2008-2009 CATALOG

ZANE STATE COLLEGE

VISION

Empowering People ~ Enriching Lives ~ Advancing the Region

MISSION

Every learner puts knowledge to work through
experience-based learning provided with a personal touch.

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ZANE STATE COLLEGE
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www.zanestate.edu

ZANE STATE COLLEGE
A Comprehensive Community-Based Technical College
Catalog & Student Handbook
Volume XXXVI June 2008

Chartered by	The Ohio Board of Regents, 1969
Accredited by	North Central Association of Colleges and Schools The Higher Learning Commission 30 N. LaSalle Street, Suite 2400 Chicago, Illinois 60602-2504 1-800-621-7440
Member	American Association of Community Colleges Council of North Central Community Junior Colleges National Institute for Staff and Organizational Development Ohio Association of Community Colleges

Specialized Accreditation
Culinary Arts is accredited by:
American Culinary Federation, Inc.
Accrediting Commission
10 San Bartola Drive
St. Augustine, FL 32086
(800) 624-9458

Electrical/Electronics Engineering Technology is accredited by:
Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.
111 Market Place, Suite 1050
Baltimore, MD 21202-4012
(410) 347-7700
www.abet.org

Medical Assisting Program is accredited by:
Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
(727) 210-2350
www.caahep.org

Medical Laboratory Technology is accredited by:
National Accrediting Agency for Clinical Laboratory Sciences
8410 West Bryn Mawr, Suite 670
Chicago, IL 60631-3415
(773) 714-8880
www.naacls.org

Phlebotomy Technician program is approved by:
National Accrediting Agency for Clinical Laboratory Sciences
8410 West Bryn Mawr, Suite 670
Chicago, IL 60631-3415
(773) 714-8880
www.naacls.org

Occupational Therapy Assistant is accredited by:
Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA)
4720 Montgomery Lane, P.O. Box 31220
Bethesda, MD 20824-1220
(301) 652-2682 via the American Occupational Therapy Association, Inc.
www.aota.org

Parks, Recreation, & Wildlife is accredited by:
North American Wildlife Technology Association
Executive Director, Richard C. Lindsay
Haywood Community College
Freelander Drive
Clyde, NC 28721

Physical Therapist Assistant is accredited by:
Commission on Accreditation in Physical Therapy Education
American Physical Therapy Association
1111 N. Fairfax Street
Alexandria, VA 22314
(703) 684-2782

Radiologic Technology is accredited by:
Joint Review Committee on Education in Radiologic Technology (JRCERT)
20 N. Wacker Drive, Suite 900
Chicago, IL 60606-2901
(312) 704-5300
www.jrcert.org

Photo credit: Lorraine Rose, Student, Zane State College

CORE VALUES AND PRACTICES

Core Values

Personal Touch: **R**espect, **R**esponsiveness, and **R**esponsibility in all professional relationships, specifically, employee to student, employee to employee, and employee to community. College employees acknowledge their obligation to model and teach the three **R**'s to influence student development of behaviors that will lead to academic, professional, and personal success.

Learner Centered: We value learners as active participants in events and activities leading to the accumulation of knowledge, skills, and values in settings in and beyond the classroom. We are dedicated to careful design, evaluation, and improvement of programs, courses, and learning environments to enhance learner achievement. We recognize that every employee contributes to helping students learn and develop.

Collaboration: We strive to build synergistic relationships with our students, our community, business and industry, and other institutions.

Innovation: We believe forward thinking and informed risk-taking creates opportunities for success.

Core Practices

- Be a dynamic, responsive, and progressive organization that continually assesses and improves its academic programs.
- Provide and continually expand experiential learning opportunities for students.
- Integrate general education and technical skills in the learning experience, resulting in persons wholly prepared for the workplace and the world.
- Inspire learners to assume social responsibilities, engage in service learning, and become life-long learners.
- Focus on accessible and diverse learning opportunities.
- Foster the ethical and meaningful use of technology.
- Establish, maintain, and expand partnerships and strategic alliances with community-based organizations, educational institutions, business, industry, labor, and government agencies.
- Maintain and obtain, where appropriate, institutional and/or programmatic accreditation.
- Provide comprehensive educational services necessary for learners' successful educational experiences.
- Prepare learners for employment throughout the educational experience.
- Ensure skills sets training meets employment needs for workers and regional employers.
- Make relevant volunteer contributions to economic development, community service, and professional organizations.
- Promote choices for learners who wish to continue their education beyond Zane State College.

INSTITUTIONAL GOALS

Supporting our College vision, mission, core values and core practices, are our institutional goals:

Financing: Ensuring we are good stewards of our finances and have the ability to support our programs and services; obtaining additional funding through grants and expansion of the Zane State College Foundation to facilitate access to education and expand our programs and services.

Learning: Providing quality learning experiences for our students as reflected in our mission and assessing outcomes to continuously improve the learning experiences of our students.
Access: Growing our program and course offerings; diversifying our delivery methods; expanding times and locations of program and course offerings to better meet the needs of our students.

People: Valuing all people through living our personal touch philosophy in all of our interactions.

Partnerships: Strengthening and growing our partnerships with K-12 schools, other colleges, business and industry, and the community at large.

ASSESSMENT OF INSTITUTIONAL EFFECTIVENESS

It is the goal of Zane State College to enable individuals to develop to their fullest potential and prepare them to work as paraprofessionals or technicians in their chosen field. To this end, an assessment program is conducted College-wide to measure student progress toward educational goals, to determine academic progress, to improve teaching and learning, and to evaluate institutional effectiveness. Student assessment is part of the College's educational program. What Zane State College discovers through the assessment program is used in making decisions about everything the College does from curriculum planning to student activities to support services.

From the time students apply to the College until the time they leave, students are expected to participate in a series of evaluations, projects, surveys and other assessment activities intended to:

- Assess students' backgrounds, academic skills, and interests for accurate advisement and program placement at entry;
- Obtain information about students' satisfaction with College courses, programs and services;
- Measure gains and competencies students have achieved academically while at the College; and
- Demonstrate mastery of skills. These evaluations, projects, surveys, and other assessment activities are used to help students achieve their individual goals and to improve College services and programs for all students. Students' earnest and sincere participation in surveys, tests, learning tasks, exit exams, capstone experiences, and portfolio development provides the College with accurate information to plan increasingly effective programs and services. In this effort, students become partners in the assessment and learning process.

Photo credit: Tamra Pace, Marketing and Communications Director, Zane State College

PROGRAMS OF STUDY

ASSOCIATE OF APPLIED SCIENCE DEGREE (2 YEARS)

Engineering Technologies
- Computer Aided Drafting & Design (CAD)
  - Architectural Drafting major 80
  - Mechanical Design major 82
- Computerized Machine Tool Systems (CMT) 84
- Electrical/Electronics Engineering Technology (EET) 96

Health Technologies
- Health Information Management (HIM) 102
- Medical Assisting (MAT) 112
- Medical Laboratory (MLT) 114
- Occupational Therapy Assistant (OTA) 116
- Physical Therapist Assistant (PTA) 122
- Radiologic Technology (RAD) 124
- Sport and Fitness Management (SFM) 126

Natural Science Technologies
- Environmental Science, Safety, and Health (ENV) 100
- Parks, Recreation, & Wildlife (PRW) 120

Public Service Technologies
- Criminal Justice (Police Science/Corrections) (LAW) 86
- Early Childhood Education (ECE) 92
- Education Paraprofessional (EDP) 94
- Human Services Assistant (HSV) 104

ASSOCIATE OF APPLIED BUSINESS DEGREE (2 YEARS)

Business Technologies
- Accounting (ACC) 64
- Administrative Office Assistant (AOA) 66
- Business Management (BMT) 68
  - Human Resources Management major (BMH) 72
  - Marketing Management major (BMM) 74
  - (Business) Microcomputer Applications (BMC) 78
- Culinary Arts (CUL) 90
- Information Technology (ITC) 106
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ASSOCIATE OF TECHNICAL STUDY DEGREE (2 YEARS) 63
BASIC OCCUPATIONAL SKILLS PROGRAMS 56

CERTIFICATE IN APPLIED SCIENCE (1 YEAR)

Medical Assisting – Administrative and Clinical
Welding

CERTIFICATE IN APPLIED BUSINESS (1 YEAR)

Accounting and Bookkeeping
Digital Animation
General Business
General Office Specialist
Graphic Design
Retail Sales

ACADEMIC CALENDAR

FALL QUARTER 2008

September 15-18	Registration/Orientation/Employee Development	Monday-Thursday
September 22	Classes Begin/Registration	Monday
September 29	Last Day to Register/Add Classes	Monday
October 3	Last Day to Drop Classes/Remove Summer Quarter Incompletes/Petition for Fall Quarter Graduation	Friday
October 29	Classes End (First Term)	Wednesday
October 30	Classes Begin/Registration (Second Term)	Thursday
November 7	Last Day to Withdraw	Friday
November 11	Holiday (Veteran's Day) No Classes/Offices Closed	Tuesday
November 13	Last Day to Petition for Winter Quarter Readmission	Thursday
November 17-21	Priority Code Registration for Winter Quarter	Monday-Friday
November 24	Returning Student Open Registration Begins	Monday
November 27-29	Holiday (Thanksgiving) No Classes/Offices Closed	Thursday-Saturday
December 13	Classes End	Saturday
December 15-18	Employee Development	Monday-Thursday
December 24-25	Holiday (Christmas) Offices Closed	Wednesday-Thursday

WINTER QUARTER 2009

Dec. 31-Jan. 1	Holiday (New Year's Day) Offices Closed	Wednesday-Thursday
January 5	Classes Begin/Registration	Monday
January 12	Last Day to Register or Add Classes	Monday
January 16	Last Day to Drop Classes/Remove Fall Quarter Incompletes/Petition for Winter Quarter Graduation	Friday
January 19	Holiday (Martin Luther King Day) No Classes/Offices Closed	Monday
February 11	Classes End (First Term)	Wednesday
February 12	Classes Begin/Registration (Second Term)	Thursday
February 20	Last Day to Withdraw/Last Day to Petition for Spring Quarter Readmission	Friday
March 2-6	Priority Code Registration for Spring Quarter	Monday-Friday
March 9	Returning Student Open Registration Begins	Monday
March 21	Classes End	Saturday

SPRING QUARTER 2009

March 30	Classes Begin/Registration	Monday
April 6	Last Day to Register/Add Classes	Monday
April 10	Last Day to Drop Classes/Remove Winter Quarter Incompletes/Petition for Spring Quarter Graduation	Friday
May 6	Classes End (First Term)	Wednesday
May 7	Classes Begin/Registration (Second Term)	Thursday
May 15	Last Day to Withdraw/Last Day to Petition for Summer Quarter Readmission	Friday
May 25	Holiday (Memorial Day) No Classes/Offices Closed	Monday
May 26-29	Priority Code Registration for Summer and Fall Quarter	Tuesday-Friday
June 1	Returning Student Open Registration Begins	Monday
June 12	Classes End	Friday
June 13	Commencement	Saturday

SUMMER QUARTER 2009

June 22	Classes Begin/Registration (Full Term & First Term)	Monday
June 26	Last Day to Drop Summer First Term Classes	Friday
June 29	Last Day to Register/Add Classes (Full Term)	Monday
July 2	Last Day to Drop Classes/Remove Spring Quarter Incompletes/Petition for Summer Quarter Graduation	Thursday
July 3	Holiday (Independence Day) No Classes/Offices Closed	Friday
July 29	Classes End (First Term)	Wednesday
July 30	Classes Begin/Registration (Second Term)	Thursday
August 5	Last Day to Drop Summer Second Term Classes	Wednesday
August 7	Last Day to Withdraw (Full Term)/Last Day to Petition for Fall Quarter Readmission	Friday
September 5	Classes End (Second Term & Full Term)	Saturday
September 7	Holiday (Labor Day) Offices Closed	Monday

FALL QUARTER 2009

September 14-17	Registration/Orientation/Employee Development	Monday-Thursday
September 21	Classes Begin/Registration	Monday
September 28	Last Day to Register/Add Classes	Monday
October 2	Last Day to Drop Classes/Remove Summer Quarter Incompletes/Petition for Fall Quarter Graduation	Friday
October 28	Classes End (First Term)	Wednesday
October 29	Classes Begin/Registration (Second Term)	Thursday
November 6	Last Day to Withdraw	Friday
November 11	Holiday (Veteran's Day) No Classes/Offices Closed	Wednesday
November 12	Last Day to Petition for Winter Quarter Readmission	Thursday
November 16-20	Priority Code Registration for Winter Quarter	Monday-Friday
November 23	Returning Student Open Registration Begins	Monday
November 26-28	Holiday (Thanksgiving) No Classes/Offices Closed	Thursday-Saturday
December 12	Classes End	Saturday
December 14-16	Employee Development	Monday-Wednesday
December 24-25	Holiday (Christmas) Offices Closed	Thursday-Friday
December 31	Holiday (New Year's Eve) Offices Closed	Thursday

DISCLAIMERS

Subject to Change
This catalog furnishes prospective students and interested persons with pertinent information about Zane State College. In order to facilitate the advancement of the College, the material contained herein is subject to change without notice and should not be regarded as binding on the College.

Student Responsibility
Students enrolled at Zane State College are responsible for all regulations contained in this catalog. Students also are responsible for changes or additions to regulations as they are posted and appear in various College publications.

Equal Opportunity
Zane State College is committed to equal opportunity for all and does not discriminate in admission or access to, or treatment or employment in, its programs or activities on the basis of race, sex, sexual orientation, color, national origin, ancestry, religion, age, marital status, disability, or veteran status. The College's policies and practices concerning the admission and treatment of students follow federal guidelines set forth in Title VI, Title IX, and Section 504. Inquiries or concerns should be directed to Zane State College Human Resources Office, Room 158 College Hall, or call (740) 454-2501.

Harassment Policy
The College adheres to all federal and state laws and regulations concerning harassment encountered by students or employees. A complete copy of the Harassment Policy may be obtained by contacting the Vice President of Student Services or the Human Resources Office.

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

THE COLLEGE

Zane State College is a two-year technical college that offers students the opportunity to earn an associate degree while participating in experienced-based learning in their chosen field. Programs offered in this setting are designed to provide a broad-based competency in a field of applied business or science and include an approved distribution of general, basic, and technical courses. Although the primary objective of these programs is employment rather than transferability of credits to a baccalaureate or advanced degree, program credits are accepted by many colleges and universities.

Graduates of Zane State College programs are often referred to as technicians and paraprofessionals. These are terms used to describe employees whose special knowledge and skills qualify them to serve in mid-level positions that support engineers, scientists, doctors, high-level managers, and executives in specialized fields. The Zane State College programs, and thus the graduates, are generally application-oriented. Employment opportunities for Zane State College graduates are personally challenging and rewarding and often include a high level of responsibility.

Each of the associate degree programs at Zane State College can be completed in a two-year period (seven or eight quarters); however, many students attend on a part-time basis and complete the programs at their own pace. In fact, the national average length of time students take to complete an associate degree is ten quarters or three years.

EDUCATIONAL FACILITIES

Zane State College moved to its current educational facilities in September 1975. The College shares a 179-acre campus with Ohio University-Zanesville and houses the following educational facilities:

The Campus Center - This facility is shared with Ohio University-Zanesville. It is a 65,000 square-foot building of modern design with classrooms, health laboratories, culinary arts laboratory, campus bookstore, student lounge, food service and dining area, and a conference center with seating for 300.

College Hall - This complex provides classrooms, laboratories, and office space for the faculty and administration. Among other departments, College Hall houses Student Services (including Admissions, Student Financial Aid, and Student Success Center), The Learning Center, Business Office, Human Resources, Evening Programs Office, and the Academic Computer Lab.

Health Science Hall - A facility that includes laboratories for the health technologies in addition to classroom space for other technologies and a 126-seat lecture hall.

Herrold Hall - A learning resource center shared by Zane State College and Ohio University-Zanesville that includes a 75,000 volume library, student lounges, and study areas.
Law Enforcement Laboratory - A 1,000 square-foot laboratory used for the Criminal Justice Technologies that contains a classroom/laboratory and a seven-lane pistol range.

Littick Hall - A physical education building shared by Zane State College and Ohio University-Zanesville that includes a gymnasium, multi-purpose room, classrooms, exercise room, locker rooms, and offices.

Natural Resources Center - This classroom and laboratory facility was dedicated in October 1985, after its construction on the College Land Laboratory, five miles west of the campus. The Land Laboratory is a 125 acre facility near Dillon Lake that is leased from the Muskingum Valley Fisherman's Association and the Ohio Department of Natural Resources. It is used by students and faculty members of outdoor-related technologies. The Natural Resources Center is a modern, rustic-looking building overlooking the lake.

Zane State College Willett-Pratt Training Center - Opened in the fall of 2001, the 35,000 square foot complex is devoted to serving the business and industrial education needs of Southeastern and Central Ohio. The Zane State College Willett-Pratt Training Center offers flexible and convenient educational opportunities through short-term, self-paced, modular welding training. In addition, traditional and distance learning courses are offered. The facility houses training space, traditional classrooms, an ITV classroom, and the Learning Resource Center. Space also is provided for local business and organizations which have partnered with Zane State College to provide services to the community.

ADMISSIONS POLICIES

Requirements for Admission

Admission to the College requires a high school diploma, its equivalent, or special permission in writing from the Vice President for Educational Services and Quality Improvement. Zane State College is committed to equal opportunity for all and does not discriminate in admission or access to, or treatment or employment in, its programs or activities on the basis of race, sex, sexual orientation, color, national origin, ancestry, religion, age, marital status, disability, or veteran status.

Certain Health and Public Service Technologies may conduct interviews and have other special admission requirements. These technologies include: Early Childhood Education, Criminal Justice, Health Information Management, Medical Assisting, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, Radiologic Technology, and Sport and Fitness Management. Specific admission requirements for these programs can be found as part of the program description in the body of this catalog. Within certain programs in Health and Public Service, students will be required to follow the policies and procedures of the fieldwork site. In addition, students will be required to have clinical and fieldwork experiences in more than one setting. While students may have an opportunity to express preferences for clinical or fieldwork sites, the College has the responsibility and authority to make the final decision regarding placement in clinical and fieldwork experiences.

In regard to Health and Public Service program curricula, its purpose is to build student knowledge and skills in a logical and sequential manner. Each quarter of foundational and technical courses is viewed as preparing for the following quarter. Students who elect to alter the sequence of foundational courses are often not prepared to succeed in technical courses. Clinical, fieldwork, and student teaching courses are particularly dependent upon completion of all prerequisite coursework. Students may be considered a liability to the agency, field site, and/or clinical field site, and to Zane State College if prerequisite work for a practical experience placement is incomplete. Therefore, if a student chooses not to complete all coursework in the appropriate sequence, the student's enrollment in fieldwork, clinical, or student teaching courses may be delayed. In some instances this may lead to "sitting out" of the program for a full year.

Admission Procedures

Each prospective student must adhere to the following procedures:

1. Complete all parts of the Application for Admission and return it, along with the $20 application fee, to the Zane State College Admissions Office. Additional application forms may be obtained by writing to the Admissions Office, Zane State College, 1555 Newark Road, Zanesville, Ohio 43701. Applications are kept on file for one year from date of receipt. At that time, if the applicant has not started classes, all records are destroyed.
2. Certain programs specified above as being selective programs require that students submit a certified copy of their high school transcript. In addition, applicants who are not high school graduates are required to submit a school report of the Test of General Educational Development (GED). Information concerning the GED is available from any local high school or from the State GED Office, 25 South Front Street, Columbus, Ohio 43215, Phone 614-466-1577.
3. Contact the Student Success Center or the Willett-Pratt Training Center to make arrangements to complete the ACCUPLACER. This is Zane State College's computerized placement tool.
4. Completion of the Health Occupations Aptitude Examination is required for students applying to the MLT, OTA, PTA, or RAD programs. Students must earn a minimum average percentage score to be considered for admissions to these programs. Information regarding the minimum average percentage score required for each program should be obtained from the specific program director. Students may schedule the examination at the Student Success Center. There is a $20 fee for each attempt at the examination, with a maximum of two attempts.
5. All students enrolled in the Early Childhood Education program, or any other courses which will involve working with children, must have on file a completed medical statement. This form can be obtained from the Early Childhood Education faculty.
6. An interview with a technical faculty member is recommended before beginning classes to help answer additional questions concerning the chosen field of study. This interview is required for admission to some health programs.

7. A screening process is required before final acceptance into Early Childhood Education, Criminal Justice, Health Information Management, Medical Assisting, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, Radiologic Technology, and Sport and Fitness Management programs.
8. Hepatitis B immunizations for Health students: Federal legislative action through the Occupational Safety and Health Act (OSHA) now mandates that facilities employing individuals who come in contact with hazardous and infectious materials, i.e., body fluids such as blood, semen, vaginal secretions, cerebrospinal fluid, pleural fluid, synovial fluid, peritoneal fluid, amniotic fluid, saliva, or any fluid contaminated with blood must offer their employees Hepatitis B immunization. While Zane State College does not fall under OSHA regulations, most of the clinical affiliates for MAT, MLT, OTA, Phlebotomy, PTA, RAD, and SFM course work do and must comply with the law. Students are not employees of the hospitals or clinical affiliates. Therefore, these facilities are not required to provide the immunization for students but they can limit the College's access to their facilities if students are perceived to be at risk and without appropriate opportunity for immunization. Consequently, ALL STUDENTS TAKING MAT, MLT, OTA, PHLEBOTOMY, PTA, AND RAD COURSES MUST ACQUIRE THE HEPATITIS B IMMUNIZATION SERIES OF THREE INJECTIONS (OVER A SIX MONTH PERIOD). New MAT, MLT, OTA, PTA, RAD students and those taking Phlebotomy courses must provide the College with documentation of the first Hepatitis B injection no later than July 30, or sooner if the technology situation requires it. Certain health programs may require current CPR certification prior to participation in field work courses. Entering students who fail to provide the appropriate documentation by the designated timeline will be withdrawn from their program and their places will be given to alternates. Students failing to complete the series of three injections will be unable to register and/or complete their programs. ALL COSTS ASSOCIATED WITH MEETING THE HEALTH/IMMUNIZATION REQUIREMENTS ARE THE SOLE RESPONSIBILITY OF THE STUDENT. In some instances, Tuberculin Skin Tests may also be required. Students should not begin Hepatitis B immunization until they have been fully accepted into the program of choice as evidenced by receipt of official notification from the supervising faculty member of the respective program as follows:
    - HIM (health Information Management) - M. Hamilton
    - MAT(Medical Assisting Technology) - S. Morgan
    - MLT (Medical Laboratory Technology) - V. Huntsman
    - OTA (Occupational Therapy Assistant) - M. Arnold
    - PTA (Physical Therapist Assistant) - B. Shelby
    - RAD (Radiologic Technology) - T. Leggett
    - SFM (Sport and Fitness Management) - T. Berger
9. Criminal background investigations for ECE, OTA, PTA: Ohio Senate Bill 38 requires that individuals having contact with children in a licensed day care or child care environment undergo a criminal background investigation. This investigation involves having fingerprint records checked through the Bureau of Criminal Investigation and, in the case of individuals who have resided in Ohio less than five years, fingerprint records will be checked through the FBI. All students accepted into OTA and PTA will be required to be fingerprinted. All students planning to take any ECE course will be required to be fingerprinted prior to enrollment. For questions or concerns regarding policies, procedures and student rights in regard to this legislation, please contact your faculty advisor or the Dean of Health, Public Service and Service-Related Programs.

Students who require reasonable accommodations to attend classes and/or complete coursework due to physical or mental disabilities may arrange a conference with the Director of the Student Success Center.

Academic Assessment for Course Placement

Several levels of communications and math courses are offered to meet the needs of students. The ACCUPLACER will measure current abilities in reading, writing, math, and Algebra so that students can begin their work in these subjects at the appropriate level. All new full-time students and part-time students planning to register for an ENG or a MTH course must take the test prior to registration. Selective programs may have college level ENG/MTH requirements for admission to technology courses. Contact the Student Success Center in College Hall, Room 134 or the Willett-Pratt Training Center to arrange an appointment. Test exemptions are granted to students who have:

- Credit for a college-level ENG or MTH course with a grade of D or better within the last five years; or have

- An associate's degree or a higher degree. College transcripts must be submitted to the Zane State College Records Office prior to the planned quarter of enrollment.

Potential students must demonstrate minimum competency levels in reading, writing, and math for placement into the first level of basic skills courses. After enrollment in basic skills courses, a student must demonstrate progress toward college-level work.

Early Admission
The REACH program enables high school juniors and seniors to take one free course at the College during certain quarters. Enrollment is permitted on a space-available basis. A student will be considered for this early admission only when recommended by appropriate high school personnel and solid academic ability is apparent.

Post-Secondary Enrollment Options Program
The Post-Secondary Enrollment Options Program (Senate Bill 140, Senate Bill 55 and House Bill 215) provides high school students in grades nine through twelve the opportunity to earn college and high school graduation credit through the successful completion of college courses.

The program is intended to complement rather than replace the high school preparatory curriculum. Complete details and admissions criteria can be obtained by contacting the high school counselor or the Zane State College Admissions Office.

Catalog in Force
Requirements to earn a degree or certificate are based on the catalog which is in force at the time of the student's initial enrollment. Students have five years to complete their degree program from initial enrollment under the catalog in force at the time of initial enrollment. However, the College reserves the right to change course offerings and academic requirements without notice. In this regard, the following guidelines determine which catalog a student must follow in meeting program requirements:

- Students may elect to complete their coursework under the most recent catalog and must comply with all of the new requirements for their program.
- Students who change majors or are admitted to selective programs must meet requirements of the catalog which is in force at time they make said change.
- Students who transfer to another college or university and return to Zane State College will be readmitted under the catalog which is in force at the time of readmission.
- Students who do not earn any credit hours toward their degree requirements in two calendar years must satisfy requirements of the catalog in force at the time of re-enrollment.
- Dismissed students are readmitted under the catalog which is in force at the time of readmission.

Exceptions to the above may be necessary when changes in certification, accreditation, or licensure standards and changing technology mandate changes in academic requirements or in College programs.

Students who take longer than five years must meet the requirements of the most recent college catalog.

Questions concerning this policy should be directed to the Records Office.

International Student Admission Policy
Zane State College is authorized by federal law to enroll nonimmigrant alien students.

Residents of foreign countries who wish to apply for admission to Zane State College must:

1. Submit a completed Application for Admission and the $20 application fee.
2. Submit all pertinent transcripts and translation of those transcripts if not in English.
3. Provide the College with results of the Test of English as a Foreign Language (TOEFL), if applicant's natural language is not English. Students in foreign countries may contact the U.S. Embassy for information concerning the test. A minimum total score of 450 on the paper version of the TOEFL, or a minimum total score of 133 on the computer version of the TOEFL is recommended for admission. Scores on Accuplacer should be out of the referral range and into courses offered at Zane State College in the areas of reading, writing, and computation math.

4. Provide the College with satisfactory evidence of financial stability and also the names of persons to be contacted in case of emergency. After the above information is satisfactorily completed, the applicant will receive a letter of acceptance and an I-20 Form to be used in securing a student visa. All students attending the College on temporary visas are required to pay out-of-state fees.

Transfer Issues
Students transferring from other institutions of higher education must complete the application procedures outlined previously in the Admission Procedures section. In addition, official transcripts of all previous work must be submitted to the Office of the Registrar. Official evaluation for transfer credit is made after the application for admission is completed.

Transfer to/from an Ohio Public College or University
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.

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college's 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 degree programs require specific courses that may be taken as a part of the general education or Transfer Module program at an institution, students are encouraged to meet with an academic advisor at the institution to which they plan to transfer early in their academic career. Because of specific major requirements, early identification of a student's intended major is encouraged. Advisors at the institution to which a student wishes to transfer should be consulted regarding Transfer Module and general education courses and any specific program requirements that can be completed before transfer.

Computer Accessible Transfer Information
The Ohio Board of Regents also has established a Transfer Assurance Guide (TAG) system in conjunction with a nationwide computerized Course Applicability System (CAS). This combined system enables college and university advisors and individual students to access via computer course transfer potential information at virtually all public (and a few private) institutions of higher education in the State of Ohio and even more participants throughout the nation. Within Ohio, higher education institutions have matched standard courses for transfer potential. Initially, approximately 175 courses have been linked to all public institutions. As the system grows, more courses will be linked. All public institutions are mandated to investigate transfer potential with institutions from which they receive a set minimum number of transfer students annually.

All this Ohio data is available beginning Fall 2005. The national website is www.transfer.org and the Course Applicability System site is www.transfer.org/cas and the Ohio transfer site is www.transfer.org/ohio. Students, parents, advisors, and counselors are strongly encouraged to access, learn and utilize this system.

Conditions for Transfer Admission

1. The policy encourages receiving institutions to give preferential consideration 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.
2. The policy encourages receiving institutions to give preferential treatment to students who have not earned an associate of arts or associate of science degree but 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.
3. 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 previous college level courses are eligible for admission as transfer students on a competitive basis.

2008 Transfer Module

FIELD	TM MINIMUMS		ADDITIONAL COURSES FOR TM	
English	*ENG 150	5		
	*ENG 180	4	*COM 261	4
Total	*9 quarter credits		*4 quarter credits	
Mathematics	MTH 125	4	Choose one additional	
(choose one)	MTH 134, 135	4	course from approved TM list	
	MTH 225	4		
	MTH 227	4		
	MTH 251, 252, 253	5		
Total	*4-5 quarter credits		*4-5 quarter credits	
****Arts/Humanities**	*HUM 107	4	Note: Courses are taken through OU-Z	
	*PHIL 101	5		
Total	*9 quarter credits			
****Social and**	BUS 151, 152	4	Choose additional courses(s)	
Behavioral Sciences	GEO 161, 171	4	from approved TM list	
(choose two)	PSY 101, 201, 203, 217, 231	4		
	SOC 101, 206, 218	4		
Total	*4-8 quarter credits		*4-8 quarter credits	
Natural Science	BIO 101, 107, 201	4	Choose additional courses(s)	
(choose two)	CHM 101, 121, 122, 123	4	from approved TM list	
(one lab course	GLY 135	4		
required)	PHY 110, 201	4		
Total	*8 quarter credits		*4-8 quarter credits	
Sub Total of Hours	**38-39 quarter credits**		**20-21 quarter credits**	

Transfer Module Total Hours 58-60. Transfer Module features are subject to change as dictated by the Ohio Board of Regents.

*Required

**Courses in the Arts/Humanities and the Social and Behavioral Sciences must be from two different disciplines.

Transfer to/from an Independent College or University

Because independent and proprietary colleges in Ohio may or may not be participating in the transfer module, transferring credit to/from independent institutions will vary. Students endeavoring to transfer to Zane State College from an independent or proprietary college should schedule an appointment with the Admissions Office and/or the program director of the desired program to determine if credit will transfer. During the process, students will be required to provide transcript information and supporting documentation describing, in detail, the contents of courses taken at the independent college. Students may also be required to take a proficiency test(s). Based on a thorough review of the provided material and proficiency test scores, credit may or may not be awarded. Students transferring to an independent or proprietary college from Zane State College are encouraged to check with that College's admissions office to verify ability to transfer credit.

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.

Transfer of Zane State College Credits to Another Institution
Students who decide to transfer to another college before or after completing a two-year program at Zane State College should check carefully with the receiving institution to determine what transfer credit will be awarded. The exact amount of transfer credit students can expect to receive depends upon the program pursued at Zane State College and the type of program entered at another college. Normally, a student can expect the greatest number of credits to transfer into a bachelor of technology program. When a student transfers from a technical program into a professional program, he/she can expect to have credits that will not transfer.

Readmission Requirements and Procedures
Persons who have previously taken courses at the College but not during the preceding quarter and who are in good standing may gain readmittance by completing a Reactivation Form and submitting it to the Zane State College Admissions Office. Information for readmission of academically dismissed students is found in the section on academic dismissal. Transcripts of any college work after separation from the College should be forwarded to the Records Office. Readmission to the College does not guarantee eligibility to receive financial aid. The Director of Student Financial Aid will determine this eligibility.

In situations where basic and technical course work is five (5) years old or older, or where requisite skills may have been lost, courses previously taken at the College will be subject to review by the division faculty and dean. Those courses reviewed which do not substantially meet current technological requirements and standards will not count toward certificate or degree requirements. These guidelines also apply toward transfer credit being evaluated.

Transient Student Admission
Students who want to take course work at Zane State College for the express purpose of receiving transfer credit from another institution follow the same admission procedures as shown in the Transfer Students section. Each student should insure that the institution in which he/she is enrolled will accept the course(s) for credit before enrolling at Zane State College.

Health Studies Core
The Health Studies Core is designed for the student who is interested in pursuing studies in the health field but whose level of academic preparation needs to be raised to meet admission criteria in specific health technologies. The Health Studies Core is also designed for those students interested in exploring health career options. The student and his/her advisor will identify those courses necessary to meet individual student needs. Students in health core will enroll for 12 - 14 credit hours per quarter in general, basic, and technical courses. Students preparing to enter a particular health technology must meet specific program admission criteria.

Pre-Engineering Technologies Studies Core
The Pre-Engineering Technologies Studies Core program is designed for the student who is interested in pursuing studies in the engineering technologies area but whose level of preparation needs to be raised to be able to enroll in entry-level courses.

The student will follow a curriculum of 12-14 credit hours per quarter in the initial year of enrollment in basic, general, and technical courses to lay a foundation on which to build the technical program. The following two years the student may complete the associate degree requirements while enrolling for approximately 14-17 credit hours per quarter. This enables the student to elect other non-required courses without having too heavy a load if that choice is desired. Recommendation for enrollment in this program is based on preregistration testing information plus an academic advising session with the technology advisor or College counselor in which an outline of the quarter-by-quarter schedule of courses is reviewed.

DEAL (Distance Education - Alternative Learning)
DEAL courses are designed for independent and distance learning study. Students learn and complete course assignments by following study guides, reading books, using computers, watching videos, etc. Course instructors are available for assistance via phone calls, office visits, or e-mail. Students who are self-motivated, independent, persistent, resourceful, and organized will find that DEAL courses can enhance their learning, provide flexibility, and potentially save time and money.

DEAL Surcharge Policy
A $15 per credit hour surcharge is due for each DEAL course a student takes. This charge is in addition to any other tuition or fees. The DEAL surcharge covers the extra costs associated with DEAL course delivery, such as technology support, student handbook duplication, video licenses, postage, faculty course adaptation time, etc. Financial aid can be used to pay the DEAL surcharge.

There are five types of DEAL courses. In the course schedule, these courses are identified by a letter in the course section code.

M designates multimedia courses which involve technologies such as videotape, telecourses, or computer-based learning.

S designates self-study courses. Students use textbooks, handouts, and course manuals to complete assignments and exams independently with little or no interaction with other students.

T designates interactive television courses in which students attend a scheduled class and interact with the instructor and students at the local and remote site via television.

W designates web-based courses. Students use a course website to complete assignments and interact with the instructor and classmates.

H designates hybrid courses which can be any combination of the above media as well as traditional face-to-face instruction.

Security Fee Policy
Students who take only DEAL courses will not be charged the standard security fee. Students who take DEAL courses and any regularly scheduled main campus or Willett-Pratt Training Center courses will be charged a security fee.

STUDENT AND ACADEMIC SUPPORT SERVICES INFORMATION

Privacy of Student Information
All policies and procedures governing the collection, maintenance, review and release of student records will be consistent with the principles and restrictions outlined in the Family Educational Rights and Privacy Act of 1974. Per FERPA, students must provide a written request to restrict the distribution of directory information.

Directory information includes student's names, address, telephone number, technology, and email address. This public information is released upon request for campus news releases (honor list, etc.). Students have the option to determine whether or not this information will be listed in the Student Directory. Students not wanting this information listed must indicate this fact in writing to the Registrar's Office.

All Zane State College students are entitled to review the contents of their personal files at the College. 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 30 days after the request has been made.

Records will be inspected and reviewed by the student in the presence of the Registrar or his/her designee. Records may not be changed or deleted during the process of inspection and review. The student shall be advised of his/her right to challenge and the procedure to challenge any portion(s) of his/her College record. A copy of the College policy is available upon request at the Records Office.

Identification Card
All students, part-time or full-time, must have a valid Zane State College identification card. These are normally issued by the Student Success Center at the time of registration along with a validation label issued for each quarter upon payment of fees.

Vehicle Registration
Adequate parking facilities are adjacent to the College. Students should park in designated areas only and should exercise proper driving courtesy. Parking in inappropriate and restricted areas may result in a student being issued a parking ticket. An automobile registration sticker is required for handicapped students' reserved parking spaces. This sticker may be obtained during the registration process at the Student Success Center. Repeated violations of vehicle regulations may result in suspension of driving privileges on campus. All vehicles must be registered in the Admissions Office.

Academic Quarter
The College schedules classes on a quarter system. To aid in a clear understanding of this method of operation, the following information is provided:
1. An academic quarter is comprised of ten weeks of classes and one week of examinations and registration.
2. A College week consists of five College days, including holidays, but excluding College recess periods.
3. The College evaluates subjects in terms of quarter hours of credit.

Academic Year
The academic year consists of fall, winter, spring and summer quarters. Most quarters provide opportunities to accelerate completion of a program of study. Each course, whether offered for the full term or an abbreviated period of time, meets the same number of hours. Some programs require at least part-time attendance during summer quarter to fulfill an internship or seminar requirement for graduation.

Academic Course Load
The minimum load for a full-time student is 12 credit hours. The average load of a full-time student is 16-18 credit hours which consists of 4 or 5 courses. Information concerning class loads for students on probation is found on page 28 of this catalog.

General Class Hours
In general, classes are scheduled from 7:00 a.m. until 11:00 p.m. Monday through Friday and from 8:00 a.m. to 5:00 p.m. on Saturdays. Special classes may be offered any hour of the day provided there is sufficient enrollment.

Attendance Guidelines
The faculty believes that classroom activities have an essential relationship to learning and to the application of knowledge. Students are expected to maintain a high standard of class attendance and are responsible for work missed due to a class absence.

STUDENT AMENITIES

Bookstore – The Campus Bookstore is located in The Campus Center and is operated for the convenience of all students on campus. In addition to textbooks, students may purchase other required materials and study items for each quarter's classes.

Library Services – College library facilities are located in Herrold Hall, which provides an excellent atmosphere for leisure reading or serious study.

Student Lounges – Lounges are located in College Hall, Herrold Hall, Elson Hall, and The Campus Center for the use of College students.

Student Housing – The City of Zanesville provides numerous apartments and living establishments for students who will be moving to the area during their enrollment at the College. For more information regarding student housing, call the Zane State College Admissions Office. Available housing is privately owned and operated.

College Newspaper – A College newspaper is published by the Marketing and Communications Office to keep students informed about campus and public events. The paper is made available to all students at no cost and students may submit articles for publishing consideration.

Food Service/Vending – The Campus Center has hot food short-order facilities. In addition, many short-order eating establishments are located within ten minutes' driving time of the campus.

Health Services – Zane State College provides first aid and referral services only. Excellent hospital facilities are located five minutes from campus. Students should contact the Student Services office or the Evening Programs office for first aid needs.

Student Success Center
The Student Success Center, located in College Hall, provides numerous support services for Zane State students. The staff in the Student Success Center will help students understand their ACCUPLACER results, build academic plans and schedules, and help when any problems arise concerning academic difficulty. The Student Success Center serves as the "answer spot" for students.

The Student Success Center is also the designated liaison for international students. All prospective international students are required to contact the Student Success Center to ensure that proper admissions criteria and documentation are satisfied.

Students with disabilities (physical, learning, emotional, etc.) are encouraged to contact the Student Success Center so that proper accommodations can be arranged.

Academic Advising and Counseling
Students and alumni needing assistance with personal, social, and academic problems will find that faculty advisors and professional staff are readily available. The College has a state-licensed social worker, and academic advisors on staff to assist students. Just stop by or call the Student Success Center, College Hall for assistance.

Career and Employment Services
Zane State College's Career and Employment Services Office focuses on assisting students in making a smooth transition from their academic pursuits to their career goals.

The office provides resources which help students develop and identify life-long career objectives, locate part-time jobs and internship opportunities, and aid graduates in securing permanent, full-time employment within their field of study.

Career Development Services
The Career and Employment Services Office offers resources to aid students and clients in developing career goals and understanding the relationship between college technical programs and possible careers. Services include: computerized and on-line career assessments that provide inventories of interests, abilities, preferences and values; career counseling; assistance with matching career fields with Zane State majors; quick reference guides of salary information that corresponds to Zane State majors; access to alumni who share information about their careers; extensive career library materials and computerized and online information systems that contain Ohio job market data.

JobNet Online Employment Management System
By using the Internet to access this online employment system, students can register for employment services, post a resume to the Career and Employment Services' database website, or review current job opportunities.

Once students and graduates are registered with the system, the computer can match them by academic majors and/or skills to available job opportunities and refer their resume to employers for consideration. Additional services include: on-campus recruitment, employment counseling, career exploration and job fair, career opportunity corner, and lists of employers by academic majors.

Faculty Advising
Each student is assigned a faculty advisor who is actively involved in the student's particular major area of technical preparation. The advisory system is designed to assist each student with individual problems, whether they are academic, financial, or perhaps personal in nature, which may impede the continued progress of the student concerned. The advisor assists the student in the effective planning and successful completion of all phases of his/her college program.

Faculty Office and Appointment Hours
Each faculty member maintains office hours on campus when he or she is available for advising and meeting with students. Office hours for each faculty member are posted on faculty office doors. Students are encouraged to arrange appointments for conferences in advance to avoid conflicts.

Advisor Conference Procedures
Meetings with your advisor are important! During these meetings your college career is planned and discussed. As a student, you are responsible for preparing for your future. As a faculty member, your advisor knows of the scheduling procedures and problems that students encounter. To have an effective preregistration meeting with your advisor, these are the appropriate steps to take:

Before the meeting:
1. Make an appointment with your advisor.
2. Familiarize yourself with the College catalog and your program curriculum.
3. Be aware of which courses have prerequisites and whether or not you have completed these.
4. Be prepared to discuss current progress in your coursework and your anticipated future plans.
5. Be prepared to ask questions on any procedures you don't understand.
6. Items to bring with you:
    a. Class Registration Form
    b. College Catalog
    c. Quarterly Class Offerings (schedule)
    d. Block schedule of what you are planning to take next quarter
    e. Copy of your graduation requirement checklist
7. If working off campus, be prepared to bring a verified work schedule if special scheduling is necessary.

During the meeting you and your advisor will:
1. Review and ascertain that your Degree Audit is up to date.
2. Review progress that you have made in current course work.
3. Present plan for upcoming quarter's course work, checking that prerequisites have been successfully completed.
4. Discuss anticipated class load relative to your academic success, work load, and personal needs.
5. Complete registration form. Remember, you have the responsibility for ensuring satisfactory progress toward a degree or other stated goal. You can do so by meeting with your academic advisor.
6. Students may eventually register for classes online or with assistance from admissions and advising personnel.

Tutoring Services
Tutoring services are provided free of charge through The Learning Center by both professionals and peers. Arrangements can be made in Room 175 in College Hall.

SCHEDULING & REGISTRATION

Quarterly Class Registration
New Students are required to attend a New Student Orientation and Registration program in advance of their enrollment at the College. As part of this activity, students will register for the courses they will be taking during their first quarter.

Continuing students will have the option of registering for classes via the web at Z-online or registering in person at the Student Success Center. Students taking developmental classes, needing a course override, or returning after more than one quarter of non-enrollment must meet with Student Success Center advisors.

