APPLIED BUSINESS IN OFFICE ADMINISTRATIVE SERVICES

BUSINESS TECHNOLOGIES DIVISION

Legal services continue to be in high demand in both the public and private sectors. The demand for services drives the need for skilled competent employees that organize, retrieve, store, and create the documents required. Graduates' skills include 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 photocopier machines, and assist in routine office duties.

Career Outlook

The Bureau of Labor Statistics says that employment of executive secretaries and administrative assistants is projected to grow faster than average for all occupations in the 2006-2016 periods. Little or no change in employment is expected for secretaries, except legal, medical, or executive, who account for about 46 percent of all secretaries and administrative assistants.

Program Learning Outcomes

1. Students will exhibit proficient keyboarding skills.
2. Students will create documents using language arts skills such as proofreading, grammar, and punctuation.
3. Students will develop and formulate documents using computer software skills.
4. Students will develop time management and organizational skills.
5. Students will create financial statements, reports, and schedules.
6. Students will apply mathematical operations to realistic business problems.
7. Students will create documents using accurate legal terminology and transcription.
8. Students will exhibit understanding of law office practices.

<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
+	PAR100 Introduction to Paralegal.....	<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
	General Studies Elective	<u>3</u>
		17

<u>Third Semester</u>		<u>Credits</u>
	ACC102 Office Accounting	4
+	OAS200 Speedbuilding.....	1
+	OAS230 Transcription	3
+	PAR101 Law Office Management.....	3
	Mathematics Elective	<u>3</u>
		14

<u>Fourth Semester</u>		<u>Credits</u>
	ACC261 Quick Books.....	1
+	BUS221 Business Law	3
+	OAS290 Internship.....	2
	Humanities Elective	3
+	Legal Elective.....	3
	Social Behavioral Science Elective.	<u>3</u>
		15

Mathematics Electives:

BUS110	Business Math with Calculators
MTH109	College Algebra

Legal Electives:

Any course with a PAR course prefix.

* 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

ASSOCIATE OF APPLIED BUSINESS IN OFFICE ADMINISTRATIVE SERVICES

BUSINESS TECHNOLOGIES DIVISION

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 create documents using language arts skills such as proofreading, grammar, and punctuation.
3. Students will develop and formulate documents using computer software skills.
4. Students will develop time management and organizational skills.
5. Students will create financial statements, reports, and schedules.
6. Students will apply mathematical operations to realistic business problems.
7. Students will create documents using accurate medical terminology and transcription.
8. Students will determine accurate codes for medical billing 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
+	OAS200 Speedbuilding.....	1
+	OAS221 Medical Information Coding.....	3
+	OAS282 Medical Transcription	3
	Mathematics Elective	<u>3</u>
		14

<u>Fourth Semester</u>		<u>Credits</u>
	ACC261 Quick Books.....	1
+	OAS281 Medical Insurance	3
+	OAS290 Internship.....	2
	Humanities Elective	3
	Social/Behavioral Science Elective.	3
+	Technical Elective	<u>3</u>
		15

Mathematics Electives:

BUS110	Business Math with Calculators
MTH109	College Algebra

Technical Electives:

OAS222	Intermediate Medical Information Coding
OAS249	Advanced Microsoft Suite

* 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 MANAGEMENT (PROPOSED)

ASSOCIATE OF APPLIED BUSINESS IN OFFICE ADMINISTRATIVE SERVICES

BUSINESS TECHNOLOGIES DIVISION

Office management is a critical component in the efficient and effective office operations. All organizations need timely and effective office and administrative support to operate efficiently. Office and administrative support supervisors and managers coordinate this support. These workers are employed in virtually every sector of the economy, working in positions as varied as teller supervisor, customer services manager, or shipping and receiving supervisor.

Career Outlook

Employment is expected to grow by 6 percent during the 2006-2016 period. According to the Bureau of Labor Statistics Office and administrative support supervisors and managers held 1.4 million jobs in 2006. Although jobs for office and administrative support supervisors and managers are found in practically every industry, the largest number are found in organizations with a large administrative support workforce, such as banks, wholesalers, government agencies, retail establishments, business service firms, health care facilities, schools, and insurance companies. Because of most organizations' need for continuity of supervision, few office and administrative support supervisors and managers work on a temporary or part-time basis.

Program Learning Outcomes

1. Students will demonstrate language arts skills such as proofreading, grammar, and punctuation.
2. Students will demonstrate proficiency in computer software skills.
3. Students will demonstrate the understanding of defining the problem, identification of possible solutions and development and implementation of the solution.
4. Students will demonstrate the ability to work with others individually and in group or team settings.
5. Students will demonstrate organizational skills by producing a professional portfolio.

<u>First Semester</u>		<u>Credits</u>
+ ACC102	Office Accounting	4
	CIS112 Microsoft Word	3
	ENG111 Composition I.....	3
+ OAS110	Records Management.....	3
	Mathematics Elective	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
+ ACC120	Payroll Accounting.....	3
	CIS113 Microsoft Excel.....	3
+ CIS118	Access	1
	ECO212 Microeconomics.....	3
	ENG112 Composition II	3
+ MKT110	Marketing	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
	BUS221 Business Law	3
+ MGT110	Management.....	3
+ PAR100	Law Office Management.....	3
	General Studies Elective	3
	Humanities Elective	<u>3</u>
		15

<u>Fourth Semester</u>		<u>Credits</u>
	MGT210 Human Resource Management	3
+ OAS160	Office Procedures	3
+ OAS249	Advanced Microsoft Suite.....	3
	Business Elective	3
	Social/Behavioral Science Elective.....	<u>3</u>
		15

Mathematics Electives:

BUS110	Business Math with Calculators
MTH109	College Algebra

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

OFFICE ASSISTANT CERTIFICATE

BUSINESS TECHNOLOGIES DIVISION

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.

<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

* 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.

PARALEGAL STUDIES

ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

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 Cultures: Ancient & Medieval Worlds
HUM210	Humanities and Cultures: Renaissance to Present
HUM221	Music Appreciation
HUM230	Art Appreciation

<u>First Semester</u>		<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

<u>Second Semester</u>		<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

<u>Third Semester</u>		<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

<u>Fourth Semester</u>		<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

Mathematics Electives:

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

Social/Behavioral Science Electives:

PSY110	General Psychology
SSC110	General Anthropology
SSC120	American Government

Business Electives:

BUS221	Business Law
ECO211	Macroeconomics (Transfer)

Program Electives:

BIO101	Principles of Biology
BIO115	Ecology
BIO231	Anatomy & Physiology I
PAR221	Bankruptcy (Not for Transfer)
PHY140	Astronomy
+ Students	must attain a 2.00 grade point average in these technical courses to graduate.

VISUAL COMMUNICATIONS ASSOCIATE OF APPLIED BUSINESS

BUSINESS TECHNOLOGIES DIVISION

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 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 produce, analyze, and evaluate photos and video taken under various conditions.
2. Students will accurately analyze, edit, and prepare photos for various uses.
3. Students will apply knowledge of graphics and drawing skills to create a product.
4. Students will demonstrate the ability to manipulate software programs to create and enhance graphics, web pages, and print layouts.
5. Students will plan, prepare, and produce a final project which meets individual course requirements.

<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
		Mathematics 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 Program Elective* <u>2</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 Production..... 3
+	VCT289	VCT Co-Op Experience..... 3
		Social/Behavioral Science Elective. <u>3</u>
		18

Mathematics Electives:

BUS110	Business Math/w Calculators
MTH109	College Algebra (Transfer)

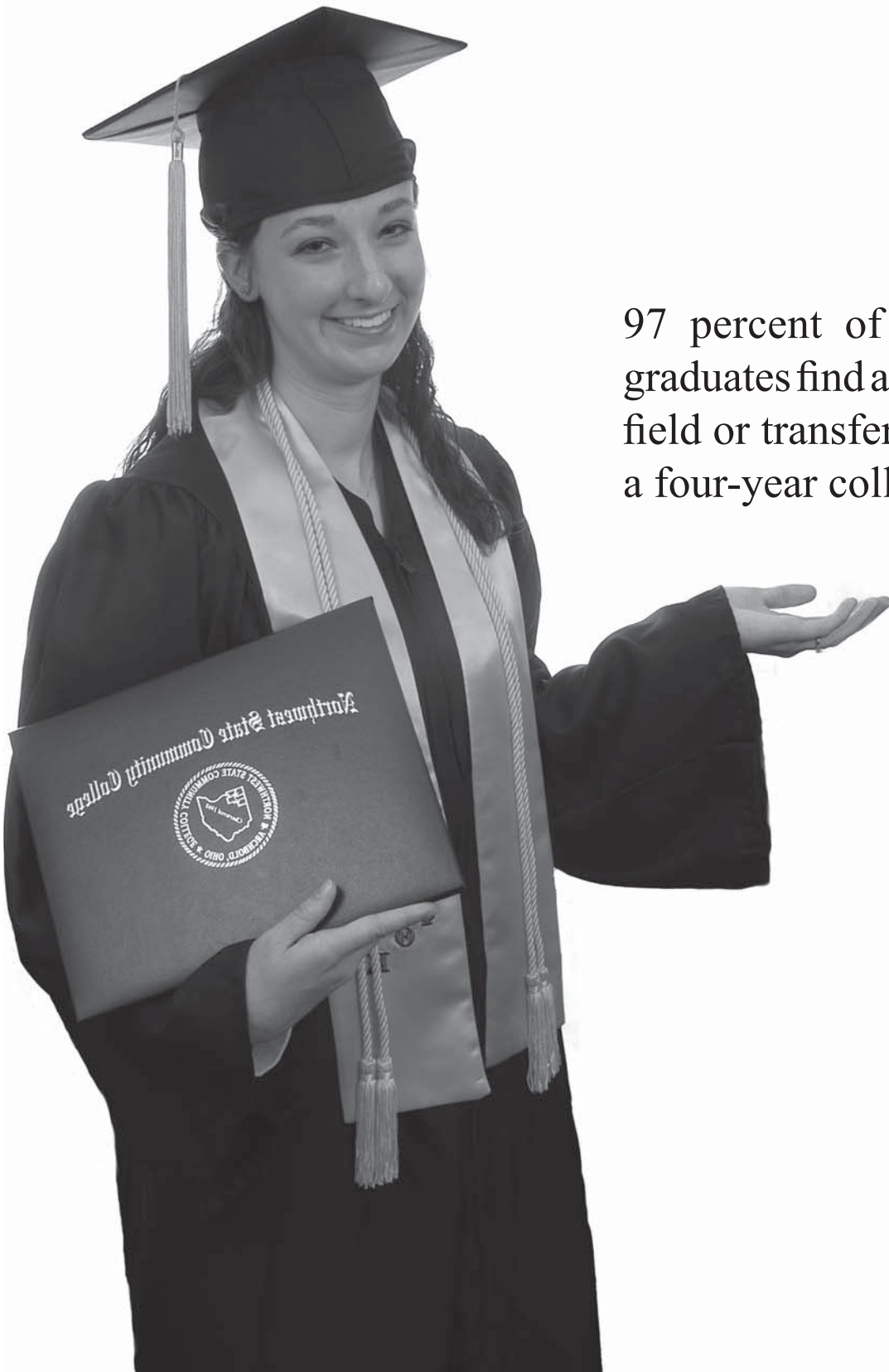
Program Electives:

ART210	Oil/Acrylic Painting
ART220	Beginning Sculpture
CAD111	CAD I
MGT110	Management
MKT110	Marketing
MTH112	Trigonometry (Transfer)

* Students planning to transfer to a four-year college should take MTH112 Trigonometry.

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

DID YOU KNOW?



97 percent of Northwest State graduates find a job in their chosen field or transfer successfully into a four-year college program.



ENGINEERING TECHNOLOGIES



ENGINEERING TECHNOLOGIES DIVISION

Northwest State Community College offers a variety of degree and certificate programs in the field of Engineering Technologies. Students enrolled in an Engineering Technologies program will benefit from the small classroom sizes as they learn to analyze problems and, more importantly, how to fix them.

Through the Engineering Technologies Division, students will be prepared to enter the workforce immediately after graduation. They will also have the option of transferring into a four-year degree program at a partnering college or university.

Degrees and Certificates programs offered through the Engineering Technologies Division include:

Applied Science

- Alternative Energy Systems Design (Proposed) (p71)
- Alternative Energy Systems Service (Proposed) (p73)
- Automation & Controls (p75)
- CAD/CAM (p77)
- Industrial Management Technology (p79)
- Mechanical Engineering Technology (p80)
- Plastics Engineering Technology (p81)

Industrial Technology

- Industrial Electrician (p84)
- Machining CNC Programming (p86)
- Maintenance Technician/Mechatronics (p88)
- Millwright (p90)

Technical Studies

- Plastics Machine Maintenance (ATS Type A) (p83)

Certificate Programs

- Alternative Energy Systems Design (Proposed) (p72)
- Alternative Energy Systems Service (Proposed) (p74)
- Computer Aided Design (p78)
- HVACR (Climate Control) (p92)
- Plastics Manufacturing (p82)
- Programmable Controller (PLC) (p76)
- Quality Control (p93)

Related Trades Certificate Programs

- Industrial Electrical (p85)
- Industrial Maintenance (p89)
- Millwright (p91)
- Machining (p87)

Course Sequence

The suggested sequence of courses is 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.

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

General Studies Electives:

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

Humanities Electives:

- | | |
|--------|---|
| ENG223 | Interpretation of 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 | Hum. & Cultures: Ancient & Medieval Times |
| HUM210 | Hum. & 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 Electives:

- | | |
|--------|----------------------------------|
| CHM101 | Principles of Chemistry |
| CHM201 | General Chemistry I |
| PHY251 | Physics: Mechanics & Heat |
| PHY252 | Physics: Electricity & Magnetism |

Social/Behavioral Science Electives:

- | | |
|--------|---|
| GEO210 | Geography - US and Canada |
| PSY110 | General Psychology |
| PSY220 | Social Psychology |
| SSC101 | Sociology |
| SSC110 | General Anthropology |
| SSC120 | American Government |
| SSC130 | Comparative Government |
| SSC210 | Cultural Diversity
(Any NSCC Social/Behavioral Science Elective) |

Technical Electives:

Any AET, CAD, EET, IET, INT, MET, PET or QCT course

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, stop by the Admissions Office in C102 or call (419)267-1320 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.

ALTERNATIVE ENERGY SYSTEMS DESIGN (PROPOSED)

ASSOCIATE OF APPLIED SCIENCE

ENGINEERING TECHNOLOGIES DIVISION

Due to rising fuel costs and the depletion of our earth’s natural resources, there is an increasing interest in alternative energy technologies. Regional and national legislation is requiring a shift to alternative and renewable energy sources. The manufacturing core is shifting toward solar, biomass, wind and other alternative energy technologies. As industry shifts, a large workforce will need developed and/or retrained for new jobs; new jobs in the area of alternative energy technology.

This program will prepare individuals for different technical careers in alternative energy related fields. This may include the design of systems incorporating various alternative energies or the design and specification of components related to the AET systems. This program will also be a path to transfer into similar or related four-year engineering technology programs.

Career Outlook

Currently there is a large amount of research in alternative energy technology. With the innovation of this technology, there will be a need for individuals who can design, specify and incorporate these systems into machines and building structures.

Program Learning Outcomes

Students earning an Associate degree from this program will:

1. Recognize current forms of energy and how that energy is utilized.
2. Compare and contrast various current energy sources, and determine the applicability of various alternative energy sources.
3. Examine current structures, calculate energy requirements, and specify appropriate components using alternative energy technologies.
4. Design and specify various components of alternative energy systems.

<u>First Semester</u>		<u>Credits</u>
	ENG111 Composition I.....	3
	MTH109 College Algebra.....	3
+	MET100 Intro to Engineering Technologies..	3
+	MET110 Print Reading and Sketching.....	3
+	EET171 Industrial Electricity I	3
+	AET100 Introduction to Alternative Energy..	<u>3</u>
		18

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II	3
	MTH112 Trigonometry.....	3
	PHY251 Physics Mechanics and Heat.....	4
+	AET110 Energy Audit	4
	General Studies Elective	<u>3</u>
		17

<u>Third Semester</u>		<u>Credits</u>
+	MET235 Statics.....	3
+	MET234 Strengths of Materials	3
+	AET200 Sustainable Building Design.....	4
	CAD213 CAD III	4
+	Alternative Energy Tech Elective....	<u>4</u>
		18

<u>Fourth Semester</u>		<u>Credits</u>
+	Alternative Energy Tech Elective....	4
+	AET290 Alternative Energy Capstone	4
	Humanities Elective	3
	Social/Behavioral Science Elective..	3
	Science Elective	<u>4</u>
		18

Alternative Energy Technology Electives:

AET120	Wind Power
AET130	Solar Energy I
AET140	Geothermal
AET220	Solar Energy II
AET230	Hydrogen and Fuel Cell Technology
AET240	Biofuels

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

ALTERNATIVE ENERGY SYSTEMS DESIGN (PROPOSED) CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

Due to rising fuel costs and the depletion of our earth's natural resources, there is an increasing interest in alternative energy technologies. Regional and national legislation is requiring a shift to alternative and renewable energy sources. The manufacturing core is shifting toward solar, biomass, wind and other alternative energy technologies. As industry shifts, a large workforce will need developed and/or retrained for new jobs; new jobs in the area of alternative energy technology.

This program will prepare individuals for different technical positions in alternative energy related fields along with a path to transfer into related two-year associate degree programs.

Career Outlook

Currently there is a large amount of research in alternative energy technology. With the innovation of this technology, there will be a need for individuals who can design, specify and incorporate these systems into machines and building structures.

Program Learning Outcomes

Students earning a certificate from this program will:

1. Recognize current energy utilization.
2. Compare and contrast various energy sources, and determine the applicability of various alternative energy sources.
3. Examine current structures and specify appropriate related components using alternative energy.

<u>First Semester</u>		<u>Credits</u>
	ENG111	Composition I..... 3
+	MET100	Intro to Engineering Technologies.. 3
+	AET100	Introduction to Alternative Energy.. 3
		9

<u>Second Semester</u>		<u>Credits</u>
+	MET110	Print Reading and Sketching..... 3
+	EET171	Industrial Electricity I 3
+	AET110	Energy Audit 4
		10

<u>Third Semester</u>		<u>Credits</u>
	CAD213	CAD III 4
+	AET200	Sustainable Building Design 4
		8

<u>Fourth Semester</u>		<u>Credits</u>
	MTH109	College Algebra..... 3
+		Alternative Energy Tech Elective.... 4
+		Alternative Energy Tech Elective.... 4
		11

Alternative Energy Technology Electives:

AET120	Wind Power
AET130	Solar Energy I
AET140	Geothermal
AET220	Solar Energy II
AET230	Hydrogen and Fuel Cell Technology
AET240	Biofuels

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

ALTERNATIVE ENERGY SYSTEMS SERVICE (PROPOSED)

ASSOCIATE OF APPLIED SCIENCE

ENGINEERING TECHNOLOGIES DIVISION

Due to rising fuel costs and the depletion of our earth’s natural resources, there is an increasing interest in alternative energy technologies. Regional and national legislation is requiring a shift to alternative and renewable energy sources. The manufacturing core is shifting toward solar, biomass, wind and other alternative energy technologies. As industry shifts, a large workforce will need developed and/or retrained for new jobs; new jobs in the area of alternative energy technology.

This program will prepare individuals for different technical careers in alternative energy related fields. This may include the specification and installation of various alternative energy systems or the maintenance and repair of these systems. This program will also be a path to transfer into similar or related four-year engineering technology programs.

Career Outlook

Currently there is a large amount of research in alternative energy technology. With the innovation of this technology, there will be a need for individuals who can install, service, maintain and repair these systems in machines and building structures.

Program Learning Outcomes

Students earning an Associate degree from this program will:

1. Recognize current energy utilization.
2. Determine the applicability of the various alternative energy sources.
3. Examine current structures, calculate requirements, and specify appropriate related components using alternative energy.
4. Install, service and repair various alternative energy systems.

<u>First Semester</u>		<u>Credits</u>
	ENG111 Composition I.....	3
	MTH109 College Algebra.....	3
+	MET100 Intro to Engineering Technologies..	3
+	MET110 Print Reading and Sketching.....	3
+	EET171 Industrial Electricity I	3
+	AET100 Introduction to Alternative Energy..	<u>3</u>
		18

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II	3
+	MET103 Applied Geometry and Trigonometry	3
+	EET194 Industrial Electricity II	3
+	AET110 Energy Audit	4
	General Studies Elective	<u>3</u>
		16

<u>Third Semester</u>		<u>Credits</u>
+	MET133 Industrial Pipefitting.....	3
+	MET201 Industrial Applied Physics.....	3
+	INT120 HVACR I.....	3
	CADIII CAD I.....	4
+	Alternative Energy Tech Elective....	4
	Social/Behavioral Science Elective.	<u>3</u>
		20

<u>Fourth Semester</u>		<u>Credits</u>
+	AET290 Alternative Energy Capstone	4
+	INT221 HVACR III Heating Systems	3
+	Alternative Energy Tech Elective....	4
+	Technical Elective	3
	Humanities Elective	<u>3</u>
		17

Alternative Energy Technology Electives:

AET120	Wind Power
AET130	Solar Energy I
AET140	Geothermal
AET220	Solar Energy II
AET230	Hydrogen and Fuel Cell Technology
AET240	Biofuels

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

ALTERNATIVE ENERGY SYSTEMS SERVICE (PROPOSED) CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

Due to rising fuel costs and the depletion of our earth's natural resources, there is an increasing interest in alternative energy technologies. Regional and national legislation is requiring a shift to alternative and renewable energy sources. The manufacturing core is shifting toward solar, biomass, wind and other alternative energy technologies. As industry shifts, a large workforce will need developed and/or retrained for new jobs; new jobs in the area of alternative energy technology.

This program will prepare individuals for different technical positions in alternative energy related fields along with a path to transfer into related two-year associate degree programs.

Career Outlook

Currently there is a large amount of research in alternative energy technology. With the innovation of this technology, there will be a need for individuals who can install, service, maintain and repair these systems in machines and building structures.

Program Learning Outcomes

Students earning a certificate from this program will:

1. Recognize current energy utilization.
2. Determine the applicability of the various alternative energy sources.
3. Examine current structures.
4. Service and repair various alternative energy systems.

<u>First Semester</u>		<u>Credits</u>
	ENG111	Composition I..... 3
+	MET100	Intro to Engineering Technologies.. 3
+	AET100	Introduction to Alternative Energy.. <u>3</u>
		9

<u>Second Semester</u>		<u>Credits</u>
+	MET110	Print Reading and Sketching..... 3
+	EET171	Industrial Electricity I 3
+	AET110	Energy Audit <u>4</u>
		10

<u>Third Semester</u>		<u>Credits</u>
+	MET103	Applied Geometry and Trigonometry 3
+	EET194	Industrial Electricity II 3
+	INT120	HVACR I..... <u>3</u>
		9

<u>Fourth Semester</u>		<u>Credits</u>
+	MET201	Industrial Applied Physics..... 3
+	MET133	Industrial Pipefitting 3
+		Alternative Energy Tech Elective.... <u>4</u>
		10

Alternative Energy Technology Electives:

AET120	Wind Power
AET130	Solar Energy I
AET140	Geothermal
AET220	Solar Energy II
AET230	Hydrogen and Fuel Cell Technology
AET240	Biofuels

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

AUTOMATION & CONTROLS

ASSOCIATE OF APPLIED SCIENCE IN INSTRUMENTATION TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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.

<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..... <u>3</u>
		18

<u>Second Semester</u>		<u>Credits</u>
+	EET240	Engineering Programming..... 3
	ENG112	Composition II..... 3
	MTH112	Trigonometry..... 3
+	EET194	Industrial Electricity II..... 3
		Science Elective..... 3
		General Studies Elective..... <u>3</u>
		18

<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
+	EET272	CISCO Networking I..... 4
		Humanities Elective..... <u>3</u>
		20

<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
		Social/Behavioral Science Elective..... <u>3</u>
		18

* 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.

PROGRAMMABLE CONTROLLER (PLC) CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

A Programmable Logic Controller (PLC) Certificate prepares the individual to install, maintain and troubleshoot industrial grade Programmable Logic Controllers (PLC) systems. Typically these Technicians will work closely with Maintenance Supervisors and Electrical Engineers, sometimes receiving objectives and technical advice from them. Technicians conduct extensive self study (reading, research and practice) to improve and maintain technical proficiency, due to new and improved electrical control devices.

Typically technicians work on assignments and tasks with minimum supervision and guidance, often requiring the technician to interface and pass down information between cross function personnel of incoming and outgoing shifts. It is expected by employers that technicians demonstrate excellent verbal, written and interpersonal communication skills.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Automation and Controls.

Career Outlook

Graduates of this program may find employment as entry-level Control technicians, Electrical technicians or as a Service technicians working under the direction of the Maintenance or Engineering department. Some of the typical duties of these Technicians will include: troubleshooting and programming of PLC Control Systems; variable frequency drives; 480 volt 3 phase motor wiring; reading blueprints and electrical schematics; installing conduit and wiring; testing wiring connections; working closely with electrical engineers and / or general contractors.

Program Learning Outcomes

Students earning a certificate from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Basic knowledge of 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.

<u>First Semester</u>		<u>Credits</u>
+	EET171 Industrial Electricity I	3
	MTH080 Beginning Algebra	<u>3</u>
		6

<u>Second Semester</u>		<u>Credits</u>
+	EET194 Industrial Electricity II	3
+	IET105* Industrial Computing I	<u>3</u>
		6

<u>Third Semester</u>		<u>Credits</u>
+	CAD111 CAD I	4
+	EET276 Motors & Motor Controls	<u>3</u>
		7

<u>Fourth Semester</u>		<u>Credits</u>
+	PLC200 Programmable Controller I	3
	General Studies Elective	<u>3</u>
		6

<u>Fifth Semester</u>		<u>Credits</u>
+	EET265 Instrumentation & Controls.....	3
+	PLC210 Programmable Controller II	<u>3</u>
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	EET240 Engineering Programming	3
+	PLC220 Programmable Controller III.....	<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.

CAD/CAM

ASSOCIATE OF APPLIED SCIENCE IN MECHANICAL ENGINEERING TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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 of operating systems, networking, and computer hardware.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic knowledge 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	3
+ IET105*	Industrial Computing I.....	3
	MET103	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	3
+ MET150	Tooling & Fixtures.....	3
+ MET222	Programming CNC.....	3
	MTH109	3
	General Studies Elective.....	<u>3</u>
		19

<u>Third Semester</u>		<u>Credits</u>
+ CAD213	CAD III.....	4
+ MET223	CAM I.....	4
+ QCT141	Precision Measurement.....	3
	MTH112	3
	PHY251	4
	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

* 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.

COMPUTER AIDED DESIGN CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

A Computer Aided Design Certificate prepares the individual to create engineering drawings using CAD software. Typically these individuals will work closely with Mechanical Engineers, sometimes receiving objectives and technical advice from supervisors and/or engineers (both Electrical and Mechanical), displaying both their knowledge of the software and current knowledge of Drafting and Design standards. It is expected by employers that individuals demonstrate excellent verbal, written and interpersonal communication skills.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Mechanical Engineering Technology with a CAD/CAM major.

Career Outlook

Graduates of this program may find employment as an entry-level CAD Operator/Technician or as a Detailer working under the direction of a design engineer. Some of the typical duties of a CAD Operator / Technician will include: compiling and computing a variety of engineering data; developing and preparing schematics from designs made by you and / or others; making preliminary designs from rough specifications and/or verbal directions; generating and revising current engineering prints and three-dimensional patterns for parts and products; designing and modifying equipment used for manufacturing; building a bill of Material for new or revised designs, revising drawings and check prints for accuracy.

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

Program Learning Outcomes

Students earning a certificate from this program should demonstrate:

1. Knowledge of file handling and management.
2. Familiarity 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 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.

INDUSTRIAL MANAGEMENT TECHNOLOGY ASSOCIATE OF APPLIED SCIENCE

ENGINEERING TECHNOLOGIES DIVISION

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 of operating systems, 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 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
	General Studies Elective.....	<u>3</u>
		16

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

<u>Fourth Semester</u>		<u>Credits</u>
+	QCT100 Quality Concepts.....	3
	Business Elective.....	3
	Science Elective.....	4
	Social/Behavioral Science Elective.....	3
+	Technical Elective.....	<u>3</u>
		16

Business Electives:

BUS280	Finance
MKT110	Marketing
MKT230	Salesmanship

* 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

ASSOCIATE OF APPLIED SCIENCE

ENGINEERING TECHNOLOGIES DIVISION

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 of operating systems, networking, and computer hardware.
3. Proficiency in design concepts, orthographic projection, dimensioning practices, and blueprint reading.
4. Basic knowledge 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
MTH109	College Algebra.....	<u>3</u>
		19

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

<u>Third Semester</u>		<u>Credits</u>
+ QCT141	Precision Measurement	3
+ MET232	Industrial Fluid Power I	3
PHY251	Physics: Mechanics & Heat	4
+ MET235	Statics	3
+ MET234	Strength of Materials.....	3
	Humanities Elective	<u>3</u>
		19

<u>Fourth Semester</u>		<u>Credits</u>
+ MET134	Engineering Materials	3
+ MET265	Machine Design	3
+	Technical Elective	3
	Science Elective	4
	Social/Behavioral Science Elective.	<u>3</u>
		16

* 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.

PLASTICS ENGINEERING TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

ENGINEERING TECHNOLOGIES DIVISION

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

<u>Second Semester</u>		<u>Credits</u>
	ENG112 Composition II	3
	MTH112 Trigonometry.....	3
+	PET210 Injection Molding.....	4
+	QCT141 Precision Measurement	3
	PHY251 Physics: Mechanics & Heat	4
	General Studies Elective	<u>3</u>
		20

<u>Third Semester</u>		<u>Credits</u>
+	MET232 Industrial Fluid Power I	3
+	PET231 Plastics Materials Testing.....	4
	CHM101 Principles of Chemistry.....	4
	Humanities Elective	3
+	Plastics Elective	<u>4</u>
		18

<u>Fourth Semester</u>		<u>Credits</u>
+	PET250 Plastics Secondary Operations	4
+	QCT100 Quality Concepts.....	3
+	Plastics Elective	4
	Social/Behavioral Science Elective.	3
+	Technical Elective	<u>3</u>
		17

Plastics Electives:

PET220	Advanced Injection Molding
PET225	Extrusion, Blowmolding & Thermoforming
PET240	Injection Mold Tooling

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

PLASTICS MANUFACTURING CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

A Plastics Manufacturing Certificate prepares the individual to setup and maintain injection molding processes; plastics testing processes and ensure Quality Control. Individuals may also be skilled in various processes such as blow molding, extrusion, and thermoforming. Typically these individuals report to Manufacturing Supervisors receiving daily objectives from them.

Technicians work on assignments and tasks with minimum supervision and guidance, often requiring the technician to interface and pass down information to personnel on incoming and outgoing shifts. It is expected by employers that technicians demonstrate excellent verbal, written and interpersonal communication skills.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Plastics Engineering Technology.

Career Outlook

Graduates of this program may find employment as entry-level Mold Technicians, Mold Setters, Job Setters and Material Handlers working under the direction of the Manufacturing department. Some of the typical duties of these Technicians will include performing: mold insert changes; material color changes; press start-ups and shut downs; mold changes and Planned Maintenance (PMs) on the molds. Performing product inspections to verify conformance to specifications, ensuring quality control. Directing and performing adjustments of molding equipment, working closely with the Production and the Quality Control departments.

Program Learning Outcomes

Students earning a certificate from this program should demonstrate:

1. Basic knowledge of polymers including history, current industry, recycling, types of polymers and properties.
2. Basic knowledge 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 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.

PLASTICS MACHINE MAINTENANCE (ATS - TYPE A) ASSOCIATE OF TECHNICAL STUDIES

ENGINEERING TECHNOLOGIES DIVISION

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 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 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.