Suggested Sequence of Quarterly Courses
Students who wish to complete a program of study within two years are encouraged to follow the suggested course sequence for their respective programs. Listings of suggested sequences for each program are found in the Programs and Curriculum section of the catalog. Students who plan to enroll part-time should consult their advisors for course sequence.

Sequence for Part-Time Students
Part-time students (less than 12 credit hours) are assigned faculty advisors for scheduling assistance. They may also seek help from Student Success Center advisors or their faculty advisor in developing schedules. Part-time students should ensure courses they are taking will apply toward their program of study. Upon completing approximately 30 credit hours, part-time students are encouraged to schedule an appointment with their faculty advisor to discuss their status concerning program requirements.

Prerequisites
Certain courses assume that all students enrolled have completed another course or courses upon which the content of the course is planned. The term "prerequisite" designates courses, experiences or permission which must be satisfied before a student may enroll in that course. The Programs and Curriculum section of this catalog lists prerequisites at the end of each course description. Students who enroll without having satisfied all prerequisites normally risk failure, and do so at their own risk.

Electives
Students may take an elective course where elective hours are indicated in order to meet the graduation requirements for quarter hours in a given area. Registration procedures for these courses are the same as those for required courses.

Course Substitution
A student may receive permission from his/her respective Division Dean to substitute up to 12 credit hours of basic or technical courses for courses shown as graduation requirements. Approval of a course substitution does not affect the number of quarter hours required for graduation.

Students whose transcripts show course credit at higher levels than program requirements may have those courses applied without counting toward substitution limits, including prerequisite math courses credited to his or her transcript as credit by examination. Determination of such credit awarded and applied toward program requirements is at the discretion of the Division Dean responsible for the degree program in question.

Adding Courses
Students may add courses to their schedules during the first week of classes by properly completing the Class Drop/Add Authorization Form. In situations where students wish to add a first or second term course, this addition must be made within two days from the beginning of the term.

During the second week of classes, courses may be added with the approval of the faculty member teaching the course.

Student Credit Hour Overload
Students wanting to take more than 19 credit hours during any given quarter are required to obtain appropriate Division Dean approval.

Dropping Courses
During the first two weeks of a quarter, or first week of a summer term, classes may be dropped by properly completing the Class Drop/Add Authorization Form in the Student Success Center, and no entry will be made on a student's transcript. From the third week of classes through the seventh week of classes, a "W" (withdrawn) will be shown on the student's transcript for each course properly dropped. If a student ceases to attend a course or courses without completing the Class Drop/Add Authorization Form, the grade of "F" is recorded for each of these courses. Dropping courses after receiving financial aid may result in repayment of funds to the College by the student.

Credit/No-Credit Courses
A student may take one course per quarter, up to a maximum of 12 credit hours of classes on a credit/no-credit basis. These limits do not apply to courses graded only on credit/no-credit basis. During the first two weeks a course is offered, a student may petition to take a course on a credit/no-credit basis by completing the appropriate form and obtaining permission of his/her faculty advisor.

The grade of "P" will be recorded when a grade of "D" or higher is earned on a credit/no-credit basis. Credit hours earned will count toward graduation requirements and the cumulative point average will not be affected. The grade "NP" will be recorded to indicate no credit. Hours of "NP" will not count toward graduation and the cumulative grade point average will not be affected. A student registering for a class on a credit/no-credit basis cannot later change to a regular grading basis. Properly completed and signed (approved) credit/no-credit applications must be submitted to the Registrar's Office by the end of the second week of classes.

No grade other than "P" or "NP" will be kept on file, and students may encounter difficulty in receiving transfer credit from other institutions for courses taken on a credit/no-credit basis.

Workshop Withdrawal Policy
Students who do not attend a workshop for which they have registered will receive the grade of "NP" (no credit) on their transcript. Students will not be dropped from the workshop and no refund will be provided. To avoid being charged for a missed workshop, students must call the workshop coordinator's office before 8 a.m. the day of the workshop in order to be withdrawn.

College Level Examination Program (CLEP)
The College Level Examination Program offers those who have acquired knowledge outside the traditional classroom setting an opportunity to earn college credit. Zane State College awards transfer credit for CLEP examinations successfully passed where the subject matter is equal to one of the College's current classes. Information concerning testing centers may be obtained by contacting the Student Success Center.

Course Waiver
The Division Dean may waive up to 12 credit hours of classes in exceptional cases. Waiver of a course requirement may result in a reduction of the hour requirement for graduation. In all cases where waivers are granted, a student must still meet the 90 quarter credit hour minimum, as established by the Ohio Board of Regents, for graduation.

Credit by Examination
A student may, upon submission of a petition to The Learning Center, take a proficiency examination in order to receive credit for selected courses. A $15 fee will be charged for each proficiency examination taken. Upon successful completion of an examination, a $35 documentation fee will be charged to enter credit on an official College transcript.

Students are advised that credits earned by examination which are acceptable at Zane State College may not necessarily be accepted for transfer credit by other collegiate institutions. A credit by examination for any course may be taken only one time. The exam must be taken prior to the completion of the first full week of the quarter in which the student desires to test out of a course in which he/she is presently enrolled. Students may apply for and take the test prior to enrollment. Students who fail a course will not be permitted to gain credit by completing a proficiency exam.

Non-Traditional Credit
Students may apply for 1 to 12 hours of life experience credit as substitution for academic program/course curricula. A portfolio of work-related materials must be submitted for evaluation by the appropriate Division Dean. Guidelines for developing the portfolio may be obtained from the Student Success Center and/or from the office of any academic dean.

It is suggested that individuals with a number of years of work experience in fields which may be related to their chosen program seriously consider this option for receiving the maximum 12 hours of credit. If students are uncertain about how past work experience may relate to their course of study, an appointment with a program advisor is recommended.

Students will be assessed a minimum $50 fee for evaluation of a portfolio. This fee is fixed and will be charged regardless of credit or no credit status after evaluation. When life experience credit is awarded for more than one course, the following fee scale applies:

Evaluation and/or credit awarded for one course	$50
Credit awarded for two courses	$100
Credit awarded for three courses	$150
Credit awarded for four courses	$200

Charge for evaluation and award of credit up to 12 hours (maximum permitted for life experience credit) will not exceed $200.

Transfer Credit
Prior to official determination of whether previous college work will be accepted, an official transcript must be on file in the Registrar's Office. Generally, when course content is similar to a course offered at Zane State College with a recorded grade of D or better, credit will be awarded if taken at an accredited institution. Transfer credit appears as "TR" on Zane State College transcripts and is not used in computing cumulative grade point average. Admission to Zane State College does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the College. 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 other students on the basis of the number of credits earned. All residency requirements must be successfully completed prior to the granting of a degree.

Transfer Credit Appeals Process
A student disagreeing with the application of transfer credit by the College may appeal the decision by contacting the Registrar's Office.
If a transfer student's appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state-level Articulation and Transfer Appeals Review Committee.

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

Vocational Education Experience
Students who have satisfactorily completed an approved secondary or post-secondary program in vocational education may receive up to a total of 12 credit hours of credit in similar programs at Zane State College. Credit will be evaluated by the student's advisor and approved by the appropriate Division Dean. Articulation agreements exist with several career centers in specific subject areas. There is no charge for an evaluation in these cases.

Credit for Prerequisite Math Courses
A student who places into and completes MTH 113 with a minimum grade of "C" for the course will be awarded credit by examination on the transcript for MTH 110.

A student who places into and completes MTH 124 with a minimum grade of "C" for the course will be awarded credit by examination on the transcript for MTH 110 and MTH 113.

Transfer students who receive transfer credit from another accredited institution for an upper-level math course with a grade of "C" or higher may have prerequisite math courses credited to his/her transcript as credit by exam with approval from the appropriate Division Dean. There will be no charge to the student for this service.

Students are encouraged to move beyond the minimum math requirements.

Military Training-Academic Credit
Some training courses provided by the Armed Forces may be the equivalent of college courses and transfer credit may be obtained by forwarding an official military transcript to the Veterans Office for evaluation. A Guide to the Evaluation of Educational Experiences in the Armed Services provided by the American Council on Education and the recommendation of the appropriate Division Dean are used to determine the amount of credit to be awarded.

Special Problems Courses
The Special Problems courses are designed to provide credit for special projects, workshops, and unique programs which are not listed as credit courses but which contribute substantially to a student's background or skills in his/her technology. Typical sections are (1) workshops or courses offered by outside agencies, (2) non-credit courses offered through continuing education, and (3) faculty-directed research assignments arranged through an instructor. Special problems registration requires (1) written approval by the student's program advisor and Division Dean, (2) voluntary cooperation of the individual instructor who assumes responsibility for directing completion of the work, and (3) completion of approval procedures prior to or during regular registration. A total of 12 credit hours may be taken in special problems courses toward degree requirements.

College Board Advanced Placement Program (Advanced Credit)
The College Board's Advanced Placement Program provides a practical way for schools and colleges to define and use common definitions for college-level courses which, completed in secondary schools, prepare students for advanced study in college.

Zane State College awards advanced placement credit for the College Board AP examinations successfully passed with a grade of 4 or higher and where the subject matter is equal to one of the College's current classes.

Change of Program
Students who petition to transfer from one program to another should adhere to the following guidelines:
1. Students on academic probation will not automatically be approved for transfer to another program. Stipulations for continuing enrollment may be set by the appropriate Division Dean as a condition for approving a program change.
2. A formal petition shall be signed by the student, and the appropriate faculty advisors.
3. In determining the new grade point average, all grades will apply regardless of whether or not they are pertinent to the new program.

Students on academic probation after transferring to a new program shall remain on probation until their cumulative grade-point average is raised above the probation level. Contact the Records Office for information and forms.

Student Assumption of Risk
Some courses offered by the College, by nature of their content, involve inherent risks. In order to participate in these classes, students are required to sign a waiver of liability form.

Quarterly Class Schedule Changes
Zane State College reserves the right to cancel or reschedule quarterly courses, workshops, or workforce development opportunities. These decisions are at the discretion of College administration and are typically based on enrollment levels. The obligation to conduct a course will be considered on the merits of each case. Decisions to cancel a course may be made as late as the first class meeting. Students enrolled in a canceled course will be notified as soon thereafter as possible.

Muskingum College and Ohio University-Zanesville Students
Full-time students in good standing at Zane State College or Muskingum College or the Zanesville branch of Ohio University may enroll in one course per quarter at the other institution at no additional charge on a space-available basis. Cross registration forms must be completed and can be obtained in the respective Admissions Office.

Petition for Graduation
A candidate for a degree or certificate must complete a Petition for Graduation and take it to the appropriate faculty advisor and Division Dean for approval and submission to the Records Office prior to the end of the second week of classes of the student's final quarter of study and per the quarterly deadlines listed in the official College calendar on page 7 of this publication. Students graduating later than originally petitioned are responsible for notifying the Registrar of that fact.

Withdrawal from the College
Students who elect to withdraw from the College are required to complete an Exit Questionnaire Form available in the Student Success Center. Official withdraw status is dependent upon completion of this form by the final date of withdrawal according to the academic calendar on page 7 of this publication. Failure to follow this procedure will result in the grade of "F" for each course being entered on the student's transcript and forfeiture of any tuition refund.

Weather - Notice of Class Cancellations
Classes are not normally canceled due to weather conditions. Each student should evaluate conditions near his/her departure point in deciding whether to attend during inclement conditions. Should cancellation of day and/or evening classes be necessitated as a result of severe weather, such as heavy accumulation of snow or ice during the winter, announcements will be made over local radio stations and posted on the College's website.

Emergency and Evacuation Plans
Information concerning steps to take in emergencies and evacuation routes will be posted in each classroom throughout Zane State College's buildings. Students should make themselves aware of all such information for each class.

Campus Disruptions
Section 3345.21 of the Ohio Revised Code authorizes the College to develop rules for the conduct of students, faculty, staff, and visitors. Persons who violate such rules or otherwise interfere with others' abilities to benefit from College offerings may be removed from College property and subject to suspension or expulsion. A valid ID card is required for checking out books from the library, class admittance, and for entrance to various College functions throughout the year.

GRADING SYSTEM

A grade will be given in each course and that grade will reflect the student's progress and achievement in knowledge of the subject, ability to apply this knowledge, and work habits and practices. Grades will be awarded on the four-point system, and translate basically as follows:

Grade	Quality Grade	Numerical Grade	Grade Point
A	Superior	90-100	4.0 per credit hour
B	Excellent	80-89	3.0 per credit hour
C	Average	70-79	2.0 per credit hour
D	Below Average	60-69	1.0 per credit hour
F	Failure	below 60	no credit

The cumulative grade ranges above indicate levels of achievement normally required to achieve the corresponding grade. In all cases, decisions concerning final grades for courses are the responsibility of the individual instructor.

Certain programs and courses require a slightly different grading scale. These programs are mostly within the allied health area.

The following grades are not included in grade point averages:

NP	No Credit (Failing)
I	Incomplete
TR	Transfer Credit
LL	Non-Traditional Credit
P	Passing in Credit/No Credit Course
P	Credit by Examination
S	Satisfactory
AU	Audit
U	Unsatisfactory
VC	Credit for Vocational Education Experience
W	Withdrawal
IP	Course in Progress
ML	Military Credit
CL	CLEP Testing
DZ	Fresh Start D Grade
FZ	Fresh Start F Grade
NR	Grade Not Received
NC	Non Credit
WV	Waived Credit

Grade Point Average (GPA)
Quality points are determined by multiplying the credit hours for a course by the points earned as shown above for each mark. A student's grade point average is obtained by dividing the total number of hours attempted excluding courses for which the marks of NP, IP, TR, LL, P, S, AU, W, or U are recorded. Example:

	HOURS	X	(letter grade) POINTS	=	QUALITY POINTS
Math 111	4	X	(A) 4	=	16
Business 102	3	X	(C) 2	=	6
total credits	7				total points 22

Grade Point Average: 22 ÷ 7 = 3.14

Incomplete Grades
The grade "I" (Incomplete) is given by written permission of an instructor when, for some acceptable reason, a student fails to take the final examination or to meet some other definite requirement in a course. The grade of "I" may be removed and a grade substituted by making up the deficiencies to the satisfaction of the instructor. A grade of "I" must be removed within two weeks after the beginning of the succeeding quarter. If the grade of "I" is not removed within the time limit, it becomes an "F" on the student's official transcript.

Grade Report
Students receive quarterly grades by accessing Z-Online.

Student Classification
A student is classified as a freshman until he/she has accumulated a minimum of 45 quarter hours of credit on his/her official Zane State College transcript. At that point, a student is classified as a sophomore and will remain in this status until after graduation.

Computer Literacy Requirement
Computer literacy will be determined by proficiency testing. Students not meeting proficiency standards or opting to take a computer class in lieu of testing will fulfill the computer literacy competency requirement through a variety of choices. These may include CPT 105, Introduction to Microcomputer Software Applications, or a technology-specific computer course as identified by the program faculty advisor.

Auditing Courses
Students auditing courses should understand that these are for information purposes only and that no college credit may be earned or later claimed for the course audited. Class attendance, completing assignments, and taking exams is the prerogative of the student in an audit course.

Students may register for a course on an audit basis during the first two weeks of a given quarter on a space-available basis. Students auditing a class pay regular tuition and fees.

Failed Courses
Any courses required for graduation for which the grades of F or NP (failing) are received must be repeated. Upon successfully repeating such a course, the failing grade is disregarded on the official transcript and the student's grade point average adjusted. All grades continue to be shown on the transcript. In some specific programs, grades below C in technical courses must be repeated to continue.

Fresh Start Policy
Fresh Start is intended to assist students who previously had academic difficulties at the College by providing them with the opportunity to have grades of "D" or "F" excluded from their grade point averages. Students must meet eligibility requirements and agree to the Fresh Start Rules in order to qualify for approval.

Eligibility Requirements:
1. A minimum of two consecutive years (8 consecutive quarters) of nonattendance at the College.
2. Completion of a minimum of 18 credit hours at the College following the two-years of nonattendance with a grade of "C" or better in each course. Courses taken as pass/fail are not eligible for consideration.

A complete description of the Fresh Start Policy is available in the Records office.

Archiving of Final Exams
The final examination is often a significant part of a student's final grade. At times, students feel the necessity of questioning a final grade. In such cases, it is convenient to use the final exam papers as a basis for discussion between the faculty member and the student even though grades are also based on other work, tests, papers, quizzes, class response, etc. For this reason, each faculty member retains final exam papers for a minimum period of 30 days after the end of a given quarter.

Split Lectures and Labs
Students taking a series of coursework that represents individuals lecture and lab sections for a single content area will be expected to pass both. Students who fail lab, but pass the lecture portion will be permitted to retake only the lab course as long as it is taken in the next term the course is offered. Failure to successfully complete the lab in the subsequent quarter will necessitate repeating both the lecture and lab coursework. Students who fail the lecture portion of the course must retake both the lecture and lab courses. All students must successfully complete both the lecture and lab portions of the course before moving on to the next higher-level course.

Repeating Courses
If a course is repeated, the grade received for the most recent course enrollment will be utilized in calculating the student's grade point average. All other grades for the course will be disregarded and appropriate notation will be made on the student's transcript. All grades will show on the official transcript.

Academic Standards for Probation, Dismissal, and Readmission
Course credit levels for probation and dismissal are based on cumulative grade point average.

Course Credits	Probation	Dismissal
12-29	1.5	0.8
30-44	1.6	0.9
45-59	1.7	1.2
60-74	1.8	1.4
75-94	1.9	1.6
95 +	1.9	1.8

Academic Probation
Students on academic probation may carry a maximum load of 15 course credits during their next quarter. If the student remains on probation for a second consecutive quarter, he/she may take a maximum of 12 course credits of work.

Academic Dismissal/Readmission
Students dismissed for lack of academic achievement may not enroll for a minimum of one academic quarter before consideration will be given for a readmission review. Quarterly deadlines have been established one month prior to the end of each quarter for those students wishing to be considered for a readmission review.

Students who desire a readmission review must contact the Admission's Office and complete a Request for Readmission prior to the established deadlines in the official College calendar on page 7 of this publication.

Minimum Grades for Specific Programs

Health and Public Service Students

The Board of Trustees has adopted the following policy on minimum grades for selected Health and Public Service programs.

1. A student may not enroll in a technical course unless his or her overall grade point average is 2.0 or higher.
2. All course prerequisites must be met before admission to a course.
3. A grade of "C" or better is required in each technical course in order to continue in the course sequence.
4. A student receiving a grade of "D" or below in any technical or specified foundational course required by the Criminal Justice, Early Childhood Education, Education Paraprofessional, Health Information Management, Human Services Assistant, Medical Assisting, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, Radiologic Technology, or Sport and Fitness Management programs has these options:
    a. Assume a health/general studies core status;
    b. Withdraw from the respective program; or
    c. Remain in the technical program, taking the technical course (on advice of Advisor) for which the student has achieved a grade of "C" in the prerequisite course. General and basic courses may be taken at this time, also. The student must then repeat any course in which he or she did not achieve at least a "C" grade. (Note that the College does not offer each course every quarter.) Students may repeat the course only once to raise the grade to the "C" level. Upon successful completion of the repeated course (grade of at least a "C"), the student must then be reevaluated for continuation in the program. Due to the arrangements of the curriculum sequence, this will probably require an extra year in the program.

Accounting Students

Accounting students must obtain a grade of "C" or better in ACC 111, ACC 112, and ACC 113 to satisfy course credit requirements in the Accounting Technology.

Administrative Office Assistant Students

Administrative Office Assistant students must obtain a grade of "C" or better in all technical courses in order to satisfy course credit requirements for graduation in the Administrative Office Assistant Technology.

Graduation Requirements

These requirements must be completed for an associate degree:

- Fulfill all course requirements of a particular degree;
- Earn an overall GPA of at least 2.0;
- Complete a minimum of 24 of the last 36 credit hours of technical course credit as a student of Zane State College;
- For the Associate of Applied Science (A.A.S)/Associate of Applied Business (A.A.B.) Degree, earn a minimum of 96 credit hours of coursework and meet the minimum distribution requirements as follows: 45 credits in major technical requirements area with at least 24 credits in one discipline, 42 credits in general education and basic studies area.
- Complete the A.A.S/A.A.B. general education course requirements of the College in English (2 courses), speech (1 course), mathematics (1 course), social sciences (3 courses) and natural sciences (1 course);
- Complete IDS 101, College Success Strategies;
- Satisfy program accreditation standards that may have additional requirements;
- Return all library books and College material;
- Resolve all financial obligations to the College; and
- Be certified by the Registrar as having met all requirements for the degree.

These requirements must be completed for a one-year certificate:

- Fulfill all course requirements of a particular certificate;
- Earn an overall GPA of at least 2.0;
- Complete the general education certificate course requirements of the College in English (2 courses) and mathematics (1 course)
- Complete IDS 101, College Success Strategies;
- Satisfy program accreditation standards that may have additional requirements;
- Return all library books and College material;
- Resolve all financial obligations to the College; and
- Be certified by the Registrar as having met all requirements for the one year certificate.

For a description of the requirements for the Associate of Technical Studies (A.T.S.) Degree, please refer to page 63.

Waiver of course requirements by the Division Dean may result in a reduction of the hour requirement for graduation. In all cases, a student must meet the 90 quarter credit hour minimum, as established by the Ohio Board of Regents, to graduate.

Internship Requirement

Completion of an internship is an associate degree graduation requirement in some of the programs. The internship is normally completed during the summer between the first and second year of the program. It is designed to consist of a minimum of ten 40-hour weeks for 400 work hours, but adjustments are permitted to suit special circumstances. If a student is employed part-time, the period of time may be extended, or the student may register for fewer than the usual four credit hours of internship. If a student is permitted to register for fewer than four credit hours of internship, he/she may be allowed to enroll in additional courses to make up the balance of the four credit hours. Students are normally paid by their employer for their work; however, national accreditation requirements prohibit payment of student interns in some health technologies.

The internship affords on-the-job learning experiences during which the student may apply what has been learned during the previous year, under the dual supervision of an employer and a College instructor. The purpose of internship is to introduce the student to a real-life working situation through which he or she can more easily enter the job market with experience after completion of the second year of the program.
Please Note: The College does NOT promise to secure a job for the student's internship experience. College faculty members and Career Services staff suggest employment possibilities, but students must obtain their own jobs.

RECOGNITION PROGRAMS

All Ohio Academic Team
Two Zane State College students are nominated by faculty members each year to enter the All Ohio Academic Team competition. In conjunction with Phi Theta Kappa, the entrants are judged on state and national levels. Students place on one of three state teams and are recognized in Columbus at a special awards luncheon. Recipients who place on the first or second team receive $1000 and $500 respectively.

Graduation Honors
Students may earn the following honors through sustained scholarly achievements during completion of an associate degree:

Cum Laude	Cumulative Point Average 3.50+
Magna Cum Laude	Cumulative Point Average 3.75+
Summa Cum Laude	Cumulative Point Average 3.90+

Phi Theta Kappa
Phi Theta Kappa is the national honorary society for two-year college students. The purpose of Phi Theta Kappa is to encourage academic excellence. Students initiated into the group must have demonstrated sustained academic achievement at Zane State College. The criterion for membership is a 3.5 GPA with at least 24 college-level credit hours earned.

Presidential Scholar
The purpose of the Presidential Scholar award is to promote and recognize excellence in academic achievement while attending Zane State College. Students who earn this honor receive engraved medallions and are recognized at the annual awards banquet.

Quarterly Academic Honors
Students who demonstrate academic excellence in their studies will be named to the Dean's List. To be eligible, full-time students must achieve a 3.5 grade point average or higher during a given quarter excluding credit/no-credit courses. Part-time students must achieve a 3.5 grade point average or higher and complete a minimum of nine credit hours excluding credit/no-credit courses.

Who's Who Among Students in American Junior Colleges
Members of this organization are chosen each fall from the sophomore class by the faculty. Criteria for selection include scholarship, leadership, personal traits, and service to the College and community.

STUDENT ORGANIZATIONS

Zane State College Organizations
Alumni Association
All graduates of the College are eligible to join the Alumni Association. The purpose of the organization is to promote the development of the College, keep alumni abreast of College progress through periodic publications, and provide opportunities for social events.

STARS - Student Admissions Representatives
Composed of students who have a strong loyalty toward Zane State College and want to help "spread the word," this select group assists the Vice President of Student Services and the Director of Admissions. Among the services which they perform are: (1) talking with prospective students and parents, (2) visiting area high schools, (3) assisting the Admissions Office with open house programs, College and Career Days, and (4) conducting the annual Telethon.

Intercollegiate Athletic Program
Students enrolled at Zane State College for seven or more credit hours are eligible to participate on Ohio University-Zanesville athletic teams. All Ohio Regional Campus Conference eligibility rules must be satisfied by each participant.

Intramural Programs
Zane State College offers many opportunities for student participation in sports through a variety of intramural programs. There are programs in intramural basketball, flag football, bowling, volleyball, and softball. Students are encouraged to participate in any of these activities.

Zane State College's Technical Clubs
Each student has the opportunity to take part in a technical club specifically geared to his/her technology or a division-wide club. These clubs provide opportunities for social and service activities as well as professional development.

Student Senate
The Student Senate is the governing body for students on campus. The purpose of the Senate is to act as a communications link between the student body and the administration. Each academic division chooses three voting members for Student Senate during the spring quarter. Each non-technical club recognized by the College may have one voting member. Each Spring Quarter, Student Senate officers shall be selected for the ensuing year from among current senators. For more information, contact the Student Success Center.

Zanesville Concert Association Programs
Students enrolled at the College are eligible to attend periodic programs presented in nearby cities. A current ID card must be shown for admission.

Nationally Affiliated Clubs and Organizations
Institute of Electrical and Electronic Engineers (IEEE)
Electrical/Electronics Engineering Technology students have a student chapter of the Institute of Electrical and Electronic Engineers (IEEE) affiliated with the Columbus Chapter. Dues are nominal. Members hear speakers from industry and have the opportunity to attend national meetings and equipment exhibitions. Scholarships are also available through the organization.

Business Professionals of America
Students enrolled in business programs may belong to this organization. Each year state and national conferences are held where competitive events determine state and national winners.

International Association of Administrative Professionals (IAAP)
Students who are enrolled in Administrative Office Assistant Technology, either full or part time, may join this organization which is sponsored by the Zanesville Chapter of IAAP. Members gain better insight into secretarial responsibilities and professional development which helps prepare them for successful administrative assistant careers.

Society of Manufacturing Engineers (SME)
Students enrolled in the Computerized Machine Tool Systems or the Computer Aided Drafting & Design programs are eligible to apply for membership in the Society of Manufacturing Engineers (SME) as a student chapter of the Columbus Chapter 36. Scholarships are available through this organization. Local meetings with guest speakers from industry and chapter meetings in Columbus afford students opportunities to develop socially and professionally.

FINANCIAL AID & SCHOLARSHIPS

Financial Aid
Financial Aid is awarded to students on the basis of need. Financial need is the difference between the expense of attending Zane State College and the financial resources of the student available to meet those expenses. To the extent which they can afford, parents and students are expected to make maximum efforts in meeting college expenses.

The primary source of parental contribution is usually from the family's current income. Also a contribution from family savings and assets is expected if these are above certain minimum figures. To assure the most equitable distribution of financial aid (Congressional Need Analysis), a uniform method of computing the family's contribution is used.

Because the parental contribution is an important factor in arriving at the student's need, the amount that each family can reasonably afford must be carefully evaluated. The Free Application for Federal Student Aid is used by Zane State College in order to make this decision. This application may be filed online at www.fafsa.ed.gov. Note: The processing time for the online application is significantly faster. Whether or not a student is offered aid, the extent of his/her need and the amount of aid will be determined by Zane State College. All applications are strictly confidential.

Financial Aid Procedures
Students applying for financial aid at Zane State College must complete the Free Application for Federal Student Aid. By completing this form, the student is applying for all sources of state and federal aid. This form must be filed by April 1 (priority deadline) of each year for the student to be considered for priority financial aid beginning in the coming summer quarter. Students applying after April 1 run the risk of receiving financial aid that is inadequate to meet their financial needs.

1. Students and/or parents may be required to supply the Financial Aid Office with a signed copy of their Federal Income Tax return, as well as documentation of any other income, for validation of the information submitted on the Free Application for Federal Student Aid.
2. The results of this submission process are compiled and a financial aid package is developed to help meet the student's financial need.

Eligibility for Financial Aid
To be eligible to receive financial aid for attendance at Zane State College, students must have a high school diploma, a GED, or have successfully completed a federally approved Asset Test (an assessment tool which determines if an individual can benefit from college coursework; for more information contact the Student Success Center). Students must also be enrolled in a program leading to a one-year certificate or two-year associate degree. Further, students can remain as "undecided" for only 36 credit hours and receive financial aid. This stipulation applies if the student is "degree seeking."

Verification of Eligibility for Financial Aid
The following is the policy of Zane State College regarding documentation of verification requirements:

1. Students who are required to verify the information on their Free Application for Federal Student Aid will not be packaged for any financial aid until all verification materials are submitted and processed.
2. Satisfactory documentation must be provided to the Financial Aid Office before the first quarter in which the student wishes to attend.
3. Required verification information found to be in error will be corrected electronically by the Office of Student Financial Aid.

Students may be required to submit proof of the following:

1. If required, the adjusted gross income of the student, of the student's spouse, and/or by the student's parents.
2. The amount of Federal taxes paid by the student, by the student's spouse, and/or by the student's parents. Copies of appropriately signed Federal income tax returns will be satisfactory documentation for this requirement.

3. If required, the amount of Social Security benefits received by the student, by the student's spouse, and/or by the student's parents. Statements from the area Social Security office are available and will be satisfactory documentation for this requirement.
4. If required, child support and/or TANF received by the student, the student's spouse, and/or the student's parents. A statement of support and/or TANF received from Human Services will be satisfactory documentation of this requirement.
5. If required, the amount of untaxed income of the student, of the student's spouse, and/or of the student's parents. Statements from the appropriate agencies will be satisfactory documentation for this requirement.
6. If required, the number of members of the student's household and/or the number of members of the student's parents' household. Signed statements by the student, the student's spouse, and/or the student's parents is satisfactory documentation for this requirement.
7. If required, the number of members of the student's household enrolled at least half time in college and/or the number of members of the student's parents' household who are enrolled in college at least half time. If a member of either household is enrolled in another college (other than Zane State College) the name and location of that college must be provided. Statements signed by the student, by the student's spouse, and/or by the student's parents are satisfactory documentation for this requirement.
8. All verification documentation must be signed by the student, by the student's spouse, and/or by the student's parents.

Retention of Aid

Financial aid awards are usually made during the winter and spring for the forthcoming academic year which begins in the summer, based on the assumption that the student will continue in full-time attendance for the academic year. The College reserves the right to withdraw or adjust a student's awards based on the satisfactory academic progress policy, verification requirements, enrollment status, attendance, or conduct record. Regular class attendance is required for continued receipt of financial aid. Financial aid awards are renewed each year, upon proper re-application, on the basis of continued financial need and satisfactory academic performance and conduct. Deadline dates for re-application should be observed.

The College Foundation

Recognizing the importance of maintaining a margin of excellence and acknowledging that state revenues and student tuition alone are not sufficient to meet those needs, Zane State College Board of Trustees passed a resolution in April 1984, establishing a Foundation which is a separate and distinct corporation. The Foundation promotes philanthropy to increase scholarship support, provide opportunities for professional development of employees, and assist in the acquisition of the latest technical laboratory equipment.

The Zane State College Foundation is directed by a board of directors with representation from all three counties of the College's service district, the President of the College, a liaison from the Board of Trustees, and the Foundation Executive Director.

Scholarships Available to Zane State College Students
A range of scholarships is available for full-time and part-time students of Zane State College. These scholarships, made possible by the generous donations of supporters of Zane State College, are awarded primarily on the basis of academic ability and financial need.

To be eligible for one of the following scholarships, students must have the equivalent of at least a 2.75 GPA on a 4.00 scale and have submitted the Free Application for Federal Student Aid (FAFSA). Endowed Restricted Foundation Scholarships are donor-established scholarships which may carry special eligibility for the scholarship award, such as a specific program of study.

To avoid duplication of funds, the Foundation grants scholarship awards to deserving students after financial aid and other avenues of financial support have been awarded.

More information is available in the Foundation Office or on the College website.

Endowed Restricted Foundation Scholarships
Philip and Catherine Adornetto Memorial
AK Steel Environmental
Don Benincasa Memorial
Robert C. Bradley, Sr. ERM Memorial
Patricia L. Brown Memorial
Henry and Virginia Cameron Memorial
Culinary Arts
Bethesda Hospital Volunteers—Ronnica J. Dodson
Philip C. Drake Memorial
Exemplary Electronics Technician
Donald D. Gilbert Memorial
Guernsey County
Guernsey-Muskingum Electric Cooperative
Haehnlen-Sprague
Lt. Ted Holshuer Memorial
Huntington Bank
International Association of Administrative Professionals, Zanesville
Jack Knight Memorial
William O. Littick Memorial
Bonnie Longaberger
Lt. Michael J. Lutz Memorial
Charles B. and Alice V. Moody Healthcare
Charles B. Moody Memorial
Noble County
Oxford Merit
Oxford Oil
Parks, Recreation, and Wildlife
Cora E. Rogge
Zanesville Sertoma Club Memorial
Ann H. Soppe Memorial
Stewart-Alles Outstanding Professor
Charles T. Stewart, Sr. Engineering
Straker Family
Taylor-McHenry
Deputy Sheriff Robert M. Tanner, Jr. Memorial
Thompson Family
Unrestricted Engineering
Wendy's Community

Endowed Unrestricted Foundation Scholarships
Dr. Dale and Carol Boyse
Robert and Leona Fellers
Hartley Company
Walker and Mary Huffman Presidential
Dick and Brad Johnson
Richard and Jane Johnson
Kessler Sign Company
Gail Marks Memorial
John C. Matesich, Jr. Memorial
Eugene R. Mizer Memorial
Raymond and Eva Thomas
Dr. Lynn and Mary Kay Willett
Daniel E. Wilson Memorial
Nancy Tracy Wilson Memorial
Zane State College Alumni

Other Foundation Scholarships
Aspiring Accountant Award
College Tech Prep
C. Trafford Dick Family
Fraternal Order of Police Zane Lodge #5
GED Honorary
Insurance Women of Zanesville—Evelyn Richardson
International Association of Administrative Professionals, Zanesville—Phyllis Watts
Mallory Moore Memorial
Muskingum Valley Human Resource Management Association
Pilot Club of Zanesville, Inc.
Randles General
Dr. Kay Roach
Joyce A. Farmer Smith
Soroptimist International of Zanesville
Professor Emeritus Sharon Souder
Tri-Valley Community

For further information on these scholarships or to receive a scholarship application, contact the Foundation Office or visit the College website.

Other Sources of Financial Assistance Available at Zane State College

Academic Award Scholarship
This award provides scholarships to eligible students for up to seven consecutive quarters to cover the balance of tuition that remains after federal and state grants and other tuition scholarships are applied. In order to be eligible, a student must reside or attend high school in Guernsey, Muskingum or Noble county, have a composite score of 21 or higher on the ACT, have a cumulative grade point average of 3.0 or higher after the completion of his/her senior year, and pass all parts of the Ohio Graduation Test. Academic Award recipients must enroll at Zane State College within six academic quarters following their high school graduation.

American Legion Scholarship
One $1,000 scholarship awarded each year to the student who wins the annual contest in the State of Ohio. Contact the nearest American Legion Post for further information.

Dollars for Scholars
Some communities have a program whereby money is given to students to assist them in meeting their college costs with the hope that once they complete their education, they will contribute money back into this financial assistance program.

Zane State College Emergency Loans
Small loans may be available to Zane State College students for 60 days, depending upon the circumstances surrounding their financial need and the availability of funds. The maximum loan is $100. A 2.0 cumulative grade point average is also required to qualify. Documentation of what loan money is used for may be required. A student may not apply for an emergency loan two quarters in a row.

McIntire Fund
Grants and loans for residents of the City of Zanesville for attendance at college. Students may contact Huntington Bank for more details.

Milestones Scholarship
Students who have achieved a GED within the past year qualify for a one-course tuition waiver. Applications may be found in the Admissions Office.

Ohio Academic Scholarship Program
The Ohio Legislature has set up a fund for awarding a scholarship for each high school in the State of Ohio. For further information about this scholarship program, see your high school guidance counselor.

Ohio National Guard Scholarship
Ohio National Guardsmen who have enlisted for a six-year tour as certified by the Adjutant General and are enrolled for at least six credit hours, can receive up to 12 full-time quarters or 8 full-time semesters scholarship covering tuition and fees. Please call 1-888-400-6484 for more details.

Ohio College Opportunity Grant
A state grant to assist students with college tuition costs. This grant is a state grant to assist students with college tuition costs. This grant is for full-time students only. This grant is awarded by the Ohio Board of Regents and does not need to be repaid.

Ohio Instructional Grant
A state grant to assist students with college tuition costs. This grant is for full-time students only. This grant is awarded by the Ohio Board of Regents and does not need to be repaid.

Federal Pell Grant
A federal grant, based on need, to assist students with any college costs. Eligibility for a grant is based upon an individual's or family's total financial picture. Qualifying students may receive up to $4,731 annually. This grant does not need to be repaid. If there are left-over Pell funds once tuition is paid. Students may charge books and academic supplies at the Bookstore against the Pell Grant approximately one week before the first day of the quarter.

Academic Competitiveness Grant
A federal grant based on need and academic standing awarded to eligible Pell recipients. Qualifying students may receive up to $750 the first year and $1,300 the second year. This grant does not need to be repaid.

Federal Work Study Program
The Federal Work Study Program offers students the opportunity to work part-time and earn money to help meet the expense of a college education. It also offers the student the opportunity to gain valuable work experience. Students are paid directly for the hours worked and may use this money to help offset educational expenses.

Federal Family Education Loan Program
For those who qualify, the Federal Family Education Loan Program offers low interest loans to help defray the cost of attending college. A student must be enrolled in college at least half-time (six credit hours) in order to be eligible for a loan. There are three types of loans in this program:

1. Federal Subsidized Stafford Loan - Eligible dependent or independent students may borrow up to $3,500 as a freshman and $4,500 as a sophomore per academic year. Students will make no payments on this loan as long as they continue to be enrolled at least half-time (six credit hours), also there is no interest charged to the student during their enrollment. Students are not required to begin repayment of this loan until six months after graduation or ceasing to be enrolled at least half-time.
2. Federal Unsubsidized Stafford Loan - Eligible dependent students who were not eligible for their maximum on the Subsidized Stafford may borrow the difference or total amount on this loan. Independent students may also borrow their difference from the Subsidized Stafford up to their maximum as well as an additional $4,000 if their cost of attendance deems it necessary. Dependent students whose parents are unable to borrow the PLUS also may qualify for the additional $4000. Students will make no payments on the principle of this loan as long as they continue to be enrolled at least half-time (six credit hours); however, interest will begin accruing upon receipt of the loan by the student. Students may either pay their interest which is capitalized quarterly or they may defer their interest payments until after graduation. Students are not required to begin repayment of this loan until six months after graduation or ceasing to be enrolled at least half-time.
3. Federal Parent Loan for Undergraduate Students (PLUS) - This loan enables parents with good credit histories to borrow to pay educational expenses of a dependent undergraduate child who is enrolled at least half-time (six credit hours). Parents may borrow an amount which is equal to the student's cost of attendance minus any other financial aid. Parents will begin repayment of this loan within 60 days after the final loan disbursement. Interest will begin as soon as the first disbursement is made. Parents will begin repaying both interest and principle while the student is enrolled in school.

Policies for awarding the Federal Family Education Loan Program are as follows:
- All students wishing to borrow a loan will be required to complete an online counseling session before receiving any loan funds.
- All students are required to complete an online loan application at www.zanestate.edu. The loan application can be found in the quick link section on the Web site.
- Students must meet the institution's Satisfactory Academic Progress Policy available online at http://zanestate.edu/financialaid/
- Student loan disbursement dates for returning students are the end of the fourth week of each quarter. Disbursements are mailed to the student's home by the Business Office.

Shinnick Foundation
The Shinnick Foundation of Zanesville offers a small number of grants and loans to the residents of Muskingum County.

Taylor-McHenry Muskingum County High School Scholarship
This one-year scholarship award is granted to one senior each from John Glenn, Maysville, Philo, Rosecrans, Tri-Valley, West Muskingum, and Zanesville high schools. This competitive scholarship was established to encourage high school seniors in Muskingum County to pursue technical careers in allied health, public service, business, and engineering and science.

War Orphans Scholarships
Full tuition and fees for one academic year are available under these Ohio-sponsored scholarships. They are awarded to Ohio-resident dependents of deceased or disabled veterans.

Satisfactory Academic Progress Policy
The Satisfactory Academic Progress (SAP) is defined as a set of standards of academic success, which includes qualitative and quantitative measures that a student must maintain in order to retain eligibility for financial aid. Financial aid for the purpose of this SAP is defined as all federal and state grants and loans. The Satisfactory Academic Progress policy for financial aid recipients at Zane State College can be obtained in the Financial Aid Office or online at http://zanestate.edu/financialaid/

Student Rights and Responsibilities

Regarding financial aid, you have the right to ask a school:

- the names of its accrediting organizations;
- about its programs; its instructional, laboratory, and other physical facilities; and its faculty;
- what the cost of attending is, and what its policies are on refunds to students who drop out;
- what financial assistance is available, including information about all federal, state, local, private, and institutional financial aid programs;
- what the procedures and deadlines are for submitting applications for each available financial aid program;
- what criteria it uses to select financial aid recipients;
- how it determines your financial need. This process includes how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc. are considered in your budget. It also includes what resources (such as parental contribution, other financial aid, your assets, etc.) are considered in the calculation of your need;
- how much of your financial need, as determined by the institution, has been met;
- how and when you will be paid;
- to explain each type and amount of assistance in your financial aid package;
- if you have a loan, you have the right to know what the interest rate is, the total amount that must be repaid, the length of time you have to repay your loan, when you must start paying it back, and any cancellation and deferment provisions that apply.

It is your responsibility to:

- review and consider all information about a school's program before you enroll;
- pay special attention to your application for student financial aid, complete it accurately, and submit it on time to the right place. Errors can delay your receiving financial aid;
- provide all additional documentation, verification, corrections, and/or new information requested by either the financial aid office or the agency to which you submitted your application;
- read and understand all forms that you are asked to sign and keep copies of them;
- accept responsibility for any promissory note or other agreements that you sign;
- if you have a loan, notify the lender of changes in your name, address, or school status;
- perform in a satisfactory manner the work that is agreed upon if accepting a Federal Work Study job;
- know and comply with the deadlines for application or re-application for aid;
- attend all classes regularly and earn satisfactory grades to qualify for future financial aid;
- know and comply with your school's refund procedures;
- notify the college of any address, phone number, or name change.

Veterans Benefits Eligibility (GI Bill)

Students wanting to utilize veterans benefits need to contact the Veteran's Certifying Official located in the Record's Office, College Hall.

Veteran, Chapter 30 - Benefits are available to veterans who first entered on active duty after June 30, 1985. Veteran must have participated in the Chapter 30 program when entering active duty. Discharge or release shown after June 30, 1985, must have been honorable. Maximum entitlement is 36 months.

Post-Vietnam Era Veterans, Chapter 32 - Benefits are available to veterans who have served on active duty in the Armed Forces for a continuous period of 181 days or more and initially entered active military service on or after January 1, 1977. Discharge or release must not have been under dishonorable conditions. Entitlement to benefits under this program is limited to the total of contributions and additional amounts by the VA and the DOD.