INDUSTRIAL ELECTRICIAN

ASSOCIATE OF APPLIED SCIENCE IN INDUSTRIAL TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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.

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 drives.
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
MTH109	College Algebra.....	3
+ EET171	Industrial Electricity I.....	<u>3</u>
		16

<u>Second Semester</u>		<u>Credits</u>
ENG112	Composition II.....	3
+ EET194	Industrial Electricity II.....	3
+ EET277	Industrial Electronics.....	3
MET103	Applied Geometry & Trigonometry	3
+ EET281	Industrial Wiring (NEC).....	3
	General Studies Elective.....	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+ INT120	HVACR I.....	3
+ MET232	Industrial Fluid Power I.....	3
+ PLC200	Programmable Controller I.....	3
+ EET276	Motors & Motor Controls.....	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
+ MET252	Industrial Fluid Power II.....	3
+ PLC230	Servo/Robotic Systems.....	3
+	Technical Elective.....	3
	Social/Behavioral Science Elective.....	<u>3</u>
		18

* 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 ELECTRICAL RELATED TRADES CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

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 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 technology.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Industrial Electrician.

Career Outlook

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

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
	MTH080 Beginning Algebra	3
		6

<u>Second Semester</u>		<u>Credits</u>
+	EET194 Industrial Electricity II	3
+	IET105* Industrial Computing I	3
		6

<u>Third Semester</u>		<u>Credits</u>
+	EET174 Electrical Prints & Troubleshooting	3
+	MET232 Industrial Fluid Power I	3
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	EET276 Motors & Motor Controls	3
+	PLC200 Programmable Controller I	3
		6

<u>Fifth Semester</u>		<u>Credits</u>
+	EET277 Industrial Electronics	3
+	PLC230 Servo/Robotics Systems	3
		6

<u>Sixth Semester</u>		<u>Credits</u>
+	EET265 Instrumentation & Controls I	3
	General Studies Elective	3
		6

<u>Seventh Semester</u>		<u>Credits</u>
+	EET281 Industrial Wiring (NEC)	3

* 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.

MACHINING CNC PROGRAMMING

ASSOCIATE OF APPLIED SCIENCE IN INDUSTRIAL TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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
+	MET110	Print Reading & Sketching..... 3
+	MET122	Principles of Machining 3
+	MET143	Benchwork 2
	MTH109	College Algebra..... <u>3</u>
		17

<u>Second Semester</u>		<u>Credits</u>
	ENG112	Composition II 3
+	MET150	Tooling & Fixtures 3
	MET103	Applied Geometry & Trigonometry 3
+	MET123	Machining Processes II 3
+	MET222	Programming CNC..... 3
		General Studies Elective <u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+	MET181	Applied Welding Techniques 3
+	MET232	Industrial Fluid Power I 3
+	MET223	CAM I 4
+	CAD100	CAD for Machining 3
+	QCT141	Precision Measurement 3
		Humanities Elective <u>3</u>
		19

<u>Fourth Semester</u>		<u>Credits</u>
+	MET226	Jig. Fixture & Mold Design 3
+	MET231	Metallurgy and Heat Treatment 2
+	MET130	Industrial Safety 2
		Science Elective 4
		Social/Behavioral Science Elective. 3
+		Technical Elective <u>3</u>
		17

* 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.

MACHINING RELATED TRADES CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

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.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Machining CNC Programming.

Program Learning Outcomes

Students earning a certificate 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 hand tools.
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).

<u>First Semester</u>		<u>Credits</u>
+	MET110	Print Reading & Sketching..... 3
	MTH080	Beginning Algebra <u>3</u>
		6

<u>Second Semester</u>		<u>Credits</u>
	MET103	Applied Geometry & Trigonometry 3
+	IET105*	Industrial Computing I <u>3</u>
		6

<u>Third Semester</u>		<u>Credits</u>
+	MET181	Applied Welding Techniques 3
+	MET143	Benchwork 2
		General Studies Elective <u>3</u>
		8

<u>Fourth Semester</u>		<u>Credits</u>
+	MET122	Principles of Machining 3
+	QCT141	Precision Measurement <u>3</u>
		6

<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
+	MET231	Metallurgy & Heat Treatment <u>2</u>
		5

* 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.

MAINTENANCE TECHNICIAN/MECHATRONICS

ASSOCIATE OF APPLIED SCIENCE IN INDUSTRIAL TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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, pipefitter, 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
	MTH109 College Algebra.....	3
+ MET143	Benchwork	<u>2</u>
		17

<u>Second Semester</u>		<u>Credits</u>
+ EET194	Industrial Electricity II	3
	ENG112 Composition II	3
+ MET144	Machine Repair	3
	MET103 Applied Geometry & Trigonometry	3
	General Studies Elective	3
+	Technical Elective	<u>3</u>
		18

<u>Third Semester</u>		<u>Credits</u>
+ MET232	Industrial Fluid Power I	3
+ MET181	Applied Welding Techniques	3
+ EET276	Motors & Motor Controls	3
+ PLC200	Programmable Controller I	3
+ MET133	Industrial Pipefitting.....	3
	Humanities Elective	<u>3</u>
		18

<u>Fourth Semester</u>		<u>Credits</u>
+ EET265	Instrumentation & Controls I	3
+ MET252	Industrial Fluid Power II	3
+ PLC230	Servo/Robotic Systems	3
	Science Elective	4
	Social/Behavioral Science Elective.	3
+	Technical Elective	<u>3</u>
		19

* 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 MAINTENANCE RELATED TRADES CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

The Industrial Maintenance Technician not only troubleshoots and repairs 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 and PLC control systems.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Maintenance Technician/ Mechatronics.

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>
+	EET171	Industrial Electricity I 3
	MTH080	Beginning Algebra <u>3</u>
		6

<u>Second Semester</u>		<u>Credits</u>
	MET103	Applied Geometry & Trigonometry 3
+	IET105*	Industrial Computing I 3
+	EET194	Industrial Electricity II <u>3</u>
		9

<u>Third Semester</u>		<u>Credits</u>
+	MET143	Benchwork 2
+	MET181	Applied Welding Techniques <u>3</u>
		5

<u>Fourth Semester</u>		<u>Credits</u>
+	MET144	Machine Repair 3
+	EET276	Motors & Motor Controls <u>3</u>
		6

<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>
+	PLC200	Programmable Controller I 3
		General Studies Elective <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.

MILLWRIGHT

ASSOCIATE OF APPLIED SCIENCE IN INDUSTRIAL TECHNOLOGY

ENGINEERING TECHNOLOGIES DIVISION

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 reconditioner.

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>
	ENG111	Composition I..... 3
	MTH109	College Algebra..... 3
+	MET110	Print Reading & Sketching..... 3
+	MET143	Benchwork 2
+	MET122	Principles of Machining 3
+	IET105*	Industrial Computing I <u>3</u>
		17

<u>Second Semester</u>		<u>Credits</u>
	ENG112	Composition II 3
++	MET144	Machine Repair 3
	MET103	Applied Geometry & Trigonometry 3
+	MET181	Applied Welding Techniques 3
		General Studies Elective <u>3</u>
		15

<u>Third Semester</u>		<u>Credits</u>
+	MET232	Industrial Fluid Power I 3
+	QCT141	Precision Measurement 3
+	MET221	Rigging & Erecting 2
+	MET133	Industrial Pipefitting 3
+	MET201	Industrial Applied Physics..... 3
		Humanities Elective <u>3</u>
		17

<u>Fourth Semester</u>		<u>Credits</u>
+	MET231	Metallurgy & Heat Treatment 2
+	MET252	Industrial Fluid Power II 3
		Science Elective 4
		Social/Behavioral Science Elective. 3
+		Technical Elective <u>3</u>
		15

* 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.

MILLWRIGHT RELATED TRADES CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

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.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in Millwright.

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 a certificate 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 hand tools.
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>
+	MET143	Benchwork 2
	MTH080	Beginning Algebra 3
		5

<u>Second Semester</u>		<u>Credits</u>
	MET103	Applied Geometry & Trigonometry 3
+	MET110	Print Reading & Sketching..... 3
		6

<u>Third Semester</u>		<u>Credits</u>
+	MET122	Principles of Machining 3
+	MET181	Applied Welding Techniques 3
		6

<u>Fourth Semester</u>		<u>Credits</u>
+	MET144	Machine Repair 3
+	MET232	Industrial Fluid Power I 3
		General Studies Elective 3
		9

<u>Fifth Semester</u>		<u>Credits</u>
+	MET221	Rigging & Erecting 2
+	MET133	Industrial Pipefitting 3
		5

<u>Sixth Semester</u>		<u>Credits</u>
+	MET201	Industrial Applied Physics..... 3
+	QCT141	Precision Measurement 3
		6

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

HVAC-R (CLIMATE CONTROL) CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

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.

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.

Program Learning Outcomes

Students earning a certificate from this program should demonstrate:

1. Knowledge of electrical symbols and abbreviations.
2. Basic knowledge of 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.

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

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

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

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

Must be proficient in MTH080.

* 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.

QUALITY CONTROL CERTIFICATE

ENGINEERING TECHNOLOGIES DIVISION

A Manufacturing Quality major prepares the student for a career as a Quality specialist (Supplier Quality Engineer, Green Belt, Mechanical Inspector, Quality Technician, Auditor, and similar roles).

Twenty-first century manufacturing operations link productivity to quality. Lean manufacturing quality concepts are essential to modern competitiveness. Accordingly, persons seeking greater responsibility should consider the Quality curriculum.

This program of study prepares the student to sit for American Society for Quality Technician exam. ASQ certifications are widely recognized and favorably impact hiring and compensation decisions.

Career Outlook

The greatest demand for engineering technicians will be in manufacturing. Companies need improved machinery, up-to-date processes, and lean manufacturing methods to compete on a global basis. Quality skills apply during all phases of the product cycle – from concept to production to distribution and service.

ISO/TS/OHSA certifications are becoming a common prerequisite for doing business, worldwide. This course of study imparts the skills needed to comply with many certification system requirements. Skills learned in this course form a solid foundation on which to build if your goal is to become a Quality Assurance Manager, Quality Engineer, or Quality Auditor.

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 tools for the feature based upon the print specification.
6. Proficiency for dealing with tolerance stacks, another layer of G D & T.
7. Basic understanding of 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 or 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>
+	CAD100	CAD for Machining 3
+	QCT131	Quality for Lean Manufacturing 3
+	IET105*	Industrial Computing I <u>3</u>
		9

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

<u>Fourth Semester</u>		<u>Credits</u>
+	PET110	Principles of Plastics 4
+	QCT250	Certified Quality Technician/ Certified Mechanical Inspector Review 3
+	QCT142	Advanced Concepts of GD&T <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.

DID YOU KNOW

According to the Bureau of Labor Statistics, earning an associate degree can increase your yearly earning by almost \$7,000. Even having some college education under your belt can make a difference.

At Northwest State Community College, you have the option of over 70 programs to choose from. Let us help you find the career path that is right for you.





ALLIED HEALTH & PUBLIC SERVICES



ALLIED HEALTH AND PUBLIC SERVICES

The division of Allied Health and Public Services offers a variety of majors in the fields of criminal justice, early childhood education and health care. Many of the graduates from these programs are ready to join the workforce after they earn their diploma. However, there are also opportunities for these graduates to transfer on and earn their bachelor's degree from a four-year college or university.

Northwest State Community College, along with other technical community colleges across the nation, educates the majority of the nation's first-responders. According to the Ohio Associate of Community Colleges, nearly 60 percent of all new registered nurses and close to 85 percent of law enforcement officers, firefighters and EMTs are educated by community colleges.

Degree and Certificate programs offered through the Allied Health and Public Services Division include:

Associate of Applied Science

- Paraprofessional Education (p100)
- Human Services (p101)
- Medical Assisting (p105)

Associate of Applied Science: Early Childhood Development

- Child & Family Specialists (p97)
- Pre Kindergarten (p98)
- Program Administrator (p99)

Associate of Applied Science: Criminal Justice

- Criminal Justice (p102)
- Computer Crimes Investigation (p103)
- Law Enforcement – Academy Option (p104)

Certificate Programs

- Emergency Medical Services (p106)

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, stop by the Admissions Office in C102 or call (419)267-1320 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 28. For the NSCC Transfer Module, see page 34.

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, 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.

Humanities Electives for all majors in Allied and Public Service:

ENG223	Interpretation of Literature
ENG230	Children's Literature
ENG234	Narrative Literature of the Old Northwest Territory
ENG240	Introduction to Poetry
ENG241	Introduction to Fiction
ENG250	American Literature Through the Mid 19 th Century
ENG251	American Literature Since the Mid 19 th Century
ENG260	British Literature Through the 18 th Century
ENG261	British Literature 19 th 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
PHI220	Ethics in Health Care
PHI222	Ethics in the Helping Professions
PHI230	World Religions

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

CHILD & FAMILY SPECIALIST

ASSOCIATE OF APPLIED SCIENCE IN EARLY CHILDHOOD DEVELOPMENT

ALLIED HEALTH AND PUBLIC SERVICES

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 and FBI. 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 prior to graduation of standard first aid, community CPR, common childhood illness recognition, and child abuse and neglect training through additional college courses or approved community providers.

Program Learning Outcomes

Students who complete the Child & Family Specialist program will:

1. Graduates will determine cognitive, affective, and psychomotor developmental characteristics of children, recognizing indicators of developmental delays and giftedness in a diverse population.
2. Graduates will explain learning theory, issues and other influence affecting the profession.
3. Graduates will utilize technology to enhance instruction and productivity.
4. Graduates will communicate effectively with parents and other educational professionals demonstrating facilitative relationships and the basic principles and practices of interviewing parents and crises intervention.
5. Graduates will utilize various public and private human service agencies in the community, understanding the organizational structure of the agencies and their functions.
6. Graduates will work with parents dealing with child rearing issues such as discipline, sibling relationships and nutrition.

<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

Computer Elective:

CIS114	Microsoft Applications or any 3 one credit hour computer courses
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Humanities Elective:
 - Select any humanities course listed on page 94.

+ Refers to technical coursework. Students must attain a minimum grade of "C" in all technical courses to progress in the program and graduate.

PRE-KINDERGARTEN

ASSOCIATE OF APPLIED SCIENCE IN EARLY CHILDHOOD DEVELOPMENT

ALLIED HEALTH AND PUBLIC SERVICES

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 field 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.

The student must have day-time availability for field placements. All students are required to have a recent medical statement, non-conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification and FBI. The appropriate forms are available from ECD personnel and/or the Division Secretary. 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. Specific program policies are stated in the ECD/EDU/EDP Student Handbook.

This program is approved by the Ohio Department of Education for the Pre-Kindergarten Associate License. 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.

Program Learning Outcomes

Students who complete the Pre-Kindergarten program will:

1. Graduates will apply content knowledge of theoretical concepts and child growth and development in early childhood learning environments.
2. Graduates will create learning environments that promote growth and development and achievement for all students.
3. Graduates will describe and apply instructional strategies to promote students' learning and meet the needs and interests of all students.
4. Graduates will utilize a variety of assessment methods, tools, and technology to enhance instruction and to increase personal productivity and efficacy.
5. Graduates will create supportive partnerships and effectively communicate with families, community and other professionals to promote children's development.
6. Graduates will demonstrate professional knowledge and dispositions appropriate to the field.

<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 ..	<u>3</u>
		16

<u>Spring Semester</u>		<u>Credits</u>
+ ECD201*	Pre-K 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	<u>3</u>
		18

<u>Summer Semester</u>		<u>Credits</u>
CIS114	Microsoft Applications.....	3
	Humanities Elective	<u>3</u>
		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.....	<u>3</u>
		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	<u>3</u>
		14

Humanities Elective:

Select any humanities course listed on page 94.

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

* ODE Pre-K Associate License requires grade of "B" or higher in ECD101, ECD201, ECD202, and ECD290.