Selected Reserve, Chapter 1606 - The Montgomery GI Bill (Selected Reserve) is a program of education benefits for members of the reserve elements of the Army, Navy, Air Force, Marine Corps and Coast Guard, as well as the Army National Guard and the Air National Guard. To be eligible for the program, a reservist must have a six-year obligation to serve in the Selected Reserve signed after June 30, 1985, complete initial active duty for training, and remain in good standing in a Selected Reserve unit.

Dependent, Chapter 30 - Children, spouses, widows, and widowers of veterans who died in service or as a result of a service-connected disability, who became permanently and totally disabled as a result of a service-connected liability; who died while a disability so evaluated was in existence; or who have been listed as missing in action, captured, detained, or interned in line of duty for more than 90 days are eligible for educational assistance. Recipients are entitled to 45 months of educational assistance. Delimiting dates vary and questions concerning them should be referred to the Regional Office.

Vocational Rehabilitation - Veterans who served in the armed forces during World War II or thereafter are eligible for vocational rehabilitation if all three of the following conditions are met:

- they suffered a service-connected disability in active service which entitles them to compensation, or would do so but for receipt of retirement pay;
- they were discharged or released under other than dishonorable conditions;
- and the VA determines that they need vocational rehabilitation to overcome the handicap of their disabilities.

Generally, a veteran is eligible for vocational rehabilitation for nine years following discharge or release.

Veterans' Responsibility

Veterans who change their status by adding or dropping credits or ceasing attendance must notify the Veteran's Certifying Officer at once in order that veteran's benefits may be adjusted within 30 days of the change.

TUITION AND FEES

Tuition and fees will be charged at the rate of $85 per credit hour for residents of Ohio and $170 per credit hour for out-of-state and international students. Please refer to the following chart for estimating quarterly tuition costs.

Credit Hours	In-State Tuition & Fees	Out-of-State Tuition & Fees
1	$ 85	$ 170
2	$ 170	$ 340
3	$ 255	$ 510
4	$ 340	$680
5	$ 425	$ 850
6	$ 510	$1020
7	$ 595	$1190
8	$ 680	$1360
9	$ 765	$1530
10	$ 850	$1700
11	$ 935	$1870
12	$1020	$2040
13	$1105	$2210
14	$1190	$2380
15	$1275	$2550
16	$1360	$2720

Other Quarterly Fees

DEAL Surcharge	$15 per credit hour
Security Fee	$10
MOUS Certification	$75 each
Welding Fee	$20 per module
Workshop Materials Fee	$21 per workshop

Other Fees

American Institute of Banking (AIB)	$20
Application Fee (Non-refundable)	$25
Audit Fee	Same as part-time or full-time rates
Cisco Fee	$100 per selected courses
Credit by Examination Fee	$15
Credit by Examination Documentation Fee	$35
Credit Voucher Fee	$20
Duplicate Diploma Fee	$30
Federal Record Check	$24
General X-Ray Machine Operator Fee	$20/40 per selected courses
Graduation Fee (One-Year Certificate/ Associate Degree) (Non-refundable)	$60*
Human Services Assistant	$16 per year
Liability Insurance	
Health Technologies	$16 per year
Early Childhood Education Technology	$16 per year
OPOTA Materials Fee	$55
Health Occupation Aptitude Exam	$20
Radiology Clinical Fee	$15 per selected courses
Re-Registration (Late) Payment Fee	$30
Transcript Fee	$5
Welding Certification Fee	$200
Work Experience Portfolio Fee	$50 per course w/$200 maximum

**An additional $5 graduation fee is charged for an allied health pin to graduates in Medical Assisting, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, and Radiologic Technologies.*

All fees are stated as of May 2008 and are subject to change.

Re-Registration (Late) Payment Fee
Students who registered for courses but have not paid in full or have an approved credit voucher (payment plan) in place by the scheduled due date are subject to having their registration dropped for non-payment for all classes and being charged a $30 non-refundable, re-registration fee should they re-register.

Security Fee
Students enrolled in one or more classes on the Zanesville Campus or at the Zane State College Willett-Pratt Training Center will be charged a $10 nonrefundable security fee per quarter. If a student withdraws from classes within the first week of classes, the security fee will be refunded.

Estimated Quarterly Expenses
Figures below are based on a per quarter basis for a student with 15 credit hours taking at least one class on main campus.

	In-State Commuter	In-State Resident	Out-of-State Student
Tuition	$1275	$1275	$2550
Books (estimated)	$ 400	$ 400	$ 400
Housing (estimated)	$ 0	$1050	$1050
Security Fee	$ 10	$ 10	$ 10
Clothing, Misc./Personal	$ 400	$ 400	$ 400
TOTAL	$2083	$3133	$4408

Student Medical Insurance
The College makes medical insurance available to full-time students for protection against accident and illness expenses. The coverage is world-wide, on a 24-hour basis, for a period paralleling the academic year. A student may also insure his/her eligible dependents who are: 1) a spouse residing with the insured student, and 2) the insured student's dependents under the age of 19 who are not self-supporting and reside with the insured student. A student who enrolls his/her dependents must enroll them for the same term of coverage for which the insured student enrolls. For enrollment, a student must fill out an enrollment card which is available in the Student Services Office.

Required Student Liability Insurance
Participation in the Professional and Personal Liability Insurance Program offered by the College is required for students enrolled in specific health and public service programs. Purchase of insurance is necessary for any student enrolled in clinical practicum or field work in Medical Assisting, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, Human Services Assistant, or Radiologic Technology. Students registered in Early Childhood Education technology courses are also required to purchase personal and professional liability insurance through the College. The current annual cost is $16. The premium must be paid when a student registers for a course in one of the above technologies.

Fee Waiver for Senior Citizens
Persons 60 years and older who have resided in Ohio for at least one year are eligible to enroll in up to four credit hours per quarter on a space-available basis without payment of tuition and general fees. However, some courses may require a fee for workbooks or other materials. These fees are not covered by the senior citizen fee waiver.

Transcript Fee
A student may request an official copy of his/her academic transcript by contacting the Registrar's Office. No transcripts are released without written approval of the individual involved. There is a $5 fee charged for each official transcript requested. No transcript or diploma will be released when a student has outstanding financial obligations to the College. Obligations of this nature are handled in the Business Office.

Graduation Fee
A petition for graduation must be taken to the appropriate faculty advisor and Division Dean prior to the end of the second week of classes of the student's final quarter of study. The faculty advisor, Division Dean, and Registrar then verify that requirements have been fulfilled for either the one-year certificate or an associate degree. A $60* charge will be assessed at the time the petition is submitted.

*An additional $5 graduation fee is charged for an allied health pin to graduates in Medical Assisting, Health Information Management, Medical Laboratory, Occupational Therapy Assistant, Physical Therapist Assistant, and Radiologic Technologies.

Bad Check Policy
A $30 collection fee will be assessed on all returned checks.

Payment of Fees
All fees are payable per dates on the College calendar. Registration at the beginning of each quarter is incomplete until all fees are paid (which include checks clearing the bank), and no student may re-enroll, graduate, or receive an official transcript until all accounts are settled. The term "account" includes any indebtedness to the College.

Refund of Charges
In case of withdrawal on or before the first Saturday of the quarter, refund of instructional and technology fees will be made in full (upon notification by 10 a.m. on the first Saturday of the quarter). After the first week of classes, refunds will be made on the following basis: During the second week of the quarter, 75 percent; during the third week of the quarter, 50 percent; and during the fourth week of the quarter, 25 percent.

Refunds are made based on the date of official withdrawal when the necessary paperwork is filed with the Admissions Office. Refunds are processed in the Business Office and are made within 30 days of completion of the withdrawal form. Refunds due to billing errors or canceled classes are processed within two weeks of the request.

Enrollment for financial aid calculation purposes is determined on the second Friday of the quarter.

No adjustments to awards will be made after that date unless a full withdraw is initiated. However, students who fail to attend classes or cease attending during the first week of the quarter will be responsible for repayment of aid received for the course(s). Attendance records are reviewed by the Office of Student Financial Aid at the end of each quarter for this repayment determination.

Financial aid is earned based on the number of days a student attends classes. If a student receiving aid withdraws from all classes, their earned aid is determined based on the date they withdraw. The difference between the aid they have actually received and the aid they have earned must be returned to the proper agency. Within 30 days of withdrawing, the student will be notified of the amount that they are responsible for returning. The student will then have 45 days to return this amount to Zane State College. If this amount is not returned to the College, the over award will be reported to the U.S. Department of Education. A student is not eligible for any further financial aid until this debt has been satisfied.

In cases where students are registered for workshops, five week courses, ten week courses, and module training, the following policy will apply:

1. Students will be entitled to a full refund of fees for workshops if the workshop is cancelled or the student notifies the workshop coordinator at least 24 hours before the course is to be held; otherwise the student will not be entitled to a refund in any amount.
2. Students taking five week courses will be entitled to 50 percent refund if official withdraw is made within the first five days of the course, and 25 percent if withdraw is done between the sixth and tenth day of the term. No refund will be granted after that.
3. Students taking modular or ten week courses will be awarded a refund based on the same formulas used for regular courses and listed at the beginning of this refund policy.
4. Students taking four week courses will be entitled to a refund of charges based on the following calendar:
    - If withdrawal takes place before the first class meeting, a full refund will be made.
    - If withdrawal takes place after the first class session, but before the end of the second week of the quarter, a 50 percent refund will be made. After that time, no refund will be given.

5. Students taking seven or eight week courses will be entitled to a refund of charges based on the following calendar: If withdrawal takes place before the end of the first week of the quarter, a full refund will be made.
    - Between the first day of the second week of the quarter and the last day of the third week, a 50% refund will be made.
    - After the end of the third week of the quarter, no refund will be made.
    - In all cases proper paperwork must be completed by the student and signed by the appropriate college personnel.

Return of Student Financial Aid funds will be distributed in the following order:
1. Unsubsidized Federal Stafford Loans
2. Subsidized Federal Stafford Loans
3. Federal PLUS Loans
4. Federal Pell Grants
5. Other Financial Aid Programs

Residency Requirements For Tuition Surcharge Purposes
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 guardians 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.

Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:
1. A person who, while living in Ohio, is gainfully employed in Ohio on a full-time or part-time self-sustaining basis 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 residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile 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.

A petition for reclassification of residency must be approved by the Registrar's Office prior to the first day of classes for the quarter the reclassification is to be effective.

Residency reclassification forms are available in the Registrar's Office.

STUDENT RIGHTS AND RESPONSIBILITIES

ACADEMIC INTEGRITY POLICY

Academic Integrity is fundamental to a successful academic community. Zane State College subscribes to the Fundamental Values of Academic Integrity as defined by the Center for Academic Integrity: honesty, trust, fairness, respect, and responsibility (http://www.academicintegrity.org).

Academic integrity is expected not only in formal class and coursework situations, but in all college relationships and interactions connected to the educational process, including the use of college resources. Both students and faculty are responsible for supporting and adhering to the Fundamental Values of Academic Integrity. This policy outlines expectations for both students and faculty, and outlines consequences for infraction by students.

General Responsibilities of the Faculty Member

The faculty member:

- accepts responsibility for knowing and understanding the Academic Integrity Policy.
- promotes academic integrity by making expectations clear on syllabi concerning assignments, examinations, homework, research, and group projects.
- makes an effort to detect and prevent incidents of dishonesty and to report evidence of infractions.
- displays academic integrity.

General Responsibilities of the Student

The submission of work for academic credit indicates that the work has been done by the student. Sources for all work should be acknowledged and truthfully reported by the student.

The student:

- accepts responsibility to read and seek understanding of the Academic Integrity Policy.
- accurately represents his/her work.
- refuses to be part of another student's academic misconduct.
- does not use fraud or dishonesty to advance his or her academic position.
- cooperatively works with faculty in mutual cooperation toward the implementation of academic integrity.
- does not in any other manner violate the principle of academic integrity.

Academic Misconduct

Failure to act in accordance with the academic integrity policy will be considered academic misconduct. The following statements outline infractions that constitute academic misconduct. The Vice President for Educational Services and Quality Improvement reserves the right to make final determinations of academic misconduct, especially for behaviors that are not listed here.

Academic Misconduct includes but is not limited to the following:

AIDING or ABETTING ACADEMIC MISCONDUCT: Knowingly helping, procuring, or encouraging another person to engage in academic misconduct.

CHEATING: Any dishonesty or deception in fulfilling an academic requirement such as:

1. Use and/or possession of unauthorized material or technology during any written or oral work submitted for evaluation and/or grade such as tape cassettes, notes, tests, calculators, or computer programs.
2. Obtaining assistance from another person with or without that person's knowledge on any written or oral work submitted for evaluation or a grade.
3. Furnishing another person with assistance or answers to any written or oral work submitted for evaluation or a grade.
4. Possessing, using, distributing, or selling unauthorized copies of any computer program, written or oral work submitted for evaluation or a grade.
5. Representing as one's own any written or oral work submitted for evaluation or a grade that was prepared by another person.
6. Taking an examination in place of another person.
7. Obtaining unauthorized access to the computer files of another person or agency, and/or altering or destroying those files.

FABRICATION: The falsification of any information or citation in an academic exercise.

PLAGIARISM:
1. Submitting another's published or unpublished work, in whole, in part, or in paraphrase, as one's own without fully and properly crediting the author with footnotes, citations, or bibliographical reference.
2. Submitting as one's own, original work, material obtained from an individual or agency without reference to the person or agency as the source of the material.
3. Submitting as one's own, original work, material that has been produced through unacknowledged collaboration with others without release in writing from collaborators.

Misconduct has NOT occurred when students:
- have permission to work together on written or oral work, and list all contributors.
- receive assistance from instructors, teaching assistants, or staff members involved in the course.
- share knowledge about technology specific jargon, or other language-specific information during the preparation of written or oral work.
- engage in a general discussion about an assignment, the requirements for an assignment, or general strategies for completion of an assignment.
- compare their solutions to an assignment in order to better understand the assignment overall.
- engage in discussion about course content or strategies in preparation for an assignment or examination.

Academic Integrity Procedure
1. If a faculty member suspects a student of academic misconduct, then (s)he is responsible for collecting and maintaining original documentation and materials of the alleged incident. The faculty member uses this documentation to determine if an infraction has occurred and may consult with the Academic Dean if desired.
2. If it is determined that an infraction has taken place, then the faculty member makes a consequence recommendation to the appropriate Academic Dean. If the faculty member and Dean are in agreement regarding the consequence, then the faculty member will verbally communicate the consequence to the student. The Dean will formally notify the student of the consequence via a letter delivered by regular or certified mail or by personal delivery within five (5) business days of the decision. The Dean will forward copies of the letter to the faculty member, the Vice President for Educational Services and Quality Improvement (VPESQI), and the Vice President of Student Services. The communication will include a copy of the Grade Appeals and Academic Complaints procedure. In the event that the student requests a hearing, procedures will be followed as outlined under the Student Code of Conduct, "Hearings and Appeals" section.
3. If the faculty member and Dean are not in agreement regarding the consequence, then the Vice President for Educational Services and Quality Improvement will be consulted collectively by the faculty member and Dean. In this case, the VPESQI will determine the consequence within five (5) business days of meeting with the faculty member and Dean, and will formally notify the student of the consequence via certified or regular mail delivery. The VPESQI will forward copies of the letter to the faculty member, Academic Dean, and the Vice President of Student Services. The communication will include a copy of the Grade Appeals and Academic Complaints procedure. In the event that the student requests a hearing, procedures will be followed as outlined under the Student Code of Conduct, "Hearings and Appeals" section.

   Possible consequences may include, but are not limited to:
   - Academic behavioral counseling
   - A failing grade in the course
   - Dismissal from the academic program
   - A failing grade on the assignment
   - Dismissal from the course
   - Dismissal from the college

4. Incidents of academic misconduct may lead to student dismissal from the College. Recommendations for dismissal must be sent by the Vice President of Educational Services and Quality Improvement to the President of the College for action. Dismissal decisions will be made within five (5) business days of receipt of the recommendation, as possible, and will be communicated to the student via a letter delivered by certified or regular mail. A copy of the dismissal letter will be forwarded to the VPESQI, Academic Dean, faculty member, and Vice President of Student Services for the student's file.

GRADE APPEALS AND ACADEMIC COMPLAINTS

Appeals and concerns regarding the validity of final grades must be initiated within 30 days after the end of the given quarter. Students must adhere to the following channels when addressing grade appeals or academic complaints:

Step 1: Contact the instructor to discuss the issue.
Step 2: If not satisfied with the results of Step 1, contact the Division Dean for the given course.
Step 3: If still dissatisfied, a letter should be addressed to the Vice President for Educational Services and Quality Improvement. The letter should clearly detail the steps which have already been taken and contain the facts of the case. A request for a hearing before the Vice President for Educational Services and Quality Improvement also should be included.
Step 4: Upon considering information provided at the student hearing, the Vice President for Educational Services and Quality Improvement shall make a final and binding decision regarding action of the grade appeal or academic complaint.

If no grade appeal or academic complaint is initiated within 30 days, the final grade will stand except for a case in which there has been an error in the mathematical calculation of the grade.

STUDENT CODE OF CONDUCT

Introduction

Zane State College (hereby referred to as the College) seeks to provide a positive atmosphere in which individuals can pursue educational opportunities. To safeguard that positive atmosphere, the College has adopted a Student Code of Conduct Policy to set the standards for appropriate and inappropriate behaviors for students and to establish due process procedures consistent with regulations governing the College. The Vice President of Student Services is charged with enforcing the Student Code of Conduct and the policies and procedures thereof. The Vice President of Student Services will review the offense, decide an appropriate response to resolve the violation, and make a decision available to affected parties. Students subject to disciplinary sanctions have due process rights that provide avenues for a hearing and an appeals process. Confidentiality, in accordance with the Family Educational Rights and Privacy Act, will be maintained in disciplinary action proceedings.

Jurisdiction

The Student Code of Conduct is applicable: on College owned or leased grounds, buildings, equipment, and facilities; at all College-sponsored activities, regardless of location; and outside the College and its facilities when a threat to safety is posed to any person within the College community.

Definitions

The term “College” means Zane State College.

The term “student” includes all persons taking courses at the College, both full-time and part-time, for credit and non-credit and persons who have been admitted to the College but are not officially enrolled for a particular term.

The term “faculty” means any person or group of persons hired by the College to conduct classroom activities.

The term “College official” includes any person employed by the College, performing assigned administrative or professional responsibilities.

The term “College community” includes any person who is a student, faculty member, College official, any other person employed by the College, or any visitor to the College campus. A person’s status in a particular situation shall be determined by the Vice President of Student Services.

The term “College premises” includes all land, buildings, facilities, and other property in the possession of or owned, used, or controlled by the College (including adjacent streets and sidewalks).
The term “misconduct” is defined as any behavior which compromises the health, safety, peace, or property of any other student, any member of the College community, guests or invitees of the College on property of the College, or in any manner interferes with the operation of the College.

The term "organization" means an association of individuals who have complied with the formal requirements of College registration of an organization.

The term "Hearing Board" means any group of persons authorized by the Vice President of Student Services to determine whether a student has violated the Student Code of Conduct and to recommend sanctions to the conduct.

The term "shall" is used in the imperative sense.

The term "may" is used in the permissive sense.

The term "policy" is defined as the written regulations of the College as found in the College catalog.

The Vice President of Student Services is that person designated by the College President to be responsible for the administration of the Student Code of Conduct.

Prohibited Conduct

Prohibited conduct subject to disciplinary action includes, but is not limited to:

1. Smoking in areas which are indicated as restricted or "non-smoking" areas.
2. Physical or verbal abuse, intimidation, threats, or harassment of any kind to another person or group of persons, or action which threatens to endangers the health, well being or safety of any person.
3. Participation in a hate crime.
4. Illegal or unauthorized possession or use of firearms, guns, knives, other weapons, explosives, dangerous chemicals, fireworks or other items with potential to cause harm or use of any such item, even if legally possessed, in a manner that harms, threaten or causes fear to others.
5. The use or possession of any illegal drug or inappropriate behavior caused by the use of such drugs.
6. The use or possession of alcohol or inappropriate behavior caused by alcohol intoxication.
7. Theft of property of the College or of any person physically located on College-owned or leased property.
8. Disruption or obstruction of, or leading or inciting others to disrupt or obstruct, teaching, research, administration, disciplinary proceedings, other college activities, including its public-service functions on or off campus, or other college authorized activities when the act occurs on college premises.
9. Behavior or actions inside the classroom which disrupt other students, faculty, or visitors. Note: This includes the use of personal electronic devices, including but not limited to cell phones, beepers, and other personal message devices, which must be turned off during all Zane State College classes and academic functions.
10. Behavior or actions outside the classroom which disrupt the function of the College or interfere with the rights of other members of the College community.
11. Disorderly, lewd, indecent or obscene conduct on College-owned or controlled property or at college-sponsored or supervised functions; breach of the peace.
12. Deliberate or negligent destruction of, or damage to, malicious misuse of, or abuse of College, faculty, or student property or equipment.
13. Entry into or use of restricted facilities, either buildings or grounds, without approval of appropriate College representatives.
14. Failure to comply with directives of College authorities acting in accordance with College policies, procedures, and adopted guidelines.
15. Falsification or misrepresentation of facts pertaining to admissions, financial aid, or other acts which result in personal or financial benefit, any College identification cards, parking permits, records, or information storage/retrieval systems.
16. Violation of the College Computer and Lab Usage Policy.
17. Intentional false reporting of a fire or bomb or other explosive device that allegedly has been placed on school property. Intentionally activating a false fire alarm or tampering with any type of safety equipment, including fire alarms, fire extinguishers, and smoke detectors.
18. Academic dishonesty including fraud, forgery or knowingly furnishing false statements.
19. Abuse of the Student Code of Conduct and hearing procedures; violation of prior disciplinary rulings or sanctions.

20. Hazing, which includes recklessly or intentionally causing any action or situation which endangers the mental or physical health or safety of another person.
21. Sexual Offenses, including, but not limited to:
22. Sexual intercourse with, and/or sexual intrusion against, a person capable of giving consent, without such person's consent, or a person incapable of giving consent.
23. Sexual assault or abuse, statutory or acquaintance rape, sexual harassment.
24. Violation of federal, state, or local law.

Procedural Protections

Students accused of violating the Student Code of Conduct are entitled to procedural protections as follows:

1. To be informed of the charge and alleged misconduct upon which the charge is based.
2. To be allowed reasonable time to prepare a defense.
3. To be provided with the evidence upon which the charge is based and be given an opportunity to respond.
4. To request relevant witnesses be called forward and to question those witnesses.
5. To be assured confidentiality, pursuant to the terms of the Family Educational Rights and Privacy Act.
6. In the instance that a hearing is conducted, to request that any member of the College Hearing Board be replaced due to personal bias or conflict of interest.
7. To be considered innocent of the charges until proven responsible for alleged actions by a preponderance of the evidence.
8. To be advised by a person of their choice.

Charges and Due Process

Charges

1. Any member of the College community may file charges against any student for misconduct. Charges shall be filed in writing with the Vice President of Student Services. Any charges should be submitted as soon as possible after the event takes place, preferably within thirty (30) calendar days.
2. The Vice President of Student Services, or his/her designee, may conduct an investigation to determine if the charges have merit and/or if they can be disposed of administratively by mutual consent of the parties involved on a basis acceptable to the Vice President of Student Services. Such disposition shall be final and there shall be no subsequent proceedings.
3. All charges shall be presented to the accused student in writing.

Due Process Hearings

1. Students accused of violating the Student Code of Conduct that may result in sanctions are entitled to a hearing. The student shall be provided with written notice of the specific charges at least five (5) working days prior to the hearing and shall have reasonable access to the case file prior to and during the hearing (excluding personal notes made by College employees or complainants). The student will have the opportunity to respond to the evidence and call relevant and necessary witnesses as well as have the right to be accompanied by an advisor. An accused student may waive his/her right to a hearing by providing such waiver to the Vice President of Student Services in writing. In this instance the Vice President of Student Services will conduct a disciplinary conference with the accused student. Upon conclusion of the conference, the Vice President of Student Services shall have five (5) working days to provide the accused student with a written decision regarding whether the evidence supports a finding of violation of the College Student Code of Conduct and the imposition of sanctions based on this determination.
2. Students who choose to exercise their rights to a hearing will go before the College Hearing Board. The Hearing Board shall consist of three (3) voting members: one (1) administrator, one (1) other college employee from the ranks of administration, professional staff, or faculty, and one (1) student. The College President shall appoint the College Hearing Board and select one additional administrator to serve as the Hearing Board Chair.

Disciplinary Sanctions

Behavior that interferes with educational objectives and programs of the College is unacceptable. Such behavior will result in disciplinary action. Disciplinary action may result in one or more of the following sanctions being imposed upon any student found to have violated the Student Code of Conduct:

1. Warning—A written notice to the student from the Vice President of Student Services that the student is violating or has violated institutional regulations. This notice shall outline the regulation(s) violated, the future expectations of the student, and potential consequences for further violation.
2. Probation—A written reprimand to the student from the Vice President of Student Services for violation of specified violations of the Student Code of Conduct. The probation shall include the specific violations, corrective actions to be taken by the student, a specified time period for correction of the violations, the specified duration of the probation, and potential consequences for further violations.
3. Restitution—Compensation for loss, damage, or injury. This may take the form of appropriate service and/or monetary or material replacement.
4. Dismissal from Class—The student is not permitted to attend a certain class or classes. The College will withdraw the student from the course(s) with no refund of tuition or fees unless the withdrawal takes place during the prescribed College tuition refund time frame.
5. Suspension—Separation of the student from the College for a specified period of time after which a student may be readmitted. To be considered for readmission, the student shall provide a written letter to the College President requesting readmission and providing rationale for the request. Specific procedures for request for readmission to the College may be obtained from the office of the Vice President of Student Services. In certain circumstances, to ensure the safety and well-being of College community and/or College property, to ensure the student's own physical or emotional well-being, or if the student poses a threat of disruption of or interference with the normal operations of the College, the Vice President for Educational Services and Quality Improvement, or his/her designee, may impose interim suspension prior to the hearing. During the interim suspension, which is immediately effective, the student shall be denied access to all campus facilities and activities to include classes. The student may report to designated College premises only upon notice to appear for the hearing or business related to the hearing on a specified date(s) and time(s).
6. Expulsion—Permanent separation of the student from the College.
7. Other sanctions may include, but are not limited to loss of privileges, fines, and withholding of transcripts.

Other than expulsion, disciplinary sanctions shall not be made part of the student's permanent academic record, but shall become part of the student's confidential record. Upon graduation, the student's confidential record may be expunged of disciplinary actions other than suspension or expulsion, upon application to the Vice President of Student Services. Cases involving the imposition of sanctions other than suspension or expulsion shall be expunged from the student's confidential record five (5) years after final disposition of the case.

Appeals

1. A decision reached by the College Hearing Board or a sanction imposed by the College Hearing Board Chair, or a decision reached by the Vice President of Student Services or a sanction imposed by the Vice President of Student Services in the event the student waives his/her right to a hearing, may be appealed by the accused student(s) to the College Appeals Board within five (5) working days of the decision. Such appeals shall be in writing and shall be presented or mailed to the Vice President of Student Services or his/her designee.
2. The College Appeals Board shall consist of five (5) members: two (2) administrators, one (1) full-time faculty member, one (1) professional staff member, and one (1) student. The College Appeals Board shall be appointed by the Vice President of Student Services who also will select the Appeals Board Chair.

Further written information regarding the details of the due process hearing and appeals processes may be obtained from the Vice President of Student Services Office.

COMPUTER AND LAB USAGE POLICY

In order to maintain a computing environment which best serves the needs and protects the rights of faculty, students, and staff, this set of policies and guidelines has been developed regarding the use of computers and data network resources. As a member of the Ohio Academic Research Network (OARnet), Zane State shall seek to comply with all policies and procedures of OARnet and related networks. In turn, all users granted privilege to access these networks should also comply with these policies and procedures.

Access

Access to computers and network resources is a privilege granted by the College to students, faculty, and staff unless such access is suspended or denied for cause. Access to information that is private or confidential, as determined by the owner or by the College or provider of resources on a network, may be restricted.

Access to some on-campus computers and to external networks requires a means to authenticate a user's identity. Often that is accomplished by assigning a user account protected by a password. The user, or account owner, is responsible for all actions originating from an assigned account. Passwords to protected accounts should not be shared. Providers of campus computing services will provide assistance with methods to share information when needed.

A user who has knowledge of any misuse of computing resources or potential loopholes in computer system security shall disclose such knowledge to the appropriate authorities and cooperate with the system's administrator in the investigation of abuses. This document does not attempt to address every possible situation; rather, it establishes a framework in which each situation may be evaluated.

Duplication of Software

Federal copyright law prohibits duplication of copyrighted software. Most of the applications software used at Zane State is copyrighted software.

Internet Usage

There may be material on the Internet that may be considered objectionable to the user. Users should be aware that it is strictly the choice of the person accessing the Internet as to whether they will view certain material on the Internet. With that in mind, users are advised to carefully consider their requests for information and the possibility of objectionable material being displayed. Additionally, certain activities may represent legal issues, and could include but not be limited to the following: causing harm to other outside networks, improper communication through the use of chat rooms, improper communication on the Zane State network system with others on campus, or with individuals outside of our network. Under no circumstances should materials be downloaded from the web to any Zane State computer or other resource.

Prohibited Behavior

1. Any attempt to use campus computing resources for the purpose of hacking. Hacking is defined as attempting (either successfully or unsuccessfully) to break into or gain unauthorized access or rights on a computer system or network or attempting to solicit and/or acquire information for the purpose of gaining unauthorized access. Attempts to hack into College computers or networks by students from non-College resources as well as attempts to hack into non-College computers or networks using College resources are considered hacking.
2. Accessing or using a protected computer account assigned to another person or sharing a password to a protected account with another person (except when authorized).
3. Misuse or abuse of computer equipment, networks, software, or supplies. This refers to willful attempts to cause damage or malfunctioning of these resources, or to reconfigure them in any way to be different from original installation. Misuse also includes the use of these resources for non-College related activities.
4. Any act which interferes with the appropriate access rights of others.
5. Use of obscene language, illegal communication, or other communication that has the effect of harassing or intimidating another person.
6. Use of any computer network for a purpose contrary to the intended purpose of that network.
7. Software theft or piracy, data theft, or any other action that violates the intellectual property rights of others.

8. Deletion, examination, copying, or modification of files and/or data belonging to other users without their prior consent. This includes, but is not limited to, the creation and/or willful dissemination of viruses.
9. Use of Zane State College facilities and/or services for unapproved commercial activities. Use of Internet facilities for any commercial activities.
10. The installation/execution of games and recreational programs on College computers may be prohibited. College departments, faculty, or staff responsible for maintenance of systems shall determine and define such restrictions where they apply.
11. Forgery (or attempted forgery) of electronic mail messages.
12. Deliberate interference with the ability of other users to send/receive electronic mail.
13. Use of Zane State College systems and/or networks in attempts to gain unauthorized access to remote systems. Any such attempts will be reported to the administrators of the remote systems.
14. Installation or utilization of network-based applications on the College's systems without the knowledge and consent of the Zane State College staff responsible for those systems.
15. Decryption of system or user passwords and files.
16. The copying of copyrighted materials, such as system files or third-party software, without the express written permission of the owner of the copyright.
17. Intentional attempts to "crash" systems or programs.
18. Any improper or unauthorized attempts to secure a higher level of privilege on Zane State College systems.

Installation of Software
Software will be installed only by Information Technology Services. Students may not use ANY software that has not been previously authorized by Zane State College.

Students requiring special software applications (e.g., Information Technology students working on projects) must have written permission from the appropriate Dean. Once approved, Information Technology Services personnel will perform installation of the software. Special software applications will be installed on a temporary basis, on specified systems, and removed at a designated time by Information Technology Services personnel.

Software Usage and Intellectual Rights
Respect for the scholarly work and intellectual property rights of others is essential to the educational mission of any institution. Zane State College, therefore, endorses the following 1987 EDUCOM/ADAPSO statement on Software and Intellectual Rights. "Respect for intellectual labor and creativity is vital to academic discourse and enterprise. This principle applies to works of all authors and publishers in all media. It encompasses respect for the right to acknowledgement, right to privacy, and right to determine the form, manner, and terms of publication and distribution."

Because electronic information is volatile and easily reproduced, respect for the work and personal expression of others is especially critical in computer environments. Violations of authorial integrity, including plagiarism, invasion of privacy, unauthorized access, and trade secret and copyright violations, may be grounds for sanctions against members of the academic community.

Sanctions
Violation of computer use policies may result in sanctions by the College. Sanctions for violations will be handled by due process at the discretion of College administration. Computer and data network use infractions may also constitute violation of local, state, or federal law; civil actions or criminal prosecution and sanctions may be applicable independently. The appropriate agencies or parties will carry out such actions.

Students using unauthorized software will be warned. If a student persists in using unauthorized software, the Division Dean will take appropriate action. This includes the recommendation of disciplinary probation or dismissal.

If unauthorized software is discovered during routine systems checks, it will be uninstalled, and the appropriate Dean will be notified.

FIREARMS POLICY

It is the policy of Zane State College that no student, employee, or visitor shall have in her/his possession while on the Zane State/OUZ campus any firearms unless required to do so by being enrolled in or instructor of an official Zane State College course in which
instruction on the use of that firearm is being delivered.

1. Students: When enrolled in courses which include firearms instruction, it may be necessary to transport firearms (unloaded) to and from class. Firearms will not be carried or worn into a classroom or lab unless directed to do so by the instructor.
2. Instructors: Firearms or other weapons are not to be carried or worn into a classroom or lab except for an approved firearms/weapons training class.
3. Instructors and students are to transport firearms to and from the class in which weapons instruction is being delivered in closed containers. A closed gym bag is an example for carrying handguns while a typical rifle or shotgun case may be used for long guns. Carrying a handgun in a holster is not satisfactory. Carrying a shotgun or rifle, broken down, exposed to view is not satisfactory.
4. Guest Speakers: On-duty law enforcement, probation and parole officers who appear in our classrooms as guest speakers are exempted from these restrictions.

Any infractions of the Zane State College weapons policy will be handled via appropriate local, state, and/or federal laws, and/or College disciplinary procedures.

ALCOHOLIC BEVERAGES AND NARCOTICS POLICY

The use or possession of any drug, narcotic, or hallucinogen is strictly prohibited on any property owned or leased on a long-term basis by Zane State College. Any violations will be considered grounds for possible dismissal from the College and legal action. Copies of the College Drug and Alcohol Policy can be obtained from the Vice President of Student Services Office.

PROGRAMS AND CURRICULUM

Credit Hours

Credit hours are awarded for course work taken at the College each quarter. A credit hour at Zane State College is based on one of the following criteria:

- One (1) hour of classroom lecture or recitation per week plus approximately two (2) hours of assigned homework.
- Three (3) hours of laboratory, practicum, or directed field experience per week with no assigned homework.
- Two (2) hours of clinical, laboratory, practicum, or directed field experience per week plus approximately one (1) hour of assigned homework.
- Credit hours for clinical laboratory practicum or directed field experience in health technologies are specific to each health program.

Student Credit Hour Load

The minimum load for a full-time student is 12 quarter credit hours. The average load of a full-time student is 16-19 credit hours, which consists of four or five courses. Depending upon academic progress, a student may register for more than 19 credit hours with the approval of the appropriate Division Dean.

General Education

General Education Definition

Zane State College has adopted the definition of general education approved by the Higher Learning Commission, North Central Association of Colleges and Schools. That definition reads as follows: "General education is 'general' in several clearly identifiable ways: it is not directly related to a student's formal technical, vocational, or professional preparation; it is a part of every student's course of study, regardless of his or her area of emphasis, and it is intended to impart common knowledge, intellectual concepts, and attitudes that every educated person should possess."

Philosophy of General Education

The general education program is committed to enhancing the confidence, communication skills, ethical decision-making, and self-knowledge necessary for students planning careers in technical fields or further

education. Students completing general education courses will possess critical thinking, writing and speaking skills, and a heightened awareness of global, local, social, and cultural issues.

Course work explores oral and written expression, psychological and socio-cultural understanding, scientific and analytic methods, mathematics, and computer literacy. Skills learned in the classroom are applied first hand in laboratory and workplace settings through individual and collaborative projects using a variety of field and library research methods.

Research has indicated that ten of the top twelve skills required by employers involve communication, self-awareness, and problem-solving abilities. The opportunities available to students completing general education include mastering their chosen technical fields, continuing their education at other institutions, meeting the needs of potential employers, and adapting better to a current job in a constantly changing world.

General Education Student Competencies

Students earning an associate degree from Zane State College will be able to:

1. Describe the meaning of human diversity and demonstrate effective skills in interacting with diverse groups of the population.
2. Explain human interconnection at the individual, local, state, national, and global level.
3. Exhibit self-confidence and self-awareness.
4. Express effective interpersonal and oral communication skills.
5. Explain how behavior is shaped and modified by biological, sociological, and psychological forces.
6. Compose documents accurately in a wide variety of formats.
7. Display effective and appropriate problem solving and critical thinking skills.
8. Apply current information management skills.
9. Use appropriate mathematical skills.
10. Integrate accurate knowledge and understanding of basic life and physical sciences.

General Education Course Requirements

Zane State College takes very seriously its commitment to provide an education that not only leads to students' technical expertise but also allows them to develop the abilities needed for a lifetime of learning and adapting to evolving workplace requirements. Therefore, the following general education courses are required in each degree program.

Written and Oral Communication – three courses

ENG 150 – Freshman Composition – 5 lecture, 0 lab, 5 credits
ENG 180 – Technical Writing – 4 lecture, 0 lab, 4 credits
COM 261 – Public Speaking – 3 lecture, 2 lab, 4 credits

Social and Behavioral Sciences – a minimum of two courses

BUS 151 – Microeconomics – 4 lecture, 0 lab, 4 credits
BUS 152 – Macroeconomics – 4 lecture, 0 lab, 4 credits
BUS 153 – Consumer Economics – 4 lecture, 0 lab, 4 credits
GEO 161 – U.S. Geography – 4 lecture, 0 lab, 4 credits
GEO 171 – World Regional Geography – 4 lecture, 0 lab, 4 credits
PSY 101 – Introduction to Psychology – 4 lecture, 0 lab, 4 credits
PSY 110 – Life Skills for Women – 4 lecture, 0 lab, 4 credits
PSY 201 – Abnormal Psychology – 4 lecture, 0 lab, 4 credits
PSY 203 – Child/Adolescent Psychology – 4 lecture, 0 lab, 4 credits
PSY 217 – Social Psychology – 4 lecture, 0 lab, 4 credits
PSY 231 – Educational Psychology – 4 lecture, 0 lab, 4 credits
SOC 101 – Introduction to Sociology – 4 lecture, 0 lab, 4 credits
SOC 206 – Cultural Diversity – 4 lecture, 0 lab, 4 credits
SOC 218 – Social Problems – 4 lecture, 0 lab, 4 credits

Interdisciplinary Studies
IDS 101 – College Success Strategies – 0 lecture, 2 lab, 1 credit

Mathematics – minimum of one course
MTH 111 – Mathematics for Business – 4 lecture, 0 lab, 4 credits
MTH 113 – Algebra – 4 lecture, 0 lab, 4 credits
MTH 115 – College Algebra – 5 lecture, 0 lab, 5 credits
MTH 124 – Algebra & Trigonometry I – 4 lecture, 0 lab, 4 credits
MTH 125 – Algebra & Trigonometry II – 4 lecture, 0 lab, 4 credits
MTH 134 – Precalculus I – 4 lecture, 0 lab, 4 credits
MTH 135 – Precalculus II – 4 lecture, 0 lab, 4 credits
MTH 225 – Introductory Calculus – 4 lecture, 0 lab, 4 credits
MTH 227 – Statistics – 4 lecture, 0 lab, 4 credits
MTH 251 – Calculus I – 5 lecture, 0 lab, 5 credits
MTH 252 – Calculus II – 5 lecture, 0 lab, 5 credits
MTH 253 – Calculus III – 5 lecture, 0 lab, 5 credits

Natural/Physical Science - minimum of one course
BIO 101 – Principles of Biology – 3 lecture, 3 lab, 4 credits
BIO 107 – Biology and the Environment – 3 lecture, 3 lab, 4 credits
BIO 141 – Field Zoology and Ecology – 3 lecture, 3 lab, 4 credits
BIO 201 – General Microbiology – 3 lecture, 3 lab, 4 credits
BIO 240 – Anatomy & Physiology I – 4 lecture, 0 lab, 4 credits
BIO 241 – Anatomy & Physiology I Laboratory – 0 lecture, 3 lab, 1 credit
BIO 242 – Anatomy & Physiology II – 4 lecture, 0 lab, 4 credits
BIO 243 – Anatomy & Physiology II Laboratory – 0 lecture, 3 lab, 1 credit
CHM 101 – Chemistry – 3 lecture, 3 labs, 4 credits
CHM 121 – General Chemistry I – 3 lecture, 3 lab, 4 credits
CHM 122 – General Chemistry II – 3 lecture, 3 lab, 4 credits
CHM 123 – General Chemistry III – 3 lecture, 3 lab 4 credits
GLY 135 – Earth Science – 3 lecture, 3 lab, 4 credits
PHY 110 – Physical Science – 3 lecture, 3 labs, 4 credits
PHY 201 – Physics I – 3 lecture, 3 lab, 4 credits
PHY 202 – Physics II – 3 lecture, 3 lab, 4 credits

English Requirement
Students who previously completed ENG 130 & 140, but not ENG 250 will receive credit for ENG 150, but must complete ENG 180. Students with credit for ENG 130 only, may elect to take the ENG 150 proficiency exam. Upon successful completion of the ENG 150 proficiency, students will receive credit by examination for ENG 150 and will be eligible to register for ENG 180. In accordance with the College's Catalog in Force Policy, this applies only to students who began enrollment at Zane State College in 2002-2003 or later. This policy will automatically expire at the end of spring term, 2013.

General Education Elective Courses
Any of the following courses may be taken to fulfill a course designated as a "general elective" within an associate degree program curriculum:

COM 122 – Interpersonal Communication – 3 lecture, 0 lab, 3 credits
HUM 101 – Leadership Development Studies – 3 lecture, 0 lab, 3 credits
HUM 102 – Critical Thinking – 3 lecture, 0 lab, 3 credits
IDS 203 – Introduction to Ethics – 3 lecture, 0 lab, 3 credits

Additionally, any courses under Mathematics, Natural/Physical Science, or Social Behavioral Science not taken to meet general education distribution or program course requirements may be taken as a general elective.

Individual programs may require specified or additional hours in general education course work which may be designated by the program or allow students to choose among approved courses.

BASIC OCCUPATIONAL SKILLS PROGRAMS

The objective of these programs is to prepare persons with basic occupational skills for job entry, upgrading, cross training and retraining purposes. Courses taken may also be applied to a related associate degree program. Description of courses and prerequisites begins on page 128 of this catalog.