+ Refers to technical coursework

PROGRAM ADMINISTRATOR

ASSOCIATE OF APPLIED SCIENCE IN EARLY CHILDHOOD DEVELOPMENT

ALLIED HEALTH AND PUBLIC SERVICES

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 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 and FBI. 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 prior to graduation of standard first aid, community CPR, common childhood illness recognition, and child abuse and neglect training through additional college courses or approved community providers.

Program Learning Outcomes

Students who complete the ECD Program Administrator program will:

1. Graduates will maintain a high quality censed environment and demonstrate awareness of program accreditations.
2. Graduates will explain management theories, financial, ethical and legal issues and other influences affecting the successful operation of profit and nonprofit early childhood programs.
3. Graduates will utilize a variety of approaches, tools and technology to enhance programming, staff development parent communications, and program evaluation.
4. Graduates will demonstrate professional behaviors in interactions with children, staff, families, and other professionals.
5. Graduates will support staff who design, implement, and evaluate learning experiences based on appropriate methods of observation and assessment, developmentally appropriate practice and understanding of children’s growth and development.
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.

<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 .. <u>3</u>
		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..... <u>3</u>
		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. <u>3</u>
		17

<u>Spring Semester</u>		<u>Credits</u>
	ACC102	Office Accounting 4
+	ECD291	Administrative Internship..... 3
	ENG113	Speech 3
+	MGT221	Entrepreneurship <u>3</u>
		13

Business Electives:

(For ECD Majors Only)

BUS221	Business Law I
BUS250	Labor Relations
ECO211	Macroeconomics
ECO212	Microeconomics
MKT110	Marketing
MKT230	Salesmanship

Humanities Elective:

Select any humanities course listed on page 94.

+ Refers to technical coursework. Students must attain a minimum grade of “C” in all technical courses to progress in the program and graduate.

PARAPROFESSIONAL EDUCATION

ASSOCIATE OF APPLIED SCIENCE

ALLIED HEALTH AND PUBLIC SERVICES

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 field experiences to provide the student with the opportunity to apply skills and techniques with multiple age groups.

A student who wishes to be recommended for the Paraprofessional Associate License must meet the criteria of the program as stated in the 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, non-conviction statement, three references, and records check through Bureau of Criminal Investigation and Identification and FBI. The appropriate forms are available from Education faculty and/or the Division Secretary. Specific program policies are stated in the ECD/EDU/EDP Student Handbook.

Program Learning Outcomes

Students who complete the Paraprofessional Educator program will:

1. Graduates know and understand the principles of learning and child development in order to assist the classroom teacher.
2. Graduates assist teachers in creating learning environments that promote high levels of student learning and achievement.
3. Graduates assist in the implementation of instructional strategies that accommodate various learning styles, intelligences, and exceptionalities.
4. Graduates assist teachers with the implementation of varied assessment tools.
5. Graduates collaborate and communicate with students, parents, other educators, administrators, and the community to support student learning.
6. Graduates demonstrate an understanding of the importance of professional growth, ethical conduct, and involvement as an individual and as a member of a learning community.

<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

Natural /Physical Science Elective:

Select any course with a BIO, CHM, or PHY prefix.

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.

HUMAN SERVICES ASSOCIATE OF APPLIED SCIENCE

ALLIED HEALTH AND PUBLIC SERVICES

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. Students who have prior felony convictions and excessive civil infractions may be excluded from practicums and numerous human services opportunities. BCII and FBI criminal records checks are required for licensure.

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. Develop an eclectic knowledge base that draws from the social and behavioral sciences and Social Work theories.
2. Demonstrate effective counseling skills necessary for working with clients at the micro, mezzo & macro levels, including a repertoire of verbal responses, non-verbal behavior, facilitative relationships and entry level generalist practice skills.
3. Develop problem solving skills by learning to apply and analyze client problems/strengths utilizing a variety of paradigms, models, and critical thinking skills.
4. Identify and apply ethical standards of practice utilizing professional codes of ethics to assist in resolving ethical dilemmas.
5. Demonstrate understanding of how to utilize community resources when referring clients for services at community agencies.
6. Integrate and apply knowledge of diversity when working with populations at risk for social & economic injustices so as to develop culturally sensitive interventions.
7. Demonstrate appropriate assessment, documentation, and record keeping skills as per standards of practice in Human Service settings.
8. Demonstrate work readiness skills, including but not limited to, timeliness, personal responsibility, ability to follow directives, meet deadlines and the ability to cooperate and perform as a team player with faculty, students, and in practicum settings.

<u>First Semester</u>		<u>Credits</u>
	ENG111	Composition I..... 3
+	HST101	Principles of Human Services..... 3
+	HST108	Principles of Mental Retardation & Developmental Disabilities ^r or
+	CJT130	Criminal Justice Principles..... 3
+	HST212	Substance Abuse..... 3
	PSY110	General Psychology 3
	SSC101	Sociology..... 3
		18

<u>Second Semester</u>		<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 .. 3
		18

<u>Third Semester</u>		<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..... 3
		18

<u>Fourth Semester</u>		<u>Credits</u>
+	HST214	Human Services Case Management 3
+	HST242	Marriage and Family 3
+	HST290	Practicum I 6
		Math/Science Elective..... 3
		15

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

Additional MR/DD Classes:

HST220	Principles of Work
HST221	Principles of Habilitation Programming

ALL coursework must be completed with a minimum grade of "C" or higher for state licensure.

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

CRIMINAL JUSTICE

ASSOCIATE OF APPLIED SCIENCE

ALLIED HEALTH AND PUBLIC SERVICES

This major is designed to prepare students for careers in the criminal justice field as well as prepare them for future academics and training. Students will become familiar with the components and processes of the criminal justice system as well as studying the areas of law, corrections, investigations and procedures at a more comprehensive level. Students will also examine social and criminal justice issues through multiple perspectives.

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 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.

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 on page 94.

Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s)

Math/Science Elective:

See page 94 for list of courses

Technical Electives:

CJT136	Juvenile Delinquency
CJT242	Probation and Parole
CJT252	Seminar in Criminal Justice
CJT132	Criminal Justice Administration
CJT140	Constitutional Law
CJT 220	Law Enforcement in American Society

<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..... 3
		15

<u>Second Semester</u>		<u>Credits</u>
+	CJT134	Criminal Law 3
+	CJT230	Corrections 3
	ENG112	Composition II 3
	PSY210	Abnormal Psychology..... 3
		Human Service/ Social Science Elective 3
		18

<u>Third Semester</u>		<u>Credits</u>
+	CJT240	Evidence and Procedures 3
+		Technical Elective #2 3
	SSC101	Sociology..... 3
		Human Services Social Science Elective -or- Spanish 1 3
	SPN111	Humanities Elective 3
		15

<u>Fourth Semester</u>		<u>Credits</u>
+	CJT244	Criminal Investigation 4
+	CJT290	Criminal Justice Practicum 4
+		Technical Elective #3 3
+		Technical Elective #4 3
		14

Human Service/Social Science Electives:

(For Criminal Justice Majors only)

HST101	Principles of Human Services (<i>recommended for those seeking careers in Probation/Parole</i>)
HST105	Counseling Techniques with Diverse Populations
HST 208	Interview Techniques (<i>recommended for those seeking careers in Probation/Parole</i>)
HST212	Substance Abuse
HST214	Human Service Case Management (<i>recommended for those seeking careers in Probation/Parole</i>)
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 currently employed full-time in a professional criminal justice setting may be allowed to substitute this course.

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

COMPUTER CRIMES INVESTIGATION

ASSOCIATE OF APPLIED SCIENCE IN CRIMINAL JUSTICE TECHNOLOGY

ALLIED HEALTH AND PUBLIC SERVICES

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 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.

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 on page 94.

Computer Elective:

Any 3 credit hour or 3 one credit hour computer course(s)

Math/Science Elective:

See page 94 for list of courses

Technical Electives:

- | | |
|--------|-------------------------|
| CIS155 | Linux Networking I |
| CIS255 | Linux Networking II |
| CIS272 | Microsoft Networking I |
| CIS282 | Microsoft Networking II |
| EET272 | CISCO Networking I |
| EET282 | CISCO Networking II |

<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>	<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 <u>3</u>	<u>3</u>
		15

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 |
| SPN111 | Spanish I |
| SSC110 | General Anthropology |
| SSC120 | American Government |
| SSC130 | Comparative Government |
| SSC210 | Cultural Diversity |

* Students currently employed full-time in a professional criminal justice setting may be allowed to substitute this course.

+ Students must attain a 2.00 grade point average in each of these courses to graduate.

LAW ENFORCEMENT - ACADEMY OPTION

ASSOCIATE OF APPLIED SCIENCE IN CRIMINAL JUSTICE TECHNOLOGY

ALLIED HEALTH AND PUBLIC SERVICES

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.

Program Learning Options

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 94 for list of courses

Humanities Elective:

Select any humanities course listed on page 94.

<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.....	3
		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 3	
		18

<u>Third and Fourth Semester</u>		<u>Credits</u>
<i>Academy Option: All courses listed must be taken within the Academy hours.</i>		
+ 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
		28

<u>Summer Semester</u>		<u>Credits</u>
+ CJT290	Criminal Justice Practicum	4

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
SPN111	Spanish I
SSC110	General Anthropology
SSC120	American Government
SSC130	Comparative Government
SSC210	Cultural Diversity

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

MEDICAL ASSISTING

ASSOCIATE OF APPLIED SCIENCE IN MEDICAL ASSISTING

ALLIED HEALTH AND PUBLIC SERVICES

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 prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

The following performance standards are necessary to safely and accurately carry out Medical Assisting 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, communicate English clearly enough for most patients to understand and understand the verbal communication of English-speaking patients, clear written communication, and manual dexterity.

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.

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."

<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	3
		19

<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	3
		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	3
		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.....	3
		13

Students must maintain a minimum grade of "C" in all courses to progress in the program and graduate.

+ Refers to technical course work.

This program is Accredited by the Commission on Accreditation of Allied Health Education Programs, on the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment. (CRB-AAMAE, 1361 Park Street, Clearwater, FL 33756, (727)210-2350.)

EMERGENCY MEDICAL SERVICES CERTIFICATE

ALLIED HEALTH AND PUBLIC SERVICES

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	<u>3</u>
		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.....	<u>3</u>
		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.

DID YOU KNOW

THE STUDENT RESOURCE CENTER

The Student Resource Center located in A101D offers a variety of free services designed to assist in the success of every student. These services include:

Accessibility Services

Career Services

Educational Planning

Library Services

Student Activities

Transfer Advising

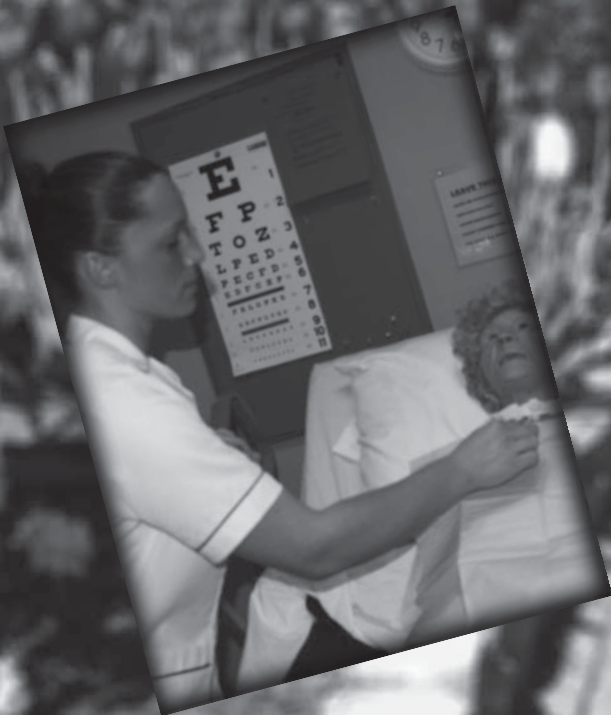
Tutoring Services

Find out how the Student Resource Center can help you succeed by calling (419) 267-1242 or email studentresources@northweststate.edu.



N

NURSING



NURSING DIVISION

The Nursing Division at Northwest State Community College offers nursing degree and certificate programs that prepare students to meet the rapidly changing demands of the healthcare industry. Students enrolled in the Nursing Division will benefit from small class sizes as they work one-on-one with faculty members who are dedicated to inspiring and challenging their students.

Graduates of the Nursing Division are eligible to take the National Council Licensure Exam (NCLEX), and enter directly into the workforce. There are also opportunities for graduates to transfer into a four-year degree program at partnering institutions.

All programs in the Nursing Division are fully approved by the Ohio Board of Nursing; the RN program is also accredited by the National League for Nursing Accrediting Commission (*61 Broadway 33rd Floor, New York, NY 10006, (800) 699-1656 ext. 153*).

Degree and Certificate programs offered through the Nursing Division include:

Associate of Applied Science in Nursing

Registered Nurse (RN) (p111)

LPN to RN Advanced Standing Program (p114)

Certificate Program

Practical Nursing (PN) (p116)

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, stop by the Admissions Office in C102 or call (419)267-1320 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 28. For the NSCC Transfer Module, see page 34.

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 college, 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 a nursing advisor to plan a course of study.

Nursing core courses must be taken in sequence; a minimum of five semesters for the RN program and a minimum of three semesters for the PN program.

Career Outlook for RNs

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.

Career Outlook for LPNs

Employment of LPNs is projected to grow faster than average. Overall job prospects are expected to be very good, but job outlook varies by industry. The best job opportunities will occur in nursing care facilities and home health care services, while applicants for jobs in hospitals may face competition.

Employment of LPNs is expected to grow 14 percent between 2006 and 2016, faster than the average for all occupations, in response to the long-term care needs of an increasing elderly population and the general increase in demand for health care services.

REGISTERED NURSING (RN)

ASSOCIATE OF APPLIED SCIENCE IN NURSING

NURSING DIVISION

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, call 419-267-1320 for a testing appointment; recommended courses must be completed.
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 ≥ 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. Intermediate Algebra or Algebra II in high school and $ACT \geq 24$.
3. College equivalent (MTH090 Intermediate Algebra) with a minimum grade of "S."

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 ≥ 24 or a NLN Pre-admission science raw score of ≥ 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 ≥ 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 State-tested Nursing Assistant certification.

REGISTERED NURSING (RN)

ASSOCIATE OF APPLIED SCIENCE IN NURSING

NURSING DIVISION

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:
 - a. Critical thinking ability sufficient for clinical judgment.
 - b. Physical abilities sufficient to move from room to room and maneuver in small spaces.
 - c. Tactile ability sufficient for physical assessment.
 - d. Ability to prepare and administer medications.
 - e. Ability to transfer patients.
 - f. Ability to read medication labels and patient records.
 - g. Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available).
 - h. Communicate English clearly enough for most patients to understand and understand the verbal communication of English speaking clients.
 - i. 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.
8. Apply concepts of leadership and management in utilizing human and material resources for nursing practice as an associate degree nurse.

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 (BCII) 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 33rd Floor, New York, NY 10006, (800)669-1656, extension 153.

Program Learning Outcomes

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.

REGISTERED NURSING (RN)

ASSOCIATE OF APPLIED SCIENCE IN NURSING

NURSING DIVISION

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 Health Assessment in Nursing.....	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
PSY230 Human Growth and Development ..	3
	18
<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

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 Health Assessment in Nursing.....	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

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.

LPN TO RN ADVANCED STANDING PROGRAM

ASSOCIATE OF APPLIED SCIENCE IN NURSING

NURSING DIVISION

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. Six months continuous nursing experience with minimum 800 hours within the past two 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, call 419-267-1320 for a testing appointment; recommended courses must be completed.
4. Meet **ONE** criterion in each of the following areas.
 - a. **Academic Background**
 1. LPN Program Certificate with college GPA ≥ 2.5 .
 2. Complete 16 semester hours college work with GPA ≥ 2.5 .
 - b. **Algebra**
 1. Meets course placement results for MTH090 Intermediate Algebra proficiency.
 2. MTH080 proficiency plus an ACT math score ≥ 24 .
 3. College equivalent (MTH090 Intermediate Algebra) with a minimum grade of "S."
 - 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 ≥ 24 or a NLN Pre-admission science raw score of ≥ 42 .
 3. College equivalent (CHM101) with minimum grade of "C."
 - d. **Computer Competency**
 1. High School microcomputer course with minimum grade of "C" since 1992.
 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 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. 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.
8. If criteria (1 through 6) are not met, the LPN may apply to the generic ADN program.
9. This is a rigorous program. Full-time employment is not recommended during the clinical courses.
10. 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.
11. 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."
12. The following performance standards are necessary to safely and accurately carry out nursing duties:
 - a. Critical thinking ability sufficient for clinical judgment.
 - b. Physical abilities sufficient to move from room to room and maneuver in small spaces.
 - c. Tactile ability sufficient for physical assessment.
 - d. Ability to prepare and administer medications.
 - e. Ability to transfer patients.
 - f. Ability to read medication labels and patient records.
 - g. Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available).
 - h. Communicate English clearly enough for most patients to understand and be able to understand the verbal communication of English-speaking clients.
 - i. Clear written communication.
13. 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 (BCII) 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.
14. Clinical component must be completed within three (3) years.

LPN TO RN ADVANCED STANDING PROGRAM

ASSOCIATE OF APPLIED SCIENCE IN NURSING

NURSING DIVISION

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 33rd Floor, New York, NY 10006, (800)669-1656, extension 153.

Program Learning Outcomes

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.

<u>Fall Semester</u>		<u>Credits</u>
	ENG111 Composition I.....	3
+	NRS211 LPN to RN Transition Course.....	3
+	NRS212 LPN to RN Bridge Course	1
		7

<u>Spring 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 or	
	SSC210 Cultural Diversity.....	3
		15

<u>Fall 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

Part-time Evening/Weekend Program

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.

Students must 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 or complete coursework with a “C” grade or better prior to NRS217/218.

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

PRACTICAL NURSING (PN) CERTIFICATE

NURSING DIVISION

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:

1. Submit directly to the nursing office:
 - a. Completed high school transcript or G.E.D.
 - b. 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, call 419-267-1320 for a testing appointment; 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. ≥ 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" from a curriculum not accredited by North Central and an ACT science score ≥ 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 or proficiency OAS090 Keyboarding Basics or equivalent.
3. **Acceptance into the nursing program is based upon successful completion of admission criteria and review by the PN Admission Committee. Applicants will be notified by letter regarding their acceptance into the program.** When more qualified applicants have applied than seats are available:
 - a. Consideration will be given to students having the greatest number of credit hours completed toward the nursing program.
 - b. Priority will be given to students who have completed coursework at NSCC.
 - c. 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 (BCII) 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:
 - a. Critical thinking ability sufficient for clinical judgment.
 - b. Physical abilities sufficient to move from room to room and maneuver in small spaces.
 - c. Tactile ability sufficient for physical assessment.
 - d. Ability to prepare and administer medications.
 - e. Ability to transfer patients.
 - f. Ability to read medication labels and patient records.
 - g. Ability to take blood pressure and hear breath sounds through a stethoscope (special types are available)
 - h. Communicate English clearly enough for most patients to understand and be able to understand the verbal communication of English-speaking clients.
 - i. 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.
11. 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.

PRACTICAL NURSNG (PN) CERTIFICATE

NURSING DIVISION

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.

* 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.

+ Refers to technical coursework

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

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

DID YOU KNOW

CUSTOM TRAINING SOLUTIONS

Whether you are an individual trying to stay competitive in the workforce, or a company looking to compete in the global marketplace, Custom Training Solutions has the training you need. A division of Northwest State Community College, CTS offers a variety of non-credit training that covers technical skills, supervisory skills and computer application. In addition to open enrollment classes, CTS also offers customized training services to businesses and other organizations.

Find out more about CTS by visiting www.trainwithcts.com.

Enterprise Ohio Network

Custom Training Solutions 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 a business can access all of the training resources across the state. Call Custom Training Solutions at (419) 267-1332 to see how your company can get involved.





TECHNICAL STUDIES & INDIVIDUALIZED STUDIES



ASSOCIATE OF INDIVIDUALIZED STUDIES

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:

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.

English and Language

6 credit hours required

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

Humanities

15 credit hours 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 credit hours required

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

Mathematics and Science

10 credit hours 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 credit hours required

- Selected from approved list

Electives:

11 credit hours 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. Minimum 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.

ASSOCIATE OF TECHNICAL STUDIES

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 requirements 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 Division 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 6 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.

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 And Do Not Meet Course Requirements For Graduation

ACC090 INTRODUCTION 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.

A critical reading and thinking course for improving comprehension and study skills congruent with college level course requirements. Emphasizing skills for efficient, independent learning from textbooks and other college reading materials, this course will accent a variety of comprehension skill areas: activating background knowledge, distinguishing between main ideas and supporting details, recognizing organizational patterns, and identifying a writer's tone and purpose. (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, spelling, emphasizes skills for composing paragraphs and essays, and combines direct instruction, collaborative learning, peer editing, and individual conferences. (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.

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.

OAS090 KEYBOARDING BASICS 1 Cr. Hr.

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, S, SU

ACC102 OFFICE ACCOUNTING 4 Cr. Hrs.

This course is designed for Office Administrative Services and Early Childhood Development majors. It may not be used as a substitute for ACC111. 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.

(4+0) F - Day, S - Day & Eve

ACC111 FINANCIAL ACCOUNTING 4 Cr. Hrs.

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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OBU001 – Introduction To Financial Accounting).

(4+0) F, S, SU

ACC112 MANAGERIAL ACCOUNTING 4 Cr. Hrs.

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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OBU002 – Introduction To Managerial Accounting).

(4+0) F, S, SU - Day

Prerequisite: ACC111 with a grade of "C" or better

ACC120 PAYROLL ACCOUNTING 3 Cr. Hrs.

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 & Eve, S - Day

Prerequisite: High school accounting, work experience, or concurrent registration in ACC090 or ACC111

ACC140 INDIVIDUAL INCOME TAX ACCOUNTING 3 Cr. Hrs.

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

ACC211 INTERMEDIATE ACCOUNTING I 3 Cr. Hrs.

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

Prerequisite: ACC112 with grade of "C" or better

ACC212 INTERMEDIATE ACCOUNTING II 3 Cr. Hrs.

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

Prerequisite: ACC211

ACC221 COST ACCOUNTING I 3 Cr. Hrs.

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

Prerequisite: ACC112 with a grade of "C" or better

ACC222 COST ACCOUNTING II**3 Cr. Hrs.**

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

Prerequisite: ACC221

ACC230 AUDITING**3 Cr. Hrs.**

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

Prerequisite: ACC112

ACC240 BUSINESS INCOME TAX ACCOUNTING**3 Cr. Hrs.**

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

ACC261 QUICK BOOKS**1 Cr. Hr.**

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

ACC262 PEACHTREE**1 Cr. Hr.**

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

ACC271 INTERMEDIATE QUICK BOOKS**1 Cr. Hr.**

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

ACC272 ADVANCED QUICK BOOKS**1 Cr. Hr.**

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: ACC261 and ACC271 or instructor permission

ACC291 ACCOUNTING INTERNSHIP**3 Cr. Hrs.**

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

AET100 INTRODUCTION TO ALTERNATIVE ENERGIES**3 Cr. Hrs.**

In this course the student will learn the units of energy, how it is measured, and what our current usage is. Students will determine their current energy usage. They will then be introduced to several alternative energy sources including solar, wind, biomass, hydrogen, fuel cells, and others. As these topics are introduced, students will gain an understanding of these energy sources, applications, and the ability to determine their potential for sustainable energy. The course ends with the development of a plan to create a sustainable energy program for them. These topics will be learned through text, presentations, various exercises, and hands on labs.

(3+0) F, S

Prerequisites: MTH 080

AET110 ENERGY AUDIT**3 Cr. Hrs.**

In this course the student will learn to conduct an effective and informative energy audit of various facilities for clients or individual use. The student will learn sources, and extent of energy usage in various facilities including residential, commercial, and industrial. Along with energy users, the operations, processes, and management of facilities will also be looked at. This material will be covered through various exercises, lecture and lab segments.

(3+0) F, S

Prerequisite: AET100

AET120 WIND POWER**4 Cr. Hrs.**

In this course the student will learn how energy can be captured from wind and converted into electrical energy for commercial or residential use. The student will learn the various wind sources and energy potential of wind in a given area. The types, components, construction, and basic installation of various wind turbines will be studied. They will also learn different techniques and equipment used for monitoring the energy produced from the turbines. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisite: AET100

AET130 SOLAR ENERGY I**4 Cr. Hrs.**

In this course the student will learn how energy can be captured from the sun and converted into electrical energy for commercial or residential use. The student will learn about the solar energy balance of the planet and the energy potential of solar radiation. Solar insolation and what determines its rate will be covered. The types, components, construction, and basic installation of various solar collectors will be discussed. They will also learn different techniques and equipment used for monitoring the energy produced from solar collectors. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisite: AET100

AET140 GEOTHERMAL 4 Cr. Hrs.

In this course the student will learn the basic concepts of geothermal energy production. The course will introduce the concept and applications of acquiring energy from the Earth's core through steam powered generators for large scale electricity generation. This will be followed by the study of commercial and residential heat pumps. The student will learn how heat transfer with the ground is utilized to reduce energy consumption in both heating and cooling. The various types of heat pumps and types of wells will be discussed. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisites: AET100

AET200 SUSTAINABLE BUILDING DESIGN 3 Cr. Hrs.

In this course the student will learn how to evaluate a site for the most efficient use of energy. The student will evaluate the building site for available energy sources. The student will evaluate current and new building constructions for energy efficiency and utilization of current energy sources. The student will utilize applicable data and software to determine improvements to existing construction or to design new energy efficient sustainable building structures.

(3+0) F, S

Prerequisites: AET100

AET220 SOLAR ENERGY II 4 Cr. Hrs.

This course is a continuation, and more advanced study of Solar Energy. In this course the student will review how energy can be captured from the sun and converted into electrical energy for commercial or residential use. The student will learn the process of solar photovoltaic materials. The materials, types, components, construction, and basic installation of various photovoltaic cells will be discussed. They will also learn different techniques and equipment used for monitoring the energy produced from photovoltaic cells. Finally, new technologies in this area will be discussed. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisites: AET100 and AET130

AET230 HYDROGEN AND FUEL CELL TECHNOLOGY 4 Cr. Hrs.

In this course the student will learn what hydrogen is and its potential use as an energy carrier. The production, transportation, storage, and economics of hydrogen will be discussed. Basic thermodynamics and electrochemical cell construction will be studied. With this the student will then learn the basic fuel cell construction. Variations and materials used in fuel cell construction will be covered along with various applications for fuel cells. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisites: AET100 and CHM201

AET240 BIOFUELS 4 Cr. Hrs.

In this course the student will learn different sources of biomass and the relative energy potential of these fuel sources. The student will learn the processes that are required to convert biomass to fuels such as biodiesel, ethanol, and others. The course also will look at energy potential from directly burning biomass as an energy source such as wood and grains. The determination of energy per mass will be covered to use for comparison of different materials. This material will be covered through both lecture and lab segments.

(3+2) F, S

Prerequisites: AET100 and CHM201

AET290 ALTERNATIVE ENERGY CAPSTONE 4 Cr. Hrs.

In this course the student will have the opportunity to apply the knowledge gained through the AET program to relevant scenarios. Specific content may vary with each offering and will be related to the specific Alternative Energy program and electives chosen through the program.

(4+0) F, S

AET100, AET110, and at least one other course with AET prefix

ART103 BEGINNING DRAWING 3 Cr. Hrs.

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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OAH001 – Basic Drawing).

(0+6) S

ART210 OIL/ACRYLIC PAINTING 3 Cr. Hrs.

An introductory painting class emphasizing building stretcher frames, preparing painting surfaces, using oil/acrylic media, using color, and framing. Transfer Assurance Guide (TAG) approved effective fall 2005 (OAH048 - Painting).

(0+6) F

ART220 BEGINNING SCULPTURE 3 Cr. Hrs.

A basic level studio sculpture course facilitating students' ability to see and create three dimensional works of art. In this introductory class, clay, plastilene and plaster is used in creating manipulative, subtractive, and additive method sculptures, following examination of historical works and the guiding principles of design behind creation of sculpture.

(0+6)

ATS101 PORTFOLIO DEVELOPMENT 3 Cr. Hrs.

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) On demand with approval of the appropriate Dean

BAN110 BANK MANAGEMENT**3 Cr. Hrs.**

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

BAN210 CREDIT MANAGEMENT**3 Cr. Hrs.**

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

BAN220 INVESTMENT MANAGEMENT**3 Cr. Hrs.**

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

BIO101 PRINCIPLES OF BIOLOGY**4 Cr. Hrs.**

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

BIO115 ECOLOGY**4 Cr. Hrs.**

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) S – even years

Prerequisite: High school Biology or BIO101 or consent of instructor

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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OHL016 – Basic Nutrition)

(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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OHL016 – Basic Nutrition).

(3+2) F, S, SU

Prerequisite: BIO101 or high school Biology and Chemistry with a grade of "C" or better or equivalent; strongly recommended 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

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 a grade of "C" or better

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, S, SU

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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OBU004 – Legal Environment Of Business).

(3+0) F, S, SU

BUS223 EMPLOYMENT LAW, SAFETY, AND SECURITY 3 Cr. Hrs.

In this course we will address the need to understand and comply with Employment Law, the benefits of Employee Assistance Programs, and compliance with occupational safety, health, and security programs within the workplace. Topics covered in the course include legal compliance, workplace violence, safety, security, emergency response, plans, employee assistance programs, employee wellness programs, and chemical use and dependency.

(3+0) F

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

BUS260 INTERNATIONAL TRADE 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

BUS280 FINANCE 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

Prerequisite: ACC111, MTH080

CAD100 CAD FOR MACHINING 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) F, S, SU

Prerequisite: IET105 or instructor permission

CAD111 CAD I 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 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, S, SU - Day

CAD112 CAD II**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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OET012 – Computer Assisted Design).

(3+3) S

Prerequisite: CAD111 or instructor permission, MET103

Recommended: MET110

CAD213 CAD III**4 Cr. Hrs.**

Expanding on CAD II, students will develop and plot advanced 3D models, 2D detail 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, S – Day

Prerequisite: CAD112

CAO110 CAREER DECISION MAKING**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

CAO210 JOB SEARCH SKILLS**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

CHM101 PRINCIPLES OF CHEMISTRY**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

CHM138 PRINCIPLES OF FORENSICS**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

CHM201 GENERAL CHEMISTRY I**5 Cr. Hrs.**

This course is the first course in the sequence for students majoring in science, engineering, or other majors that require a strong chemistry background. Topics of study will include atomic structure, stoichiometry, chemical bonding, kinetic-molecular theory, thermochemistry, oxidation-reduction reactions and acid-base chemistry.

(3+3+1 Recitation) F, SU

CHM256 PRINCIPLES OF BIOCHEMISTRY**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

CIS100 GAME THEORY & SOFTWARE DEVELOPMENT**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)

CIS104 DESKTOP MANAGEMENT**2 Cr. Hrs.**

This is a basic course in which the students learn to understand and operate the personal computer using the Microsoft Windows Environment. They will also learn how to communicate with others using Microsoft Outlook. The basic features for Windows XP and Outlook will be covered.

(2+0) F, S – Day, S – Eve (odd years)

CIS108 INTERNET SCRIPTING**4 Cr. Hrs.**

This course is designed to teach programming to a student using a current Internet scripting language. The course will teach the student traditional programming concepts such as variable usage, program flow statements and designing loops. The class will focus on using the scripting language to solve programming problems using Internet applications.

(3+3) F

CIS109 DATABASE MANAGEMENT**4 Cr. Hrs.**

This course is designed to familiarize students with the concepts underlying client/server relational databases. This class will teach students the basics of using the SQL query language. It will also teach more advanced SQL concepts such as query optimization and using SQL in other high level programming languages. This class will teach the student how to manage and maintain a server based database system. This will include tasks such as creating, backing up, repairing, optimizing, securing, localizing and internationalizing databases.