Accounting & Bookkeeping	**Credits**	
ACC 111	Accounting I	4
ACC 112	Accounting II	4
ACC 113	Accounting III	4
		12

Basic Machining		
CMT 102	Introduction to Metals Machining Processes	4
CMT 103	Blueprint Reading	3
CMT 121	Metals Machining Theory I	4
CMT 209	Product Manufacturing	3
EGT 109	Engineering Technology Computer Applications	3
MET 120	Industrial Materials & Processes	3
MTH 113	Algebra	4
MTH 124	Algebra and Trigonometry I	4
		28

Building and Construction Estimating		
CAD 105	AutoCAD I	3
CAD 114	Architectural Graphics I	3
CAD 125	Construction Methods and Materials I	3
CAD 126	Construction Methods and Materials II	3
MTH 113	Algebra	4
		16

(Business) Microcomputer Applications		
ACC 101	Financial Accounting	4
AOA 140	Word I	3
BMC 116	Introduction to FrontPage	1
BMC 120	Excel	3
BMC 125	Introduction to Internet	3
BMC 130	Access	3
BMC 140	Publisher	3
BMC 206	Integrating Office Software	1
BMC 210	PowerPoint	3
BUS 141	Keyboarding	2
CPT 105	Introduction to Microcomputer Software Applications	3
		29

Clinical Assisting		
BIO 101	Principles of Biology	4
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 150	Freshman Composition	5
ENG 180	Technical Writing	4
HLT 121	Medical Terminology	3
HLT 141	First Aid & CPR	2
HLT 165	Electrocardiography I	2
IDS 101	College Success Strategies	1
MAT 105	Basic Medical Laboratory Techniques	4
MAT 125	Medical Assisting Procedures I	3
MAT 151	Patient Contact and Public Relations	3
MTH 111	Mathematics for Business	4
PBT 180	Phlebotomy I	2
PBT 181	Phlebotomy II	2
PBT 182	Phlebotomy III	2
		44

Computer-Aided Drafting and Design - Architectural Drafting

CAD 105	AutoCAD I	3
CAD 114	Architectural Graphics I	3
CAD 115	Architectural Graphics II	3
CAD 119	AutoCAD II	3
CAD 142	Introduction to Architectural Modeling	3
		15

Computer-Aided Drafting and Design - Mechanical Design

CAD 105	AutoCAD I	3
CAD 119	AutoCAD II	3
CAD 141	Introduction to Mechanical Modeling	3
EGT 109	Engineering Technology Computer Applications	3
MET 210	Computer-Aided Working Drawings	3
		15

Computerized Machine Tool Systems (Prerequisite: Basic Machining Certificate or equivalent)

CAD 105	AutoCAD I	3
CMT 135	Numerical Control Programming I	4
CMT 201	Computer Assisted Machining I	4
CMT 211	Computer Assisted Machining II	4
CMT 221	Introduction to CNC Machines	4
CMT 231	Advanced CNC Machines	4
		23

Computerized Numerical Control Operator

CMT 102	Introduction to Metals Machining Processes	4
CMT 103	Blueprint Reading	3
CMT 135	Numerical Control Programming I	4
CMT 207	Tool Design Fundamentals I	3
CMT 221	Introduction to CNC Machines	4
MTH 113	Algebra	4
MTH 124	Algebra and Trigonometry I	4
		26

Computerized Manufacturing

CAD 105	AutoCAD I	3
CMT 102	Introduction to Metals Machining Processes	4
CMT 135	Numerical Control Programming I	4
EGT 109	Engineering Technology Computer Applications	3
EGT 215	Advanced Engineering Technology Computer Applications	3
MET 120	Industrial Materials & Processes	3
MET 210	Computer-Aided Working Drawings	3
MET 282	Robotics	3
		26

Hazardous Waste Management

ENV 226	Transportation of Hazardous Materials	1
ENV 230	HAZWOPER: Technician	2
ENV 241	HAZWOPER: Waste Site Worker	3
ENV 267	Solid & Hazardous Waste Management	3
		9

Medical Transcriptionist

AOA 111	Office Keyboarding Skills I	3
AOA 121	Office Keyboarding Skills II	3
AOA 125	Document Analysis & Editing	3
AOA 140	Word I	3
AOA 229	Speed Building I	2
AOA 230	Speed Building II	2
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
ENG 150	Freshman Composition	5
HLT 121	Medical Terminology	3
HLT 122	Medical Dictation & Transcription	3
HLT 130	Advanced Medical Dictation & Transcription	3
HLT 173	Diseases and the Disease Process	3
IDS 101	College Success Strategies	1
		44

Microsoft Office Certificate

AOA 140	Word I	3
AOA 141	Word II	3
BMC 102	Introduction to Windows	1
BMC 116	Introduction to FrontPage	1
BMC 120	Excel	3
BMC 125	Introduction to Internet	3
BMC 130	Access	3
BMC 140	Publisher	3
BMC 210	PowerPoint	3
BMC 220	Advanced Excel	3
BMC 230	Advanced Access	3
BMC 240	Advanced Integrated Applications	3
BUS 141	Keyboarding	2
CPT 105	Introduction to Microcomputer Software Applications	3
		37

Ohio Peace Officer Training Academy

OPT 106	Introduction to Criminal Justice	4
OPT 112	Defense Tactics	2
OPT 115	Defensive Driving	2
OPT 122	Investigations I	3
OPT 123	Investigations II	4
OPT 162	Criminal Legal Procedures	4
OPT 191	Police Operations	3
OPT 265	Firearms I	2
OPT 266	Firearms II	2
OPT 270	Community Diversity	3
		29

Phlebotomy

PBT 180	Phlebotomy I	2
PBT 181	Phlebotomy II	2
PBT 182	Phlebotomy III	2
		6

Statistical Process Control

EGT 109	Engineering Technology Computer Applications	3
MET 120	Industrial Materials & Processes	3
MET 219	Statistical Process Control	3
MTH 113	Algebra	4
MTH 227	Statistics	4
		17

Tool Design

CAD 105	AutoCAD I	3
CAD 141	Introduction to Mechanical Modeling	4
CMT 102	Introduction to Metals Machining Processes	4
CMT 103	Blueprint Reading	3
CMT 207	Tool Design Fundamentals I	3
CMT 227	Tool Design Fundamentals II	3
EGT 109	Engineering Technology Computer Applications	3
MET 210	Computer-Aided Working Drawings	3
MTH 113	Algebra	4
MTH 124	Algebra & Trigonometry I	4
PHY 110	Physical Science	4
		38

Water/Wastewater Laboratory Skills

CHM 101	Chemistry I	4
ENV 171	Water Sampling & Analysis	4
ENV 215	Wastewater Treatment	3
ENV 267	Solid & Hazardous Waste Management	3
ENV 272	Advanced Instrumentation & Analytical Methods	3
ENV 291	Drinking Water Treatment	3
		20

Word Processing

AOA 111	Office Keyboarding Skills I	3
AOA 121	Office Keyboarding Skills II	3
AOA 125	Document Analysis and Editing	3
AOA 140	Word I	3
AOA 141	Word II	3
AOA 217	Machine Transcription/Word Processing	3
AOA 253	Word Processing Applications	3
BUS 215	Desktop Publishing	3
ENG 150	Freshman Composition	5
		29

ONE-YEAR CERTIFICATES

DIGITAL ANIMATION CERTIFICATE

The Digital Animation Certificate is a one year certificate program designed to prepare students for an entry level position in digital animation. Students complete an intensive series of courses in animation techniques and applications. Tools in basic animation such as web graphics, digital video, animation scripting, and digital photography provide a foundation to gain an entry level position in digital animation.

Certificate completers can find employment in website production, multimedia, graphic design, and video production. This exciting field would appeal to individuals with an interest in computing technology and an aptitude for creative artistic expression.

All credits earned in this certificate are applicable to the Associate of Applied Business in Information Technology – Interactive Digital Media Concentration. Students completing this certificate program can expect an additional year of full time study to complete this Associates degree.

Curriculum for Digital Animation Certificate

FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 102	Introduction to Multimedia Applications	3
ITC 103	Introduction to Programming Logic	3
ITC 142	Imaging and Graphics for the Web	3
ITC 204	Editing Digital Video	3
MTH 113*	Algebra	4
		17
WINTER QUARTER (2)		
ENG 150**	Freshman Composition	5
ITC 123	Client-side Scripting	3
ITC 226	Web Site & Kiosk Authoring Software	3
ITC 242	Advanced Animation Scripting	3
MKT 100	Marketing	4
		18
SPRING QUARTER (3)		
ACC 101	Financial Accounting	4
BUS 131	Business Law I	3
ENG 180	Technical Writing	4
ITC 144	Digital Photography	3
ITC 260	3D Animation	3
		17

*Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
**Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

TOTAL CREDIT HOURS (52)

GRAPHIC DESIGN CERTIFICATE

The Graphic Design Certificate is a one year certificate program designed to prepare students for an entry level position in graphic design. Students complete an intensive series of courses in graphic design techniques and applications. Tools in basic graphics such as web graphics, digital video, digital photography, and print layout provide a foundation to gain an entry level position in graphic design.

Certificate completers can find employment in website production, multimedia, graphic design, and video production. This exciting field would appeal to individuals with an interest in computing technology and an aptitude for creative artistic expression.

All credits earned in this certificate are applicable to the Associate of Applied Business in Business Management - Marketing Management Major. Students completing this certificate program can expect an additional year of full time study to complete this Associates degree.

Curriculum for Graphic Design Certificate

FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 102	Introduction to Multimedia Applications	3
ITC 142	Imaging and Graphics for the Web	3
ITC 204	Editing Digital Video	3
MKT 100	Marketing	4
		14
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
BUS 131	Business Law I	3
ENG 150*	Freshman Composition	5
ITC 153	Advanced Graphic Design	3
MTH 111**	Mathematics for Business	4
		19
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
ITC 122	Web Site Design	3
ITC 144	Digital Photography	3
ITC 160	Print Layout	3
MKT 202	Advertising	4
		17

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

TOTAL CREDIT HOURS (50)

WELDING CERTIFICATE

Students have the opportunity to begin a career in welding technology. Openings in this field are varied and growing, especially as there are an increasing number of older welders retiring. Welding requires detail-oriented people with good vision and hand-eye co-ordination. Students learn the basics of welding, utilizing SMAW (stick-welding), GWAW (MIG), and GTAW (TIG). Also offered are oxy-fuel and plasma cutting. During the last quarter of the curriculum students have the chance to put their welding and cutting skills together with their blueprint reading knowledge to build a project of their own.

The Welding Technology Certificate Program requires four quarters of full time enrollment and students may begin at the start of any quarter. If a student decides at some point to continue their education, certificate courses may be applied to an ATS degree with a welding major.

All welding modules are taught at the Willett-Pratt Training Center in Cambridge. State Certification is offered on-site at the end of the Basic SWAW series. Welding modules are offered as self-paced units, students may attend lab Monday-Thursday from 9:00 a.m.– 2:00 p.m. and 3:00 p.m. – 8:00 p.m., as their schedule permits.

Other welding modules are also offered for the student that desires advanced skills. Internships in the welding field may also be arranged with local employers according to availability.

Curriculum for Welding Certificate

1st QUARTER		
ENG 150*	Freshman Composition	5.0
IDS 101	College Success Strategies	1.0
WLD 100-109	SMAW	8.5
WLD 133	Plasma Arc Cutting	0.5
		15.0
2nd QUARTER		
MTH 111**	Mathematics for Business	4.0
WLD 110-119	SMAW	9.5
WLD 130	Blueprint Reading I	1.0
		14.5
3rd QUARTER		
ENG 180	Technical Writing	4.0
WLD 131	Blueprint Reading II	1.0
WLD 150-157	GMAW	5.0
WLD 163-165	GMAW	2.0
WLD 200-202	GTAW	2.5
		14.5
4th QUARTER		
CPT 105	Introduction to Microcomputer Software Applications	3.0
WLD 132	Blueprint Reading III	1.0
WLD 203-206	GTAW	4.0
WLD 250-253	Fabrication	4.0
		12.0

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

TOTAL CREDIT HOURS (56)

ASSOCIATE OF TECHNICAL STUDY

A two-year, specially designed program leading to the Associate of Technical Study (ATS) degree is available for those needing a great deal of curriculum flexibility. This degree program utilizes courses from the College, other institutions, work experience (a maximum of 12 credits), and training conducted by industry and/or other agencies (a maximum of 24 credits). Students must enroll for a minimum of 55 credits at the College and enroll in 33 credits after step 4 below is completed.

Students must apply for admission and follow these steps to formalize the degree:

1. Meet with an advisor during the first 21 hours of Zane State College enrollment.
2. Prepare application for admission (including a 1-3 paragraph goal statement and records of previous study to be considered).
3. Advisor and student prepare curriculum recommendations and list of possible ad hoc advisory members and submit to the appropriate Dean.
4. The Dean grants preliminary approval, awards transfer, work experience, and prior training credit and collects ad hoc advisory comments.
5. Dean submits degree requirements to the Vice President for Educational Services and Quality Improvement for final approval.
6. Student receives final curriculum requirements.

Graduation Requirements for the ATS Degree:

1. Complete a total of 55 credits at Zane State College and complete at least 33 credits after preliminary approval of degree by the appropriate Dean.
2. Earn a minimum of 96 credit hours of course work.
3. Earn an overall quality point average of 2.25 (on a 4.0 scale) and no less than 2.50 average in courses identified as major technical requirements.
4. Earn at least a "C" in all courses identified as major technical requirements.
5. Earn the minimum credit requirements in the following distribution:

a. 45 credits in the Major Technical Requirements area with at least 24 credits in one discipline
b. 42 credits in general education and basic studies
c. 6 credits of open electives

6. Complete IDS 101, College Success Strategies

Students with a special career goal can combine past training and collegiate education with course work at Zane State College and other institutions. Through the Associate of Technical Study Program, a College degree is designed with the student and reviewed by an ad hoc advisory committee of practicing business professionals brought together by the College. Graduation requirements are high but students get a tailored program that has been reviewed as academically sound by the College and occupationally valid by the ad hoc committee.

ACCOUNTING

The Accounting program prepares students for careers in public, business, or governmental accounting. It also provides the foundation for those students who are interested in transferring to a four-year university and completing their bachelor's degree.

Students learn to perform accounting functions, record and verify transactions, prepare payrolls, monitor inventory, prepare financial statements, and analyze financial information. Emphasis is placed on both manual and computer accounting programs with the student learning accounting packages along with word processing and spreadsheet software.

The demand for accounting personnel has been great. Graduates are employed as bookkeepers, auditors, tax preparers, compilers of financial information, cost accountants, and financial analysts.

Curriculum for Accounting

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ACC 111	Accounting I	4
BIO 107	Biology and the Environment	4
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
		17
WINTER QUARTER (2)		
ACC 112	Accounting II	4
BMC 120	Excel	3
ENG 180	Technical Writing	4
	Social & Behavioral Science Elective (see page 54)	4
		15
SPRING QUARTER (3)		
ACC 113	Accounting III	4
ACC 145	Governmental Accounting	3
COM 122	Interpersonal Communication	3
MTH 113**	Algebra	4
	Social & Behavioral Science Elective (see page 54)	4
		18
SUMMER QUARTER (4)		
BUS 200	Internship I	4
	and	
BUS 205	Seminar for Internship	1
		5
	OR	
BUS 199	Employability Principles	3
	and	
	Technical Elective (see below)	3
		6

CERTIFICATE IN APPLIED BUSINESS:
Accounting and Bookkeeping (55-56 CREDITS)

FALL QUARTER (5)		
ACC 205	Computer-Aided Accounting	3
ACC 222	Managerial Accounting	3
ACC 241	Intermediate Accounting I	4
BUS 111	Principles of Management	4
	Technical Elective (see below)	3
		17
WINTER QUARTER (6)		
ACC 225	Cost Accounting	4
ACC 242	Intermediate Accounting II	4
BUS 131	Business Law I	3
BUS 151	Microeconomics	4
	Social & Behavioral Science Elective (see page 54)	4
		19
SPRING QUARTER (7)		
ACC 243	Intermediate Accounting III	4
BUS 132	Business Law II	3
BUS 207	Small Business Management	3
BUS 272	Financial Management	3
COM 261	Public Speaking	4
	Technical Elective (see below)	1
		18
TECHNICAL ELECTIVES		
ACC 231	Auditing	3
ACC 260	Income Tax Accounting	3
BMC 103	Introduction to Access	1
BMC 109	Introduction to Quicken	1
BMC 202	Intermediate Access	1
BMC 203	Intermediate Excel	1

ASSOCIATE OF APPLIED BUSINESS DEGREE (109-110 CREDITS)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).

ADMINISTRATIVE OFFICE ASSISTANT

Today's administrative assistant is an indispensable member of the office team. Advances in technology have contributed to this change from that of the traditional secretary to that of the administrative assistant, trained to perform in an increasingly complex position. These factors have given rise to changes in job titles, job descriptions, salary, and prestige.

The administrative assistant must be skilled in all aspects of office operations – computer software applications, office procedures, communications, records management, transcription, data entry, human relations, and document processing. Today's professional must adapt to and understand the total office environment.

The Administrative Office Assistant technology prepares students for these demanding roles in today's high-tech offices. Students are eligible to sit for the Certified Professional Secretary Examination or Certified Administrative Professional prior to graduation, and many Administrative Office Assistant students are members of Business Professionals of America and the International Association of Administrative Professionals.

Employment opportunities exist in every type and size of organization and in every city across the United States.

Curriculum for Administrative Office Assistant

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
AOA 101	Records Management	3
AOA 105	Computer Theory	1
AOA 111	Office Keyboarding Skills I	3
ENG 150**	Freshman Composition	5
IDS 101	College Success Strategies	1
MTH 111*	Mathematics for Business	4
		17
WINTER QUARTER (2)		
AOA 121	Office Keyboarding Skills II	3
AOA 130	Notetaking	3
AOA 140	Word I	3
COM 122	Interpersonal Communication	3
ENG 180	Technical Writing	4
		16
SPRING QUARTER (3)		
AOA 125	Document Analysis & Editing	3
AOA 141	Word II	3
AOA 150	Electronic Office Communications	3
AOA 155	Electronic Calculator Applications	2
BIO 107	Biology & the Environment	4
		15
SUMMER QUARTER (4)		
ACC 101	Financial Accounting	4
	Social & Behavioral Science Elective (see page 54)	4
	Social & Behavioral Science Elective (see page 54)	4
		12

CERTIFICATE IN APPLIED BUSINESS:
General Office Specialist (60 Credits)

FALL QUARTER (5)		
AOA 217	Machine Transcription/Word Processing	3
AOA 229	Speed Building I	2
AOA 245	Document Formatting	3
BMC 120	Excel	3
BMC 210	PowerPoint	3
BUS 215	Desktop Publishing	3
		17
WINTER QUARTER (6)		
AOA 230	Speed Building II	2
AOA 240	Voice Recognition	3
AOA 250	Business Communications	3
AOA 259	Administrative Office Systems I	3
BMC 130	Access	3
		14
SPRING QUARTER (7)		
AOA 253	Word Processing Applications	3
AOA 255	Integrated Software Applications	3
AOA 261	Administrative Office Systems II	3
BUS 131	Business Law I	3
COM 261	Public Speaking	4
		16

ASSOCIATE OF APPLIED BUSINESS DEGREE (107 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

BUSINESS MANAGEMENT

The Business Management program curriculum is designed to meet the needs of the person preparing for an entry-level management position or planning to own and operate one's own business. The important concept of interrelation of all business activities is presented and brought together in the small business management capstone course. The business courses encompass the best technical knowledge, computer software applications, economic principles, management practices, understanding of human behavior, and realization of social responsibilities and influences.

Through the Business Management program, students can select from several areas of emphasis and two independent majors: Human Resources Management or Marketing Management. Within the Marketing Management major, students may opt to take courses in the Graphic Design concentration.

Graduates of the Business Management program find employment in banking, real estate, retail, manufacturing, and warehousing. Graduates qualify for many different management and office positions including: supervisor, sales representative, office manager, human resource assistant, customer service representative, insurance agent, and many other similar positions.

Curriculum for Business Management

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BUS 111	Principles of Management	4
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 150**	Freshman Composition	5
IDS 101	College Success Strategies	1
	Mathematics Elective* (see below)	4
		17
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
BMC 120	Excel	3
BUS 151	Microeconomics	4
ENG 180	Technical Writing	4
		15
SPRING QUARTER (3)		
ACC 222	Managerial Accounting	3
BUS 152	Macroeconomics	4
MKT 100	Marketing	4
	Technical Elective (see below)	3
		14
SUMMER QUARTER (4)		
	Technical Elective (see below)	3
	Technical Elective (see below)	3
		6

CERTIFICATE IN APPLIED BUSINESS:
General Business (52 Credits)

FALL QUARTER (5)		
BUS 212	Customer Relationship Management	3
BUS 262	Organizational Behavior	4
BUS 291	Government & Business	3
	Natural/Physical Science Elective (see below)	4
	Technical Elective (see below)	3
		17
WINTER QUARTER (6)		
BUS 131	Business Law I	3
COM 261	Public Speaking	4
HRT 225	Cultural Diversity	3
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17
SPRING QUARTER (7)		
BUS 207	Small Business Management	3
BUS 213	International Business	4
BUS 265	Human Resource Management	3
BUS 272	Financial Management	3
	Technical Elective (see below)	3
		16

MATHEMATICS ELECTIVES		
MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 124	Algebra & Trigonometry I	4
MTH 125	Algebra & Trigonometry II	4
MTH 225	Introductory Calculus	4
MTH 227	Statistics	4
MTH 251	Calculus I	5
MTH 252	Calculus II	5
MTH 253	Calculus III	5

NATURAL/PHYSICAL SCIENCE ELECTIVES		
BIO 101	Principles of Biology	4
BIO 107	Biology and the Environment	4
CHM 101	Chemistry	4

TECHNICAL ELECTIVES		
ACC 225	Cost Accounting	4
BMC 130	Access	3
BMC 220	Advanced Excel	3
BMC 230	Advanced Access	3
BUS 199	Employability Principles	3
BUS 200	Internship I	4
BUS 205	Seminar for Internship	1
BUS 215	Desktop Publishing	3
BUS 219	Advanced Desktop Publishing	3
BUS 260	Business Correspondence	3
BUS 269	Introduction to E-Commerce	3
HRT 120	Staffing and Employment Functions	3
HRT 133	Strategic Compensation	3
HRT 230	Labor Relations	3
ITC 225	Database Management Systems	3
MET 216	Operations Management	3
MKT 101	Retail Management	4
MKT 202	Advertising	4
MKT 207	Visual Design & Merchandising	3
MKT 215	Principles of Professional Sales	3

BANKING/FINANCE ELECTIVES***

BUS 282	Principles of Banking	4
BUS 284	Consumer Lending	4
BUS 292	Branch Bank Management	4

REAL ESTATE ELECTIVES***

BUS 273	Real Estate Principles & Practices	4
BUS 274	Real Estate Law	4
BUS 275	Real Estate Finance	4

NOTE: Twelve (12) credit hours in any technical area may be substituted as an option with approval of Advisor and Dean.

ASSOCIATE OF APPLIED BUSINESS DEGREE (102 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
*** May not be offered every year

Photo credit: Lorraine Rose, Student, Zane State College

Photo credit: Tamra Pace, Marketing and Communications Director, Zane State College

BUSINESS MANAGEMENT – HUMAN RESOURCES MANAGEMENT MAJOR

The Human Resources Management major of Business Management is dedicated to preparing students for careers in human resources, one of the fastest growing and most interesting career fields in business and nonprofit institutions. Graduates qualify for various human resources entry-level positions including jobs in employee and labor relations, compensation and benefits, health and safety, and affirmative action fields. Emphasis is placed on real world applications in a broad array of practical course offerings. Graduates of the Human Resources Management program have the opportunity to transfer to bachelor degree programs.

According to the U.S. Department of Labor's Bureau of Labor Statistics, employment in human resources specialists and managers is expected to continue to grow. Upon completion of the program, graduates will be qualified for positions in a variety of business environments including manufacturing, banking, retailing, and non-profit organizations.

Curriculum for Business Management - Human Resources Management major

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ACC 101	Financial Accounting	4
BUS 265	Human Resource Management	3
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
		16
WINTER QUARTER (2)		
BUS 131	Business Law I	3
ENG 180	Technical Writing	4
HRT 120	Staffing and Employment Functions	3
	Mathematics Elective** (see below)	4
		14
SPRING QUARTER (3)		
ACC 222	Managerial Accounting	3
BUS 111	Principles of Management	4
BUS 132	Business Law II	3
BUS 151	Microeconomics	4
HRT 133	Strategic Compensation	3
		17
SUMMER QUARTER (4)		
	Technical Elective (see below)	3
	Technical Elective (see below)	3
		6
FALL QUARTER (5)		
BMC 130	Access	3
HRT 225	Cultural Diversity	3
MKT 100	Marketing	4
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17
WINTER QUARTER (6)		
BMC 120	Excel	3
BUS 262	Organizational Behavior	4
HRT 230	Labor Relations	3
PAR 153	Techniques of Legal Research	3
	Social & Behavioral Science Elective (see page 54)	4
		17

SPRING QUARTER (7)		
BUS 213	International Business	4
BUS 272	Financial Management	3
COM 261	Public Speaking	4
HRT 260	Issues in Human Resources Management	3
	Natural/Physical Science Elective (see below)	4
		18

MATHEMATICS ELECTIVES		
MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 124	Algebra & Trigonometry I	4
MTH 125	Algebra & Trigonometry II	4
MTH 225	Introductory Calculus	4
MTH 227	Statistics	4
MTH 251	Calculus I	5
MTH 252	Calculus II	5
MTH 253	Calculus III	5

NATURAL/PHYSICAL SCIENCE ELECTIVES		
BIO 101	Principles of Biology	4
BIO 107	Biology and the Environment	4
CHM 101	Chemistry	4

TECHNICAL ELECTIVES		
ACC 225	Cost Accounting	4
BMC 220	Advanced Access	3
BMC 230	Advanced Access	3
BUS 199	Employability Principles	3
BUS 200	Internship I	4
BUS 205	Seminar for Internship	1
BUS 212	Customer Relationship Management	3
BUS 215	Desktop Publishing	3
BUS 219	Advanced Desktop Publishing	3
BUS 260	Business Correspondence	3
BUS 269	Introduction to E-Commerce	3
ITC 225	Database Management Systems	3
MET 216	Operations Management	3
MKT 101	Retail Management	4
MKT 202	Advertising	4
MKT 207	Visual Design & Merchandising	3
MKT 215	Principles of Professional Sales	3

ASSOCIATE OF APPLIED BUSINESS DEGREE (105 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

BUSINESS MANAGEMENT – MARKETING MANAGEMENT MAJOR

The Marketing Management major of Business Management is dedicated to preparing students for careers in a variety of marketing and management positions. Learning opportunities, including internships, are provided which introduce and develop academic and occupational knowledge, skills, and attitudes required for success on the job. Students will study aspects of marketing including retail management, sales promotion, and advertising. During marketing classes, students will be able to design store window displays, conduct marketing research, and develop sales presentations.

Graduates qualify for careers in store management, buying, advertising, publicity, sales, and other related marketing positions. This exciting and expanding field should appeal to the individual who thrives on challenge, likes people, and relates well to others.

Curriculum for Business Management - Marketing Management major

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BUS 151	Microeconomics	4
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
	Social & Behavioral Science Elective (see page 54)	4
		17
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
ENG 180	Technical Writing	4
MKT 100	Marketing	4
	Mathematics Elective** (see below)	4
		16
SPRING QUARTER (3)		
ACC 222	Managerial Accounting	3
BUS 111	Principles of Management	4
BUS 212	Customer Relationship Management	3
ITC 102	Introduction to Multimedia Applications	3
MKT 101	Retail Management	4
		17
SUMMER QUARTER (4)		
	Technical Elective (see below)	3
	Technical Elective (see below)	3
		6

CERTIFICATE IN APPLIED BUSINESS: Retail Sales (56 Credits)

FALL QUARTER (5)		
BMC 120	Excel	3
COM 261	Public Speaking	4
MKT 202	Advertising	4
	Natural/Physical Science Elective (see below)	4
	Technical Elective (see below)	3
		18
WINTER QUARTER (6)		
HRT 225	Cultural Diversity	3
MKT 207	Visual Design and Merchandising	3
MKT 215	Principles of Professional Sales	3
	Technical Elective (see below)	3
	Technical Elective (see below)	3
		15
SPRING QUARTER (7)		
BUS 131	Business Law I	3
BUS 207	Small Business Management	3
BUS 213	International Business	4
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17

MATHEMATICS ELECTIVES

MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 124	Algebra & Trigonometry I	4
MTH 125	Algebra & Trigonometry II	4
MTH 225	Introductory Calculus	4
MTH 227	Statistics	4
MTH 251	Calculus I	5
MTH 252	Calculus II	5
MTH 253	Calculus III	5

NATURAL/PHYSICAL SCIENCE ELECTIVES

BIO 101	Principles of Biology	4
BIO 107	Biology and the Environment	4
CHM 101	Chemistry	4

TECHNICAL ELECTIVES

ACC 225	Cost Accounting	4
BMC 130	Access	3
BMC 220	Advanced Excel	3
BMC 230	Advanced Access	3
BUS 199	Employability Principles	3
BUS 200	Internship I	4
BUS 205	Seminar for Internship	1
BUS 215	Desktop Publishing	3
BUS 219	Advanced Desktop Publishing	3
BUS 260	Business Correspondence	3
BUS 262	Organizational Behavior	4
BUS 265	Human Resource Management	3
BUS 269	Introduction to E-Commerce	3
BUS 272	Financial Management	3
HRT 120	Staffing and Employment Functions	3
HRT 133	Strategic Compensation	3
HRT 230	Labor Relations	3

ITC 225	Database Management Systems	3
MET 216	Operations Management	3
GRAPHIC DESIGN CONCENTRATION		
ITC 122	Web Site Design	3
ITC 142	Imaging and Graphics for the Web	3
ITC 144	Digital Photography	3
ITC 153	Advanced Graphic Design	3
ITC 160	Print Layout	3
ITC 204	Editing Digital Video	3

ASSOCIATE OF APPLIED BUSINESS DEGREE (106 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

Photo credit: Lorraine Rose, Student, Zane State College

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

(BUSINESS) MICROCOMPUTER APPLICATIONS

Personal Computers have become the gateway to the world and have permeated all facets of business and industry. In today's ever-changing workplace, the importance of specialized microcomputer and communications skills in managing and sharing information has moved to the forefront in most organizations. Software is constantly being upgraded and organizations need skilled personnel who can easily adapt to these changes. The Microcomputer Applications program provides students with the higher degree of computer expertise that is necessary to meet the increasing demands and technical challenges of all businesses, large and small. Students will receive instruction in word processing, spreadsheet, database, desktop publishing, Internet, and Web page design programs as well as the most up-to-date business practices and principles.

Students will sit for the Microsoft Office User Specialist computer certification exam in Microsoft Word, Excel, Access, and PowerPoint during their sophomore year. Students graduating with a Microcomputer Applications degree are prepared to be successful as help desk specialists, desktop publishing specialists, database administrators, assistant managers, financial managers, and computer applications specialists.

Curriculum for Microcomputer Applications

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ACC 101	Financial Accounting	4
AOA 111	Office Keyboarding Skills I	3
BMC 102	Introduction to Windows	1
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
		14
WINTER QUARTER (2)		
BMC 120	Excel	3
BMC 125	Introduction to Internet	3
ENG 180	Technical Writing	4
MTH 111**	Mathematics for Business	4
	Technical Electives (see below)	3
		17
SPRING QUARTER (3)		
AOA 140	Word I	3
BMC 130	Access	3
BMC 140	Publisher	3
BUS 111	Principles of Management	4
BUS 131	Business Law I	3
		16
SUMMER QUARTER (4)		
BUS 200	Internship I	4
	and	
BUS 205	Seminar for Internship	1
		5
	OR	
BUS 199	Employability Principles	3
	and	
	Technical Elective (see below)	3
		6

FALL QUARTER (5)		
BMC 210	PowerPoint	3
BMC 220	Advanced Excel	3
BUS 225	Help Desk	3
COM 122	Interpersonal Communication	3
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	1
		17
WINTER QUARTER (6)		
BIO 107	Biology and the Environment	4
BMC 230	Advanced Access	3
BUS 151	Microeconomics	4
	Technical Elective (see below)	3
		14
SPRING QUARTER (7)		
BMC 240	Advanced Integrated Applications	3
COM 261	Public Speaking	4
ITC 150	Microcomputer Hardware	3
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17

TECHNICAL ELECTIVES

AOA 141	Word II	3
BUS 215	Desktop Publishing	3
BUS 265	Human Resource Management	3
ITC 144	Digital Photography	3
MKT 100	Marketing	4

The following (1) credit hour courses can be substituted for Technical Electives in the Microcomputer Applications Specialist program: (0 LEC, 2 LAB, 2 CON, 1 CRD)
BMC 109 Introduction to Quicken
BMC 110 Introduction to Peachtree
BMC 115 Introduction to QuickBooks
BMC 132 Introduction to Dreamweaver
BMC 134 Introduction to Photoshop
BMC 238 Advanced PowerPoint
BMC 254 Advanced Photoshop

ASSOCIATE OF APPLIED BUSINESS DEGREE (100-101 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

COMPUTER AIDED DRAFTING & DESIGN – ARCHITECTURAL DRAFTING MAJOR

The Architectural Drafting major of the Computer Aided Drafting & Design technology program gives students a strong foundation in architectural drafting and design concepts. By learning manual detailing, 2-D, and 3-D computer aided drafting skills, graduates will be able to visually communicate ideas in a variety of drawing styles. The program is further enhanced with the creation of physical models that reinforce concepts in the construction methods and materials used in the building industry.

Students will take architectural courses in manual drafting, 2-D and 3-D CAD drafting, construction methods and materials, and architectural working drawings. Engineering technology course work in statics and strength of materials will be taken to solidify the physical science aspects of the construction industry. General course work in communications, writing, math, and speech will enable students to become productive employees, problem solvers, and successful CAD operators in today's challenging architectural environment.

Careers for graduates of this program range from entry-level drafters and technicians to project detailers and CAD operators. Their career paths may lead them to jobs in the residential or commercial construction industry, civil engineering companies, city and/or state engineering design departments, consulting firms, or the numerous corporations that manufacture architectural materials.

Graduates may choose to continue with their education at a four-year institution and seek license as a Registered Architect or Professional Engineer.

Curriculum for Computer Aided Drafting & Design – Architectural Drafting

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
CAD 105	AutoCAD I	3
CAD 125	Construction Methods & Materials I	3
EGT 109	Engineering Technology Computer Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
		15
WINTER QUARTER (2)		
CAD 114	Architectural Graphics I	3
CAD 119	AutoCAD II	3
ENG 180	Technical Writing	4
GLY 135	Earth Science	4
MTH 113**	Algebra	4
		18
SPRING QUARTER (3)		
CAD 115	Architectural Graphics II	3
CAD 126	Construction Methods & Materials II	3
CAD 142	Introduction to Architectural Modeling	3
MTH 124	Algebra & Trigonometry I	4
PHY 110	Physical Science	4
		17
SUMMER QUARTER (4)		
PHY 201	Physics I	4
		4

FALL QUARTER (5)		
CAD 212	Architectural Working Drawings I	4
CAD 242	Intermediate Architectural Modeling	3
EGT 215	Advanced Engineering Technology Computer Applications	3
MET 221	Statics	3
	Social & Behavioral Science Elective (see page 54)	4
		17
WINTER QUARTER (6)		
CAD 213	Architectural Working Drawings II	4
CAD 216	VIZ Rendering	3
COM 261	Public Speaking	4
EGT 206	Employment Search	1
MET 231	Strength of Materials	3
	Technical Elective (see below)	3
		18
SPRING QUARTER (7)		
CAD 214	Architectural Working Drawings III	4
EGT 220	Project Management	3
SUR 219	Fundamentals of Surveying	4
	Social & Behavioral Science Elective (see page 54)	4
	Social & Behavioral Science Elective (see page 54)	4
		19

TECHNICAL ELECTIVES (3 credit hours minimum required)

BMC 120	Excel	3
BMC 130	Access	3
BUS 215	Desktop Publishing	3
CAD 215	Estimation & Building Codes	3
EGT 200	Internship I	2-4
EGT 205	Seminar	1
ITC 150	Microcomputer Hardware	3
ITC 225	Database Management Systems	3
NFS 215	Introduction to Geographic Information Systems	3
PRW 130	Soil & Water Conservation	3
PRW 131	Recreation Area Construction	3
PRW 271	Landscaping Design & Management	3
SUR 142	Remote Sensing & Cartography	3

ASSOCIATE OF APPLIED SCIENCE DEGREE (108 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).

COMPUTER AIDED DRAFTING & DESIGN – MECHANICAL DESIGN MAJOR

The Mechanical Design major of the Computer Aided Drafting & Design technology program allows students to discover challenges and requirements of today's modern industries. A solid foundation in the basics of computer-aided drafting and design as well as mathematics, physics, English, and advanced computer skills prepare students for utilization of applications in tool and die design, CAD/CAM, machine design, and robotics.

Other courses, including machine tools, industrial materials and processes, statistical process control, and hydraulics prepare graduates with valuable skills for a wide variety of positions within manufacturing companies. Graduates are skilled in CAD drafting, 3-D modeling, machining principles, industrial materials and processes, and analytical design techniques.

Most of the technical courses incorporate the computer as an integral engineering tool, and involve "hands-on" practical lab activities appropriate to the types of functions performed by graduates in the industrial environment. Students also have several opportunities to tour regional companies to see firsthand the type of skills required and equipment used in industry.

Placement has been excellent in our local service area; however, opportunities increase exponentially in the larger urban areas such as Columbus. Graduates have been placed with engineering firms, utility companies, and in the public sector, but the majority of graduates obtain positions within the manufacturing industry. Careers in product, tool, machine, and facilities design are prevalent. Positions such as manufacturing technician and process technician are also common.

Curriculum for Computer Aided Drafting & Design – Mechanical Design

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
CAD 105	AutoCAD I	3
CMT 102	Introduction to Metals Machining Processes	4
EGT 109	Engineering Technology Computer Applications	3
IDS 101	College Success Strategies	1
MTH 113*	Algebra	4
		15
WINTER QUARTER (2)		
CAD 141	Introduction to Mechanical Modeling	3
EET 110	Industrial Electricity	3
ENG 150**	Freshman Composition	5
MTH 124	Algebra & Trigonometry I	4
		15
SPRING QUARTER (3)		
CMT 207	Tool Design Fundamentals I	3
ENG 180	Technical Writing	4
MET 120	Industrial Materials & Processes	3
PHY 110	Physical Science	4
		14
SUMMER QUARTER (4)		
PHY 201	Physics I	4
		4
FALL QUARTER (5)		
EGT 215	Advanced Engineering Technology Computer Applications 3	
MET 210	Computer Aided Working Drawings	3
MET 221	Statics	3
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		16

WINTER QUARTER (6)		
CAD 119	AutoCAD II	3
COM 261	Public Speaking	4
EGT 206	Employment Search	1
MET 219	Statistical Process Control	3
MET 231	Strength of Materials	3
	Technical Elective (see below)	3
		17
SPRING QUARTER (7)		
MET 251	Hydraulics & Pneumatics I	3
MET 261	Machine Design	3
	Social & Behavioral Science Elective (see page 54)	4
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17

TECHNICAL ELECTIVES		
CMT 121	Metals Machining Theory I	4
CMT 135	Numerical Control Programming I	4
CMT 137	Metrology	4
CMT 201	Computer Assisted Machining I	4
CMT 211	Computer Assisted Machining II	4
CMT 235	Geometric Tolerancing	3
EET 111	D.C. Circuit Analysis I	4
EET 112	D.C. Circuit Analysis II	4
EET 113	Electronic Devices	4
EET 114	Digital Circuits	4
EET 123	A.C. Circuit Analysis	4
EGT 220	Project Management	3
ITC 150	Microcomputer Hardware	3
ITC 240	Introduction to Networking	3
MET 243	Dynamics	3
MET 282	Robotics	3
SUR 219	Fundamentals of Surveying	4

ASSOCIATE OF APPLIED SCIENCE DEGREE (98 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

COMPUTERIZED MACHINE TOOL SYSTEMS

Students have the opportunity to enter the complex career field of precision metalworking. The successful graduate will have basic knowledge and skills in the many processes required to produce a metal part. The graduate will possess the basic psychomotor skills and theoretical knowledge required to design (CAD), program (manual and CAM), and set up and operate computer numerical control (CNC) machines. Courses in the design of jigs and fixtures, molds, and dies are taught with industry compatible computer systems.

Graduates may pursue careers in precision metalworking in design, programming, machining, tool making, mold making, die making, or metals manufacturing. Opportunities are unlimited, both locally and around the world. The workplace has become computer controlled, long time journeymen using manual skills are retiring, and the demand for replacements is outdistancing the supply of graduates.

Curriculum for Computerized Machine Tool Systems

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
CMT 102	Introduction to Metals Machining Processes	4
CMT 103	Blueprint Reading	3
EGT 109	Engineering Technology Computer Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
		16
WINTER QUARTER (2)		
CAD 105	AutoCAD I	3
CMT 121	Metals Machining Theory I	4
ENG 180	Technical Writing	4
MTH 113**	Algebra	4
PHY 110	Physical Science	4
		19
SPRING QUARTER (3)		
CMT 135	Numerical Control Programming I	4
CMT 137	Metrology	4
CMT 207	Tool Design Fundamentals I	3
MET 120	Industrial Materials & Processes	3
MTH 124	Algebra & Trigonometry	4
		18
FALL QUARTER (5)		
COM 261	Public Speaking	4
CMT 201	Computer Assisted Machining I	4
CMT 205	Numerical Control Programming II	4
CMT 227	Tool Design Fundamentals II	3
PSY 101	Introduction to Psychology	4
		19
WINTER QUARTER (6)		
CMT 209	Product Manufacturing	3
CMT 211	Computer Assisted Machining II	4
CMT 221	Introduction to CNC Machines	4
EGT 206	Employment Search	1
MET 219	Statistical Process Control	3
		15

SPRING QUARTER (7)		
CMT 231	Advanced CNC Machines	4
CMT 235	Geometric Tolerancing	3
CMT 260	Manufacturing Technologist Certification	3
	Social & Behavioral Science Elective (see page 54)	4
	Social & Behavioral Science Elective (see page 54)	4
		18

ASSOCIATE OF APPLIED SCIENCE DEGREE (105 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

CRIMINAL JUSTICE – Police Science Major

The associate degree program in Criminal Justice offers technical training to men and women planning careers in police and/or correctional science as well as advancing the education and training of those already in the field. Criminal Justice students participate in hands-on courses, travel off campus to observe real-life facilities, and interact with professional and correctional staff.

Police Science is considered appropriate for persons already in the field and/or preparing for employment in municipal, county, state, federal, and private law enforcement agencies. Options include certified training in the Basic Police Academy - an approved academy by the Ohio Peace Officer Training Commission, PO Box 309, London, OH 43140, (614) 852-4848.

Criminal Justice professionals play important roles in protecting the public and the administration of justice. Specific admission requirements are available from the Criminal Justice program director.