(3+3) S

CIS111 VISUAL BASIC PROGRAMMING 4 Cr. Hrs.

This is a computer programming course involving applications utilizing a Graphics User Interface (GUI) and serving the needs of users in an event driven environment. The course moves from fundamental input/output programs to applications accessing a database for the purpose of adding, deleting, and/or updating records. The course also covers user report processing needs and applications involving the Internet. Object Oriented techniques are introduced and important programming concepts are emphasized preparing students for C++. Students will be required to complete several laboratory assignments during the semester.

(3+3) F – even years

CIS112 MICROSOFT WORD 3 Cr. Hrs.

This course uses basic and advanced commands in Microsoft Word software to create, format, edit, and save documents including letters, tables, reports, and merged documents. Other topics covered include desktop publishing features, web pages, styles and templates, master documents, online forms, workgroups, and information integration with other office programs. Keyboarding skills are required.

(3+0) F, S

CIS113 MICROSOFT EXCEL 3 Cr. Hrs.

This course emphasizes beginning to advanced features of Microsoft Excel. Some of the topics presented include handling multiple worksheets, as well as, creating and using formulas, macros, range names, data lists, data protection, data validation, pivot tables, and linking and embedding.

(2+2) F, S

CIS114 MICROSOFT APPLICATIONS 3 Cr. Hrs.

This course is a basic course in which the student learns to operate the personal computer using two components of Microsoft Office software-Microsoft Word and Excel. All the basic program functions will be covered for each package, as well as many advanced functions. A basic knowledge of the keyboard is helpful. Transfer Assurance Guide (TAG) approved effective spring 2008 (OBU003 – Computer Applications).

(2+2) F, S, SU

Prerequisite: CIS090 and OAS090

CIS118 ACCESS 1 Cr. Hr.

This is a course in which students will use MS Access software to learn the basic concepts of database management. Creating databases, entering data, preparing a query, preparing graphs, and preparing forms and reports are all practiced in a lab setting.

(1+1) F – Day, S – Eve

Prerequisite: CIS090

CIS119 POWER POINT 1 Cr. Hr.

This is a course designed for the beginner in using a presentation graphics program. Slide creation; use of graphics, charts, tables, and color to enhance slides; and methods of automation and use of sound will be areas of study. Hands on experience and the ability to demonstrate usage of Power Point will be provided.

(1+1) F – Eve, S – Day, SU

Prerequisite: CIS090

CIS121 INTERMEDIATE WORD 1 Cr. Hr.

A continuation of CIS114 emphasizing advanced features of Microsoft Word are presented including creating charts, formatting text into columns, formatting with styles, merging documents, sorting, creating tables, and linking and embedding.

(1+1) F, S

Prerequisite: CIS114 with grade of “C” or better

CIS122 INTERMEDIATE EXCEL 1 Cr. Hr.

A continuation of CIS114 emphasizing advanced features of Microsoft Excel are presented including handling multiple worksheets, as well as creating and using formulas, macros, range names, data lists, data protection, data validation, pivot tables, and linking and embedding.

(1+1) F, S

Prerequisite: CIS114 with a grade of “C” or better

CIS129 WEB PAGE DEVELOPMENT 3 Cr. Hrs.

The student will learn the concepts of web page design and layout, write HTML, XHTML, and CSS code in preparing web pages for the internet.

(2+2) S – Day, online F and S

CIS138 INTERMEDIATE ACCESS 1 Cr. Hr.

This course is a continuation of CIS118 Beginning Access and is designed for the student wanting to learn advanced functions of using a database program. Review of topics completed in CIS118 along with creation of custom forms and reports, action queries, table relationships, and integrating Access with other programs will be completed. Hands on experience and the ability to demonstrate use of Access will be provided.

(1+0) S

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

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.

(3+3) SU

Co-requisite: 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 – even years

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 & CL PROG. 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 COMP. 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

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.

(3+3) S

Prerequisite: CIS155

CIS256 INTERNET SECURITY 4 Cr. Hrs.

This course is designed to teach students the basics of Internet security. The course will begin with an in-depth analysis of the Internet communication protocol TCP/IP. The class will cover the use of protocol analyzers. The course will teach the students how to secure different forms of network media such as wireless networks. The student will learn to implement and maintain a firewall. The student will learn to secure common Internet services such as Web Servers. The class will cover the use of Cryptography as a security tool. This class will also cover the Ethical implications of network security.

(3+3) S

Prerequisite: CIS155

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) F

Co-requisite: 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) S

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) F

Prerequisite: CIS272

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

CJT130 PRINCIPLES OF CRIMINAL JUSTICE 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

CJT132 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

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

CJT136 JUVENILE DELINQUENCY PRINCIPLE 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

Prerequisite: CJT130

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

CJT220 LAW ENFORCEMENT IN AMERICAN SOCIETY 3 Cr. Hrs.

Overview of the police role in modern American society; emphasis on problems and issues confronting police and solutions within an organizational framework.

(3+0) F – odd years

Prerequisite: CJT130

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

CJT240 CRIMINAL EVIDENCE & 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

CJT242 PROBATION & 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

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

Prerequisite: CJT130 and CJT134

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

CJT250 INTERNET SECURITY & 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

Prerequisites: CJT240, CIS190, and two of the following courses: CIS155, CIS272, CIS255, CIS282, EET272, or EET282

Co-requisite: CJT244

CJT252 SEMINAR IN CRIMINAL JUSTICE 3 Cr. Hrs.

This course exams 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 and CJT134

**CJT281 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

CJT282 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

**CJT283 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

CJT284 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) F

Prerequisite: Admission to Law Enforcement Academy

**CJT289 SPECIAL TOPICS
CJ PROFESSIONAL** 1 Cr. Hr.

This course will examine special topics within criminal justice including sociological, criminological and philosophical discussions of criminal justice. Topics within the course will challenge students to examine the underlying theory and assumptions behind many of their current beliefs.

(1+0)

Prerequisite: CJT132, CJT136, CJT230, and CJT240

Co-requisite: CJT242, CJT244, and HST214

**CJT290 CRIMINAL JUSTICE
PRACTICUM** 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

Prerequisite: CJT132, CJT136, CJT230, and CJT240

Co-requisite: CJT242, and CJT244

**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

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 and PSY230

**ECD150 INFANT AND TODDLER
DEVELOPMENT AND CARE** 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

**ECD201 PREKINDERGARTEN
CURRICULUM AND METHODS** 3 Cr. Hrs.

This course 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, and PSY230

Co-requisite: EDU120

ECD202 ECD 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, and PSY230

Co-requisites: EDU220 and EDU230

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

Prerequisite: ECD100

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) S

Prerequisite: Determined by ECD Coordinator's recommendation

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

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: Determined by ECD Coordinator's recommendation

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSS005 – Macroeconomics).

(3+0) F – Eve(odd years), S - Day

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSS004 – Microeconomics).

(3+0) F – Day, S – Eve

ECO257 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

EDP150 CHILD & CLASS OBSERVATION 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

Prerequisite: EDU100

Co-requisites: EDU120 and PSY230

EDP200 SPECIAL EDUCATION LAB 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, and PSY230

Co-requisite: EDU220

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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

Prerequisite: 75% completion of degree requirements

Co-requisite: EDU250

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 must be available to make several school visits and access the internet to research relevant topics. Transfer Assurance Guide (TAG) approved effective OED001 – Introduction To Education).

(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 & 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 & EARLY LITERATURE 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

Prerequisite: 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

Prerequisite: 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. Transfer Assurance Guide (TAG) approved effective OED004 – Individuals With Exceptionalities).

(3+0) F

Prerequisites: EDP150 (Para only), ECD100 or EDU100, and 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 and 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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OED003 – Educational Psychology).

(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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OED002 – Educational Technology).

(2+2) S

Prerequisites: CIS114, EDU100

EET171 INDUSTRIAL ELECTRICITY I 3 Cr. Hrs.

This is an introductory electricity course for skilled trades personnel. The course is a study of DC and AC electricity principles, with a practical approach to applications in an industrial environment. The learner will obtain a knowledgeable understanding of the key symbols and abbreviations associated with the electrical trade, acquire a comprehensive understanding of basic electrical terminology, apply Ohm's Law to a number of relevant electrical applications, synthesize a number of components into a working system involving series, parallel, and series parallel circuits, and analyze and organize information gleaned from a malfunctioning circuit and restore that circuit to its original intention.

(2+2) F

Prerequisite: MTH050 or satisfactory score on Course Placement Test, or instructor permission (based on experience)

EET174 ELECTRICAL PRINTS & 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. The learner will obtain a knowledgeable understanding of the key symbols and abbreviations associated with the electrical trade, acquire a comprehensive understanding of the various devices associated with an electrical circuit, synthesize a number of electrical components associated with a viable sequence of operation, recognize a malfunctioning circuit through proper meter application, and apply informed terminology while troubleshooting and restoring a malfunctioning system to its original intention promptly but safely.

(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 within a contemporary industrial electrical system. The learner will apply a knowledgeable understanding of key symbols and abbreviations and apply that terminology to a number of components synthesizing them into a workable electrical circuit. Upon completion of this course the learner will be able to analyze and organize information gleaned from a malfunctioning circuit and restore that circuit to its original intention.

(2+2) S

Prerequisites: EET171 or instructor permission based on previous experience

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 – odd years

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

Prerequisites: IET105 and MTH090 or instructor permission

EET265 INSTRUMENTATION AND 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.

(2+2) S

Prerequisites: EET171 and 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 designed to be a comprehensive reference for use in industrial maintenance and electrical training programs. Each topic covered includes activities which reinforce the objectives presented. Topics covered range from motor types and controls to installing and troubleshooting electric motor drives.

(2+2) S

Prerequisites: EET194 or instructor permission

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.

(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

Prerequisites: EET171 or instructor permission

EET282 CISCO NETWORKING II 4 Cr. Hrs.

This class is designed to teach the student how to configure and maintain Internet working 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

Prerequisites: 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, (electrical and pneumatic), install the appropriate electrical and mechanical devices and troubleshoot the system to 100% of the design specifications.

(2+2) F, S

Prerequisites: PLC200 and 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: ENG111 with grade of "C" or better

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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OCM004 - Basic Public Speaking/Oral Communication).

(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 instructor permission

ENG214 DISCUSSION & CONFERENCE METHOD 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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OCM003 – Small Group Communication). (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 multi-cultural 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 the 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. (3+0)

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. (3+0)

Prerequisite: ENG111

ENG250 AMERICAN LITERATURE THRU THE MID-19TH CENTURY 3 Cr. Hrs.

Surveys American literary works ranging from recorded Native American oral traditions 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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OAH033 – American Literature Survey). (3+0) F

Prerequisite: ENG111

ENG251 AMERICAN LITERATURE SINCE 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.

Course is offered spring semester. Transfer Assurance Guide (TAG) approved effective fall 2005 (OAH033 – American Literature Survey) (3+0) S.

Prerequisite: ENG111

ENG260 BRITISH LITERATURE THRU 18TH CENTURY 3 Cr. Hrs.

This course 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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OAH032 – British Literature Survey). (3+0) F

Prerequisite: ENG111

ENG261 BRITISH LITERATURE 19TH CENTURY TO PRESENT 3 Cr. Hrs.

This course 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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OAH032 – British Literature Survey). (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. It 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OAH034 – Non-Western Literature Survey).
(3+0) F
Prerequisite: ENG111

FRA100 FRAUD DETECTION & DETERRENCE 3 Cr. Hrs.
The opportunity to commit and conceal fraud exists only when there are assets susceptible to misappropriation and a lack of internal controls to prevent or detect fraud. This course will focus on the high-risk fraud environments wherein assets are more vulnerable to misappropriation and fraud environments heightened by either a lack of, or non-functioning of, internal controls. Various fraud investigative methods and the process for communicating an expert report will play an essential role in these studies.
(3+0) S

FRA200 FRAUD EXAMINATION 3 Cr. Hrs.
A study covering occupational fraud and abuse including asset misappropriation, corruption, and fraudulent statements. The course provides an understanding of fraud examination methodology, and sets forth the schemes used by executives, managers, and the employees to commit fraud against their organizations. It provides an analysis of various kinds of frauds and includes cases that illustrate and help the student understand each type of fraud. Based on extensive empirical research in forensic accounting, the course aids the student in identifying exposure to loss and appropriate prevention, detection, and investigation approaches.
(3+0) S
Prerequisite: ACC111

FRA210 LEGAL ELEMENTS OF FRAUD 3 Cr. Hrs.
There are four general elements under common law, all of which must be present for fraud to exist: (1) a material false statement, (2) intent, (3) reliance on the false statement by the victim, and (4) damages. This course takes an in-depth look at each of these components in relation to crimes that fall under the umbrella of fraud. It also emphasizes federal legislation related to fraud examinations including coverage of laws that preserve the rights of individuals suspected of committing fraud and laws that govern civil prosecutions, the admittance of evidence, and the testimony of expert witnesses.
(3+0) F
Prerequisite: ACC111

FRA220 CORPORATE INTERNAL CONTROL AND GOVERNANCE 3 Cr. Hrs.
Under the Sarbanes-Oxley Act of 2002, CEOs and CFOs must now sign on the dotted line, personally attesting to the accuracy of financial statements and to the fact that their companies have proper internal controls to prevent and detect fraud. This course helps in understanding complex compliance requirements, identify types of fraud, implement awareness and prevention training, and establish a robust fraud detection, investigation, and prevention program. More importantly, it will examine how companies can effectively establish an ongoing culture of compliance.
(3+0) S
Prerequisite: ACC111

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSS008 – World Regional Geography).
(3+0) F, S, SU

GEO210 GEOGRAPHY-U.S. & 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

GSD050 BRIDGES TO OPPORTUNITY 4 Cr. Hrs.
As part of Northwest State Community College's Bridges to Opportunity Initiative, this course is designed for students who are committed to (1) achieving Adult Basic Literacy Skills, (2) entering an associate degree program (3) completing a personalized academic action plan, and/or (4) reaching proficiency as a non-native speaker of the English language.
(4+0) On demand with the approval of the Dean of Arts & Sciences.

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.
(1+0)
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 1 credit General Studies elective.

GSD101 GENERAL STUDIES 3 Cr. Hrs.
PORTFOLIO DEVELOPMENT

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 ENG111 required.

HIS101 U.S. 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OHS043 – U.S. American History I; OHS010 – U.S. American History Sequence, Course 1 of 2).

(3+0) F, S – odd years, SU – even years

Co-requisite: ENG111

HIS102 U.S. 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OHS044 – U.S. American History II; OHS010 – U.S. American History Sequence, Course 2 of 2)

(3+0) F, S – even years, .SU – odd years

Co-requisite: ENG111

HIS203 U.S. 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 OLD NORTHWEST 3 Cr. Hrs.
TERRITORY

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.”

(3+0)

Strongly recommend ENG111.

HIS290 HISTORIC PRESERVATION 3 Cr. Hrs.
INTERNSHIP

The Co-Op/Internship is an experience in which the student works in a position consistent with the program major. The student is expected to integrate skills learned in program courses with job responsibilities, while applying work experience to class activities. Primary work duties are documented through a work log, incident summary, focused report, and a site visit.

(1+20)

Prerequisite: Permission of Instructor

HPF106 BEGINNING 1 Cr. Hr.
WESTERN/ENGLISH HORSEMANSHIP

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 a 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 419-655-2253. 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

HPF107 INTERMEDIATE 1 Cr. Hr.
WESTERN/ENGLISH HORSEMANSHIP

This course is designed for intermediate level riders who have mastered the HPF106 level skills and thus build on those skills. The instructor tries to match each students abilities with a specific horse and keeping in mind everyone’s safety is the highest concern. The focus of this course is on handling the horse on the ground and in the saddle, as well as practicing the jog, lope and lead departures.

(1+0) F, S, SU

HPF108 ADVANCED WESTERN/ENGLISH HORSEMANSHIP 1 Cr. Hr.

This course is designed for advanced level rider who has mastered the HPF107 level skills and thus builds on those skills. The focus of this course is on tack room procedures, as well as advanced riding methods, trail riding, trotting, buggies, carts and using a driving harness.
(1+0) F, S, SU

HRM100 ESSENTIALS OF HUMAN RESOURCES MANAGEMENT 3 Cr. Hrs

This course is the first course in a series that prepares students for a career in human resource management. Students taking this course for credit must attend and successfully complete the SHRM Essentials of Human Resource Management seminar. In addition to the seminar students will complete a three page paper reflecting your Philosophy of Management. The final paper is a report of the benefits that you gained and can apply on the job as a human resource employee or if not employed in the human resource department how the information has affected your philosophy of management.
(3+0) F, S

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 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-requisite: SSC101

HST108 PRINCIPLES OF MR/DD 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, and 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, and 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 SERVICE 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
Prerequisites: HST101 and 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 years
Prerequisites: HST108

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 years

Prerequisite: HST108

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

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. Transfer Assurance Guide (TAG) approved effective fall 2007 (OSS025 – Social Problems).

(3+0) F, SU

Prerequisite: SSC101

HST242 MARRIAGE & THE FAMILY 3 Cr. Hrs.

A comprehensive look at relationships in which the content includes: marriage, cohabitation, singles, family dynamics (parenting, adoption, ect), historical and cultural differences in both traditional and contemporary settings; life span development, divorce, domestic violence, death and dying issues. Theoretical frame works as well as practical application of those theories will be covered. Transfer Assurance Guide (TAG) approved effective fall 2007 (OSS023 – Marriage And Family).

(3+0) F, S

Prerequisite: SSC101

HST280 SPECIAL PROBLEMS IN HUMAN SERVICES I 1-6 Cr. Hrs.

Permission of Human Services instructor required. 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

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

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

Prerequisites: HST208 and HST210

Co-requisite: HST214

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

HUM209 HUMANITIES & CULTURES: ANCIENT & MEDIEVAL 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OHS041 – Western/World Civilization I; OHS009 – Western/World Civilizations Sequence, Course 1 of 2).

(3+0) F

Co-requisite: ENG111

HUM210 HUMANITIES & 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OHS042 – Western/World Civilization II; OHS009 – Western/World Civilizations Sequence, Course 2 of 2).

(3+0) S

Co-requisite: ENG111

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

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

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, S, SU - Day

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) F

Prerequisites: PLC200 and IET105

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

Prerequisite: 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, High Voltage methodologies.

(2+2) F

Prerequisite: 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 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 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 blueprint interpretation.

(2+2)

Prerequisite: INT222

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

Corequisites: BIO150 and 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 PROCEEDURE 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 and 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-requisite: BIO150

MEA200 MEDICAL ASSISTING ADMINISTRATIVE EXTERNSHIP 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

Prerequisites: MEA108, OAS110, and OAS221

Co-requisite: 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

Prerequisites: MEA101, MEA110, and MEA205

MEA202 MEDICAL ASSISTING CLINICAL EXTERNSHIP 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

Prerequisite: MEA101

Co-requisite: 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

Prerequisite: 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.

(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.

(2+2) F, S, SU

Prerequisites: MET102 and MTH080 or instructor permission

MET110 PRINT READING & SKETCHING 3 Cr. Hrs.

Print reading and sketching includes 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.

(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.

(3+0)

MET122 PRINCIPLES OF MACHINING 3 Cr. Hrs.

The focus of this course is to provide the student with a basis foundation in the skills needed to perform basic machining methods. The student will develop key techniques that will aid in proper selection, identification, and application of machines and machining methods. Hands-on laboratory work with the lathes, mills, drills, grinders, fixture utilization, feeds and speeds, is emphasized. Special emphasis will be placed on safety, precision, accuracy, and teamwork in completion of assigned lab projects. The student will be required to interpret basic blueprints and manufacture parts to print specifications.

(2+3) F, S

Prerequisite: MET110 or instructor permission

MET123 MACHINING PROCESSES II 3 Cr. Hrs.
 MET 123 is continuation of MET 122. Theory and hands-on skills learned in MET 122 will be applied to more advanced projects. Students will machine and manufacture industrial parts from well documented and professional prints and floor sketches. This class is intended to enhance and develop more advance machining skills with the student. Students will be assessed by their safety, accuracy, team work, 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+0) 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.
 (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 – 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.
 (2+0)
 Prerequisites: MTH080 or MET102 and Ability to access web courses.

MET143 BENCH WORK 2 Cr. Hrs.
 This is the first basic machine shop course. Students learn the use of hand tools, hand work, and floor work. Students are required to read prints, layout, machine, and fabricate projects utilizing the lab environment with emphasis placed on safety, tooling, precision and accuracy. Topics include: materials, mechanical fasteners, measurement, tolerance, fit, layout, hand tools, power tools, drilling, grinding, sharpening, hardening, burring, filing, polishing, layout work on the bench, use of hand taps, and cutting threads with a die.
 (2+0) F, S
 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.
 (2+2) F, S
 Prerequisite: MET143

MET150 TOOLING & FIXTURES- LUBRICANTS & 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) 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.
 (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, gases, expansion of materials, friction, and heat.
 (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 datum, the order of operations and appropriate fixtures to make the part in a CNC machine. G & M code programs will be written and loaded to the CNC mill or lathe which will create the machined surfaces of the part. Conversational programming will be demonstrated. A familiarity with geometry, trigonometry, computers, and CAD is helpful.
 (2+3) S
 Prerequisites: MET122, MET103 and IET105 or instructor permission

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. Datums, tool selection, speeds, feeds, and part identification will be emphasized.

(3+3) F

Prerequisites: MET122 and MET222 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.

(2+2) S

Prerequisites: MET103 and 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.

(2+2) F – even years

Prerequisites: MET103 and MET110 or instructor permission

**MET228 PATTERNMAKING
FUNDAMENTALS** **3 Cr. Hrs.**

Patternmaking involves creating, modifying, and repairing patterns, coreboxes, and other tooling associated with foundry practices. This class introduces the student to the selection, use, construction, and maintenance of tooling, pattern shop tools and materials used in building patterns and coreboxes for the foundry industry. Also included are the concepts of shop theory as applied to the molder, core maker, the process of melting metal, production of cores, sand types and binders, metallurgy, cooling and heat treatment. A simple pattern and corebox will be designed and constructed.

(2+2) S – even years

Prerequisite: MET226, course should be taken near the end of the apprenticeship program.

**MET231 METALLURGY &
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.

(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.

(2+3) F – Day, S – Even (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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OET008 – Strength Of Materials).

(3+0) S – odd years

Prerequisites: MET235 and 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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OET007 – Statics).

(2+2) S – 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

MET255 FLUID MECHANICS **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 and pneumatic systems are covered in this class. This class will introduce the student to both hydraulic and pneumatic components. Safety: This course will simulate an industrial environment; following all safety procedures will be required. Everyone will wear safety glasses while working in the lab! Failure to comply will result in not being able to work in lab and therefore lowering your lab grade(s).

(2+2) F

Prerequisite: PHY251

MET260 CAM II **3 Cr. Hrs.**

CAM II is a continuation of CAM I. This is an advanced course that introduces the student to Advanced milling, Solids, Surfaces, and 3D cutter-pathing. Lathe and 4th and 5th axis programming will be introduced as time allows. 3D drawings, solids and surfaces will be created by the student. Toolpaths and NC files will be created to the 3D drawings, solids and surfaces. The tool paths created will be used to create 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

Prerequisites: CAD213, MET223, and 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 ENGINEERING TECHNOLOGY 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, leading, and controlling skills. Issues such as decision making, communication, motivation, and leadership are addressed.
 (3+0) F, S, SU

MGT120 SUPERVISION **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)

MGT210 HUMAN RESOURCE MANAGEMENT **3 Cr. Hrs.**

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, SU

MGT221 ENTREPRENEURSHIP **3 Cr. Hrs.**
 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.
 (3+0) S
 Prerequisite: MGT110

MGT230 RETAIL MANAGEMENT **3 Cr. Hrs.**
 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)

MGT280 BUSINESS CLIMATE ANALYSIS **3 Cr. Hrs.**
 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

MGT281 GLOBAL BUSINESS CLIMATE ANALYSIS **3 Cr. Hrs.**

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)

MGT290 BUSINESS MANAGEMENT INTERNSHIP **3 Cr. Hrs.**

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

MGT295 MANAGEMENT CASE STUDIES **3 Cr. Hrs.**
 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 – odd years

MKT110 MARKETING **3 Cr. Hrs.**

Marketing is an introductory course that exposes the student to the "marketing mix" (Product, price, promotion, distribution) Topics include the global environment and social and ethical responsibilities; using technology and information to build customer relationships; target markets and customer behavior; product decisions; distribution decisions; promotion decisions; and pricing decisions. The topics are looked at from the profit and nonprofit viewpoint. Global as well as domestic strategies are examined. The student is introduced to the above topics through lecture, textbook readings, electronic media presentations, classroom discussions, and a team marketing project. Transfer Assurance Guide (TAG) approved effective spring 2008 (OBU006 – Principles Of Marketing Management).
 (3+0) F - Eve, S- Day, SU
 Corequisite: ECO212 Microeconomics

MKT210 ADVERTISING **3 Cr. Hrs.**

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)

MKT230 SALESMANSHIP**3 Cr. Hrs.**

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, SU

MTH109 COLLEGE ALGEBRA**3 Cr. Hrs.**

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

MTH112 TRIGONOMETRY**3 Cr. Hrs.**

Topics include defining trigonometric functions from right triangle and unit circle perspectives, solving all types of triangles, using trigonometric identities, manipulating trigonometric functions algebraically, solving trigonometric equations and application problems, writing vectors in both rectangular and polar form, and developing an algebra of vectors including solving vector equations and applied problems. Use of a graphing calculator is recommended.

(3+0) F, S

Co-requisite: MTH109 or satisfactory score on the Course Placement Test.

MTH170 SURVEY OF MATHEMATICS**3 Cr. Hrs.**

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 Test

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OMT005 - Calculus I and OMT017 – Calculus I and II Sequence, course 1 of 2).

(5+0) F

Prerequisites: MTH110, MTH112 or MTH122, or satisfactory score on the Course Placement Test.

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.

Course is offered spring semester. Transfer Assurance Guide (TAG) approved effective fall 2005 (OMT006 - Calculus II and OMT017 – Calculus I and II Sequence, course 2 of 2)

(5+0) S

Prerequisite: MTH213

MUS120 CHORUS**3 Cr. Hrs.**

This course is a vocal ensemble for students, faculty, staff, and community members with an interest in singing. A variety of music is studied, emphasizing techniques of singing and musical concepts. The group performs several times each term.

(3+0) F, S

MUS121 BEGINNING CHORUS**1 Cr. Hr.**

This beginning course is a vocal ensemble for students, faculty, staff, and community members with an interest in singing. A variety of music is studied, emphasizing techniques of singing and musical concepts. The group performs several times each term.

(1+0) F, S

MUS122 INTERMEDIATE CHORUS**1 Cr. Hr.**

This intermediate course is a vocal ensemble for students, faculty, staff, and community members with an interest in singing. A variety of music is studied, emphasizing techniques of singing and musical concepts. The group performs several times each term.

(1+0) F, S

MUS123 ADVANCED CHORUS**1 Cr. Hr.**

This advanced course is a vocal ensemble for students, faculty, staff, and community members with an interest in singing. A variety of music is studied, emphasizing techniques of singing and musical concepts. The group performs several times each term.

(1+0) F, S

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 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)

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

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

NRS107 BASIC CONCEPTS**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

Prerequisites: Admission to the Nursing Program

Co-requisites: BIO231, ENG111, NRS106

NRS108 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, and ENG111

Co-requisites: NRS110, NRS131, BIO232, and PSY230 or PSY110

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 Dept.

NRS131 HEALTH ASSESSMENT IN NURSING**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

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

NRS207 NURSING CARE: FAMILY**2 Cr. Hrs.**

This course will substitute for NRS213 for the LPN graduate who is not successful on the Nursing Care During Child-bearing NLN Mobility Profile Exam I, but is successful on the Pediatric component. This course focuses on the development and application of knowledge and skills in providing care for the pregnant woman and childbearing family throughout pregnancy: prenatal, intrapartal, postpartal and neonatal periods. The nursing process is used to assist in providing nursing care for clients and their families throughout the maternity cycle in adapting to their changing roles. SU

(2+0)

Prerequisite: Permission by Nursing Department

NRS208 NURSING CARE: FAMILY**2 Cr. Hrs.**

This course is designed for the LPN graduate who was successful on the Nursing Care During Child-bearing portion but not the Nursing Care of the Child NLN Mobility Profile Exam I. This course will focus on the development and application of knowledge and skills in providing family-centered care for well and sick children as well as anticipatory guidance for their families. Application of Growth and Development principles within the nursing process is emphasized.

(2+0) SU

Prerequisite: Permission by Nursing Department

NRS209 NURSING CARE DURING CHILDBEARING & 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) S, SU

Prerequisite: Permission by Nursing Department

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) F, SU-VW

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.

(1+0) F, SU-VW

NRS213 NURSING CARE CHILDBEARING 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 and PSY230

Co-requisite: PSY110 and ENG112

NRS214 NURSING CARE DURING CHILDREARING FAMILY 3 Cr. Hrs.

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.

(3+9) SU

Prerequisites: NRS108 and PSY230

Co-requisite: PSY110 or ENG112

NRS215 NURSING CARE OF CLIENTS WITH PSYCHOSOCIAL HEALTHNEEDS 5 Cr. Hrs.

The focus is on the development and application of knowledge and skills in providing nursing care to clients with common psychological health needs within a variety of settings.

(3+6) F, S

Prerequisites: NRS108 or NRS211/212, and PSY110

Co-requisite: SSC101 or SSC210

NRS216 NURSING CARE OF PHYSIOLOGICAL HEALTHNEEDSII 3 Cr. Hrs.

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.

(1+6) F, S

Prerequisites: NRS108 or NRS211/212

Co-requisite: BIO257

NRS217 NURSING CARE OF PHYSIOLOGICAL HEALTHNEEDSIII 5 Cr. Hrs.

The course provides for further development and application of concepts of nursing for assisting clients in adapting to the physiologic mode and related health needs.

(3+6) F, S

Prerequisites: NRS213, NRS214, NRS215, and NRS216

Co-requisite: PHI220

NRS218 CONCEPTS IN MANAGEMENTGROUPS 4 Cr. Hrs.

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.

(1+9) F, S

Prerequisites: NRS213, NRS214, NRS215, and NRS216

Co-requisites: NRS217 and PHI220

NRS220 SPECIAL PROBLEMS IN NURSING I 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 Nursing

NRS221 SPECIAL PROBLEMS IN NURSING II 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 Nursing

OAS101 COLLEGE KEYBOARDING 3 Cr. Hrs.

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.

(3+0) F, S – Day, Eve (odd years)

Prerequisite: OAS090 or Passing of OAS090 Placement Test

OAS102 KEYBOARDING APPLICATIONS 3 Cr. Hrs.

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.

(3+0) F – Day, S, SU

Prerequisite: OAS101 within the previous five years.

OAS105 DOCUMENT EDITING AND PROOFREADING 2 Cr. Hrs.

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.

(2+0) F – Eve (odd years), S, SU

OAS110 RECORDS MANAGEMENT 3 Cr. Hrs.

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.

(3+0) F – Day, S – Eve (odd years), SU

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 OAS101 or concurrent

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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OHL005 – Medical Terminology).
 (3+0) S – Day, SU

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, S, SU
 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
 Prerequisite: OAS221 or instructor permission

OAS230 TRANSCRIPTION **3 Cr. Hrs.**
 This course is designed to develop skill in listening and transcribing recorded dictation using the computer. 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

OAS249 ADVANCED MICROSOFT SUITE **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) S
 Prerequisites: CIS112 and CIS113
 Co-requisites: CIS118 and CIS119

OAS281 MEDICAL INSURANCE **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
 Co-requisite: ACC102

OAS282 MEDICAL 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, OAS101, and CIS112

OAS290 INTERNSHIP **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
 Prerequisites: ENG111

OAS291 INTERNSHIP I **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
 Prerequisite: ENG111

OAS292 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
 Prerequisite: ENG111

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), Eve (even years)

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), Eve (even years)

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), Eve (odd years)

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), Eve (even years)

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

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), Eve (odd years)

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), Eve (odd years)

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), Eve (odd years)

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

PAR222 ESTATES, TRUSTS, & 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), Eve (even years)

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

PET110 PRINCIPLES OF PLASTICS 4 Cr. Hrs.