Curriculum for Criminal Justice - Police Science Major

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
LAW 101	Criminal Law	3
LAW 106	Introduction to Criminal Justice	4
LAW 122	Investigations I	3
	Mathematics Elective* (see below)	4
		15
WINTER QUARTER (2)		
ENG 150**	Freshman Composition	5
LAW 128	Evidence	3
	Technical Elective (see below)	2-4
	Technical Elective (see below)	2-4
		12-16
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
LAW 155	Correctional Law	3
LAW 162	Criminal Legal Procedures	4
PSY 101	Introduction to Psychology	4
		15
SUMMER QUARTER (4)		
BIO 101	Principles of Biology	4
LAW 220	Constitutional Law	3
PSV 299	Seminar	3
		10
FALL QUARTER (5)		
LAW 208	Victimology	4
LAW 226	Probation & Parole	4
LAW 265	Firearms I	2
PSY 201	Abnormal Psychology	4
	Technical Elective (see below)	2-4
		16-18
WINTER QUARTER (6)		
COM 261	Public Speaking	4
LAW 227	Criminology	4
LAW 229	Juvenile Crime	3
LAW 270	Cultural Sensitivity	2
	Technical Elective (see below)	2-4
		15-17
SPRING QUARTER (7)		
HSV 105	Group Dynamics	3
LAW 115	Police-Corrections Defensive Driving	2

LAW 266	Firearms II	2
LAW 277	Seminar in Administration of Criminal Justice	3
	General Elective (see page 55)	3
		13

MATHEMATICS ELECTIVES

MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 115	College Algebra	5

TECHNICAL ELECTIVES

(Must have a minimum of 12 credit hours from the following electives)

LAW 110	Civil Liabilities	3
LAW 112	Defensive Tactics	2
LAW 123	Investigations II	4
LAW 124	Community Relations & Crime Prevention	4
LAW 191	Police Operations	3

ASSOCIATE OF APPLIED SCIENCE DEGREE (100-102 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

Photo credit: Becky Wallace, Student, Zane State College

CRIMINAL JUSTICE – Corrections Science Major

The associate degree program in Criminal Justice offers technical training to men and women planning careers in police and/or correctional science as well as advancing the education and training of those already in the field. Criminal Justice students participate in hands-on courses, travel off campus to observe real-life facilities, and interact with professional police and correctional staff.

Correctional Science prepares a student to work with offenders in group homes, drug centers, detention centers, probation and parole agencies, juvenile institutions, jails and prisons. This program provides a solid approach to community-based and institutional rehabilitation, with emphasis on counseling the offender.

Criminal Justice professionals play important roles in protecting the public and the administration of justice. Specific admission requirements are available from the Criminal Justice program director.

Curriculum for Criminal Justice - Corrections Science Major

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
LAW 101	Criminal Law	3
LAW 106	Introduction to Criminal Justice	4
LAW 122	Investigations I	3
	Mathematics Elective* (see below)	4
		15
WINTER QUARTER (2)		
ENG 150**	Freshman Composition	5
LAW 109	Corrections	3
LAW 128	Evidence	3
LAW 130	Contemporary Issues in Correctional Institutions	3
		14
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
LAW 135	Community Based Corrections	4
LAW 155	Correctional Law	3
LAW 162	Criminal Legal Procedures	4
PSY 101	Introduction to Psychology	4
		19
SUMMER QUARTER (4)		
BIO 101	Principles of Biology	4
LAW 220	Constitutional Law	3
PSV 299	Seminar	3
		10
FALL QUARTER (5)		
LAW 208	Victimology	4
LAW 226	Probation & Parole	4
LAW 265	Firearms I	2
PSY 201	Abnormal Psychology	4
		14
WINTER QUARTER (6)		
COM 261	Public Speaking	4
LAW 227	Criminology	4
LAW 229	Juvenile Crime	3
LAW 270	Cultural Sensitivity	2
		13

SPRING QUARTER (7)		
HSV 105	Group Dynamics	3
LAW 115	Police-Corrections Defensive Driving	2
LAW 266	Firearms II	2
LAW 277	Seminar in Administration of Criminal Justice	3
	General Elective (see page 55)	3
		13

MATHEMATICS ELECTIVES		
MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 115	College Algebra	5

ASSOCIATE OF APPLIED SCIENCE DEGREE (98 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

Photo credit: Becky Wallace, Student, Zane State College

CULINARY ARTS

The Culinary Arts program prepares students for employment in the food service industry at mid-management level. Graduates are able to meet the food service industry's needs for trained professionals who are knowledgeable in areas such as basic and classical food preparation, baking, menu and facility planning, nutrition, sanitation, accounting, and management techniques. Students gain valuable hands-on and practical experience in the kitchen-lab and classroom setting.

The Culinary Arts program is fully accredited by the American Culinary Federation. Zane State College's Culinary Arts program is one of only five such programs accredited in the state of Ohio.

Graduates of the Culinary Arts Technology program find employment in a variety of places in the food service industry. This includes restaurants, private clubs, hotels, schools, hospitals, cafeterias, and extended care facilities.

Curriculum for Culinary Arts

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
COM 122	Interpersonal Communication	3
CUL 102	Orientation to Culinary Arts	2
CUL 104	Safety and Sanitation	3
CUL 106	Fundamentals of Food Preparation I	4
IDS 101	College Success Strategies	1
MTH 111*	Mathematics for Business	4
		17
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
CUL 108	Introduction to Baking	3
CUL 112	Fundamentals of Food Preparation II	3
ENG 150**	Freshman Composition	5
		15
SPRING QUARTER (3)		
BUS 151	Microeconomics	4
CUL 113	Meat Technology	2
CUL 114	Nutrition & Menu Planning	3
CUL 116	Professional Baking	3
ENG 180	Technical Writing	4
		16
SUMMER QUARTER (4)		
CUL 118	Professional Table Service	2
CUL 120	Practicum in Culinary Arts I/Seminar	5
		7
FALL QUARTER (5)		
BIO 107	Biology and the Environment	4
BUS 265	Human Resource Management	3
CUL 202	Food & Beverage Cost Control	2
CUL 206	Classical Cuisine	3
CUL 208	Food Service Equipment/Facility Organization	3
		15

WINTER QUARTER (6)		
BUS 111	Principles of Management	4
COM 261	Public Speaking	4
CUL 216	Classical Desserts	3
CUL 218	Garde-Manger	3
	Social & Behavioral Science Elective (see page 54)	4
		18
SPRING QUARTER (7)		
BUS 212	Customer Relationship Management	3
CUL 220	Practicum in Culinary Arts II/Seminar	6
CUL 222	Food Service Management	4
		13

ASSOCIATE OF APPLIED BUSINESS DEGREE (101 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

EARLY CHILDHOOD EDUCATION

The Early Childhood Education program is approved by the Ohio Department of Education as a teacher training program for the Pre-kindergarten Associate Teaching License. The program prepares individuals to care for and educate young children in group settings such as nursery schools, day care centers, and other programs for young children. Training is also included for the operation and management of centers for young children.

Students gain a variety of experiences while working with children during placement in area child care programs such as Head Start or public and private preschools. Students are required to student teach before graduation.

Careers with young children may include working directly with children or working with families. In the Early Childhood Education program, emphasis is placed in the areas of working directly with children such as in day care, nursery schools, Head Start, and family day care homes. Students graduating from the program may be employed as aids or lead teachers in the classroom, administrators/directors of preschool programs, parent coordinators, or family day care providers.

A student who successfully completes the two-year curriculum is eligible to apply for the Ohio Pre-kindergarten Associate License. Ohio law does not currently mandate that an individual be licensed in order to be employed in private child care programs.

Students interested in the Early Childhood Education program must be admitted to the College before admission to the program. College admission procedures are printed in this catalog. A copy of the Early Childhood Education Student Handbook, which includes the requirements for conditional and formal acceptance to the program as well as the eligibility criteria for the student teaching practicum, may be obtained from the Early Childhood Education coordinator or Student Services. Criteria for conditional acceptance is based on Ohio Revised Code and regulations promulgated from the code.

Curriculum for Early Childhood Education

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
EDU 101	Introduction to Education	4
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
PSY 101	Introduction to Psychology	4
		14
WINTER QUARTER (2)		
BIO 101	Principles of Biology	4
EDP 109	Effective Classroom Management	3
EDU 111	Observation Skills	3
ENG 180	Technical Writing	4
		14
SPRING QUARTER (3)		
EDU 125	Early Childhood Literacy	4
EDU 145	Introduction to Special Education	4
EDU 183	Child Development	5
PSY 231	Educational Psychology	4
		17

SUMMER QUARTER (4)		
ECE 285	School Age Child Care & Programming	2
EDU 205	Educational Technology	4
EDU 211	Family, School & Community	3
HLT 143	Health and Safety for Child Care Programs	2
MTH 111**	Mathematics for Business	4
		15
FALL QUARTER (5)		
ECE 123	Creative Activities: Art and Music	4
ECE 127	Field Practicum I	2
ECE 233	Children's Literature	3
EDU 135	Classroom Mathematics	3
SOC 101	Introduction to Sociology	4
		16
WINTER QUARTER (6)		
ECE 227	Field Practicum II	2
ECE 242	Creative Activities - Health and Science	3
ECE 277	Preschool Program Development	3
ECE 281	Child Care Supervision and Administration	3
EDU 225	Phonics	3
		14
SPRING QUARTER (7)		
COM 261	Public Speaking	4
ECE 271	Infant/Child Nutrition	3
ECE 284	Infant/Toddler Care & Programming	3
ECE 292	Student Teaching Practicum	3
ECE 293	Student Teaching Seminar	3
SOC 206	Cultural Diversity	4
		20

ASSOCIATE OF APPLIED SCIENCE DEGREE (110 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

EDUCATION PARAPROFESSIONAL

The Education Paraprofessional program is designed to provide students with the experiences and knowledge necessary to function as an integral part of the instructional team. Students will work under the supervision of a licensed teacher in applying effective instructional and assessment strategies, as well as effective classroom management techniques. Learning experiences include classroom and laboratory activities as well as field practicum activities under the supervision of a licensed teacher.

The Education Paraprofessional program graduate will be eligible to apply for an Education Paraprofessional Associate License as required by the State of Ohio.

Employment opportunities for education paraprofessionals may be found in primary and secondary education settings, pre-school classrooms, special education programs, and educational support settings.

Admission to the Education Paraprofessional program is selective. Students interested in the program must be admitted to the College before admission to the program. A copy of the Education Paraprofessional Technology Student Handbook, which includes the requirements for conditional and formal acceptance to the program as well as the eligibility criteria for the student teaching practicum, may be obtained from the Education Paraprofessional program coordinator. Criteria for conditional acceptance are based on Ohio Revised Code and regulations promulgated from the code.

Curriculum for Education Paraprofessional

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
EDU 101	Introduction to Education	4
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
PSY 101	Introduction to Psychology	4
		14
WINTER QUARTER (2)		
BIO 101	Principles of Biology	4
EDP 109	Effective Classroom Management	3
EDU 111	Observation Skills	3
ENG 180	Technical Writing	4
		14
SPRING QUARTER (3)		
EDU 125	Early Childhood Literacy	4
EDU 145	Introduction to Special Education	4
EDU 183	Child Development	5
PSY 231	Educational Psychology	4
		17
SUMMER QUARTER (4)		
EDP 203	Developmentally Appropriate Social Competence	3
EDU 205	Educational Technology	4
EDU 211	Family, School & Community	3
HLT 143	Health and Safety for Child Care Programs	2
MTH 111**	Mathematics for Business	4
		16
FALL QUARTER (5)		
EDP 129	Field Practicum I	2
EDP 221	Reading to Learn	4
EDP 245	High Incidence Disabilities	4
EDU 135	Classroom Mathematics	3
HSV 111	Learning & Behavior Theory	3
		16

WINTER QUARTER (6)		
EDP 229	Field Practicum II	2
EDP 247	Low Incidence Disabilities	4
HSV 215	Service Delivery in Human Services	3
HUM 101	Leadership Development Studies	3
SOC 101	Introduction to Sociology	4
		16
SPRING QUARTER (7)		
COM 261	Public Speaking	4
EDP 231	Comprehensive Field Practicum	3
EDP 232	Comprehensive Field Practicum Seminar	3
SOC 206	Cultural Diversity	4
		14

ASSOCIATE OF APPLIED SCIENCE DEGREE (107 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

ELECTRICAL/ELECTRONICS ENGINEERING TECHNOLOGY

The program prepares electronic engineering technicians to design, build, troubleshoot, repair, maintain, and program electrical and electronic equipment for business, industry, and government. Students work in modern labs using measurement and diagnostic equipment manufactured by companies such as Tektronix, Agilent, and Hewlett-Packard. Students learn to use digital and analog oscilloscopes, logic analyzers, spectrum analyzers (telecommunications), network cable analyzers (networked computer systems), and programmable logic controllers (PLCs).

The curriculum builds from the basics of DC and AC circuit analysis, electronic devices, and digital signal processing through more advanced course work in electronic amplifiers, industrial instrumentation, microprocessor interfacing, PLC wiring and programming, motors and controls, designing and installing networked computer systems, and telecommunications.

Students completing the degree program can become certified engineering technicians by passing the NICET exam. Those completing the networking component of the curriculum may sit for the Cisco Certified Network Associate (CCNA) exam.

The Electrical/Electronics Engineering Technology program is nationally recognized for its quality. It is a TAC/ABET accredited program (Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012), phone 1-410-347-7700.

The rapid growth of electronic, telecommunication, and computer industries worldwide has led to a demand for electronics technicians that has far exceeded supply. As a result, wages and benefits for electronics technicians rank among the top for two-year graduates, often exceeding those of four-year graduates in other disciplines. Graduates work for such well-known companies as American Electric Power, SBC, Canon, IBM, Boeing, Lucent Technologies, Verizon, AT&T, and Xerox.

Power Tech/Electric Utility Concentration

Over the next decade electric utilities in our region and the nation are forecasting a need for a significant number of new hires to replace a retiring workforce. Demand for degreed technicians by the utility industry is very strong. The Electrical/Electronics Engineering Technology works closely with electric utilities to identify skills needed by that industry. Students interested in careers in the electrical utility industry should work closely with the program faculty to select technical elective courses in preparation for careers in this industry.

Curriculum for Electrical/Electronics Engineering Technology

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
EET 111	D.C. Circuit Analysis I	4
EGT 109	Engineering Technology Computer Applications	3
ENG 150*	Freshman Composition	5
IDS 101	College Success Strategies	1
MTH 113**	Algebra	4
		17
WINTER QUARTER (2)		
CAD 105	AutoCAD I	3
EET 112	D.C. Circuit Analysis II	4
EET 113	Electronic Devices	4
ENG 180	Technical Writing	4
MTH 124	Algebra & Trigonometry I	4
		19
SPRING QUARTER (3)		
CHM 101	Chemistry	4
EET 114	Digital Circuits	4
EET 123	A.C. Circuit Analysis	4
MTH 125	Algebra & Trigonometry II	4
		16

SUMMER QUARTER (4)		
PHY 201	Physics I	4
	Technical Elective*** (see below)	0-4
		4-8
FALL QUARTER (5)		
EET 215	Digital Circuits & Microprocessors	4
EET 230	Electronic Communications	4
MTH 225	Introductory Calculus	4
	Technical Elective (see below)	3
		15
WINTER QUARTER (6)		
EET 245	Rotating Machinery and Controls	4
EGT 206	Employment Search	1
	Social & Behavioral Science Elective (see page 54)	4
	Technical Electives (2 or 3) – (see below)	7-10
		16-19
SPRING QUARTER (7)		
COM 261	Public Speaking	4
	Social & Behavioral Science Elective (see page 54)	4
	Technical Electives (2 or 3) - (see below)	7-10
		15-18

TECHNICAL ELECTIVES

(Choose Remaining Elective Courses to Total a Minimum of 60 Technical Hours)

BMC 120	Excel	3
BMC 125	Introduction to Internet	3
BMC 130	Access	3
CAD 119	AutoCAD II	3
EET 151	Cisco Routers I	4
EET 153	Cisco Routers II	4
EET 155	Cisco Routers III	4
EET 157	Cisco Routers IV	4
EET 211	Power Control Electronics	4
EET 216	Microprocessors & Interfacing	5
EET 221	Industrial Instrumentation and Controls	4
EET 251	Programmable Logic Controllers	4
EGT 200	Internship I	4
EGT 205	Seminar	1
EGT 215	Advanced Engineering Computer Technology Applications	3
ITC 121	Visual Basic	3
ITC 141	Introduction to C++ Programming	3
ITC 144	Digital Photography	3
ITC 150	Microcomputer Hardware	3
ITC 240	Introduction to Networking	3
MET 201	Engineering Economy	3
MET 210	Computer Aided Working Drawings	3
MET 219	Statistical Process Control	3
MET 221	Statics	3
MET 231	Strength of Materials	3
MET 251	Hydraulics & Pneumatics I	3
NFS 215	Introduction to Geographic Information Systems	3
SUR 142	Remote Sensing & Cartography	3
SUR 219	Fundamentals of Surveying	4

ASSOCIATE OF APPLIED SCIENCE DEGREE (107-108 Credits)

Technical hours will vary depending on the courses selected to fulfill Technical Requirements and Technical Electives.

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
*** Only students pursuing the computer networking concentration need to take a technical elective in the summer.

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

ENVIRONMENTAL SCIENCE, SAFETY & HEALTH

Environmental Science, Safety & Health technicians are trained to meet the environmental staffing needs of our region, state, and nation. Environmental laws and regulations have resulted in compliance monitoring programs that require employees who have the skills and knowledge to ensure a safe and healthy environment and balance the protection of our air, land, and water with economic development. The skills graduates possess are based on a combination of laboratory and field experience.

Three environmental labs are equipped with the latest in analytical equipment, such as spectrophotometers, ion selective analysis instruments, portable test kits, and meters. A large number of environmental sites, such as wildlife areas, state parks, wetlands, lakes and rivers are located close to campus and are used as sites for student learning experiences. Enhanced computer skills, including instruction on ArcView, GIS, and Microsoft Office are taught within the curriculum. The graduate will possess the skills to participate in laboratory and/or field work, conducting impact studies, utilizing test equipment, gathering and organizing data, and generating reports.

Environmental Science, Safety & Health technicians assist biologists, chemists, and engineers in the areas of water and wastewater treatment; surface and ground water monitoring; wetlands ecology and biomonitoring; air quality monitoring; management, transportation, disposal, and storage of solid and hazardous wastes, and domestic and industrial health and safety. Their work takes place within local, state, and federal agencies, private consulting firms, and municipalities. Technicians can expect to earn starting salaries in the mid-20s with tremendous potential for advancement.

Curriculum for Environmental Science, Safety, & Health

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BIO 107	Biology and the Environment	4
BIO 141	Field Zoology & Ecology	4
IDS 101	College Success Strategies	1
MTH 113*	Algebra	4
PRW 130	Soil & Water Conservation	3
		16
WINTER QUARTER (2)		
ENG 150**	Freshman Composition	5
GLY 135	Earth Science	4
NFS 102	Natural Science Computer Applications	3
NFS 106	Employment Search	1
SUR 142	Remote Sensoring and Cartography	3
		16
SPRING QUARTER (3)		
CHM 101	Chemistry	4
ENG 180	Technical Writing	4
ENV 171	Water Sampling & Analysis	4
SUR 219	Fundamentals of Surveying	4
		16
SUMMER QUARTER (4)		
NFS 200	Internship I	4
NFS 205	Seminar	1
		5
FALL QUARTER (5)		
ENV 218	Air Sampling & Analysis	4
ENV 253	Groundwater Hydrology	3
ENV 267	Solid & Hazardous Waste Management	3
ENV 291	Drinking Water Treatment	3
	Social & Behavioral Science Elective (see page 54)	4
		17

WINTER QUARTER (6)		
ENV 215	Wastewater Treatment	3
ENV 226	Transportation of Hazardous Materials	1
ENV 241	HAZWOPER: Waste Site Worker	3
ENV 272	Advanced Instrumentation and Analytical Methods	3
NFS 215	Introduction to Geographic Information Systems	3
	Social & Behavioral Science Elective (see page 54)	4
		17
SPRING QUARTER (7)		
COM 261	Public Speaking	4
EGT 127	Industrial Health and Safety	3
ENV 230	HAZWOPER: Technician	2
NFS 240	Wetlands Ecology	3
PRW 270	Fisheries Management	3
		15

ASSOCIATE OF APPLIED SCIENCE DEGREE (102 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

HEALTH INFORMATION MANAGEMENT

The Health Information Management program prepares students for a professional career in the fast changing field of health informatics and information management. Students will learn how to maintain and communicate sensitive medical and patient information in accordance with established medical, administrative, ethical, legal, accreditation, and regulatory requirements of the health care delivery system. In all types of health care facilities, health information management professionals possess the technical knowledge and skills necessary to process, maintain, compile, and report health information data for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment, and research.

As the health information management professional is often responsible for functional supervision of the various components of the health information system, the Zane State College Health Information Management program is grounded in the importance of applied knowledge. Through internships at local health care agencies under the direction of program faculty, students will gain hands-on, clinical experience essential to developing the skills necessary to succeed in this expanding career. According to the Ohio Department of Jobs and Family Services, health information specialists constitute one of the fastest growing occupations throughout the state. Health Information Management professionals are employed in a variety of settings including hospitals, physician's offices, urgent care centers, long-term care centers, medical billing service providers, and insurance companies.

Students who graduate from an accredited associate degree program are eligible to sit for the Registered Health Information Technician certification. With additional work experience, students who complete the HIM program may also be eligible for other certifications including the Certified Coding Associate, Certified Coding Specialist, and Certified Coding Specialist-Physician-based. Zane State College is currently pursuing accreditation of the Health Information Management program through the Commission on Accreditation of Health Informatics and Information Management Education (CAHIIM).

Curriculum for Health Information Management

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ENG 150*	Freshman Composition	5
HIM 110	Introduction to Health Information Management	3
HLT 105	The Health Care System: Issues & Professions	3
HLT 121	Medical Terminology	3
IDS 101	College Success Strategies	1
		15
WINTER QUARTER (2)		
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
ENG 180	Technical Writing	4
HIM 130	Health Information Processing and Organization	3
HIM 150	IDC-9-CM Coding for Medical Offices	3
HLT 131	Advanced Medical Terminology	2
		17
SPRING QUARTER (3)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
BMC 120	Excel	3
HIM 155	CPT Coding for Medical Offices	3
HIM 160	Comparative Health Information Management	2
HIM 185	Health Care Data in Reimbursement	3
		16

SUMMER QUARTER (4)		
BMC 130	Access	3
HIM 170	Medico-Legal Aspect of Health Care Records	3
HIM 190	Professional Practicum I	2
HLT 173	Disease and the Disease Process	3
PSY 101	Introduction to Psychology	4
		15
FALL QUARTER (5)		
HIM 201	Health Care Quality Improvement	3
HIM 211	Pharmacology for HIM	3
HIM 215	Medical Coding: Hospitals and Ambulatory Services	3
HIM 222	Health Record Statistics	3
MTH 113**	Algebra	4
		16
WINTER QUARTER (6)		
HIM 205	Cancer Registry	1
HIM 245	Professional Practicum II	3
HIM 250	ICD-9-CM Coding II	4
HIM 265	Resource Management for Health Information	3
HIM 281	Clinical Abstracting	3
		14
SPRING QUARTER (7)		
COM 261	Public Speaking	4
HIM 207	Health Informatics	2
HIM 290	Professional Practicum III	4
HIM 291	Health Information Management Capstone	2
	Social & Behavioral Science Elective (see page 54)	4
		16

ASSOCIATE OF APPLIED SCIENCE DEGREE (109 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).

HUMAN SERVICES ASSISTANT

The Human Services Assistant program prepares students to begin employment as direct service professionals in the field of social services. Human Service Practitioners build careers in the areas of aging, services to families and children, mental health, chemical dependency treatment and prevention, developmental disabilities, corrections, healthcare, and crisis intervention. There are employment opportunities in both public and private social service organizations.

The curriculum includes extensive exploration of the biological, psychological, and social aspects of human development. In addition, the student will develop skills in communication, problem assessment, treatment planning, documentation, case management, and group facilitation.

Graduates of the Human Services Assistant program may be able to transfer to four year institutions to obtain a baccalaureate degree in Social Work or a related field.

Graduates of the Human Services Assistant program may register with the State of Ohio Counselor, Social Worker and Marriage and Family Board. Graduates of the addictions concentration may apply to become a Licensed Chemical Dependency Counselor (LCDC II). It is also possible for students to apply to be a Counselor Assistant or a Prevention Specialist.

Successful human service practitioners demonstrate an interest in people, a capacity for empathy, an interest in social justice, and a tolerance of intense emotional situations.

Admission to the Human Services program is nonselective. Applicants are required to have at least a high school diploma with a minimum grade point average of 2.0 and must complete the College Accuplacer test. Detailed information regarding program admission requirements may be obtained from the Human Services Assistant program director.

Curriculum for Human Services Assistant

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ENG 150*	Freshman Composition	5
HSV 101	Introduction to Human Services	3
HSV 103	Human Development	3
IDS 101	College Success Strategies	1
PSY 101	Introduction to Psychology	4
		16
WINTER QUARTER (2)		
ENG 180	Technical Writing	4
HSV 107	Family Dynamics	3
HSV 109	Interviewing Techniques in Human Services	3
HSV 111	Learning & Behavior Theory	3
PSY 201	Abnormal Psychology	4
		17
SPRING QUARTER (3)		
HSV 105	Group Dynamics	3
HSV 106	Issues and Ethics in Human Services	3
HSV 121	Assessment in Human Services	4
HSV 123	Drug Use and Abuse	3
SOC 101	Introduction to Sociology	4
		17
SUMMER QUARTER (4)		
BIO 101	Principles of Biology	4
MTH 111**	Mathematics for Business	4
SOC 218	Social Problems	4
		12

FALL QUARTER (5)		
HSV 201	Grief Management	3
HSV 230	Practicum in Human Services I	4
SOC 206	Cultural Diversity	4
	Technical Elective (see below)	3-4
		14-15
WINTER QUARTER (6)		
COM 261	Public Speaking	4
HSV 213	Gerontology	3
HSV 231	Practicum in Human Services II	4
Technical Elective (see below)		3-4
		14-15
SPRING QUARTER (7)		
HSV 221	Violence in the Family	3
HSV 223	Case Management	3
HSV 232	Practicum in Human Services III	5
PSY 203	Child/Adolescent Psychology	4
		15
TECHNICAL ELECTIVES		
HSV 203	Administration of Activity Therapy	4
HSV 205	Pharmacology of Chemical Dependency	3
HSV 207	Drug/Alcohol Prevention Strategies	3
HSV 211	Social Systems Theory	4
HSV 215	Service Delivery in Human Services	3
HSV 217	Mental Retardation	3

ASSOCIATE OF APPLIED SCIENCE DEGREE (105-107 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

INFORMATION TECHNOLOGY

The Information Technology program allows students to prepare themselves for a variety of careers in the evolving communications and information industries. Through an innovative and integrated Information Technology curriculum, students complete a series of core computer courses and then have the choice of a concentration in technical services, interactive digital media, software development, or e-commerce. Students gain valuable experience in internships and systems projects using the latest information systems and technology while continuously updating or migrating to new technology. The Information Technology program prepares students in networking, website design, database management, and project management.

The demand for technology-savvy individuals in the career tracks of Information Technology has never been greater. Graduates can expect employment as website designers, media and graphics designers, video producers, computer mainframe and midrange programmer/analysts, e-commerce specialists, internet marketers, webmasters, and project managers. This exciting and rapidly expanding field should appeal to the individual who desires to meet the many challenges of creating or managing computer generated media or data using the most modern computer hardware and software.

Curriculum for e-Commerce Concentration

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 101	Introduction to Information Technology	3
ITC 102	Introduction to Multimedia Applications	3
ITC 103	Introduction to Programming Logic	3
MTH 113*	Algebra	4
		14
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
ENG 150**	Freshman Composition	5
ITC 123	Client-side Scripting	3
MTH 124	Algebra & Trigonometry I	4
		16
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
ITC 122	Web Site Design	3
ITC 124	e-Solutions Fundamentals	3
MTH 227	Statistics	4
	Social & Behavioral Science Elective (see page 54)	4
		18
SUMMER QUARTER (4)		
BUS 131	Business Law I	3
MKT 100	Marketing	4
		7
FALL QUARTER (5)		
COM 261	Public Speaking	4
ITC 121	Visual Basic	3
ITC 142	Imaging and Graphics for the Web	3
ITC 209	Systems Analysis	3
ITC 250	Database and Server Tools	3
		16

WINTER QUARTER (6)		
ITC 143	Server-side Scripting	3
ITC 211	Security	3
ITC 225	Database Management Systems	3
ITC 229	Systems Design	3
ITC 242	Advanced Animation Scripting	3
		15
SPRING QUARTER (7)		
ITC 237	e-Commerce Web Implementation	3
ITC 240	Introduction to Networking	3
ITC 249	Systems Applications	3
	Natural/Physical Science Elective (see page 55)	4
	Social & Behavioral Science Elective (see page 54)	4
		17

ASSOCIATE OF APPLIED BUSINESS DEGREE (103 credits)

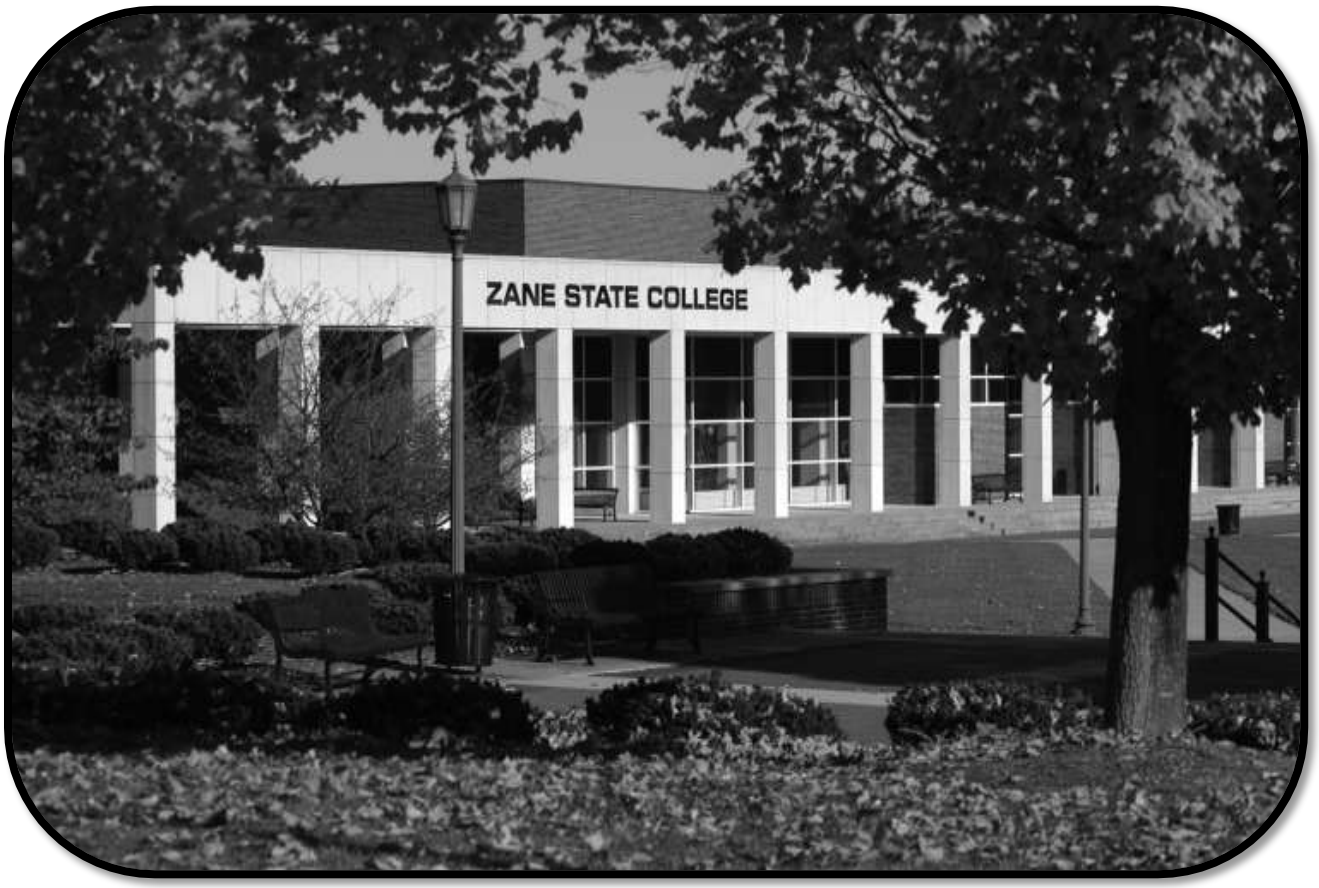

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

Curriculum for Interactive Digital Media Concentration

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 101	Introduction to Information Technology	3
ITC 102	Introduction to Multimedia Applications	3
ITC 103	Introduction to Programming Logic	3
MTH 113*	Algebra	4
		14
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
ENG 150**	Freshman Composition	5
ITC 123	Client-side Scripting	3
ITC 153	Advanced Graphic Design	3
MTH 124	Algebra & Trigonometry I	4
		19
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
ITC 122	Web Site Design	3
ITC 144	Digital Photography	3
ITC 160	Print Layout	3
MTH 227	Statistics	4
		17
SUMMER QUARTER (4)		
BUS 131	Business Law I	3
MKT 100	Marketing	4
		7
FALL QUARTER (5)		
COM 261	Public Speaking	4
ITC 142	Imaging and Graphics for the Web	3
ITC 204	Editing Digital Video	3
ITC 209	Systems Analysis	3
	Social & Behavioral Science Elective (see page 54)	4
		17
WINTER QUARTER (6)		
ITC 225	Database Management Systems	3
ITC 226	Web Site and Kiosk Authoring Software	3
ITC 229	Systems Design	3
ITC 242	Advanced Animation Scripting	3
	Social & Behavioral Science Elective (see page 54)	4
		16
SPRING QUARTER (7)		
ITC 240	Introduction to Networking	3
ITC 249	Systems Applications	3
ITC 260	3D Animation	3
	Natural/Physical Science Elective (see page 55)	4
		13

ASSOCIATE OF APPLIED BUSINESS DEGREE (103 credits)

Curriculum for Software Development Concentration

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 101	Introduction to Information Technology	3
ITC 102	Introduction to Multimedia Applications	3
ITC 103	Introduction to Programming Logic	3
MTH 113*	Algebra	4
		14
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
ENG 150**	Freshman Composition	5
ITC 121	Visual Basic	3
ITC 123	Client-side Scripting	3
MTH 124	Algebra & Trigonometry I	4
		19
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
ITC 110	Basics of UNIX	3
ITC 130	COBOL I	3
ITC 211	Security	3
MTH 227	Statistics	4
		17
SUMMER QUARTER (4)		
BUS 131	Business Law I	3
MKT 100	Marketing	4
		7
FALL QUARTER (5)		
COM 261	Public Speaking	4
ITC 202	Java Programming	3
ITC 209	Systems Analysis	3
ITC 250	Database and Server Tools	3
	Social & Behavioral Science Elective (see page 54)	4
		17
WINTER QUARTER (6)		
ITC 141	Introduction to C++ Programming	3
ITC 143	Server-side Scripting	3
ITC 225	Database Management Systems	3
ITC 229	Systems Design	3
	Social & Behavioral Science Elective (see page 54)	4
		16
SPRING QUARTER (7)		
ITC 203	Advanced C++ Programming	3
ITC 237	e-Commerce Web Implementation	3
ITC 240	Introduction to Networking	3
ITC 249	Systems Applications	3
	Natural/Physical Science Elective (see page 55)	4
		16

ASSOCIATE OF APPLIED BUSINESS DEGREE (106 Credits)

Curriculum for Technical Services Concentration

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
IDS 101	College Success Strategies	1
ITC 101	Introduction to Information Technology	3
ITC 102	Introduction to Multimedia Applications	3
ITC 103	Introduction to Programming Logic	3
MTH 113*	Algebra	4
		14
WINTER QUARTER (2)		
ACC 101	Financial Accounting	4
ENG 150**	Freshman Composition	5
ITC 211	Security	3
MTH 124	Algebra & Trigonometry I	4
		16
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
ITC 110	Basics of UNIX	3
ITC 150	Microcomputer Hardware	3
MTH 227	Statistics	4
	Technical Elective (see below)	3
		17
SUMMER QUARTER (4)		
BUS 131	Business Law I	3
EET 151	Cisco Routers I	4
MKT 100	Marketing	4
		11
FALL QUARTER (5)		
COM 261	Public Speaking	4
EET 153	Cisco Routers II	4
ITC 112	UNIX Systems Administration	3
ITC 209	Systems Analysis	3
	Social & Behavioral Science Elective (see page 54)	4
		18
WINTER QUARTER (6)		
EET 155	Cisco Routers III	4
ITC 225	Database Management Systems	3
ITC 229	Systems Design	3
	Social & Behavioral Science Elective (see page 54)	4
	Technical Elective (see below)	3
		17
SPRING QUARTER (7)		
EET 157	Cisco Routers IV	4
ITC 240	Introduction to Networking	3
ITC 249	Systems Applications	3
	Natural/Physical Science Elective (see below)	4
		14

NATURAL/PHYSICAL SCIENCE ELECTIVES

BIO 101	Principles of Biology	4
BIO 107	Biology and the Environment	4
CHM 101	Chemistry	4
CHM 121	General Chemistry I	4
GLY 135	Earth Science	4
PHY 110	Physical Science	4
PHY 201	Physics I	4

TECHNICAL ELECTIVES

ACC 222	Managerial Accounting	3
BUS 200	Internship I	4
BUS 205	Seminars for Internship	1
ITC 121	Visual Basic	3
ITC 122	Web Site Design	3
ITC 123	Client-side Scripting	3
ITC 124	e-Solutions Fundamentals	3
ITC 130	COBOL I	3
ITC 132	COBOL II	3
ITC 141	Introduction to C++ Programming	3
ITC 142	Imaging and Graphics for the Web	3
ITC 143	Server-side Scripting	3
ITC 144	Digital Photography	3
ITC 151	Advanced Visual Basic	3
ITC 152	Assembler Language Programming	3
ITC 153	Advanced Graphic Design	3
ITC 160	Print Layout	3
ITC 202	Java Programming	3
ITC 203	Advanced C++ Programming	3
ITC 204	Editing Digital Video	3
ITC 226	Web Site and Kiosk Authoring Software	3
ITC 237	e-Commerce Web Implementation	3
ITC 242	Advanced Animation Scripting	3
ITC 250	Database and Server Tools	3
ITC 260	3D Animation	3

ASSOCIATE OF APPLIED BUSINESS DEGREE (107 Credits)

NOTES: Students must demonstrate proficiency in CPT 105 prior to enrolling in any technical courses. Some of the courses listed as technical electives are technical requirements for the various concentration areas. These courses may not count as an elective as well as a requirement.

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

MEDICAL ASSISTING

The Medical Assisting program prepares students to become allied health professionals who function as members of the health care delivery team. Medical assistants are the central figures in promoting and maintaining cooperative relationships between patients and physicians. Program course work involves both administrative and clinical procedures. Students are prepared to take vital signs, medical histories, and perform basic laboratory procedures, while also engaging in the administrative duties of scheduling appointments, receiving patients, managing medical records, and handling telephone calls. Graduates are eligible to take the national board examination which qualifies students to work in all 50 states as a Certified Medical Assistant.

The Zane State College Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Curriculum Review Board of The American Association of Medical Assistant Endowment (CRB-AAMAE).

Commission on Accreditation of Allied Health Programs, 1361 Park Street, Clearwater, FL 33756, 727-210-2350.

According to the U.S. Bureau of Labor Statistics, medical assisting is the seventh fastest growing occupation through the year 2008. Job opportunities involve many employment settings such as physicians' offices, clinics, hospitals, and out-patient or ambulatory settings. Certified Medical Assistants are clinically trained to assist in out-patient medical procedures, office administration, and interaction with patients.

Admission to the Medical Assisting program is selective. Applicants are required to show evidence of satisfactory completion of high school and/or previous college work with a minimum GPA of 2.0. For detailed information on the admission procedure, contact the program director.

Curriculum for Medical Assisting

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
AOA 111	Office Keyboarding Skills I	3
ENG 150*	Freshman Composition	5
HLT 121	Medical Terminology	3
IDS 101	College Success Strategies	1
MAT 101	Introduction to Medical Assisting	3
		15
WINTER QUARTER (2)		
AOA 140	Word I	3
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
ENG 180	Technical Writing	4
MAT 105	Basic Medical Laboratory Techniques	4
MAT 112	Medical Business Practices	3
		19
SPRING QUARTER (3)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
HLT 122	Medical Dictation and Transcription	3
MAT 125	Medical Assisting Procedures I	3
MAT 151	Patient Contact and Public Relations	3
MAT 211	Pharmacology and Drug Administration	3
		17
SUMMER QUARTER (4)		
HLT 141	First Aid & CPR	2
MAT 160	Basic Venipuncture for the Medical Assistant	2
MAT 161	Clinical Practicum/Seminar I	4
MTH 111**	Mathematics for Business (for Certificate Students only)	(4)
		8

CERTIFICATE IN APPLIED SCIENCE: Medical Assisting-Administrative and Clinical (63 Credits) (Not eligible to sit for National Boards after one year)

FALL QUARTER (5)		
COM 122	Interpersonal Communication	3
MAT 201	Medical Assisting Procedures II	3
MTH 111**	Mathematics for Business	4
PSY 101	Introduction to Psychology	4
		14
WINTER QUARTER (6)		
ACC 101	Financial Accounting	4
HLT 173	Diseases and the Disease Process	3
HLT 221	Nutrition & Diet Therapy	3
	Social & Behavioral Science Elective (see page 54)	4
		14
SPRING QUARTER (7)		
BUS 211	Office Management	4
COM 261	Public Speaking	4
MAT 261	Clinical Practicum/Seminar II	4
		12

ASSOCIATE OF APPLIED SCIENCE DEGREE (99 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

Photo credit: Jenn Folden, Marketing Specialist, Zane State College

MEDICAL LABORATORY

The Medical Laboratory program is designed to prepare students to function as members of the clinical laboratory health care team. Students study biology, chemistry, microbiology, biochemistry, and other science-related coursework. Students learn to perform routine laboratory testing such as identification of microorganisms, chemical analysis of patient specimens, identification of blood cells, and the cross-matching of blood for transfusion. The program includes student learning experiences both on campus and in the clinical laboratory. These educational experiences allow students to acquire the basic entry-level competencies necessary to function in a laboratory setting.

After successful completion of the program, the graduate may sit for the national certification exams given by National Certifying Agency (NCA) or The American Society of Clinical Pathologist (ASCP). The MLT Program is fully accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr, Suite 670, Chicago, IL 60631-3415, (773) 714-8880, www.naacls.org.

Job demand is predicted to continue to rise for the Medical Laboratory program. Medical Laboratory was ranked twenty-third out of 250 professions, in the 2002 Jobs Rated Almanac with an average starting salary of $27,000 - $30,000. One of the strengths of the profession is the strong hands-on laboratory skills that the graduate possesses. These skills can be applied to a variety of settings including hospital labs, reference labs, forensic labs, industrial labs, environmental testing, and quality control testing.

The Medical Laboratory program is a selective program limited to a maximum of 20 students per year. Applicants must have a GPA of 2.3 on previous high school and/or college work. Applicants must also test into college level English and algebra or have completed developmental courses as indicated by the Accuplacer. A complete list of admission criteria may be obtained from the program director. The application deadline is May 1 or until all available seats are filled by qualified applicants.