This 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, S, SU

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

PET220 ADVANCED INJECTION MOLDING 4 Cr. Hrs.

This 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) S

Prerequisite: PET210

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) S

Prerequisite: PET110

PET231 PLASTIC MATERIALS TESTING 4 Cr. Hrs.

This 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

Prerequisites: PET110 and 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

Prerequisites: PET210 and MET103

PET250 PLASTICS SECONDARY OPERATIONS 4 Cr. Hrs.

This 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 INTRO TO PHILOSOPHY 3 Cr. Hrs.

Examines enduring human concerns such as religion, science, knowledge, identity, morality, and justice, using a variety of philosophical perspectives. Transfer Assurance Guide (TAG) approved effective spring 2008 (OAH045 – Introduction to Philosophy).

(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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OAH046 – Introduction to Ethics).

(3+0)

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 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

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 Test

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

PHY251 PHYSICS: MECHANICS & 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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSC014 – General Physics I – Not For Physics Majors and OSC021 – General Physics Sequence - Not For Physics Majors, course 1 of 2).

(3+3) F

Prerequisites: MTH109 and MTH112

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSC015 – General Physics II – Not For Physics Majors and OSC021 – General Physics Sequence – Not For Physics Majors Physics).

(3+3) S

Prerequisites: MTH109 and MTH112

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.

(2+2) F, S

Prerequisite: EET194

PLC210 PROGRAMMABLE CONTROLLER II (AB) 3 Cr. Hrs.

This course is an advanced study of the Programmable Automation Controller (PAC) instruction set, such as Allen Bradley, and hardware interface systems. PLC networks such as Devicenet and Controlnet are discussed, as well as Ethernet interfaces. Students will study industrial applications of the PLC's focusing on problem solving and project completion.

(2+2) S

Prerequisite: PLC200

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)

Prerequisites: PLC210 and EET240

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)

Prerequisites: PLC200, EET276, or instructor permission

PLC270 INSTRUMENTATION & 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) S

Prerequisites: EET265, PLC200, or instructor permission

PNE105 EFFECTIVE COMMUNICATION SKILLS FOR THE HEALTHCARE 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

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 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. Course is offered Fall, Spring and Summer.

F, S, SU

Prerequisite: Permission of the Dean of Allied Health and Public Service

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

Prerequisite: Admission to the Practical Nursing Program

Co-requisites: BIO150 or BIO232, ENG111, and PSY230

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 and PSY230

Co-requisites: BIO131, NRS110, and PNE122

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 and PSY230

Co-requisites: BIO131, NRS110, and 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

Prerequisite: PNE120

Co-requisite: NRS110

PNE124 NURSING CARE OF ADULTS II 5 Cr. Hrs.

This 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: 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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OSS015 – Intro/ Fundamentals Of Psychology).

(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. Transfer Assurance Guide (TAG) approved effective spring 2007 (OSS017 – Abnormal Psychology).

(3+0) F, S, SU

Prerequisite: PSY110

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. Transfer Assurance Guide (TAG) approved effective fall 2005 (OSS016 – Social Psychology).

(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, intellectual, moral, social, and physical 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 and their environment at various stages of development. Transfer Assurance Guide (TAG) approved effective spring 2008 (OSS048 – Life Span).

(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.

(3+0) F

Prerequisites: PSY110 and HST130

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 MANUFACTURING 3 Cr. Hrs.

This course deals with managing production operations in manufacturing plants. 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. Must have the ability to access web courses.

(2+2) On Demand

Prerequisites: QCT100 and 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.

(2+2) F, S, SU

Prerequisites: MET110 or work with part drawings in occupation, and MET103 recommended

QCT142 ADVANCED CONCEPTS OF GD & 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, 3-hour laboratory workshops, are planned for Design of Experiment and Cp, CpK practice.

(2+3) S - Day

Prerequisite: QCT100 and 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

Prerequisites: QCT100 and 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 – Weekends, S – Weekends

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 – Weekends, S – Weekends

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 – Weekends, S – Weekends

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 – Weekends, S – Weekends

SCM200 SUPPLY CHAIN MANAGEMENT 3 Cr. Hrs.

This course focuses on the flow of information and goods between a business, its suppliers and its customers. Special attention is given to the development of relationships with a firm and its suppliers. Both internal and external aspects of the supply chain are analyzed.

(3+0) F

Prerequisite: SCM220 or instructor permission

SCM210 PURCHASING & MATERIALS MANAGEMENT 3 Cr. Hrs.

This course focuses on supplier identification, evaluation, selection, and measurement. The relationship between the purchasing function and the rest of the organization is explored along with the correlation between supplier performance and inventory levels.

(3+0) F

Prerequisite: SCM220 or instructor permission

SCM220 OPERATIONS MANAGEMENT 3 Cr. Hrs.

This course focuses on the internal production process found in manufacturing facilities. Critical areas such as production planning, production line balancing, TOC analysis, lean, quality, MRP/MRP II, and inventory management are explored.

(3+0) F

Prerequisite: MTH080

SCM230 PHYSICAL DISTRIBUTION & LOGISTICS 3 Cr. Hrs.

This course focuses on the management of the movement of goods between local, national and international locations. Shipping documentation and packaging requirements are explored. The various modes of transportation are examined in detail.

(3+0) F

Prerequisite: SCM220 or instructor permission

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 instructor permission

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. Transfer Assurance Guide (TAG) approved effective spring 2007 (OSS021 – Intro/Fundamentals Of Sociology).

(3+0) F, S, SU

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. Transfer Assurance Guide (TAG) approved effective spring 2008 (OSS001 – Cultural Anthropology).

(3+0) S

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. Transfer Assurance Guide (TAG) approved effective spring 2007 (OSS011 – American Politics/Government).

(3+0) F, SU

SSC130 COMPARATIVE GOVERNMENT 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. Transfer Assurance Guide (TAG) approved effective spring 2007 (OSS013 – Comparative Government).

(3+0) S

SSC210 CULTURAL DIVERSITY 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

STA220 STATISTICS 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, S, SU

Prerequisite: MTH080

TRN100 TRACTOR-TRAILER DRIVER REFRESHER 5 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.

TRN150 STRAIGHT TRUCK DRIVER 7 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.

F, S, SU

TRN200 TRACTOR-TRAILER DRIVER 9 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

VCT108 PHOTO EDITING 2 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

VCT111 LAYOUT & DESIGN 3 Cr. Hrs.

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

VCT182 PHOTOGRAPHY 3 Cr. Hrs.

This 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. Transfer Assurance Guide (TAG) approved effective summer 2008 (OAH002 – Digital Photography).

(1+4) F – Day, S – Eve

VCT204 CONCEPTS OF VISUAL COMMUNICATIONS 3 Cr. Hrs.

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

VCT205 VISUAL COMMUNICATION 2 Cr. Hrs.

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

VCT260 3D COMPUTER ANIMATION 3 Cr. Hrs.

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

VCT266 MULTIMEDIA PRODUCTION 3 Cr. Hrs.

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

Prerequisites: CIS129 and VCT268

VCT268 VIDEO PRODUCTION 3 Cr. Hrs.

The study of video production is to provide a basic knowledge of the process used in pre-production, production, and cost-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. Transfer Assurance Guide (TAG) approved effective summer 2007 (OCM008 – Introduction To Single Video Camera Production).

(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

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GLOSSARY

Academic Advisor – Students are assigned an academic advisor. An advisor can provide guidance regarding class scheduling and program requirements.

Academic Divisions – There are five divisions at NSCC – Allied Health and Public Services, Business, Engineering, Nursing, and Arts and Science.

Academic Probation – Students are placed on academic probation at the end of any semester, including summer term, in which their cumulative grade point average falls below the minimum levels.

Academic Suspension – A student on academic 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.

Accreditation – NSCC is accreditation by the Higher Learning Commission and a member of the North Central Association of Colleges and Schools.

Admissions – the department to which you submit an application

Audit – the term “audit” refers to a course which is taken without credit and must be defined on date of registration.

Cost of Attendance – The total amount it will cost a student to go to school. This amount includes, but not limited to, tuition and fees, books, living expenses, transportation, and supplies. The students’ direct cost is tuition, fees, and books.

Credit Hour – a unit of academic credit measured in semester hours; one credit hour usually represents one hour of class time per week.

COMPASS Testing – assessment of a student’s reading, writing, and mathematical skills.

CRN – a course reference number, which is four-digits.

Cumulative Grade Point Average – a student’s grade point average for all college work based on a total number of quality points earned and the total numbers of semester hours.

Dean – this administrator directs an academic division (such as “Business”) at the college.

Dean’s List – a list honoring students for academic achievements.

Developmental Courses – any course that is below a 100 level (e.g. MTH080, CIS090, etc). These pre-college courses in reading, mathematics, science, and English help develop basic skills and prepare students for college level course work. These courses are graded pass/fail (S/U) and do not meet course requirements for graduation.

Drop/Add – If students want to add a course after the term has begun, they must complete an add form and obtain signatures from the instructor and dean of that division. To drop a course after the refund period is a “withdrawal” and can be completed on the web.

Estimated Family Contribution (EFC) – this amount is generated from a student’s Free Application for Federal Student Aid (FAFSA) and is used to determine all financial aid eligibility.

Federal Parent Loan (PLUS loan) – a federally guaranteed loan program that allows parents to borrow funds to help pay educational expenses. The program requires the borrower to pass a credit check.

Federal Stafford Loan – a federal loan program that enables students to borrow money for his/her education costs. Students must complete a FAFSA and be enrolled in at least six credit hours a semester. This is a loan that must be paid back upon graduation or enrollment of less than six credits. Repayment is usually based on a ten-year schedule.

Federal Supplemental Educational Opportunity Grant – a grant that is available to undergraduate students who demonstrate exceptional financial need according to the results of the FAFSA.

Federal Work Study Program – a program that allows students the opportunity to work and earn dollars on or off campus.

Free Application for Federal Student Aid (FAFSA) – application to apply for federal/state grants, loans, and work study programs at www.fafsa.ed.gov.

Financial Aid – a combination of scholarships, awards, loans, grants, and work study programs to help students meet education costs.

Fresh Start Policy – a student may apply to change a D, F, U or WF grade to a W in courses which are not program requirements. Specific requirements apply.

Full-time Ohio Instructional Grant (OIG) – State grant monies for Ohio residents.

Full-time Student – Carries 12 or more credit hours in a full term (fall or spring), or carries 6 or more credit hours during the summer term.

First-Year Student – a student with 29 or less earned credit hours.

myNSCC – allows online access to student registration and account information.

National Student Loan Database System (NSLDS) – centralized database for student financial aid records.

NSCC ID Card – a student ID card issued by the College.

Ohio College Opportunity Grant (OCOG) – State grant monies awarded to part-time and full-time students.

Part-time Student – Carries 11 credit hours or less in a full term (fall or spring), or carries 5 or less credit hours during the summer term.

PELL – a federal program where free monies is awarded to undergraduate students with the highest amount of financial need and have not earned a bachelor degree.

Satisfactory Academic Progress (SAP) – level of academic standing that a student must maintain in order to continue receiving federal student aid.

Second-Year Student – has earned at least 30 credit hours.

Student ID number – a computer generated number issued to students upon admission to the College. The number begins with an “N” and contains 8-digits.

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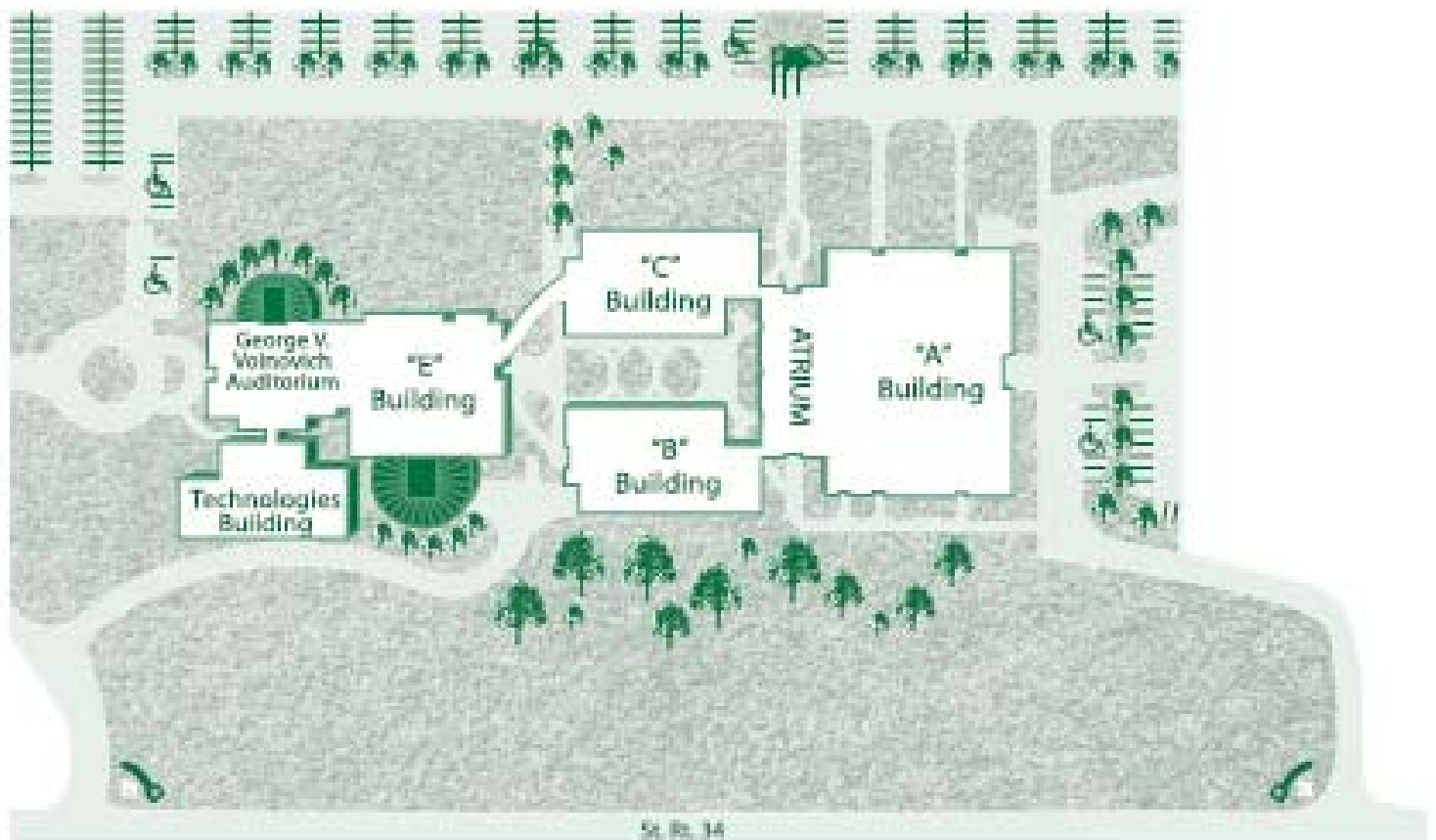
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CAMPUS MAP



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Human Resources (A106)
Library (A101)
Student Resource Center (A101D)
Success Center (East Entrance)
Transfer Advising (A101D)

Atrium

Campus Police
Main Entrance
Welcome Center

"B" Building

Dean of Business (B107)
President's Office (B105)
Vice President of Academics (B105A)

"C" Building

Admissions (C102)
Business Office (C107)
Financial Aid (C106)
Registrar (C106)

"E" Building

Dean of Engineering (E126)

* 100 level offices and classrooms are located on the first floor of the building and 200 level offices and classrooms are located on the second floor.



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