Curriculum for Medical Laboratory

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology II Laboratory	1
CHM 121	General Chemistry I	4
IDS 101	College Success Strategies	1
MLT 102	Introduction to Medical Laboratory Technology	3
MTH 115*	College Algebra	5
		18
WINTER QUARTER (2)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
CHM 122	General Chemistry II	4
MLT 200	Clinical Body Fluids	3
MLT 201	Clinical Hematology I	4
		16
SPRING QUARTER (3)		
BIO 201	General Microbiology	4
CHM 123	General Chemistry III	4
ENG 150**	Freshman Composition	5
MLT 220	Immunology	3
		16
SUMMER QUARTER (4)		
CPT 105	Introduction to Microcomputer Software Applications	3
ENG 180	Technical Writing	4
	Social & Behavioral Science Elective (see page 54)	4
	Social & Behavioral Science Elective (see page 54)	4
		15

FALL QUARTER (5)		
CHM 201	Biochemistry	4
COM 261	Public Speaking	4
MLT 205	Clinical Hematology II	4
MLT 235	Clinical Immunohematology	4
		16
WINTER QUARTER (6)		
MLT 230	Clinical Microbiology	5
MLT 231	Clinical Chemistry	5
MLT 244	Directed Practice I: Clinical Chemistry	4
		14
SPRING QUARTER (7)		
MLT 245	Directed Practice II: Clinical Immunohematology	3
MLT 246	Directed Practice III: Clinical Hematology and Coagulation	3
MLT 247	Directed Practice IV: Clinical Microbiology and Immunology	3
MLT 262	Role Transition	3
		12

ASSOCIATE OF APPLIED SCIENCE DEGREE (107 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

OCCUPATIONAL THERAPY ASSISTANT

The Occupational Therapy Assistant program prepares graduates to function as members of the health care team. Working under the supervision of a licensed occupational therapist, the occupational therapy assistant helps disabled people of all ages acquire, improve, or regain independent living skills. The graduate Occupational Therapy Assistant will be responsible for assisting with evaluating clients and determining treatment goals, providing treatment, evaluating treatment effectiveness, maintaining appropriate records, and assisting with department upkeep.

The Occupational Therapy Assistant program consists of eight full-time quarters of academic work and clinical experience (called fieldwork). The curriculum combines basic biological and behavioral sciences with specific courses in theories of occupational therapy and occupational therapy treatment modalities. Students will have both on campus laboratory experiences and off campus clinical laboratory experiences. Fieldwork portions of the program must be completed within 18 months of the completion of academic preparation.

The Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD, 20824-1220, accredits the Occupational Therapy Assistant Program. ACOTE's phone number is 301-652-2682. Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT) located at 800 S. Fredrick Avenue, Suite 200, Gaithersburg, MD, 20877-4150. NBCOT's phone number is 301-990-7979. After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice: however, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may limit an individual's ability to be certified or licensed. Individuals with a felony record should contact the above agencies to determine eligibility before applying to the program.

In April 2006, the Bureau of Labor Statistics of the U.S. Department of Labor stated that employment of occupational therapy assistants is expected to grow much faster than the average for all occupations through 2016. Employment can be found in medical centers, nursing and rehabilitation facilities, schools, community-based programs, vocational/industrial programs, hospitals and physician's offices. Job titles include, but are not limited to, Certified Occupational Therapy Assistant, activity director, patient advocate, rehabilitation specialist, case manager, and workshop specialist.

Admission to the Occupational Therapy Assistant program is selective. A complete list of admission criteria may be obtained from the program coordinator.

Curriculum for Occupational Therapy Assistant

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ENG 150*	Freshman Composition	5
HLT 121	Medical Terminology	3
HSV 103	Human Development	3
IDS 101	College Success Strategies	1
OTA 107	Fundamentals for the Occupational Therapy Assistant	4
		16
WINTER QUARTER (2)		
BIO 240***	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
ENG 180	Technical Writing	4
OTA 113	Fundamentals of Occupational Therapy: Media I	3
PSY 101	Introduction to Psychology	4
		16

SPRING QUARTER (3)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
OTA 130	Directed Practice I (Level I Fieldwork)	4
OTA 136	Physical Disabilities in Occupational Therapy: Media II	3
PSY 201	Abnormal Psychology	4
		16
SUMMER QUARTER (4)		
EDU 183	Child Development	5
HLT 173	Diseases and the Disease Process	3
SOC 101	Introduction to Sociology	4
		12
FALL QUARTER (5)		
COM 261	Public Speaking	4
OTA 217	Advanced Physical Disabilities in Occupational Therapy: Media III	4
OTA 220	Psychosocial Concepts and Skills for Occupational Therapy: Media IV	4
		12
WINTER QUARTER (6)		
OTA 210	Physical Agent Modalities for Occupational Therapy	1
OTA 221	Occupational Therapy in Geriatric & Alternate Practice Settings: Media V	4
OTA 225	Occupational Therapy Concepts & Media for Children: Media VI	4
	Mathematics Elective**	4
		13
SPRING QUARTER (7)		
OTA 232	Clinical Laboratory Experience I (Level II Fieldwork) (32 hours for 10 weeks)	10
OTA 233	Clinical Laboratory Related Topics I	2
		12
SUMMER QUARTER (8)		
OTA 242	Clinical Laboratory Experience II (Level II Fieldwork (32 hours for 10 weeks)	10
OTA 243	Clinical Laboratory Related Topics II	2
		12
MATHEMATICS ELECTIVES		
MTH 111	Mathematics for Business	4
MTH 113	Algebra	4
MTH 115	College Algebra	5
MTH 124	Algebra & Trigonometry I	4
MTH 227	Statistics	4

ASSOCIATE OF APPLIED SCIENCE DEGREE (109 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.
*** A prerequisite for BIO 240 is high school biology or BIO 101. This course should be completed before enrolling in the program.

PARALEGAL

The Paralegal program's goal is to equip graduates with the skills necessary to assist attorneys in the performance of legal services. These skills – including the ability to reason analytically and to write effectively – will be developed under an experienced attorney's instruction in real-world assignments, including the preparation of civil litigation, motions, briefs, wills, corporate law instruments, and law office memoranda. Graduates, although not required to be state licensed, will be qualified to seek national certification as a Certified Legal Assistant.

The program, since it is in substantial compliance with American Bar Association guidelines, qualifies for institutional membership in the American Association for Paralegal Education, and has been awarded a chapter in its national honor society.

A paralegal career has been projected by the Ohio Bureau of Employment Services to be one of Ohio's ten fastest-growing occupations. These employment prospects will be greatest in Ohio's larger metropolitan areas where the state's largest law firms and corporations are located. Moreover, opportunities also exist for graduates in business, and, in particular, in those business occupations that require concentrated effort, a careful attention to detail, and analytical astuteness.

Curriculum for Paralegal

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ENG 150**	Freshman Composition	5
IDS 101	College Success Strategies	1
MTH 113*	Algebra	4
PAR 151	Introduction to Law for the Paralegal	3
PAR 152	Computerized Legal Concepts for Paralegals	3
		16
WINTER QUARTER (2)		
BUS 131	Business Law I	3
ENG 180	Technical Writing	4
IDS 203	Introduction to Ethics	3
PAR 153	Techniques of Legal Research	3
PAR 159	Civil Law & Procedure for the Paralegal	3
		16
SPRING QUARTER (3)		
ACC 101	Financial Accounting	4
BUS 132	Business Law II	3
PAR 155	Family Law	3
PAR 160	Drafting Wills & Probating Estates	3
SOC 101	Introduction to Sociology	4
		17
SUMMER QUARTER (4)		
COM 122	Interpersonal Communication	3
PAR 253	Real Estate Transactions for the Paralegal	3
PSY 101	Introduction to Psychology	4
		10
FALL QUARTER (5)		
ACC 260	Income Tax Accounting	3
BUS 151	Microeconomics	4
PAR 250	Criminal Law for the Paralegal	3
PAR 251	Legal Writing I	3
PAR 259	Corporate and Partnership Law	3
		16

WINTER QUARTER (6)		
BIO 101	Principles of Biology	4
COM 261	Public Speaking	4
PAR 255	Legal Writing II	3
PAR 262	Torts & Insurance Law	3
	General Elective (see page 55)	3
		17

SPRING QUARTER (7)		
BUS 200	Internship I	2
PAR 258	Bankruptcy Law for the Paralegal	3
PAR 265	Paralegal Seminar	3
SOC 218	Social Problems	4
	General Elective (see page 55)	3
		15

ASSOCIATE OF APPLIED BUSINESS DEGREE (107 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

PARKS, RECREATION, & WILDLIFE

Parks, Recreation, & Wildlife technicians are educated in the natural resources disciplines to meet the staffing needs of our region, state, and nation. Coursework includes classes from the biological sciences such as botany, ecology, and zoology. Students learn practical applications and techniques in wildlife, conservation, and outdoor recreation through courses such as equipment management, wildlife management, and remote sensing. Nature interpretation and wetlands management serve as capstone courses where material learned during the degree work is integrated.

Educational facilities include the College's 125-acre Natural Resources Center, located adjacent to Dillon State Park. The Muskingum County area provides numerous outdoor laboratory sites, having one of the highest concentrations of state parks, lakes, rivers, and wildlife and forest management areas in the state.

The Parks, Recreation, & Wildlife program is accredited by the North American Wildlife Technology Association.

Career opportunities include local, state, and federal positions with parks, wildlife, and conservation agencies. Private organizations, such as The Wilds, zoos, arboretums, campgrounds, and landscape nurseries, also employ graduates. The Ohio Peace Officer Training Academy at Zane State College is available for students seeking park or watercraft officer positions.

Curriculum for Parks, Recreation, & Wildlife
(Natural Resources Conservation)

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BIO 141	Field Zoology & Ecology	4
IDS 101	College Success Strategies	1
MTH 113*	Algebra	4
PRW 108	Field Technician Orientation	3
PRW 130	Soil & Water Conservation	3
		15
WINTER QUARTER (2)		
ENG 150**	Freshman Composition	5
NFS 102	Natural Science Computer Applications	3
NFS 106	Employment Search	1
PRW 120	Wildlife in Ohio	3
SUR 142	Remote Sensing and Cartography	3
	Social & Behavioral Science Elective (see page 54)	4
		19
SPRING QUARTER (3)		
BIO 151	Field Botany & Ecology	3
ENG 180	Technical Writing	4
ENV 171	Water Sampling & Analysis	4
PRW 131	Recreation Area Construction	3
PRW 270	Fisheries Management	3
		17
SUMMER QUARTER (4)		
NFS 200	Internship I	4
NFS 205	Seminar	1
		5
FALL QUARTER (5)		
COM 261	Public Speaking	4
PRW 250	Wildlife Habitat Management	3
PRW 254	Recreation Power Equipment	3
PRW 257	Forestry	3
SUR 219	Fundamentals of Surveying	4
		17

WINTER QUARTER (6)		
GLY 135	Earth Science	4
NFS 215	Introduction to Geographic Information Systems	3
PRW 260	Wildlife Population Management	3
PRW 262	Natural Resource Laws & Enforcement	3
	Social & Behavioral Science Elective (see page 54)	4
		17
SPRING QUARTER (7)		
NFS 240	Wetlands Ecology	3
PRW 261	Recreation Management	3
PRW 271	Landscaping - Design & Management	3
PRW 274	Nature Interpretation	3
	Social & Behavioral Science Elective (see page 54)	4
		16
TECHNICAL ELECTIVES		
BUS 111	Principles of Management	4
CAD 105	AutoCAD I	3
PRW 115	Forest Fire Suppression & Safety	2

ASSOCIATE OF APPLIED SCIENCE DEGREE (106 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

PHYSICAL THERAPIST ASSISTANT

The Physical Therapist Assistant program is designed to provide students with the experiences and knowledge necessary to function as an integral part of the rehabilitation team.

Graduates will work under the supervision of a physical therapist in treating neurological and orthopedic disorders utilizing treatments such as therapeutic exercise, hot and cold modalities, electrical stimulation, and gait training. Employment opportunities for physical therapist assistants may be found in hospitals, rehabilitation centers, nursing facilities, outpatient and sports clinics, and schools. Learning experiences include classroom and laboratory activities as well as directed clinical practice under the supervision of a clinical instructor. The Physical Therapist Assistant graduate will be eligible to take the licensure examinations required by the State of Ohio. The Physical Therapist Assistant program is fully accredited by the Commission on Accreditation in Physical Therapy Education.

Admission to the Physical Therapist Assistant program is selective. Applicants must complete observation in the field and demonstrate readiness for college algebra and English. A detailed list of admission criteria may be obtained by contacting the program coordinator.

Curriculum for Physical Therapist Assistant

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
HLT 121	Medical Terminology	3
IDS 101	College Success Strategies	1
PTA 101	The Paraprofessional In Physical Therapy	3
PTA 107	Physical Therapy Procedures I	3
	Mathematics Elective*	4
		19
WINTER QUARTER (2)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
ENG 150**	Freshman Composition	5
PTA 108	Introduction to the Clinical Setting	3
PTA 112	Neurological Conditions & Physical Therapy as Treatment	3
		16
SPRING QUARTER (3)		
ENG 180	Technical Writing	4
PTA 109	Physical Therapy Procedures II	3
PTA 111	Physical Therapy & Dysfunction of the Musculoskeletal System	4
PTA 124	Kinesiology	4
		15
SUMMER QUARTER (4)		
COM 261	Public Speaking	4
HLT 173	Disease and the Disease Process	3
PTA 130	Directed Practice Orientation Seminar	2
SOC 101	Introduction to Sociology	4
		13
FALL QUARTER (5)		
HSV 103	Human Development	3
PTA 220	Physical Therapy Procedures III	3
PTA 230	Directed Practice I	3
PTA 232	Therapeutic Exercise-Concepts & Application	3
		12

WINTER QUARTER (6)		
PTA 227	The Role of the Physical Therapist Assistant in Rehabilitation	3
PTA 229	Related and Advanced Topics in Physical Therapy	3
PTA 233	Physical Therapy Concepts & the Treatment of Special Populations	3
PTA 240	Directed Practice II	3
		12
SPRING QUARTER (7)		
PSY 101	Introduction to Psychology	4
PTA 255	Advanced Directed Practice	6
PTA 265	Role Transition and Professionalism	4
		14
MATHEMATICS ELECTIVES		
MTH 113	Algebra	4
MTH 115	College Algebra	5
MTH 124	Algebra & Trigonometry I	4
MTH 227	Statistics	4

ASSOCIATE OF APPLIED SCIENCE DEGREE (101 Credits)

* Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab).
** Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.

RADIOLOGIC TECHNOLOGY

This associate degree program is a career oriented college-level technology consisting of classroom, laboratory, and clinical experience. The curriculum includes communications, sociology, mathematics, biology, physics, medical and radiography courses. Upon completion of this program graduates will be able to assist the radiologist in the detection, diagnosis, and treatment of diseases and injuries through the use of x-ray. They will also take routine and special x-rays (radiographs) while maintaining radiation protection. Additional duties may involve research, administration, and record keeping at the physician's discretion. Graduates of this program will be eligible to take the examination for certification and registration prepared by the American Registry of Radiologic Technologists.

Employment opportunities for qualified radiologic technologists exist in hospitals, clinics, physician's offices, government agencies, equipment manufacturers, research facilities, and colleges and universities.

Admission to the Radiologic Technology program is selective. For detailed information on the admission procedure and process, please contact the program director.

Curriculum for Radiologic Technology

Dept./Number	Course Title	Credits
SUMMER QUARTER (1)		
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
ENG 150*	Freshman Composition	5
HLT 121	Medical Terminology	3
IDS 101	College Success Strategies	1
RAD 100	Introduction to Medical Imaging	2
		16
FALL QUARTER (2)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
ENG 180	Technical Writing	4
RAD 121	Radiographic Procedures I	4
RAD 130	Directed Practice I	3
		16
WINTER QUARTER (3)		
MTH 115**	College Algebra	5
RAD 122	Radiographic Procedures II	4
RAD 131	Directed Practice II	3
		12
SPRING QUARTER (4)		
CPT 105	Introduction to Microcomputer Software Applications	3
RAD 105	Radiation Equipment & Production	4
RAD 124	Advanced Radiographic Procedures	4
RAD 132	Directed Practice III	3
		14
SUMMER QUARTER (5)		
COM 261	Public Speaking	4
RAD 204	Radiographic Imaging & Processing	4
RAD 230	Directed Practice IV	4
		12
FALL QUARTER (6)		
HLT 250	Cross-Sectional Imaging	3
RAD 215	Pharmacology for Medical Imaging	2
RAD 231	Directed Practice V	4
SOC 101	Introduction to Sociology	4
		13

WINTER QUARTER (7)		
RAD 202	Radiographic Pathology	2
RAD 203	Radiobiology/Radiation Protection	3
RAD 210	Radiographic Image Analysis	3
RAD 232	Directed Practice VI	4
		12
SPRING QUARTER (8)		
RAD 211	Medical Imaging Ethics & Law	2
RAD 212	Allied Imaging Modalities	2
RAD 233	Directed Practice VII	4
RAD 299	Preparation for Role Transition	3
SOC 206	Cultural Diversity	4
		15

ASSOCIATE OF APPLIED SCIENCE DEGREE (110 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

Photo credit: Jenn Folden, Marketing Specialist, Zane State College

SPORT AND FITNESS MANAGEMENT

The Sport and Fitness Management program prepares students to enter the world of personal wellness and corporate fitness. With a background in wellness, exercise, activities management, fitness instruction, and business, graduates will possess the job skills and knowledge to work one-on-one with clients and to manage the day-to-day operations of a variety of fitness and recreation programs. The program is grounded in the importance of applied knowledge. Through internships, students work under the direction of program faculty and fitness professionals to interact with clients, design personal fitness programs, perform fitness assessments, and complete a variety of other tasks related to the profession.

According the Ohio Department of Jobs and Family Services, fitness trainers and instructors constitute one of the fastest growing occupations throughout the state. In addition, our aging population, along with the recognition that active, healthy living promotes an increased quality of life, means that fitness specialists with diverse backgrounds and who are equipped to work with special needs clients will continue to be in demand at an increasing rate.

Curriculum for Sport and Fitness Management

Dept./Number	Course Title	Credits
FALL QUARTER (1)		
ENG 150*	Freshman Composition	5
HLT 121	Medical Terminology	3
IDS 101	College Success Strategies	1
SFM 105	Introduction to Sport Industry	3
SFM 110	Personal Wellness	3
SFM 120	Introduction to Resistance Training	2
		17
WINTER QUARTER (2)		
BIO 240	Anatomy & Physiology I	4
BIO 241	Anatomy & Physiology I Laboratory	1
ENG 180	Technical Writing	4
SFM 107	History of Sport	4
SFM 150	Individual Activities	1
		14
SPRING QUARTER (3)		
BIO 242	Anatomy & Physiology II	4
BIO 243	Anatomy & Physiology II Laboratory	1
BUS 151	Microeconomics	4
COM 122	Interpersonal Communication	3
HLT 221	Nutrition & Diet Therapy	3
SOC 101	Introduction to Sociology	4
		19
SUMMER QUARTER (4)		
BUS 111	Principles of Management	4
HLT 141	First Aid & CPR	2
PSY 101	Introduction to Psychology	4
SFM 140	Practicum I	2
SFM 160	Dual Sport Activities	1
		13
FALL QUARTER (5)		
ACC 101	Financial Accounting	4
HLT 222	Nutrition and Supplementation	2
MTH 111**	Mathematics for Business	4
SFM 215	Practicum II	3
		13

WINTER QUARTER (6)		
SFM 180	Group Fitness Activities	2
SFM 200	Sport Management Foundations	4
SFM 220	Intermediate Resistance Training	3
SFM 230	Management of Athletic Injuries	3
SFM 240	Exercise Physiology	5
		17
SPRING QUARTER (7)		
COM 261	Public Speaking	4
SFM 265	Practicum III	4
SFM 271	Activities for Special Populations	3
SFM 275	Philosophy and Ethics in Sport Industry	3
		14

ASSOCIATE OF APPLIED SCIENCE DEGREE (107 Credits)

* Students whose English placement test results predict difficulty with ENG 150 must first complete ENG 096 before enrolling in ENG 150.
** Students whose Math placement test results predict difficulty in their required Math course or Math elective must first complete additional Math courses prior to enrollment.

Photo credit: Jenn Folden, Marketing Specialist, Zane State College

COURSE DESCRIPTIONS

Key to Codes Used in Course Descriptions:
T = Technical Course
B = Basic Course
G = General Course
E = Elective Course
+ = One individualized lab hour as needed
++ = Two individualized lab hours as needed

Example of contact hours: 2 lecture 3 lab indicates that the course meets each week for two 50-minute lecture periods and three 50-minute laboratory periods.

Zane State College requires a minimum of 96 quarter credit hours for its Associate of Applied Science, Associate of Applied Business, and Associate of Technical Study degrees.

Within this requirement are specifications for minimum credit hour distributions in the technology area and in non-technical studies. The Ohio Board of Regents Operating Manual for Two-Year Campus Programs (last updated April, 1998) establishes these criteria as follows:

- 45 quarter credit hours minimum, in the technology area
- 42 quarter credit hours in non-technical studies to include
  -general education studies (written communication, oral communication, social and behavioral sciences, natural sciences, arts/humanities, math)
  and
  -courses basic to the technical field and closely related to the technical specialty.

In the general education curriculum, the College further defines minimum distribution requirements:

9 credits of English (2 courses)
4 credits of Speech (1 course)
8 credits of Social and Behavioral Sciences (2 courses)
4 credits of Mathematics (1 course)
4 credits of Natural or Physical Science (1 course)
1 credit of IDS 101, College Success Strategies (1 course)

The computer literacy requirement may be met through competency testing or a computer course designated in your program curriculum.

Therefore, each student graduating with a two-year degree from our institution will have a minimum of 30-33 quarter credit hours in prescribed general education course work. The remaining 10-12 credits to meet the 42 credit minimum in non-technical studies may be comprised of additional general education courses, basic courses, or a combination of the two areas.

ACC 101-Financial Accounting
(4 credit hours - 3 lecture 2 lab - B(T))
An introduction to financial accounting. Topics include the nature of business and accounting, the language of accounting, the preparation and analysis of basic corporate financial statements and the impact of simple transactions on financial statements. Accounting principles applicable to income measurement; cash and internal control; investments and receivables; inventories; current and long-term liabilities; operating assets; and stockholder's equity are covered. Time-value of money concepts are introduced. Prerequisite: COM 091, or placement in college-level English, or ENG 150

ACC 110-Basics of Accounting
(3 credit hours - 2 lecture 2 lab - B(T))
An introduction to accounting and financial reporting, surveying and accounting measurements, financial reporting, cash flows, and business. This course is available only to students in the prison education program. Prerequisite: COM 091 or placement in college-level English

ACC 111-Accounting I
(4 credit hours - 4 lecture 0 lab - T(B))
An introduction to accounting, covering the basic structure of accounting; journals and ledgers; the accounting cycle for a service enterprise; sales and purchases; deferrals and accruals; accounting for merchandise activities under both periodical and perpetual inventory systems, inventory valuation, and cost of goods sold. Prerequisite: ENG 150 or COM 091 or placement in college-level English and completion of MTH 110 or placement into MTH 113

ACC 112-Accounting II
(4 credit hours - 4 lecture 0 lab - T(B))
A continuation of Accounting I with emphasis on the concepts and principles in accounting for information systems, internal control, cash, receivables, short-term investments, plant assets, natural resources, intangibles, current liabilities, payroll, and partnerships. Prerequisite: ACC 111

ACC 113-Accounting III
(4 credit hours - 3 lecture 2 lab - T)
A continuation of Accounting II. It covers corporation, long-term payable, statement of cash flow, capital budgeting, and the relationships and analysis of financial statements. Prerequisite: ACC 112 and completion of MTH 110, or placement in MTH 113

ACC 145-Governmental Accounting
(3 credit hours - 3 lecture 0 lab - T)
An introduction to accounting for government covering the framework for accounting and financial reporting for governmental and not-for-profit organizations, general funds and special revenue funds-budgetary accounting, general funds and special revenue funds, illustrative transactions and financial statements, capital project funds, general fixed assets account group, debt service funds, general long-term debt account group, proprietary funds, fiduciary funds, and interfund transactions. Prerequisite: ACC 112

ACC 205-Computer-Aided Accounting
(3 credit hours - 2 lecture 2 lab - T)
An introduction to computerized accounting using Peachtree Complete accounting software, covering sales and receivables, payables and purchases, general accounting and end-of-period procedures for both service business and merchandising business; computerizing a manual accounting system; and some advanced topics in Peachtree Complete and a comparison of Peachtree and QuickBooks products. Prerequisite: ACC 112

ACC 222-Managerial Accounting
(3 credit hours - 2 lecture 3 lab - T)
A study of the gathering and application of information by accountants and managers. Introduces the elements of cost and covers how to plan, make decisions, evaluate performance, and control an organization. Prerequisites: ACC 101 or ACC 112

ACC 225-Cost Accounting
(4 credit hours - 3 lecture 3 lab - T)
A study of the accumulation and analysis of cost data. Introduces the elements of cost and the methods of accounting for these costs. It also covers cost-volume-profit relationships, budgeting, decision-making, direct costing, and inventory management. Prerequisite: ACC 112

ACC 231-Auditing
(3 credit hour - 3 lecture 0 lab - T)
A study of auditing theory, procedures, and practices of independent examinations of financial statements and records. The course will introduce the essential principles of audit field work, to include basic auditing principles, the preparation of audit work papers and the evaluation of the internal control system. Prerequisite: ACC 113

ACC 241-Intermediate Accounting I
(4 credit hours - 3 lecture 3 lab - T)
An advanced study and analysis of accounting theory, accounting process, the income statement, the balance sheet, cash flows, receivables, and inventories. Prerequisites: ACC 113 and MTH 113

ACC 242-Intermediate Accounting II
(4 credit hours - 3 lecture 2 lab - T)
A continuation of Accounting 241 (Intermediate Accounting I). The advanced study of: inventory methods, plant and equipment acquisition and retirement, depreciation, intangible assets, current liabilities, long-term liabilities, stockholder's equity, stock rights, convertible securities, retained earnings, and treasury stock. Prerequisite: ACC 241

ACC 243-Intermediate Accounting III
(4 credit hours - 3 lecture 2 lab - T)
Advanced analysis and accounting for investment, revenue recognition, income tax, accounting changes, changes in cash flows, and analysis of financial statements. Prerequisite: ACC 242

ACC 260-Income Tax Accounting
(3 credit hours - 3 lecture 0 lab - T)
A study of current Internal Revenue Code as it relates to the individual taxpayer with practice in the preparation of individual tax returns. Prerequisite: ACC 111 or ACC 101

AOA 101-Records Management
(3 credit hours - 2 lecture 2 lab - T)
A study of the principles and procedures of records storage, control, retrieval, cycles, equipment, supplies, and their organization and administration including coding, microfilming, and information processing implications. Prerequisite: None

AOA 105-Computer Theory
(1 credit hour - 0 lecture 2 lab - B)
This is an introductory course covering a variety of topics that include such areas as recognizing the need for information processing, introduction to computers, computer concepts, and terminology, as well as the impact of computers on today's society. Input, processing, output, and auxiliary storage devices will be covered. Prerequisite: None

AOA 111-Office Keyboarding Skills I
(3 credit hours - 1 lecture 5 lab - B)
The course emphasizes basic keyboarding skill development; special time and emphasis is devoted to speed and accuracy development. Prerequisite: None

AOA 121-Office Keyboarding Skills II
(3 credit hours - 1 lecture 5 lab - T)
A continuation of AOA 111 to increase speed and accuracy on the keyboard. Prerequisite: AOA 111(C or above) or attainment of passing scores on proficiency exam

AOA 125-Document Analysis & Editing
(3 credit hours - 2 lecture 3 lab - T (B))
Emphasizes the importance of accurate proofreading. Improves proofreading skills, utilizing the How 11 Book as a source of standard English. Co-requisite: ENG 150

AOA 130-Notetaking
(3 credit hours - 2 lecture 3 lab - T)
Superwrite is an alphabetic shorthand system that can be used in an occupational setting or for personal notetaking. It is designed to allow the student to take notes from dictation and transcribe them in a usable format. Co-requisite: AOA 111

AOA 140-Word I
(3 credit hours - 1 lecture 5 lab - T)
An introduction to Microsoft Word for Windows word processing software. Course topics may include basic Windows operation, basic formatting, working with tabs and indents, page formatting, page numbering with headers and footers, changing fonts, and table production. Prerequisite: BUS 141(C or above) or AOA 111(C or above)

AOA 141-Word II
(3 credit hours - 1 lecture 5 lab - T)
A continuation of Microsoft Word for Windows word processing software. Course topics may include tables, columns, styles, templates, merge, graphics, outlines, indexes, and table of contents. Prerequisite: AOA 140 (C or above)

AOA 150-Electronic Office Communications
(3 credit hours - 1 lecture 5 lab - T)
Students will have the opportunity to use Outlook for e-mail, calendar scheduling, managing contacts, creating tasks and notes, configuring and customizing, utilizing security features, and integrating components. Internet search engines will also be explored for purposes of business research. Prerequisite: AOA 111 (C or above) or BUS 141 (C or above)

AOA 155-Electronic Calculator Applications
(2 credit hours - 1 lecture 3 lab - T)
The student is introduced to desktop display and printing calculators with memory and special keys. Business applications such as discounting percentages, proration, payroll, constant functions, memory applications, and touch control for speed will be taught. Prerequisite: MTH 111

AOA 160-Seminar
(1 credit hour - 1 lecture - T)
Course taken in conjunction with Internship. Includes discussion of students' internship experiences, principles of employment practices, and improvement of employee traits. Prerequisite: Concurrent enrollment in BUS 200

AOA 217-Machine Transcription/Word Processing
(3 credit hours - 2 lecture 3 lab - T)
Combines word processing, machine transcription skills, and standard English to produce mailable documents, including business correspondence, reports, and tables. Prerequisites: AOA 140 (C or above) and AOA 125 (C or above)

AOA 229-Speed Building I
(2 credit hours - 1 lecture 3 lab - T)
A keyboarding course to build the student's gross speed to at least 50 words per minute with a maximum of one error per minute. Students in the Administrative Office Assistant Technology must complete this course successfully in order to graduate in the technology. Students will practice diagnostic timings and do progress checks. Prerequisite: AOA 121 (C or better)

AOA 230-Speed Building II
(2 credit hours - 1 lecture 3 lab - T)
A capstone course to build the student's net typing speed to at least 60 words per minute with a maximum of one error per minute. Students in the Administrative Office Assistant Technology must complete this course successfully in order to graduate in the technology. Prerequisite: AOA 229

AOA 240-Voice Recognition
(3 credit hours - 1 lecture 5 lab - T)
Students will develop familiarity with and become proficient in the use of current voice recognition software, including set up of the system, speaker profiles, dictation features, accuracy, formatting, document preparation, and talking tools. Prerequisite: AOA 245

AOA 245-Document Formatting
(3 credit hours - 2 lecture 3 lab - T)
This course allows students to develop knowledge of and proficiency in document formatting. Students will produce documents such as letters, memos, agendas, reports, presentations, itineraries, and business forms using appropriate typography principles. This course also provides reinforcement of grammar and business English. Prerequisites: AOA 125 (C or above) and AOA 140 (C or above)

AOA 250-Business Communications
(3 credit hours - 2 lecture 2 lab - T)
A combination of grammar and business writing, this course emphasizes the importance of both content and format in business communications. Students will compose written correspondence in response to case situations. Documents covered include letters, memos, bad news messages, reports, persuasive messages, and congratulatory letters. Prerequisites: AOA 125 (C or above) and AOA 140 (C or above)

AOA 253-Word Processing Applications
(3 credit hours - 1 lecture 5 lab - T)
A capstone word processing course combining all skills learned in Word I and II in addition to basic communications, grammar, and editing skills. Students must make decisions regarding the best, most efficient word processing method or software to use when completing assignments. Prerequisites: AOA 125 (C or above) and AOA 141 (C or above)

AOA 255-Integrated Software Applications
(3 credit hours - 1 lecture 5 lab - T)
Using skills learned in database, spreadsheet, word processing, and desktop publishing, students produce documents in a simulated office environment. Emphasis is placed on the integration of computer software and standard English. Prerequisites: AOA 125 (C or above), AOA 141 (C or above), BMC 120 (C or above), BMC 210 (C or above), BMC 130 (C or above) and BUS 215 (C or above)

AOA 259-Administrative Office Systems I
(3 credit hours - 2 lecture 2 lab - T)
Designed to meet the exacting requirements of the administrative assistant/secretarial profession, this course covers the duties and responsibilities of the administrative assistant, office environment and ergonomics, public relations duties, telephone skills, office technology and its utilization, computer systems and software, information processing, office supplies, postal and shipping services, and inventory control. Prerequisites: AOA 217 (C or above) and BMC 210 (C or above)

AOA 261-Administrative Office Systems II
(3 credit hours - 2 lecture 2 lab - T)
A continuation of AOA 259, this course provides advanced training in office procedures. Areas covered include job interviewing, travel arrangements, research and organization of business data, banking responsibilities, reprographics, meeting and conference planning, business etiquette, and ethics. Prerequisite: AOA 259 (C or above)

ATS 295-Special Problems
(.1-8 credit hours - T)
Specialized study is a course or series of collegiate-level technical courses that provide an opportunity to study in areas not normally offered at the College. Only students enrolled in the Associate of Technical Study program are eligible to register for the course. These students may attend classes at other institutions, at approved seminars, or other quality educational experiences under the guidance and evaluation of Zane State College faculty. Prerequisite: Dean Approval

BIO 101-Principles of Biology
(4 credit hours - 3 lecture 3 lab - G)
An introductory course in biology, with emphasis on basic biological principles and concepts, anatomy, cellular morphology and function, metabolism and energy flow, reproduction, and genetics. A broad-based perspective of living organisms is important in each of our daily lives. Prerequisite: None

BIO 107-Biology & the Environment
(4 credit hours - 3 lecture 3 lab - G)
A laboratory science course for non-science majors. Provides an introduction to science, the scientific method, basic biological and ecological concepts and applies these to current environmental issues. Prerequisite: None

BIO 141-Field Zoology & Ecology
(4 credit hours - 3 lecture 3 lab - G)
A study of the animals common to this area, stressing their identification and the environmental aspects which affect distribution. The basic principles of ecology are covered with emphasis on the interrelationships between an animal and his physical and biological surroundings. Prerequisite: None

BIO 151-Field Botany & Ecology
(3 credit hours - 2 lecture 3 lab - G)
A study of the structure and life processes of plants, the classification and identification of plants and the basic principles of plant ecology stressing the environmental effects on the morphology, physiology, and distribution of plants. Prerequisite: BIO 141 or permission of instructor

BIO 201-General Microbiology
(4 credit hours - 3 lecture 3 lab - G)
Introduction to the study of general microbiology. Emphasis is on the structure, metabolism, growth, and isolation of pathogenic microorganisms. Introduction to plating, isolation, and staining techniques used to identify microorganisms. Prerequisite: BIO 240 and BIO 242 with a grade of “C” or better

BIO 240-Anatomy & Physiology I
(4 credit hours - 4 lecture 0 lab - G)
An introduction to the study of the structure and function of the human body stressing the chemical basis of life, molecular biology, human tissues, and the interrelation of the skeletal, muscular, and nervous systems. Prerequisite: BIO 101 with a grade of “C” or better, or high school biology within the last three years

BIO 241-Anatomy and Physiology I Laboratory
(1 credit hour - 0 lecture 3 lab - G)
An introduction to the study of the structure and function of the human body stressing the anatomical terminology, cellular and tissue structure and function and the interrelation of the skeletal, muscular, and nervous systems. Prerequisite: BIO 101 or high school biology within the last three years. Co-requisite: BIO 240

BIO 242-Anatomy & Physiology II
(4 credit hours - 4 lecture 0 lab - G)
A continuation of the study of the structure and function of the human body stressing the interrelation of the circulatory, respiratory, urinary, digestive, endocrine, and reproductive systems. Prerequisite: Grade of “C” or better in BIO 240 and BIO 241

BIO 243-Anatomy and Physiology II Laboratory
(1 credit hour - 0 lecture 3 lab - G)
An introduction to the study of the structure and function of the human body stressing the interrelation of the cardiovascular, lymphatic, immune, endocrine, respiratory, digestive, urinary and reproductive systems. Prerequisite: Grade of "C" or better in BIO 240 and BIO 241. Co-requisite: BIO 242

BMC 090-Never Touched a Computer Before
(1 credit hour 0 lecture 2 lab - T)
Designed for the computer novice. Topics include what a computer does, how to turn it on, what the different keys on the keyboard do, how to use a mouse, how to create a file and save it to a disk, and brief introduction to word processing, spreadsheet and database use. Prerequisite: None

BMC 101-Introduction to Computer/DOS Commands
(1 credit hour - 0 lecture 2 lab - T)
Gives the beginning computer user information regarding hardware components, software usage, and basic DOS commands. Topics include formatting a disk, using the copy, delete, rename commands, running a directory and working with subdirectories and wildcards. Prerequisite: None

BMC 102-Introduction to Windows
(1 credit hour - 0 lecture 2 lab - T)
Gives the beginning computer user experience using the Windows operating system. Includes use of a mouse and menus, modify default settings, manage files and folders, and work with diskettes. Prerequisite: None

BMC 103-Introduction to Access
(1 credit hour - 0 lecture 2 lab - T)
Provides an overview of the database software program and its extensive use in business today. File creation, inputting data, modifying tables, and creating forms and reports are covered. Prerequisite: None

BMC 104-Introduction to Excel
(1 credit hour - 0 lecture 2 lab - T)
An overview of the spreadsheet software program and how it is used in business today. Topics include creation of worksheets, entering formulas, inserting and deleting rows and columns, saving, printing, and retrieving files. Prerequisite: None

BMC 105-Introduction to Word
(1 credit hour - 0 lecture 2 lab - T)
Word processing concepts are explored through the creation of letters, memos, and reports. Using Microsoft Word, topics covered include setting margins, line spacing, tabs, running spell check, saving, printing, and retrieving documents. Prerequisite: None

BMC 106-Introduction to the Internet
(1 credit hour - 0 lecture 2 lab - T)
Provides an overview of the purpose of the Internet, its history, going on-line, and moving around on the web. The most popular search engines will be used to explore how to do research as well as participate in e-commerce transactions. Prerequisite: None

BMC 107-Introduction to Publisher
(1 credit hour - 0 lecture 2 lab - T)
The basics of page layout and design, fonts, styles, and graphics are explored through the creation of business cards, flyers, brochures, and greeting cards. Prerequisite: None

BMC 108-Introduction to PageMaker
(1 credit hour - 0 lecture 2 lab - T)
Covers the application of basic design principles through the creation of a variety of documents. Concepts such as page layout, fonts, styles, importing text and graphics, and formatting features are explored. Prerequisite: None

BMC 109-Introduction to Quicken
(1 credit hour - 0 lecture 2 lab - T)
Topics include setting up accounts, using categories, entering register and check information, memorizing checks, deleting and recalling transactions, reconciling a checking account, printing checks, creating basic reports, search and replace commands, backing up files, using the calculator and calendar utility, creating graphs, and using billminder. Prerequisite: Accounting experience

BMC 110-Introduction to Peachtree
(1 credit hour - 0 lecture 2 lab - T)
Covers basic features including graphs and reports. Data will be entered into a general ledger. Batch and real-time processing, inventory items and sales tax will be presented for meaningful reports. Prerequisite: ACC 111 or Accounting experience

BMC 114-Introduction to PowerPoint
(1 credit hour - 0 lecture 2 lab - T)
Presentation programs provide an effective way to create visual aids for a professional looking presentation. Onscreen presentations, handouts, speaker notes, outlines and transparencies will be created. Prerequisite: None

BMC 115-Introduction to QuickBooks
(1 credit hour - 0 lecture 2 lab - T)
Keeping track of daily transactions and producing meaningful reports is essential. The basic features of a computerized accounting system through hands-on practice are covered. Information will be entered into lists, forms, and registers and then presented in a variety of reports and graphs. Prerequisites: ACC 101, ACC 111, or accounting experience

BMC 116-Introduction to FrontPage
(1 credit hour - 0 lecture 2 lab - T)
Topics include creating, organizing, editing, and simulating web pages to provide an effective way to create professional looking presentations. Layout of web pages to varying complexity is covered using menu commands, toolbar buttons, and other options.
Prerequisite: None

BMC 120-Excel
(3 credit hours - 2 lecture 3 lab - T)
Introduction to electronic spreadsheet functions utilizing a microcomputer and Microsoft Excel. Common spreadsheet commands are explored including creating graphs, charts and using macros. Prerequisite: CPT 105 or computer experience

BMC 125-Introduction to Internet
(3 credit hours - 2 lecture 3 lab - T)
Covers the basic concepts and capabilities of the internet. Students will browse, use e-mail, perform searches, chat, post to news groups, create a home page and perform other related activities. Prerequisite: CPT 105

BMC 130-Access
(3 credit hours - 1 lecture 4 lab - T)
Covers the use of a database management program utilizing Microsoft Access. Topics include terminology, the creation process, the generation of forms and reports, and how to run simple queries. Prerequisite: CPT 105

BMC 132-Introduction to Dreamweaver
(1 credit hour - 0 lecture 2 lab - T)
Covers macromedia Dreamweaver software and web design fundamentals. Provides hands-on experience in working with defining the Internet and HTML basics, creating and enhancing documents, text elements, site creation, links, images, and tables.
Prerequisite: None

BMC 134-Introduction to Photoshop
(1 credit hour - 0 lecture 2 lab - T)
A hands-on workshop using Adobe Photoshop. Photoshop is an imaging software program that allows photo retouching, image editing and color painting. The most essential functions available will be presented to the novice, while the incredible depth and variety of its features make it well suited to the graphics professional. Prerequisite: None

BMC 140-Publisher
(3 credit hours - 2 lecture 2 lab - T)
Publisher is a powerful desktop publishing program that gives you the ability to design and produce professional quality documents that combine text, graphics, illustrations, and photographs. Prerequisite: CPT 105

BMC 201-Intermediate Word
(1 credit hour - 0 lecture 2 lab - T)
A continuation of BMC 105. Basic word processing skills will be explained by exploring business application concepts such as mail merge, form creation, headers and footers, and multiple column documents. Prerequisite: BMC 105

BMC 202-Intermediate Access
(1 credit hour - 0 lecture 2 lab - T)
Continuation of BMC 103 with expanded capabilities of the database software as used within a business setting. The focus is on the use of complex search functions and procedures. Topics such as on-screen forms, importing OLE objects, and generating reports are covered. Prerequisite: BMC 103 or prior Access experience

BMC 203-Intermediate Excel
(1 credit hour - 0 lecture 2 lab - T)
This course is a continuation of BMC 104. Concepts such as entering formulas, exploring what-if scenarios, extracting information, setting ranges, and graphing charts are covered. Prerequisite: BMC 104

BMC 205-Web Page Design
(1 credit hour - 0 lecture 2 lab - T)
Topics include designing, authoring, and modifying web pages that are of professional quality. Site management including publishing to the web, testing and repairing hyperlinks, importing and exporting files, and managing files will also be covered. Prerequisite: BMC 106

BMC 206-Integrating Office Software
(1 credit hour - 0 lecture 2 lab - T)
Translates the individual features of Microsoft Office into making the different programs work together. Instruction will focus on integrating word processing, spreadsheet, database, and presentation documents into various formats. Prerequisites: BMC 103, BMC 104, BMC 105 and BMC 107

BMC 207-Intermediate Desktop Publishing
(1 credit hour - 0 lecture 2 lab - T)
This course provides a more in-depth look at design, layout principles, and visual response. Specialized documents such as newsletters, brochures, and posters, and the advanced functions needed to create these documents will be covered. Prerequisite: BMC 108

BMC 208-Intermediate WordPerfect
(1 credit hour - 0 lecture 2 lab - T)
A continuation of BMC 105. Instruction will expand upon basic word processing skills by exploring business application concepts such as mail merge, form creation, headers and footers, and multiple column documents. Prerequisite: BMC 105

BMC 210-PowerPoint
(3 credit hours - 2 lecture 2 lab - T)
Designed to provide several methods of creating professional presentations. Audience handouts, speaker notes, transparencies, outlines, and on-screen presentations will be covered as well as guidelines to follow when giving a presentation.
Prerequisite: CPT 105

BMC 220-Advanced Excel
(3 credit hours - 2 lecture 3 lab - T)
A continuation of BMC 120 - Excel. Covers advanced functions and topics of spreadsheet software. Concepts include using ranges in formulas, extracting information, importing and exporting data files, and designing advanced formulas. Prerequisite: BMC 120

BMC 225-Help Desk
(3 credit hours - 2 lecture 3 lab - T)
Introduces students to help desks - what they are, what people who work at one do, and why they are an essential part of every organization. Students will learn how help desks are structured and what kind of support they provide. Students will also learn the use problem solving to tackle challenging computer problems, as well as tools and techniques that are used to determine the cause of many computer problems.
Prerequisite: CPT 105

BMC 230-Advanced Access
(3 credit hours - 2 lecture 3 lab - T)
A continuation of BMC 130 - Access. Advanced forms with subforms, reports, and queries will be covered. Switchboards with macros will be created allowing quick access to the most frequently used data.
Prerequisite: BMC 130

BMC 232-Networking
(1 credit hour - 0 lecture 2 lab - T)
The basic uses and benefits of a networked system from an experienced user's point of view will be explored. Topics include hardware and software components, user security profiles, rights, and limitations, logging in and out, virus protection, printing and printer sharing, electronic mail and helpful network commands.
Prerequisite: BMC 101 and BMC 102

BMC 233-Advanced Windows
(1 credit hour - 0 lecture 2 lab - T)
Customizing Windows setup, specific application programs, and performing advanced Windows commands for the experienced user will be covered. Provides information on how to improve the overall efficiency and performance of a computer. Prerequisite: BMC 102 or prior experience

BMC 234-Advanced Internet
(1 credit hour - 0 lecture 2 lab - T)
A continuation of BMC 106. Explores the advanced Internet and browser topics. Creating and managing bookmarks, changing options and preferences, downloading applications, attaching files and newsgroups and Chat are covered extensively. Prerequisite: BMC 106 or prior experience

BMC 235-Advanced Word
(1 credit hour - 0 lecture 2 lab - T)
For the experienced user. Covers working with macros, tracking changes, creating and protecting forms, generating master documents and adding comments and highlights to a variety of documents. Prerequisites: BMC 105 and BMC 201 or prior experience

BMC 236-Advanced Access
(1 credit hour - 0 lecture 2 lab - T)
For the experienced user. Covers generating reports that contain sub-reports, manage database objects, create switchboards and modules. Troubleshooting database errors and problems will also be explored. Prerequisites: BMC 103 and BMC 202, or prior experience

BMC 237-Advanced Excel
(1 credit hour - 0 lecture 2 lab - T)
For the experienced user. Covers advanced functions and formulas. Importing and exporting data, creating PivotTables and data forms, and using Goal Seek and Solver will also be covered. Prerequisites: BMC 104, BMC 203 or prior experience

BMC 238-Advanced PowerPoint
(1 credit hour - 0 lecture 2 lab - T)
For the experienced user. Covers advanced multimedia and graphics into a presentation while still maintaining that look of professionalism. Working with charts, interactive slide shows, and integration will also be covered. Prerequisites: BMC 114 or prior experience

BMC 240-Advanced Integrated Applications
(3 credit hours - 2 lecture 3 lab - T)
Hardware and software knowledge will be integrated in a project-oriented business application using a pc-based platform. The projects initiated in previous courses are developed and tested with a final advanced project suitable for use in a business setting. Prerequisites: BMC 120, BMC 130, AOA 140 and BUS 215, or BMC 140

BMC 254-Advanced Photoshop
(1 credit hour - 0 lecture 2 lab - T)
Covers advanced Photoshop functions. This workshop provides hands-on experience in working with selections and images, colors, and layers. Provides hands-on experience in using channels, masks, filters, and using ImageReady for the web. Prerequisite: BMC 134

BMC 295-Special Problems
(0.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences that contribute substantially to Business student's program of study. Prerequisite: Dean approval

BUS 102-Business Organization
(3 credit hours - 2 lecture 2 lab - B)
An introductory course dealing with the major functional areas of and the career opportunities in business. Business organizations, personnel, purchasing, marketing, and governmental regulation are all surveyed. A broad background in management principles suitable to other situations and organizations is also provided. Prerequisite: None

BUS 111-Principles of Management
(4 credit hours - 4 lecture 0 lab - T (B))
A study of managerial functions include planning, organizing, staffing, directing, and controlling; and their implementation by objectives, policies, decision making, authority, executive development, communication, and attitude. Prerequisite: None

BUS 118-WordPerfect
(3 credit hours - 2 lecture 3 lab - T)
A course designed to teach the use of the WordPerfect word processing software program. Students will learn to produce documents, tables, and reports. Functions covered will include but are not limited to: delete, insert, save, print, spell check, setting margins and tabs, page numbering, block operations, indents, line drawing, and merge functions. Prerequisite: BUS 141 or AOA 111

BUS 131-Business Law I
(3 credit hours - 3 lecture 0 lab - B)
This survey course presents the legal framework of business, including the forms and classifications of law and the court system, as well as social forces of the law, and torts and crimes that relate to business. The course concludes with a study of the law of contracts. Prerequisite: None

BUS 132-Business Law II
(3 credit hours - 3 lecture 0 lab - B)
A continuation of BUS 131 (Business Law I) to include a study of the law governing sales, commercial paper, partnerships, corporations, personal property, and bankruptcy. Prerequisite: BUS 131

BUS 133-Law and Banking
(4 credit hours - 4 lecture 0 lab - T)
A study of the laws which govern and affect banking with emphasis on the Uniform Commercial Code. Includes bankruptcy, consumer lending, commercial paper, exemptions holder in due course, liability, bank collections, check losses and frauds, letters of credit, and secured transactions. Prerequisite: None

BUS 141-Keyboarding
(2 credit hours - 1 lecture 3 lab - B)
Students will learn the alphabetic, numeric, and symbol keys using the touch system. The course concentrates on keyboarding drills and timings to increase students speed and accuracy. Students will also learn the numeric keypad. Prerequisite: None

BUS 151-Microeconomics
(4 credit hours - 4 lecture 0 lab - G)
Fundamentals of microeconomics: a study of the individual firm and how it allocates resources, prices goods and services, and organizes itself to meet competition. Focuses on the behavior of customers and supplies in the marketplace which affects the kinds of goods and services produced and consumed through an understanding of demand and supply schedules, elasticity and subdivision, fixed, variable, and marginal revenue and total revenue, and profit maximization. Prerequisite: None

BUS 152-Macroeconomics
(4 credit hours - 4 lecture 0 lab - G)
A study of the overall performance of an economy of a society as a whole entity. Alternative economic systems are explored and macroeconomics studies the various mechanisms a society can use to allocate scarce resources. Prerequisite: None

BUS 153-Consumer Economics
(4 credit hours - 4 lecture 0 lab - G)
A course designed to assist the student in making intelligent consumer decisions using cost/benefit analysis. This course has a strong focus on personal enrichment/involvement and includes: economics and the American family, budgeting, consumer problems, consumer durables, housing/debt, insurance, savings and investments, and current issues. Prerequisite: None

BUS 170-Community Outreach
(3 credit hours - 3 lecture 0 lab - T)
A course where students can develop, create, manage, and complete a community service project in class by using basic communication skills, brainstorming, teamwork, project time management, and multitasking skills. This course is available only to students in the prison education program. Prerequisite: None

BUS 183-Introduction to Commercial Lending
(4 credit hours 4 lecture 0 lab T (E))
The course explains the role of the commercial lending function within the banking industry and the total economy. Also provided is the understanding of the technical skills necessary to be a successful commercial lender. Emphasis is placed on the commercial lending customer, products, pricing, support, documentation, and analysis with special attention focused on funding risks. Prerequisite: None

BUS 184-Financial Customer Services
(2 credit hours - 2 lecture 0 lab - T (E))
This course is designed to provide customer contact personnel with opportunities to develop communication skills with their customers. The content includes identifying and responding to customer's needs and handling difficult situations found in financial institutions. Prerequisite: None

BUS 195-Microcomputer Literacy
(3 credit hours - 1 lecture, 5 lab - B)
Self-paced course designed to familiarize students with a variety of microcomputers and common business, personal, and educational software. Students learn the keyboard and basic operating commands of personal computers. They also learn to use a common word processing and spreadsheet program and are familiarized with a variety of business applications and educational software. Prerequisite: Attendance at an Access Orientation or permission of the Access Coordinator

BUS 199-Employability Principles
(3 credit hours - 3 lecture 0 lab - T)
Course includes principles of employment practices, and improvement of employee traits. Prerequisite: Special approval by technology coordinator

BUS 200-Internship I
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience required for business technology students. Includes student applying for a job in a related area, on-the-job supervision, scheduled visits by coordinators, and periodic evaluations. Co-requisite: BUS 205 or PAR 265. Internship positions must be approved by the Dean.

BUS 201-Community Service
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience by students performed gratuitously for a public agency or non-profit entity. Qualifying agencies and entities include, but are not limited to, those providing health or child care, legal assistance, consumer services, corrections, civic affairs, neighborhood improvement, rural development, environmental quality, gerontology and other fields of human betterment and community improvement. This course is available only to students in the prison education program. Prerequisite: Special approval

BUS 205-Seminar for Internship
(1 credit hour - 1 lecture 0 lab - T)
A seminar course accompanying Co-Op or Internship, including group discussion on applying learned concepts to the employment experience, and Internship or Co-Op critique. Co-requisite: BUS 200, BUS 201, or BUS 210.

BUS 206-Electronic Spreadsheet and Database
(3 credit hours - 2 lecture 3 lab - T)
This course is designed to provide the student with a working knowledge of an electronic spreadsheet and a database. The student will develop general examples for business application. No previous computer experience is required. This course is available only to students in the prison education program.

BUS 207-Small Business Management
(3 credit hours - 3 lecture 0 lab - B)
This course is designed to give the student fundamentals of managing a small business. A study of starting, managing, and financing a company, with emphasis on problems and risks unique to operating a small business. Prerequisites: ACC 101, BUS 111, and sophomore status

BUS 210-Internship II
(2-4 credit hours - 0 lecture 20-40 lab - T)
A continuation of Internship I. Prerequisite: BUS 200

BUS 211-Office Management
(4 credit hours - 4 lecture 0 lab - T)
A study of the fundamental principles and practices used to expedite office work including office organization and management, office location, layout and equipment, records management and retention, and design and control procedures. Prerequisite: None

BUS 212-Customer Relationship Management
(3 credit hours - 2 lecture 2 lab - T)
Provides knowledge of the full range of customer service principles used in the travel and tourism industry. Topics include customer service overview, trends, merchandise handling, travel industry examples, business impact, and legal implications. Prerequisite: BUS 111

BUS 213-International Business
(4 credit hours - 4 lecture 0 lab - G)
A study of the economic, social, legal, cultural and political considerations of doing business internationally. The role international monetary systems, investment theory, financial markets and exchange rates are explored. Prerequisite: Sophomore standing

BUS 215-Desktop Publishing
(3 credit hours - 2 lecture 3 lab - T)
Includes an analysis of the desktop publishing process. Prepares students to design publications, use typesetting fundamentals, and work with text and graphics in business and technical applications. Prerequisite: CPT 105 or AOA 105

BUS 219-Advanced Desktop Publishing
(3 credit hours - 1 lecture 4 lab - T)
Emphasizes document creation using page-layout software to produce newsletters, brochures, flyers, and advertisements. Includes an introduction to graphics software. Prerequisite: BUS 215

BUS 260-Business Correspondence
(3 credit hours - 2 lecture 2 lab - T (B))
Introduction to the types of written communications used frequently in business. Development of ability to convey facts and information in a clear, concise, and complete manner. The student is encouraged to develop courtesy, cooperation, and a desirable attitude toward the reader. Co-requisite: ENG 180 or permission of instructor

BUS 262-Organizational Behavior
(4 credit hours - 4 lecture 0 lab - T)
Students will study human behavior, emphasizing career successes, in organizations including business, industry and the government. Topics include motivation, high performance organizations, group and conflict processes. The student will use both learning theory and critical thinking skills in experiential exercises and case studies relevant to the workplace. Prerequisite: BUS 111

BUS 265-Human Resource Management
(3 credit hours - 2 lecture 2 lab - T)
A study of philosophy, principles, and methods of personnel management including organizational structures, areas of responsibility, policy making, procurement and placement, training, evaluation, wage and salary administration, employee benefit programs, and a survey of labor laws. Prerequisite: None

BUS 268-Analyzing Financial Statements
(4 credit hours - 4 lecture 0 lab - T (E))
This course develops skills of financial analysis for the prospective bank lender/credit analyst. Content includes the conceptual frame-work for analysis, basic and advance analytic techniques and extensively utilizes the case study approach. Prerequisite: ACC 113 or special permission

BUS 269-Introduction to e-Commerce
(3 credit hours - 2 lecture 2 lab - T)
An introduction to electronic commerce. The course focuses on using the Internet to buy and sell products as well as analyzing types of Internet businesses. It introduces promoting, advertising, and selling electronically. The course will help the student to create a website with two different software packages. Prerequisite: CPT 105

BUS 272-Financial Management
(3 credit hours - 2 lecture 2 lab - T)
Corporate structure, forms of business organization, financing through securities, sources of capital, management of assets, administration of income and expenses, expansion and combinations are studied. Prerequisites: ACC 101 and BMC 120

BUS 273-Real Estate Principles and Practices
(4 credit hours - 4 lecture 0 lab - T (E))
Basic foundation course in real estate philosophy, theory, economics, and administration. Covers elementary physical, legal, locational, and economical characteristics of real estate, real estate markets, and influences on real estate values. Prerequisite: None

BUS 274-Real Estate Law
(4 credit hours - 4 lecture 0 lab - T (E))
Includes eleven legal areas commonly concerned with typical real estate professionals. Among topics covered are law of agency as applied to real estate brokers and salesmen, law of fixtures, estates, conveyances of real estate, mortgages and liens, license laws of Ohio, and zoning. Prerequisite: None

BUS 275-Real Estate Finance
(4 credit hours - 4 lecture 0 lab - T (E))
Includes institutions, methods, instruments, and procedures involved in financing of real estate, nature, and characteristics of mortgage market. Effects of monetary and fiscal policies on real estate financing considered. Prerequisite: None

BUS 276-Real Estate Appraising
(4 credit hours - 4 lecture 0 lab - T (E))
This course deals with appraisal theory, basic principles affecting value of real property; data accumulation and analysis of city, neighborhood, site, and property; applied techniques and estimating value from three approaches; building analysis, depreciation; entire range of appraisal process; and preparation based on field experience of preparing single-family residential appraisal report. Prerequisite: None

BUS 277-Real Estate Brokerage
(4 credit hours - 4 lecture 0 lab - T (E))
This course expands on BUS 273 and includes: specialized fields of real estate, principal-agent relationship, listing principles and practices, closing principles and practices, sales contract, principles of economics and real estate appraising, property insurance, real estate finance, federal laws regulating real estate practice, mathematics in real estate, and other facets of real estate needed by real estate professionals; Ohio licensing laws and requirements. Prerequisite: BUS 273 or permission of instructor

BUS 281-Money And Banking
(3 credit hours - 3 lecture 0 lab - T (E))
A study of the fundamental concepts of banking credit, central banking, and monetary theory. Prerequisite: None

BUS 282-Principles of Banking
(4 credit hours - 4 lecture 0 lab - T (E))
Survey course presenting the fundamentals of bank functions in a descriptive fashion so that the beginning banker may view his profession in a broad and operational perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement. Prerequisite: None

BUS 283- Bank Management
(4 credit hours - 4 lecture 0 lab - T (E))
Presentation of the new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. Since case study is becoming well established as an effective management learning technique, this course introduces the use of cases as a new element. Prerequisite: BUS 282

BUS 284-Consumer Lending
(4 credit hours - 4 lecture 0 lab - T (E))
This American Institute of Banking course is designed to provide an overview of the consumer credit operation. The course examines the role of consumer credit in overall banking operations. Other topics covered are: evaluating credit risks and consumer credit policy; the loan – from application through documentation and closing; servicing and collecting loans, consumer compliance, portfolio management, and marketing. Prerequisite: BUS 282

BUS 286-Consumer Credit Analysis
(4 credit hours - 4 lecture 0 lab - T (E))
This American Institute of Banking course is designed for individuals who understand the basics of consumer lending and its function within a bank, but need specific training on the many aspects of making a consumer loan. Other topics covered are: legal and regulatory issues; credit application, investigation, and scoring fundamentals; credit decision considerations; loan interviewing; documentation, closing, and review. Prerequisite: BUS 282

BUS 287-Home Mortgage Lending
(4 credit hours - 4 lecture 0 lab - T (E))
A study of the mortgage market, the acquisition of a mortgage portfolio, mortgage plans and procedures, and mortgage loan processing and services. Includes discussion on the obligations of the mortgage loan officer in overall portfolio managements. Prerequisite: BUS 282

BUS 288-Trust Functions & Services
(4 credit hours - 4 lecture 0 lab - T (E))
A study of the services rendered by institutions engaged in trust business. Includes analysis of the services and duties involved in trust operations and of the distinction between the business and legal aspects of trust functions. Prerequisite: BUS 282

BUS 289-Saving & Time Deposit Banking
(4 credit hours - 4 lecture 0 lab - T (E))
An analysis of the historical development of saving institutions, the basic economic functions of the saving process, and the current operations and policies of saving institutions. Also includes clarification of the important differences between financial savings by individuals or organizations and real savings that appear as capital formation, and description of the system of financial flows of income to capital investments. Prerequisite: BUS 282

BUS 291-Government & Business
(3 credit hours - 2 lecture 2 lab - B)
Provides an appreciation of the origins and workings of both governmental and business institutions as a system of social thought and action. Prerequisite: BUS 151

BUS 292-Branch Bank Management
(4 credit hours - 4 lecture 0 lab - T (E))
Course is designed to present a comprehensive overview of the branch function and the manager's role in its operation. Separate modules dealing with branch operations and lending provide a complete introduction to the functional aspects of the branch management position. In addition, a central module on the overall management of all branch functions provides the students with an awareness and appreciation of this critical element in the operation of a successful branch. Prerequisite: BUS 282

BUS 295-Special Problems
(0.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences that contribute substantially to a Business student's program of study. Prerequisite: Dean approval

BUS 296-Vocational Education Experience
(1-12 credit hours - T)
This course number designates transfer credit awarded for the satisfactory completion of an approved secondary or post-secondary program in vocational education. If approved six (6) credit hours are awarded for each academic year completed in a full-time vocational education program for up to twelve (12) credit hours. This credit is to be evaluated by the student's advisor and Division Dean.

BUS 297-Technical Work Experience
(1-12 credit hours - T)
The 297 course number designates transfer credit awarded for the satisfactory acquisition of knowledge through the performance of verified (documented) work experience in an occupation specialty at the level of journeyman, technician, semiprofessional, or paraprofessional, or mid-management person. If approved, up to six (6) credit hours are awarded for each calendar year of full-time work completed at a specified level. There is no tuition fee. The maximum number of credits to be thus awarded is twelve (12). The judgment of the Division Dean determines if any (or how much) credit will be awarded.

BUS 299-Seminar
(3 credit hours - 3 lecture 0 lab - T)
Course taken in conjunction with internship. Includes discussion of students' intern experiences, principles of employment practices, and improvement of employee traits. Prerequisite: Special approval by technology coordinator

CAD 105-AutoCAD I
(3 credit hours - 1 lecture 4 lab - T)
An introduction to Computer Aided Drafting and Design. The primary focus is on the use of PC hardware and AutoCAD software for the creation of two-dimensional drawing entities. AutoCAD topics may include an introduction to computer interfaces, display control, 2-D entity construction and editing, layer creation and control, text, basic dimensioning, and basic plotting commands. Drafting topics may include geometric shape creation, orthographic projections, and proper drawing set-up and layout. Prerequisite: None

CAD 114-Architectural Graphics I
(3 credit hours - 2 lecture 3 lab - T)
Topics introduce the student to the visual communication language of architecture. Topics include architectural career opportunities, CADD drawing tools and processes, residential design and drafting methods. Application of topics to a residential architectural graphics project is required. Prerequisite: CAD 105

CAD 115-Architectural Graphics II
(3 credit hours - 2 lecture 3 lab - T)
Topics include a continuation of residential design and drafting; emphasizing sections, details, and mechanical systems. Drawing topics include more complex drafting skills, including details, longitudinal and transverse sections, and presentation methods. Physical model building will be introduced. Prerequisite: CAD 114 or permission of instructor

CAD 119-AutoCAD II
(3 credit hours - 1 lecture 4 lab - T)
A continuation of AutoCAD I in which students will proceed into more advanced topics of the software. Items covered may include advanced 2-D entity creation and editing, drawing set-up in varying scales, text and dimension style set-up and control, block insertion and modifications, external references, plot styles, advanced plotter set-up, attributes and an introduction into 3-D AutoCAD controls. Prerequisite: CAD 105 or permission of instructor

CAD 125-Construction Methods and Materials I
(3 credit hours - 2 lecture 3 lab - T)
This course focuses on the materials and methods of commercial and residential construction. Topics include CSI formatting, site work, concrete/masonry, woods, and metals. Site visitations and workshops are used to reinforce these concepts. Prerequisites: None

CAD 126-Construction Methods and Materials II
(3 credit hours - 2 lecture 3 lab - T)
A continuing study of the materials and methods of commercial and residential construction. Topics include roofing systems, doors/windows, moisture and thermal protection, special construction, and finishes. Site visitations are used to reinforce concepts. Prerequisite: CAD 125 or permission of instructor.

CAD 141-Introduction to Mechanical Modeling
(3 credit hours - 1 lecture 4 lab - T)
This course introduces solid and wireframe/surface modeling technologies as applied to mechanical design and computer aided machining. Course topics include 3-D construction fundamentals, Boolean operators, parametric part modeling, NURBS surfaces, assembly modeling and drawing extraction. Design automation software specific to mechanical design is used. Prerequisite: CAD 105 or permission of instructor.

CAD 142-Introduction to Architectural Modeling
(3 credit hours - 1 lecture 4 lab - T)
This course introduces object oriented 3-D modeling techniques as applied to architectural drafting and design. Course topics include mass study creation, space planning and architectural objects. Drawing extraction of floor plans, elevations and sections from 3-D models is covered. Design automation software specific to architectural drafting and design is used. Prerequisites: CAD 114 and CAD 119

CAD 212-Architectural Working Drawings I
(4 credit hours - 2 lecture 4 lab - T)
Introduces students to the process of creating professional architectural drawings and details. Topics include career practices and opportunities, fundamentals of drawing set-up and creation. AutoCAD and Autodesk's Architectural Desktop will be used to begin creation of a set of building plans. Drawings may include a site plan, floor plan(s), and elevations. Prerequisites: CAD 119 and CAD 142, or permission of instructor

CAD 213-Architectural Working Drawings II
(4 credit hours - 2 lecture 4 lab - T)
Continues the study and creation of building plans using AutoCAD and Autodesk's Architectural Desktop. Topics include framing methods and components, roof framing, foundation, and building sections. Drawings may include a roof framing plan, foundation plan, and building section. Prerequisite: CAD 212 or permission of instructor

CAD 214-Architectural Working Drawings III
(4 credit hours - 2 lecture 4 lab - T)
Continues the study and creation of building plans using AutoCAD and Autodesk's Architectural Desktop. Topics include building sections, stair construction, architectural details, cabinetry, and millwork. Drawings may include a stair layout, building sections, interior elevations, and architectural details. Prerequisite: CAD 213 or permission of instructor

CAD 215-Estimation & Building Codes
(3 credit hours - 2 lecture 3 lab - T)
A course in the fundamentals of estimating. Topics include bidding procedures, contracts, takeoffs, and contractor selection. Estimation will include manual and computer generated techniques for residential and commercial construction. Also included is an introduction to building codes. Prerequisites: CAD 212 and CAD 213; Co requisite: CAD 214

CAD 216-VIZ Rendering
(3 credit hours - 2 lecture 3 lab - T)
This course continues with the Architectural Desktop program by introducing the CAD drafter to a stand along rendering and animation package. Course topics include planning, display, content styles, and interoperability. Drawing extraction of floor plans, elevations, and sections from 3-D models is covered. Design automation software specific to architectural drafting and design is used. Prerequisites: CAD 242 or permission of instructor

CAD 242-Intermediate Architectural Modeling
(3 credit hours - 2 lecture 3 lab - T)
This course continues with object oriented 3-D modeling techniques as applied to architectural drafting and design. Course topics include planning, display, content styles, and interoperability. Drawing extraction of floor plans, elevations and sections from 3-D models is covered. Design automation software specific to architectural drafting and design is used. Prerequisite: CAD 142 or permission of instructor

CHM 101-Chemistry
(4 credit hours - 3 lecture 3 lab - G)
An introduction to the basic concepts of chemistry, including the following topics: metric system, atoms, elements, molecules, compounds, moles, chemical equation and reactions, stoichiometry, gas laws, liquids, solids, chemical bonds, solutions, acids, and bases. Prerequisite: MTH 110 Placement Level

CHM 121-General Chemistry I
(4 credit hours - 3 lecture 3 lab - G)
This course focuses on the principles of general chemistry, including measurements and chemical analysis, atomic and molecular structures, chemical formulas and equations, stoichiometry and solution reactions, periodicity, bonding, and molecular geometry, and thermochemistry. Students will complete lab experiments related to these topics. This course is recommended for students who are pursuing an associate degree in science-engineering or an allied health related field. Prerequisites: Placement in MTH 113, high school chemistry, or CHM 101 with a grade of "C" or better

CHM 122-General Chemistry II
(4 credit hours - 3 lecture 3 lab - G)
This course continues to investigate the principles of college chemistry, including states of matter, solutions, chemical equilibrium, acid/base chemistry, reaction kinetics, and intermolecular forces. Students will complete lab experiments related to these topics. This course is recommended for students who are pursuing an associate degree in science, engineering or an allied health related field. Prerequisite: CHM 121 with a grade of "C" or better

CHM 123-General Chemistry III
(4 credit hours - 3 lecture 3 lab - G)
This course continues to investigate the principles of college chemistry, including thermodynamics of chemical reactions, electroechemistry, nuclear chemistry, and organic chemistry. Students will complete lab experiments related to these topics. This course is recommended for students who are pursuing an associate degree in science, engineering or an allied health related field. Prerequisite: CHM 122 with a grade of "C" or better

CHM 201-Biochemistry
(4 credit hours - 3 lecture 3 lab - G)
This course is an introduction to the biochemistry, integrating topics in cellular physiology, buffers, proteins, enzymes, carbohydrates, lipids, nucleic acids, and metabolism. Lab includes methods of separation and identification of biochemical constituents. Prerequisite: CHM 122 with a grade of "C" or better

CMT 102-Introduction to Metals Machining Processes
(4 credit hours - 2 lecture 4 lab - T)
An insight into the sequence of processing steps, different processes, and tooling required to produce a product. Prerequisite: None

CMT 103-Blueprint Reading
(3 credit hours - 2 lecture 2 lab - B)
Print care and development, orthographic drawing interpretation, sectional and assembly drawings, pneumatic and hydraulic schematics, and an introduction to geometric dimensioning and tolerancing symbols. Prerequisite: None

CMT 121-Metals Machining Theory I
(4 credit hours - 2 lecture 4 lab - T)
Hand tools, drills, lathes, saws, safety, setup, and machine maintenance will be emphasized. Projects will include turning, milling, drilling, and grinding of parallel, square, and round surfaces. Prerequisite: CMT 102 or permission of instructor

CMT 135-Numerical Control Programming I
(4 credit hours - 2 lecture 4 lab - T)
NC/CNC machine tool capability, the Cartesian coordinate system, drafting for NC programming, and incremental or absolute part programming. Prerequisites: CMT 102 and MTH 113, or permission of instructor

CMT 137-Metrology
(4 credit hours - 2 lecture, 4 lab - T)
Language of measurement, systems of measurement, basic statistics, scaled instruments, Vernier instruments, micrometer instruments, gage blocks, comparators, pneumatic measurement, optical instruments, surface measurements, and coordinate measuring machines. Prerequisite: CMT 102 and MTH 113 or instructor permission.

CMT 201-Computer Assisted Machining I
(4 credit hours - 2 lecture 4 lab - T)
2-D geometry, geometry modification, tooling and machining data, tool path generation and editing, and lathe programming. Prerequisite: CMT 135 or permission of instructor

CMT 205-Numerical Control Programming II
(4 credit hours - 2 lecture, 4, lab - T)
Multi-axis milling machines, horizontal milling machines, multi-axis lathes, live tooling, CNC control systems, program planning, program structure, Tool functions, setting offsets, Plane selection, datum shift, and conversational programming. Prerequisite: CMT 135 and MTH 113 or instructor permission.

CMT 207-Tool Design Fundamentals I
(3 credit hours - 2 lecture, 2 lab - T)
Tool design economics, tool materials, cutting tool design, work holding principles, jig design, fixture design, inspection tooling, tool design for the joining processes, and modular tooling. Prerequisite: CMT 102 and MTH 113, or instructor permission.

CMT 209-Product Manufacturing
(3 credit hours - 1 lecture 6 lab - T)
Team concepts and knowledge from previous courses are used to develop a manufacturing plan and generate a machine product. Includes production planning and control, tooling setups, and personal evaluation. Lab activities include plan implementation, tool building, and actual production of parts using lathe, mill, drilling, and surface grinding applications. Prerequisite: CMT 121 and MTH 113 or permission of instructor

CMT 211-Computer Assisted Machining II
(4 credit hours - 2 lecture 4 lab - T)
3-D geometry construction, wire frame models, surface models, geometry modification, tooling and machining data, 3-D tool path generation and editing, post processor customization. Prerequisite: CMT 201

CMT 221-Introduction to CNC Machines
(4 credit hours - 2 lecture 4 lab - T)
Hands-on training in the operation of CNC machines. Both turning and milling will be performed producing parts of complex shapes. Emphasis will be placed on power requirements, programming skills, tool selection, and use of tool offsets for size control. Prerequisite: CMT 135

CMT 227-Tool Design Fundamentals II
(3 credit hours - 2 lecture, 2 lab - T)
Metal stamping tooling design and processes including, cutting, bending, coining, metal extrusion, and metal forging. Metal, plastics, and glass mold design and processes, mold construction, compression molding, injection molding, plastic extrusion, and plastic forming processes. Prerequisite: CMT 207 or instructor permission

CMT 231-Advanced CNC Machines
(4 credit hours - 2 lecture 4 lab - T)
A study in CAD/CAM and its use in the programming of contoured surfaces combining the knowledge and skill from CMT 211and CMT 221. Additional topics include modular tooling use for work piece holding. Prerequisites: CMT 211 and CMT 221

CMT 235-Geometric Tolerancing
(3 credit hours - 3 lecture 0 lab - T)
Geometric tolerancing and dimensioning based on the ANSI/ASME Y14.5M-1994 standard. Prerequisite: CMT 103

CMT 260-Manufacturing Technologist Certification
(3 credit hours - 2 lecture 3 lab - T)
This course provides the student a review of the fundamental competency areas required for manufacturing technologists certification. Subject areas covered include, mathematics, physics, engineering science, product design, and manufacturing planning and strategy. Prerequisite: CMT 209 or instructor permission

COM 090-Effective Reading
(4 credit hours - 3 lecture 2 lab - G)
Builds vocabulary knowledge. Improves comprehension through studying main ideas, supporting details, relationships of ideas, and inferences. Reviews the use of the dictionary. Further develops vocabulary and comprehension skills through a required novel assignment. Prerequisite: None

COM 091-Reading & Study Skills
(4 credit hours - 3 lecture 2 lab - G)
Strategies for taking notes, comprehending text-books, improving memory, and taking tests are demonstrated and applied. Vocabulary study and a required novel further develop comprehension skills. The rapid reading techniques of skimming and scanning are practiced. Critical reading and thinking skills are developed. Prerequisite: C or better in COM 090 when placed in COM 090 by assessment testing

COM 105-Basic Communication Skills
(3 credit hours - 3 lecture 0 lab - G)
A basic communications course designed as a general elective for non-degree seeking students. Improves use of standard English both orally and in writing. Provides students knowledge related to preparing memos, letters, reports, and oral presentations. This course is available only to students in the prison education program. Prerequisite: None

COM 122-Interpersonal Communication
(3 credit hours - 3 lecture 0 lab - G)
This interactive course will explore the principles of communication as it pertains to personal and workplace relationships. Perception, culture, listening, and conflict management are among the topics which will be explored. Prerequisite: None

COM 261-Public Speaking
(4 credit hours - 3 lecture 2 lab - G)
Introduction to public speaking processes which are designed to help individuals communicate effectively in a variety of public speaking situations. This course focuses on developing, organizing, preparing, delivering, and analyzing public presentations. Prerequisites: ENG 150 and ENG 180

CPT 105-Introduction to Microcomputer Software Applications
(3 credit hours - 2 lecture 2 lab - B)
Provide students with an in-depth introduction of the different types of software application programs that are used at home, at school, and at work. Emphasis will not only be placed on learning new skills but retaining those skills and applying them to different projects. Prerequisite: None

CUL 102-Orientation to Culinary Arts
(2 credit hours - 2 lecture 0 lab - B)
An introductory course for the Culinary Arts technology stressing basic food, fundamental procedures, and techniques used by the professional chef. The student will become familiar with the environment and language of the food service industry including both the public and private sector. Prerequisite: None

CUL 104-Safety and Sanitation
(3 credit hours - 3 lecture 0 lab - T)
A study of the causes of food borne diseases and food spoilage. The student will become familiar with information on local, state and federal regulations regarding safety and sanitation. Particular attention will be given to preventing kitchen accidents, keeping sanitary facilities and equipment, correct sanitary food preparation, good practices for store sanitation, and preventing contamination. Prerequisite: None

CUL 106-Fundamentals of Food Preparation I
(4 credit hours - 3 lecture 3 lab - T)
The student will gain a working knowledge of the culinary environment including methods of cooking all types of meat, fish, vegetables, salads, soups, sauces, and desserts. Students will become familiar with vital information regarding spices, herbs, seasoning, metric conversions, weights, and measures. Students will become familiar with international culinary terms and equipment, and using practical applications in the lab. Co-requisite: CUL 104

CUL 108-Introduction to Baking
(3 credit hours - 2 lecture 3 lab - T)
An intensive course covering all aspects of the fundamentals, principles, and applications of practical bakery food production and pastry making. Students will learn the production of international yeast-raising bakery products, and the chemistry of baking. There will also be a section on the causes of and solutions to common bakery production errors. Prerequisites: CUL 104 and CUL 106 or permission of instructor

CUL 112-Fundamentals of Food Preparation II
(3 credit hours - 2 lecture 3 lab - T)
Through lab and lecture, the student will continue toward more advanced training building upon the principles and concepts learned in CUL 106. The student will be better able to prepare foods, develop menus, and become more acclimated as a culinary practitioner in the kitchen environment. Prerequisite: CUL 106

CUL 113-Meat Technology
(2 credit hours - 1 lecture 3 lab - T)
An introduction to all food service aspects of dealing with meat including grading, inspection, storage, butchery, and basic methods of meat preparation. The student will become familiar with different cuts of the animal and with a variety of meat including red meat, white meat, fish, poultry, and game. Prerequisite: CUL 104

CUL 114-Nutrition and Menu Planning
(3 credit hours - 3 lecture 0 lab - T)
Students will learn the characteristics of the major nutrient groups, their relationship to diet and health, and the foods in which they are found. Students will apply these principles to creating menus, marketing, food purchasing, and preparation to meet the nutritional needs and tastes of consumers in both the private and public sectors. Prerequisites: None

CUL 116-Professional Baking
(3 credit hours - 1 lecture 6 lab - T)
This course is a continuation of CUL 108 including more complex preparations and decorations. Advanced baking techniques will include production of bakery food specialties including puff pastry, cakes, and other specialized pastries and breads. Prerequisite: CUL 108 or permission of instructor

CUL 118-Professional Table Service
(2 credit hours - 1 lecture 2 lab - T)
Details relating to 'Dining Room Service' as well as full 'Beverage Management' knowledge to all table settings in a restaurant, for banquets and other food service operations. Includes table and beverage setting arrangements, specific types of service and delivery systems. Students will understand the importance of dealing with employees and customer relations in the dining room and the bar environment. Proper handling and knowledge of alcoholic beverages are taught. Proper safety and sanitation for customers and employees is also discussed. Prerequisite: CUL 104

CUL 120-Practicum in Culinary Arts I/Seminar
(5 credit hours - 1 lecture 40 lab - T)
This practicum involves hands on experiences working in a food service site. It provides the student with an opportunity to put to practical use the knowledge obtained in the classroom under the direction of a qualified chef or food production manager and the College coordinator. The activities will involve the duties found in food production such as baking, vegetable preparation, grill and broiler cooking, and dessert preparation to name a few. Prerequisites: CUL 113, CUL 114 and CUL 116.

CUL 202-Food and Beverage Cost Control
(2 credit hours - 2 lecture 0 lab - T)
A study of the application of accounting theory to the management of food service items. Students will learn to set up and use systems including data processing to control major costs of food and beverages. Each student will develop a control routine for food and beverage operation. Prerequisite: CUL 120

CUL 206-Classical Cuisine
(3 credit hours - 1 lecture 6 lab - T)
An advanced course in which the student will apply previous knowledge by employing various preparation techniques, planning advanced menus, preparing the food, and coordinating cooking activities. Students practice culinary cuisine based on principles developed by the great classic European chefs. The student will refine the skills of a chef and test recipes culminating in a final cooking test of a demonstration of classical cookery. Prerequisite: CUL 120

CUL 208-Food Service Equipment/Facility Organization
(3 credit hours - 2 lecture 2 lab - T)
Provides advice to students on the best ways to develop the elements of kitchen equipment, design kitchens to accommodate them, and situate equipment in a manner that assures smooth operations and a pleasant work atmosphere. Making wise purchases of food service equipment and assuring the food service facility complies with health and safety codes is also included. Prerequisite: CUL 120

CUL 216-Classical Desserts
(3 credit hours - 1 lecture 6 lab - T)
Through lab and lecture, the advanced student will gain a working knowledge of classical dessert making which includes menu planning, preparation, presentation, and familiarization with all varieties of classical desserts. The student will have a working knowledge of hot, cold, and frozen classical desserts. Prerequisites: CUL 116 and CUL 120

CUL 218-Garde-Manger
(3 credit hours - 2 lecture 3 lab - T)
The student will demonstrate preparation and presentation of cold foods, ice carvings, classical preparations of specialty foods, and buffet presentation. Students will become familiar with and be able to prepare nutritional cold foods, hot hors d'oeuvres, sausages, and truffles, as well as demonstrate correct carving of fruits and vegetables. Prerequisites: CUL 120 and CUL 206

CUL 220-Practicum in Culinary Arts II/Seminar
(6 credit hours - 2 lecture 40 lab - T)
Drawing materials from all aspects of food service operations, this course serves as a capstone of Culinary Arts Technology. Students' knowledge and resources of past courses are pulled together in menu planning, forecasting, purchasing, and serving a la carte meals and/or table d'hotel menus at both on-campus and off-campus sites. Knowledgeable guest lecturers will add enrichment to the course. Prerequisites: CUL 120, CUL 216 and CUL 218

CUL 222-Food Service Management
(4 credit hours - 4 lecture 0 lab - T)
Provides the advanced student practical details related to all aspects of setting up and running a restaurant, cafeteria, or institutional food service operation. Included will be training related to basic management principles and practices of successful food service operations, purchasing and inventory management, facility design, standardized recipes, cost control techniques, food handling for health and safety, and employee management. Prerequisite: CUL 120

ECE 123-Creative Activities: Art & Music
(4 credit hours - 4 lecture 0 lab - T)
Content focuses on planning and developing music and art experiences appropriate for 0-7 year-olds. Incorporates literacy experiences in the creative process.
Prerequisite: None

ECE 127-Field Practicum I
(2 credit hours - 1 lecture 7 labs - T)
The 70 hour field/clinical experience and seminar emphasize the planning and implementation of creative activities including music, art, and play appropriate for the early childhood classroom. Additional focus is placed on the cognitive development of the 0-8 year-old child through the planning and implementing of mathematics, language, reading and writing experiences. Prerequisites or co-requisites: ECE 123, EDU 125 and 135

ECE 227-Field Practicum II
(2 credit hours - 1 lecture 7 labs - T)
Emphasis in the 70 hour field experience/seminar is on literature, programming, health and science, and parent experiences. Planning, implementing, and reflecting on the experiences is required. Additional focus is placed on the cognitive development of the 0-8 year-old child through the planning and implementing of nutrition, language, reading, and writing experiences. Prerequisite: ECE 127; Co-requisites: ECE 233, 242, EDU 125, and 211

ECE 233-Children's Literature
(3 credit hours - 3 lecture 0 lab - T)
A survey and critical study of preschool children's literature, both prose and poetry. Includes selection of children's books for diverse groups of children and families and the development of the literature program. Prerequisite: Sophomore status

ECE 242-Creative Activities - Health and Science
(3 credit hours - 3 lecture 0 lab - T)
Development of problem solving through meaningful science and health related experiences for the preschool child. Prerequisite: None

ECE 271-Infant/Child Nutrition
(3 credit hours - 3 lecture 0 lab - T)
Study of nutrients, nutritional practices, and their effect on infants and children. Topics include meal planning and nutrition programs, CCAFP. Prerequisite: None

ECE 277-Preschool Program Development
(3 credit hours - 3 lecture 0 lab - T)
Focuses on assessment, curriculum development, classroom management, and environmental arrangements. Prerequisites: ECE 123, EDU 125 and EDU 135

ECE 281-Child Care Supervision & Administrative
(3 credit hours - 3 lecture 0 lab - T)
Emphasizes the director's responsibility for the development and operation of an early childhood center under Ohio law. Prerequisite: None

ECE 284-Infant/Toddler Care and Programming
(3 credit hours - 2 lecture 3 lab - B)
A study of the curriculum and programming needs of the child from birth to three years. Prerequisite: EDU 183

ECE 285-School Age Child Care and Programming
(2 credit hours - 1 lecture 3 lab - B)
Study of the curriculum and programming needs for the child 5-12 years old. Prerequisite: EDU 183

ECE 292-Student Teaching Practicum
(3 credit hours - 0 lecture 21 lab - T)
A comprehensive teaching experience with an approved center and under the supervision of a cooperating teacher. Student is responsible for full range of classroom activities and child care responsibilities. Concurrent enrollment in ECE 293 required. Prerequisites: Completion of 81 credit hours including 45 hour of Early Childhood Education courses and by permission of the program director, ECE 277 and HLT 143. Concurrent: ECE 293

ECE 293-Student Teaching Seminar
(3 credit hours - 3 lecture 0 lab - T)
Discussion of practicum experiences, early childhood education issues, professional work attitudes and ethical practices. Concurrent: ECE 292

EDP 109-Effective Classroom Management
(3 credit hours - 2 lecture 3 lab - T)
Techniques for effective classroom management and individualized behavior interventions are studied. Emphasis is placed on individual and small group management as well as enhancing the learning environment. Prerequisites: None

EDP 129-Field Practicum I
(2 credit hours - 1 lecture 7 lab - T)
This 70-hour field practicum and seminar emphasizes the use of observation, authentic assessment, and standardized assessment in the classroom as well as the knowledge and skills necessary to effectively serve as an educational assistant in the special needs classroom. The student is directly supervised by a licensed/certified professional as well as qualified college faculty. Prerequisites or Co-requisites: Meet Ohio Revised Code and Regulations for participation with children, EDP 109, 245, EDU 111, EDU 125, EDU 135, EDU 183, and ENG 150

EDP 203-Developmentally Appropriate Social Competence
(3 credit hours - 3 lecture 0 lab - T)
Focuses on techniques which assist in the development of pro-social behavior. Skills and programs for transitioning into adulthood are studied. Prerequisite: EDP 109

EDP 221-Reading to Learn
(4 credit hours - 4 lecture 0 lab - T)
Focuses on a variety of techniques for assisting the student age 8 – 14 in using comprehension and content based reading in acquiring knowledge. Addresses study skill strategies. Prerequisite: None

EDP 229-Field Practicum II
(2 credit hours - 1 lecture 7 lab - T)
This 70-hour field practicum and seminar emphasize the concept of positive collaboration between family, school and community as well as planning and implementation of mathematics activities. Focus is also placed on literacy, and addressing the difference between learning to read and reading to learn. The student is directly supervised by a licensed/certified professional as well as qualified college faculty. Prerequisites or Co-requisite: Meet Ohio Revised Code and Regulations for participation with children, EDP 129, EDP 203, EDP 221, EDU 125, 183, 211, and ENG 150

EDP 231-Comprehensive Field Practicum
(3 credit hours - 0 lecture 21 lab - T)
This comprehensive practicum serves as a capstone for the program. Under the direct supervision of a licensed/certified professional as well as qualified college faculty, the paraprofessional student will apply the skills necessary to be an effective assistant of the classroom teacher and student. The paraprofessional student will experience and exhibit the professional role in typical classrooms and classrooms with exceptionalities. Prerequisite/Co-requisite: EDP 129, EDP 229, ENG 180, MTH 111 and permission of the EDP program director. Concurrent enrollment in EDP 232 is required

EDP 232-Comp. Field Practicum Seminar
(3 credit hours - 3 lecture 0 lab - T)
Discussion of practicum experiences, issues and challenges in the role of the paraprofessional, and ethical practices. Concurrent enrollment in EDP 231

EDP 245-High Incidence Disabilities
(4 credit hours - 3 lecture 3 lab - T)
Emphasizes the exceptionalities designated as high incidence (mild to moderate) disabilities. Focus is also given to federal statutory definitions and assistive technology as related to these disabilities. Prerequisite: EDU 145

EDP 247-Low Incidence Disabilities
(4 credit hours - 3 lecture 3 lab - T)
Emphasizes the exceptionalities designated as moderate to severe disabilities. Focus is also given to federal statutory definitions and assistive technology as related to these disabilities. Prerequisite: EDU 145

EDU 101-Introduction to Education
(4 credit hours - 4 lecture 0 lab - T)
Graduates of the Zane State Education program are prepared for licensure as Pre-K teachers or Educational Paraprofessionals. This course offers an introduction to the broad spectrum of skills and knowledge necessary for lifelong success in a career working with children from 3 years to third grade. Prerequisite: None

EDU 111-Observation Skills
(3 credit hours - 2 lecture 3 lab - T)
Study of authentic and formal assessment tools used in the typical and special needs classrooms. Emphasizes the development of observation skills through the study of types of observations, reliability testing, objective reporting, portfolio development, and use of observation findings. Prerequisite: None

EDU 125-Early Childhood Literacy
(4 credit hours - 4 lecture 0 lab - T)
Study of the development of language, writing, and reading in 0-8 year olds. Emphasis is placed on the knowledge and skills needed to encourage literacy development. Prerequisite: None

EDU 135-Classroom Mathematics
(3 credit hours - 3 lecture 0 lab - T)
Study of the nine strands of mathematics and math curriculum scope and sequences for children 2-8 years of age. Content focuses on the process of learning mathematics and the skills necessary for the paraprofessional to assist with learning. Content standards for grades PreK-6 are studied. Prerequisite: None

EDU 145-Introduction to Special Education
(4 credit hours - 4 lecture 0 lab - T)
Emphasizes litigation and legislation regarding children with disabilities with focus on the Individuals with Disabilities Education Act (IDEA) and the Individualized Education Plan (IEP) process. Early intervention and giftedness are introduced as well. Prerequisite: None

EDU 183-Child Development
(5 credit hours - 4 lecture 3 lab - B)
Content focuses on the theories and current research related to the growth and development of the child from conception through early childhood. Prerequisite: Meet Ohio Revised Code and Regulations for participation with children

EDU 205-Educational Technology
(4 credit hours - 3 lecture 3 lab - T)
This course will provide the requisite technical knowledge, skills, and dispositions so teachers can utilize technology effectively, efficiently, and strategically in the classroom. Prerequisite: None

EDU 211-Family, School & Community
(3 credit hours - 3 lecture 0 lab - T)
Study of effective strategies for linking the family, school and community. Emphasis is placed on the distinct needs of the family, and services available to the family through the school and the community. Prerequisites: None

EDU 225-Phonics
(3 credit hours - 3 lecture 0 lab - T)
This course is an introduction to the linguistic elements of both written and spoken English, and their historical development. It provides the coursework necessary for formal Reading instruction in the early and middle childhood grades. Prerequisites: None

EET 110-Industrial Electricity
(3 credit hours - 2 lecture 3 lab - B)
This course for non-EET majors is a study of basic electrical principles including current, voltage, resistance, Ohm's law, the power law, efficiency, energy, electricity safety, series, parallel, and series-parallel circuits, and voltage sources. Electronic devices studied include diodes, capacitors, inductors, transistors, SCRs, triacs, integrated circuits, A.C. and D.C. motors, transformers, and controls. Students work with analog and digital VOMs and the oscilloscope. Prerequisite: MTH 110 or placement in MTH 113

EET 111-D.C. Circuit Analysis I
(4 credit hours - 3 lecture 3 lab - T)
Topics include resistance, current, voltage, Kirchhoff's Current and Voltage Laws, Ohm's Law, the resistor color code, Watt's Law, sources of D.C. current and voltage, MultiSIM®, construction/operation of the rectifier diode in D.C. circuits, the use of both analog and digital volt-ohm-milliammeters, and soldering and desoldering techniques. Co-requisite: MTH 113

EET 112-D.C. Circuit Analysis II
(4 credit hours - 3 lecture 3 lab - T)
Analysis of D.C. circuits using Branch Current Analysis, Thevenin's and Norton's Theorems, Superposition, and MultiSIM®. Devices studied include the zener diode as a voltage regulator, the I-C voltage regulator, the transformer in D.C. power supplies, capacitors, inductors, rectifiers, control relays, and generators. Other topics include the construction of D.C. power supplies, transient response of R-C and R-L circuits, and magnetic circuits. Prerequisite: EET 111

EET 113-Electronic Devices
(4 credit hours - 3 lecture 3 lab - T)
Introduction to the theory and operation of common semiconductor devices including: rectifier diodes, zener diodes, SCRs, triacs, bipolar transistors, JFETs, MOSFETs, op-amps, LEDs, seven-segment displays, MOVs, and Schottky diodes. Circuits studied include the common-emitter amplifier; common collector; fixed or gate-bias of JFETS; inverting, non-inverting, voltage-follower, and comparator op-amp circuits. Students use the analog oscilloscope, digital and analog curve tracers, function generators, and frequency counters. Prerequisite: EET 111

EET 114-Digital Circuits
(4 credit hours - 3 lecture 3 lab - T)
An introduction to digital electronics including a study of binary, hexadecimal, and octal numbering systems; common TTL and CMOS logic gate functions and electrical characteristics; the use and interpretation of manufacturer's TTL and CMOS data manuals; consistent logic smybology; Boolean Algebra; DeMorgan's Theorem; and Karnaugh Mapping. In addition to common logic gates, open-collector buffers, tri-state buffers, flip-flops and latches, Schmitt Triggers, one-shot circuits, and clock oscillator circuits are also studied. Prerequisite: EET 113

EET 123-A.C. Circuit Analysis
(4 credit hours - 3 lecture 3 lab - T)
Voltage and current phase relationships in R-L-C series, parallel, and series-parallel single-phase and three-phase circuits. Other topics include apparent power, real power, VARs, power factor and delta- and wye-connected circuits. Single-phase and three-phase transformers will be introduced. The generation transmission, and distribution of three-phase power will be introduced in the classroom and reinforced by a tour of a local power generating station. Computer software used includes OrCAD schematic capture and MultiSIM. Prerequisites: EET 112 and MTH 124

EET 151-Cisco Routers I
(4 credit hours - 2 lecture 5 lab - T)
Cisco Systems, Inc. CCNA1 Curriculum: Introduction to Networking; Networking Fundamentals; Networking Media; Cable Testing; Cabling LANs and WANs; Ethernet Fundamentals; Ethernet Technologies; Ethernet Switching; TCP/IP Protocol Suite and IP Addressing; Routing Fundamentals and Subnets; TCP/IP Transport and Application Layer; Case Study - Structured Cabling. Prerequisites: MTH 110, and CPT 105 or EGT 109

EET 153-Cisco Routers II
(4 credit hours - 2 lecture 5 lab - T)
Cisco Systems, Inc. CCNA 2 Curriculum: WANs and Routers; Introduction to Routers; Configuring a Router; Learning about other Devices; Managing Cisco IOS Software; Routing and Routing Protocols; Distance Vector Routing Protocols; TCP/IP Suite Error and Control Messages; Basic Router Troubleshooting; Intermediate TCP/IP; Access Control Lists (ACLs); Case Study - Routing. Prerequisite: EET 151

EET 155-Cisco Routers III
(4 credit hours - 2 lecture 5 lab - T)
Cisco Systems, Inc. CCNA3 Curriculum: Introduction to Classless Routing; Single Area OSPF; EIGRP; Switching Concepts; Switches; Switch Configuration; Spanning Tree Protocol; Virtual LANs; VLAN Trunking Protocol; Case Study - Access Control Lists (ACLs). Prerequisite: EET 153

EET 157-Cisco Routers IV
(4 credit hours - 2 lecture 5 lab - T)
Cisco Systems, Inc. CCNA4 Curriculum: Scaling IP Addresses; WAN Technologies; PPP; ISDN and DDR; Frame Relay; Introduction to Network Administration; Case Study - WANs; Case Study Presentation. Prerequisite: EET 155

EET 211-Power Control Electronics
(4 credit hours - 3 lecture 3 lab - T)
Covers the operating characteristics, manufacturer's specifications, and applications of electronic devices in industrial control circuitry. Topics include silicon rectifiers, SCRs, diacs, triacs, UJTs, relays, photoelectric devices, phototransistors, optoisolators, single-phase, three-phase, and pulse-width modulated power supplies, and solid-state relays. Prerequisites: EET 113

EET 215-Digital Circuits and Microprocessors
(4 credit hours - 3 lecture 3 lab - T)
Topics include: synchronous and asynchronous counters; decoders and drivers; encoders; digital displays; multiplexers and demultiplexers; arithmetic circuits; shift registers; programmable logic devices; RAM and ROM memory devices, memory mapping, and memory decoding; A/D and D/A converters; and an introduction to the 80x86 family of microprocessors, microcomputer architecture, and the basics of microcomputer system organization. Prerequisite: EET 114

EET 216-Microprocessors and Interfacing
(5 credit hours - 3 lecture 4 lab - T)
Microcomputer principles including basic computer architecture (address, control, and data bus structure), the instruction set, addressing modes, timing, and interrupts. Students design software and build hardware to interface a circuit to an 80x86 based PC or compatible. Students write control programs in Microassembler and BASIC and test circuits using the logic analyzer. Emphasis is placed on the interpretation of manufacturer's data sheets of analog and digital ICs. Prerequisites: EET 215

EET 221-Industrial Instrumentation and Controls
(4 credit hours - 3 lecture 3 lab - T)
Industrial process control devices and circuits including signal conditioning, instrumentation amplifiers, strain gages, pressure transducers, flow meters, thermocouples, thermistors, RTDs, I-C temperature sensors, electronic and electromechanical timers, counters, programming and wiring the Alan-Bradley Pico Controller, frequency-to-voltage converters, robotic actuators and robot configurations. Prerequisites: EET 113

EET 230-Electronic Communications
(4 credit hours - 3 lecture 3 lab - T)
Covers transistor-based amplifier and switching circuits; classes of amplifiers; linear integrated circuit amplifiers; frequency response and bandwidth of filters; current, voltage, and power gain of amplifiers; oscillator circuits; AM, FM, SSB, and DSB receiver and transmitter systems; wave propagation; antennas; transmission lines; telephony circuits and terminology; and the spectrum analyzer. Students construct an AM superheterodyne receiver. Prerequisites: EET 113 and EET 123

EET 245-Rotating Machinery and Controls
(4 credit hours - 3 lecture 3 lab - T)
An introduction to the theory of operation and construction of three-phase transformers, D.C. motors, single-phase and three-phase motors and alternators, and variable speed drives. Control circuits studied include overcurrent protection, start-stop, braking, reversing, and speed control. The National Electric Code is used in the specification of conductors, overloads, fuses and control circuitry. Prerequisite: EET 123

EET 251-Programmable Logic Controllers
(4 credit hours - 3 lecture 3 lab - T)
Constructing basic control circuits using RS Logix 500®, programming SLC5/04 and MicroLogix 1000 PLCs, interpreting basic ladder logic (control circuits) using Rockwell's RS Logix 500®, selecting input and output modules, interpreting and creating wiring diagrams to attach input and output control devices to input and output modules, configuring and wiring thermocouple modules, configuring and wiring analog combination input/output modules, and interpreting the electrical ratings of PLC modules. Prerequisite: EET 245 or permission of instructor

EGT 109-Engineering Technology Computer Applications
(3 credit hours - 1 lecture 4 lab - T(B))
Emphasizes the training and information needed to utilize existing computer hardware and software as integral tools in solving various engineering and scientific problems with practical applications. The basics of word processing, spreadsheets, and databases will be taught through application software. Prerequisite: None

EGT 127-Industrial Health & Safety
(3 credit hours - 3 lecture 0 lab - B)
An overview of OSHA and the agency's health and safety requirements for general industry. Successful completers will receive an OSHA 30-hour Health and Safety Card for general industry. Prerequisite: None

EGT 136-Welding
(3 credit hours - 2 lecture 3 lab - B)
This course enables the student to apply classroom knowledge to skills gained in the welding laboratory. Instruction will be in metal identification/selection and use. Emphasis will be placed on metal joining processes and stress relieving techniques. Topics will include welding terminology, symbolism, joint preparation, and selection of processes for both thick and thin metal construction. Safety in welding will be enforced. Prerequisite: None

EGT 150-Beginning Graphing Calculator Workshop
(1 credit hour - 1 lecture 0 lab - T)
Examines the features of the TI-83+ or TI-84+ Graphing Calculator. More specifically, the course explores viewing screens and menus, setting modes, storing and recalling values, understanding errors, entering calculations using parentheses and exponents, graphing functions, exploring graphs, solving systems graphically, and using the calculator in matrix, trigonometric, calculus, statistical, and programming applications. Prerequisite: None

EGT 200-Internship I
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience required for engineering students. Includes student applying for a job in a related area, on-the-job, supervision, scheduled visits by coordinators, and periodic evaluations. Prerequisite: Sophomore standing. Internship positions must be approved by the Dean.

EGT 201-Community Service
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience by students performed for pay or gratuitously for a public agency or non-profit entity. Qualifying agencies and entities include, but are not limited to, those providing health or child care, legal assistance, consumer services, corrections, civic affairs, neighborhood improvement, rural development, environmental quality, gerontology, and other fields of human betterment and community improvement. Prerequisite: Special approval

EGT 205-Seminar
(1 credit hour - 1 lecture 0 lab - T)
A seminar course accompanying Co-Op or Internship, including group discussion on applying learned concepts to the employment experience, and Internship or Co-Op critique. Co-requisite: Enrollment in EGT 200, EGT 201, or EGT 210

EGT 206-Employment Search
(1 credit hour - 1 lecture 0 lab - G)
A seminar course discussing the necessary skills and procedures to conduct a successful job search. Prerequisite: Sophomore standing or permission of instructor

EGT 210-Internship II
(2-4 credit hours - 0 lecture 20-40 lab - T)
A continuation of Internship I. Prerequisite: EGT 200

EGT 215-Advanced Engineering Technology Computer Applications
(3 credit hours - 1 lecture 4 lab - T)
Emphasizes the study and use of up-to-date computer equipment, software, and operating systems. The student will have the opportunity to use all-purpose software packages as well as telecommunications, Internet, and OLE techniques. Prerequisite: EGT 109 or CPT 105

EGT 220-Project Management
(3 credit hours - 2 lecture 3 lab - T)
This course emphasizes the study of project management as it relates to the technological industry. This includes the background knowledge and application of the project management process from project formulation to implementation. Prerequisite: EGT 109 or CPT 105 and MTH 110 or placement in MTH 113, or permission of instructor

EGT 295-Special Problems
(0.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences which contribute substantially to an Engineering Technology student's program of study. Prerequisite: Dean approval

EGT 296-Vocational Education Experience
(1-12 credit hours - T)
This course number designates transfer credit awarded for the satisfactory completion of an approved secondary or post-secondary program in vocational education. If approved six (6) credit hours are awarded for each academic year completed in a full-time vocational education program for up to twelve (12) credit hours. This credit is to be evaluated by the student's advisor and Division Dean.

EGT 297-Technical Work Experience
(1-12 credit hours - T)
The 297 course number designates transfer credit awarded for the satisfactory acquisition of knowledge through the performance of verified (documented) work experience in an occupation specialty at the level of journeyman, technician, semiprofessional, or paraprofessional, or mid-management person. If approved, up to six (6) credit hours are awarded for each calendar year of full-time work completed at a specified level. There is no tuition fee. The maximum number of credits to be thus awarded is twelve (12). The judgment of the Division Dean determines if any (or how much) credit will be awarded.

ENG 095-Introduction to Writing
(4 credit hours - 3 lecture 2 lab - G)
A review of basic grammar and punctuation increases accuracy in writing. Sentence combining exercises increase the use of a variety of sentence patterns. The processes of prewriting, outlining, and composing paragraphs based on personal knowledge and experience develop writing skills. Prerequisite: None

ENG 096-Writing Fundamentals
(4 credit hours - 3 lecture 2 lab - G)
Advanced study of grammar and punctuation increases accuracy in writing. The processes of prewriting, outlining, and composing are applied to descriptive, narrative, rebuttal, and comparison/contrast paragraphs. One paper in the course is a researched-based, persuasive essay documented in APA style. Prerequisite: C or better in ENG 095 when placed in ENG 095 by assessment testing.

ENG 150-Freshman Composition
(5 credit hours - 5 lecture 0 lab - G)
ENG 150 replaces ENG 130 beginning Summer 2007. This course emphasizes the writing and revising process with essay mastery as the primary goal. Students read literary examples as models and write in descriptive, narrative, expository, persuasive, and poetic modes. A research essay written in APA style is a requirement. Prerequisites: Placement by testing or a grade of "C" or better in COM 091 and/or ENG 096. Word processing knowledge is necessary. A proficiency test is available for qualified students. Please visit The Learning Center for more information.

ENG 180-Technical Writing
(4 credit hours - 4 lecture 0 lab - G)
ENG 180 replaces ENG 140 and ENG 250 in Fall 2007, and will be offered to students who have completed ENG 150. This course strengthens students' composition skills and introduces them to workplace writing including technical description, layout and design, reports, summaries, graphics, memos, letters, and job search documents. Students analyze and synthesize data, practice oral and small group communication, and create a professional writing portfolio. Prerequisite: ENG 150. A proficiency test is available for qualified students. Please visit The Learning Center for more information.

ENG 295-Special Problems
(0.1-8 credit hours - G)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences that contribute substantially to a student's program of study. Prerequisite: Dean approval

If a student fails an English class delivered by distance learning, she/he will not be permitted to take the same class in a DEAL section subsequently.

ENV 171-Water Sampling & Analysis
(4 credit hours - 2 lecture 4 lab - T)
Provides both field and laboratory practice in the sampling techniques and chemical analysis (wet chemistry, instrumentation, portable test kits) of surface waters. The ecology of lentic and lotic ecosystems is included, so seasonal variations can be incorporated into the interpretation and reporting of water quality data. Prerequisite: BIO 141 or permission of instructor

ENV 215-Wastewater Treatment
(3 credit hours - 2 lecture 3 lab - T)
Provides background that is appropriate for the State of Ohio Class I Wastewater Operators level. Emphasis is placed on both theory and design aspects of the major treatment techniques, operations problems, laboratory analysis, wastewater collection, biosolids treatment, and industrial pre-treatment requirements. Prerequisite: None

ENV 218-Air Sampling & Analysis
(4 credit hours - 3 lecture 3 lab - T)
A study of the Earth's atmosphere including: constituents and interactions, pollutant sources/sinks, stationary and mobile source control technologies, effects of pollutants on the environment, public policy, and standard techniques used to sample for both gasses and particulates. Prerequisite: MTH 110 or placement in MTH 113

ENV 226-Transportation of Hazardous Materials
(1 credit hour - 1 lecture 0 lab - T)
Evaluates the United States Department of Transportation's requirements for the shipping and handling of hazardous materials. Provides information and training for the hazardous materials employee in accordance with the USDOT's requirements of 49 CFR 172.704. A certificate will be awarded upon completion. Prerequisite: None

ENV 230-HAZWOPER: Technician
(3 credit hours - 2 lecture 3 lab - T)
Prepares students to safely respond to accidental releases of hazardous materials through the use of personal protection equipment, monitoring instrumentation, and control techniques. Provides information and training for the Hazardous Materials Technician in accordance with the HAZWOPER standard, 29 CFR 1910.120(q). A certificate will be awarded upon completion. Prerequisite: ENV 241 or permission of instructor

ENV 241-HAZWOPER: Waste Site Worker
(3 credit hours - 2 lecture 3 lab - T)
Prepares students to effectively evaluate and control hazards associated with hazardous materials sites. Provides the information and training required for the Waste Site Worker in accordance with the HAZWOPER standard, 29 CFR 1910.120(e). A certificate will be awarded upon completion. Prerequisite: None

ENV 253-Groundwater Hydrology
(3 credit hours - 2 lecture 3 lab - T)
An overview of basic groundwater hydrology, including groundwater flow systems, well design, and groundwater management. Emphasis will be placed on the environmental aspects of groundwater development and management. Prerequisite: MTH 110 or placement into MTH 113, and Sophomore status, or permission of instructor

ENV 267-Solid & Hazardous Waste Management
(3 credit hours - 3 lecture - T)
An overview of the state and federal regulations and processes associated with the generation, treatment, and disposal of solid and hazardous waste. Processes evaluated include: composting landfill construction and design, incineration, and recycling. Prerequisite: None

ENV 272-Advanced Instrumentation and Analytical Methods
(3 credit hours - 2 lecture 3 lab - T)
An advanced laboratory course involving methods of qualitative and quantitative analysis of inorganic and organic compounds using standard methods and quality control. The calibration and operation of flame and graphite, furnace atomic absorption will be emphasized. Prerequisite: CHM 101

ENV 291-Drinking Water Treatment
(3 credit hours - 2 lecture 3 lab - T)
Provides background that is appropriate for the State of Ohio Class I Water Operators level. Emphasis is placed on both theory and design aspects of the major treatment techniques, operations problems, laboratory analysis, water distribution, pumping, and budgets. Prerequisite: None

GEO 161-U.S. Geography
(4 credit hours - 4 lecture 0 lab - G)
A regional approach to U.S. geography focusing on the interrelationships of the physical, social, cultural, and economic geography impacts on the development of the United States. Prerequisite: None

GEO 171-World Regional Geography
(4 credit hours - 4 lecture 0 lab - G)
World Regional Geography is an introduction to the study of geography on a global scale. Students will discuss the physical, cultural, and socioeconomic factors that impact on world regions. An emphasis will be placed on the globalization. Prerequisite: ENG 150

GLY 135-Earth Science
(4 credit hours - 3 lecture 3 lab - B)
An overview of basic geological and meteorological principles including rock and mineral formation and identification, landforms, geologic hazards, and weather data acquisition and weather forecasting. Prerequisites: None

HIM 110-Introduction to Health Information Management
(3 credit hours - 2 lecture 2 lab - T)
Orientation to the health information management profession. Introduction to primary and secondary record systems; content and structure of health care data sets; collection, analysis and storage methods; and retrieval of patient data elements. Prerequisite: None

HIM 130-Health Information Processing and Organization
(3 credit hours - 2 lecture 2 lab - T)
Health care data management, including organization of HIM functions, data quality, access, and retention. Discussion of classification systems, clinical vocabularies and nomenclatures. Prerequisite: HIM 110

HIM 150-ICD-9-CM Coding for Medical Offices
(3 credit hours - 3 lecture 0 lab - T)
Introduction to principles and conventions for assigning ICD-9-CM codes to patient encounters for billing physician services. Prerequisite: HLT 121

HIM 155-CPT Coding for Medical Offices
(3 credit hours - 3 lecture 0 lab - T)
Introduction to rules, regulations and principles for assigning CPT codes to patient encounters for billing physician services. Prerequisite: HLT 121

HIM 160-Comparative Health Information Management
(2 credit hours - 1 lecture 2 lab - T)
Purposes, uses and handling of health information; departmental and facility administration; licensing and accreditation requirements as well as an introduction to payment systems in ambulatory care and specialized treatment facilities. Prerequisite: None

HIM 170-Medico-Legal Aspects of Health Care Records
(3 credit hours - 3 lecture 0 lab - T)
Evaluation of health care records as legal documents; special emphasis on policies and procedures concerning release of medical information and protecting patient confidentiality; principles and organization of the judicial system; healthcare fraud and abuse and HIPAA regulations. Prerequisite: None

HIM 185-Health Care Data in Reimbursement
(3 credit hours - 2 lecture 2 lab - T)
Organization of the healthcare delivery system including managed care and capitation. Theory and use of reimbursement systems such as DRGs, APCs and RBRVS. Discussion of data flow from admission to billing and analysis of casemix. Prerequisite: None

HIM 190-Professional Practicum I
(2 credit hours - 1 lecture 7 lab - T)
Practical application of health information management processes including filing, retrieval and qualitative and quantitative analysis of medical data as well as record completion by physicians and other allied health professionals. Prerequisite: HIM 185

HIM 201-Health Care Quality Improvement
(3 credit hours - 3 lecture 0 lab - T)
Organization and use of data in healthcare quality improvement programs including quality assessment and monitoring, case management, risk management and credentialing under current external regulatory guidelines and accreditation requirements. Prerequisites: HIM 130 and BMC 104

HIM 205-Cancer Registry
(1 credit hour - 0 lecture 2 lab - T)
Organization and operation of a hospital cancer registry under guidelines of the American College of Surgeons emphasizing case finding, accession, indexing, abstracting and follow-up of cancer data. Prerequisite: HIM 130

HIM 207-Health Informatics
(2 credit hours - 2 lecture 2 lab - T)
An in-depth look at the use of information technology in the healthcare delivery system including: the roll, purpose and use of health information systems, the computer-based patient record, various health information system applications, information systems life cycle and future technologies. Prerequisite: HIM 130

HIM 211-Pharmacology for HIM
(3 credit hours - 3 lecture 0 lab - T)
Overview of the conventional drug classes presenting only the more commonly prescribed preparations primarily emphasizing common effects and indications for use. Prerequisite: BIO 242 and BIO 243

HIM 215-Medical Coding: Hospitals and Ambulatory Services
(3 credit hours - 2 lecture 2 lab - T)
Theory and application of skills required to assign and sequence codes for hospital ambulatory services for reimbursement using the CPT and ICD-9-CM classification system. Prerequisite: HIM 150, HIM 155 and HLT 173

HIM 222-Health Record Statistics
(3 credit hours - 2 lecture 2 lab - T)
Exploration of theory and application of health care statistics as related to data definitions and uses, mathematical review, statistical data collection, computation of statistical formulae and collection and reporting of vital statistics. Prerequisite: MTH 113

HIM 245-Professional Practicum II
(3 credit hours - 1 lecture 14 lab - T)
Practical application of health information management processes including medicolegal release of medical information, patient registration, patient accounts, DRG coordination and assignment, ambulatory coding, flowcharting, generation of job procedures and optical disk scanning. Prerequisite: HIM 190 and HIM 211

HIM 250-ICD-9-CM Coding II
(4 credit hours - 2 lecture 4 lab - T)
Theory and application of skills necessary to assign ICD-9-CM diagnosis and procedure codes to inpatient cases for reimbursement and research. Prerequisite: None

HIM 265-Resource Management for Health Information
(3 credit hours - 2 lecture 2 lab - T)
Planning, organizing, staffing, budgeting and analysis of management systems along with job standards and performance evaluations emphasizing development of supervisory management and leadership skills. Prerequisite: None

HIM 281-Clinical Abstracting
(3 credit hours - 2 lecture 2 lab - T)
Introduction to clinical databases with emphasis on knowledge of abbreviations, laboratory tests, treatments, symptoms and drug therapies. Significant laboratory abstracting practice. Prerequisites: HIM 130, HIM 211 and HLT 173

HIM 290-Professional Practicum III
(4 credit hours - 1 lecture 21 lab - T)
Practical application and reinforcement of knowledge previously learned including statistical reporting, hospital-wide and HIM department quality assurance, utilization review, risk management and trauma, cardiac, burn and tumor registries. Prerequisite: HIM 245

HIM 291-Health Information Management Capstone
(2 credit hours - 1 lecture 2 lab - T)
Practical applications of competencies from the HIM curriculum including projects, laboratory simulations and case studies. Students will be required to complete a mock credentialing examination. Co-requisite: HIM 290

HLT 102-Radiation Protection for General X-Ray Machine Operators
(3 credit hours - 3 lecture 0 lab - T)
An introduction to radiation protection to include the basics of radiation physics, radiographic exposure and processing, radiation safety and protection, and radiobiology. Prerequisite: Current enrollment in an allied health program, or current employment as an allied health paraprofessional, or permission of instructor.

HLT 105-The Health Care System: Issues & Professions
(3 credit hours - 3 lecture 0 lab - B)
A survey of the health care system. Students explore the evolution of medicine and technology, medical-legal ethics, patient rights, medical cost and financing, personality types, communication strategies, and teamwork. Also included is a brief introduction to the major allied health professions. Prerequisite: None

HLT 106-GXMO Clinical Module Chest & Abdomen
(1 credit hour - 0 lecture 2 lab - T)
Introduces the analysis of theory in radiography of the chest and abdomen. Includes medical terminology, radiographic terminology, and image receptors. Prerequisite: HLT 102 (C or above), or permission of instructor

HLT 107-GXMO Clinical Module Extremities
(2 credit hours 0 lecture 4 lab - T)
Introduces the analysis of theory in radiography of the upper and lower extremities. Includes medical terminology, radiographic terminology, and image receptors. Prerequisite: HLT 102 (C or above), or permission of instructor

HLT 108-GXMO Clinical Module Skull and Sinuses
(1 credit hour 0 lecture 2 lab - T)
Introduces the analysis of theory in radiography of the skull, facial bones, nasal bones, and sinuses. Includes medical terminology, radiographic terminology, and image receptors. Prerequisite: HLT 102 (C or above), or permission of instructor

HLT 109-GXMO Clinical Module Spine
(1 credit hour 0 lecture 2 lab - T)
Introduces the analysis of theory in radiography of the vertebral column and SI joints. Includes medical terminology, radiographic terminology, and image receptors. Prerequisite: HLT 102 (C or above), or permission of instructor

HLT 110-GXMO Clinical Module Podiatric
(1 credit hour 0 lecture 2 lab - T)
Introduces the analysis of theory in radiography of the foot and ankle, specifically for those employed in a podiatric facility. Includes medical terminology, radiographic terminology, and image receptors. Prerequisite: HLT 102 (C or above), or permission of instructor

HLT 121-Medical Terminology
(3 credit hours - 2 lecture 2 lab - T (B))
A study of vocabulary used by medical personnel. Includes spelling, pronunciation, definitions, and usage. Basic prefixes, suffixes, root words, and combining vowels are emphasized as the foundation for mastery. Laboratory time is included for application of knowledge through computer exercises. Prerequisite: Completion of the Assessment and Placement Test with exemption from COM 091 and/or COM 090 reading courses OR successful completion of COM 090 with “C” or better and/or COM 091 with “C” or better or ENG 150

HLT 122-Medical Dictation/Transcription
(3 credit hours - 2 lecture 3 lab - T)
Students will develop skills in the use of a machine transcriber and its use in the medical office through the typing of such reports as history and physicals, radiology reports, operative reports, discharge summaries, and consultations. Prerequisites: AOA 140 (C or above) and HLT 121(C or above)

HLT 130-Advanced Medical Dictation and Transcription
(3 credit hours - 2 lecture 3 lab - T)
A continuation of HLT 122, this course helps students develop skills in the use of a machine transcriber through the typing of medical reports such as history and physicals, radiology reports, operation reports, pathology reports, discharge summaries, consultations, and autopsies. Prerequisite: HLT 122 (C or above)

HLT 131-Advanced Medical Terminology
(2 credit hours - 2 lecture 2 lab - T)
Continuation of HLT 121 for students in Health Information Management and in other health related programs requiring expanded working knowledge and understanding of the language of medicine. Prerequisite: HLT 121

HLT 141-First Aid & CPR
(2 credit hours - 1 lecture 3 lab - T)
Introduction and practice in accepted national standards for first aid and cardio-pulmonary resuscitation. Prerequisite: None

HLT 143-Health & Safety For Child Care Programs
(2 credit hours - 1 lecture 3 lab - T)
Instruction and practice in first aid, cardiopulmonary resuscitation, recognition and prevention of communicable disease, and recognition of child abuse. The course provides the training required of childcare staff by childcare licensing law. Prerequisite: None

HLT 165-Electrocardiography I
(2 credit hours - 2 lecture 0 lab - T)
Training in the recognition of basic cardiac arrhythmias, operation of electrocardiographic equipment, and basic life support measures needed to sustain a patient in crisis situations. Prerequisite: None

HLT 166-Electrocardiography Fieldwork
(2 credit hours - 0 lecture 4 lab - T)
This course completes the classroom EKG curriculum with a laboratory/clinical application. The student will rotate through clinical settings that actively apply the electrocardiographic skills and participate in the application and monitoring of electrocardiograms. Prerequisite: HLT 165

HLT 173-Diseases & the Disease Process
(3 credit hours - 3 lecture 0 lab - B)
Introduction to human diseases and various disabling medical conditions. Covers etiology, symptoms, diagnosis, and various intervention approaches which will be valuable to the student of allied medicine. This course reinforces and builds upon the content of other basic health courses and prepares the student for more in-depth technical allied health coursework. Prerequisite or Co-requisite: BIO 242

HLT 200-Internship I
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised unpaid work experience option for students in health technologies. Students are assigned to area physicians' offices and other health agencies as trainees or assistants in their selected health specialty field where practical experience and direct observation of job performance and requirements are afforded. Prerequisite: Sophomore standing. Internship positions must be approved by the Dean.

HLT 221-Nutrition and Diet Therapy
(3 credit hours - 3 lecture 0 lab - T)
Introduction to normal nutritional requirements and current theories in nutrition. Therapeutic diets used in treating specific health conditions are studied. Prerequisite: Open to MAT, MAW, & SFM students only

HLT 222-Nutrition and Supplementation
(2 credit hours - 2 lecture 0 lab - T)
This course is designed to expand the student's knowledge beyond general diet concerns to include the nutritional needs of the physically active. Special emphasis is placed on maximizing training and performance with consideration given to the positive and negative impacts associated with a variety of dietary supplements. Prerequisite: HLT 221

HLT 250-Cross-Sectional Imaging
(3 credit hours - 3 lecture 0 lab - B)
An overview of the basic cross-sectional anatomy as it appears utilizing modern medical imaging modalities. The course is organized to study regions of the body to include head, thorax, abdomen, and pelvis using cross-sectional medical images, diagrams, and models. This anatomy will be studied utilizing sagittal, coronal, and some axial relationships, but emphasis is given to transverse relationships. Prerequisites: BIO 240, BIO 242, and RAD 124, or permission of instructor

HLT 295-Special Problems
(0.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences which contribute substantially to an Allied Health student's program of study. Prerequisite: Dean approval

HLT 299-Seminar
(3 credit hours - 3 lecture 0 lab - T)
Course taken in conjunction with internship or practicum. Includes discussion of students' intern experiences, principles of employment practices, and improvement of employee traits. Prerequisite: Instructor approval

HRT 120-Staffing and Employment Functions
(3 credit hours - 3 lecture 0 lab - T)
Provides students with techniques for effective employee staffing. Topics include job search, interviewing, assessment, affirmative action, employee discipline, and termination. Prerequisite: BUS 265

HRT 133-Strategic Compensation
(3 credit hours - 3 lecture 0 lab - T)
This course provides an in-depth study of the history, principles, theories, and practices of compensation and an overview of alternative reward systems and strategies. Students will review compensation surveys, policies governing benefits (including health, life, disability, pension/retirement, and pay for time not worked), and the laws governing compensation. Prerequisite: BUS 265

HRT 225-Cultural Diversity
(3 credit hours - 3 lecture 0 lab - T)
Introduces the student to diversity management and affirmative action programs. The emphasis is to increase student awareness of demographic changes, cultural differences, legal aspects, and diversity challenges. Students will learn the concepts of managing diversity and valuing differences in a workplace environment. Prerequisite: Sophomore status or permission of instructor

HRT 230-Labor Relations
(3 credit hours - 3 lecture 0 lab - T)
An overview of the history, organization, and development of labor unions and other professional employee associations. Topics include union management tactics, collective bargaining, and labor laws. Prerequisite: BUS 265 or permission of instructor

HRT 260-Issues in Human Resources Management
(3 credit hours - 3 lecture 0 lab - T)
A capstone for the Human Resources major, students complete an in-depth study of current major issues in personnel/human resources management. Group discussions are led by expert guest speakers. The course emphasizes the role, functions, and practices of the human resources department in an organization. Prerequisite: Sophomore status or permission of instructor

HSV 101-Introduction to Human Services
(3 credit hours - 3 lecture 0 lab - T)
Orientation to the populations, services, and professions involved in Human Services. An overview of the knowledge, values, and skills necessary for providing direct services to target populations. Prerequisite: None.

HSV 103-Human Development
(3 credit hours - 3 lecture 0 lab - B)
Students study the bio-psycho-social dimensions of human development through the life cycle. Prerequisite: None.

HSV 105-Group Dynamics
(3 credit hours - 2 lecture 3 lab - B (T))
Information, theory, and experiential activities related to work teams, parliamentary procedure, and facilitating purposeful groups. Prerequisite: None

HSV 106-Issues/Ethics in Human Services
(3 credit hours - 3 lecture 0 lab - T)
In this course the student will develop a sensitivity to the ethical issues in Human Services and to the implications of professional actions. The ability of the student to reason about ethical issues and to develop an awareness of moral responsibility will be addressed using an 8-step model. Prerequisite: HSV 101

HSV 107-Family Dynamics
(3 credit hours - 3 lecture 0 lab - T)
Introduces the structures and processes of families in a multi-cultural context. Prerequisite: None.

HSV 109-Interviewing Techniques in Human Services
(3 credit hours - 2 lecture 3 lab - T)
Introduces the student to the theory and practice of structuring an interview, using various questioning techniques, and gathering and recording information. Prerequisites: HSV 101 and PSY 101

HSV 111-Learning and Behavior Theory
(3 credit hours - 2 lecture 3 lab - T)
Understanding the principles of learning and behavior as they relate to the process of developing behavior-change interventions for dysfunctional behavior. Prerequisite: HSV 101

HSV 121-Assessment in Human Services
(4 credit hours - 3 lecture 3 lab - T)
Students practice application of theories of problem-solving and social work intervention in simulated situations. Prerequisites: HSV 101, HSV 103 and HSV 109

HSV 123-Drug Use and Abuse
(3 credit hours - 3 lecture 0 lab - T)
Provides information about legal and illegal drugs of abuse, theories of addiction, models of treatment and recovery, and techniques of intervention. Prerequisite: None

HSV 201-Grief Management
(3 credit hours - 3 lecture 0 lab - T)
Introduces students to the human grief process, its various stages, and some basic intervention strategies. Facilitates personal growth and development in the student in regard to the issues of loss. Prerequisite: None

HSV 203-Administration of Activity Therapy
(4 credit hours - 3 lecture 3 lab - T)
Introduction to the concepts and processes of activity therapy. Emphasis on developing treatment plans and conducting recreational/diversional activities and psychoeducational activities for older adults, the mentally ill, the developmentally disabled, and people with behavior disorders. Prerequisite: None

HSV 205-Pharmacology of Chemical Dependency
(3 credit hours - 3 lecture 0 lab - T)
An overview of the fundamental principles of pharmacology related to various classifications of mood altering chemicals. This course provides updated information about new research findings that relate to the various drugs of abuse as well as new trends and new drugs being abused. Medications which are commonly abused and have potential for dependence will also be covered. Prerequisite: HSV 123

HSV 207-Drug/Alcohol Prevention Strategies
(3 credit hours - 2 lecture 3 lab - T)
This course covers the history of prevention strategies, with an emphasis on various approaches to the problem and evaluation of their effectiveness, as well as definitions, theories and domains of prevention as part of the continuum of response to alcohol/drug problems in our society. Evaluation of needs of special populations within the larger community will also be addressed. Current theory and practice are reviewed through a study of several actual prevention programs. Prerequisite: HSV 123

HSV 211-Social Systems Theory
(4 credit hours - 4 lecture 0 lab - T)
Presentation of theories and supporting research to explain human behavior within the social environment emphasizing the ecological person-environment perspective. Prerequisites: HSV 101 and PSY 201

HSV 213-Gerontology
(3 credit hours - 3 lecture 0 lab - T)
Introduction to the field of aging. Information about the special needs and services appropriate to the older adult population. Prerequisite: None

HSV 215-Service Delivery in Human Services
(3 credit hours - 2 lecture 3 lab - T)
Introduction to the various agencies and programs associated with human services as part of the social welfare system. Exposure to professionals in the field and on-site visits to agencies will be included in the learning experience. Prerequisites: HSV 101 and HSV 211

HSV 217-Mental Retardation
(3 credit hours - 2 lecture 3 lab - T)
Explores the causes, treatments, services, agencies, and laws related to mentally retarded/developmentally disabled people. Prerequisite: None

HSV 221-Violence in the Family
(3 credit hours - 3 lecture 0 lab - T)
Course addresses physical indicators, risk factors, interventions, and legal issues of child, spousal, and elder abuse. Prerequisite: None

HSV 223-Case Management
(3 credit hours - 2 lecture 3 lab - T)
Focuses on case management as a method of human service delivery. Students will develop skills in managing multiple aspects of human service interventions in dual roles of coordinator and provider of direct services. Prerequisite: HSV 101; Co-requisite: HSV 232

HSV 230-Practicum in Human Services I
(4 credit hours - 2 lecture 14 lab - T)
Provides an opportunity for students to develop professional skills under supervision. Students spend 14 hours a week in a human service agency observing and assisting with direct client contact and related duties. This experience is integrated with a classroom seminar. Prerequisite: Sophomore status in HSV Technology with advisor approval

HSV 231-Practicum in Human Services II
(4 credit hours - 2 lecture 14 lab - T)
The second of three fieldwork experiences which provides an opportunity for students to develop professional skills under supervision. Students spend 14 hours a week in a human service agency with the focus on assisting skilled staff. Prerequisite: HSV 230

HSV 232-Practicum in Human Services III
(5 credit hours - 2 lecture 21 lab - T)
The third of three fieldwork experiences which provides an opportunity for students to develop professional skills under supervision. The student spends 21 hours a week in a human service agency with the focus on direct client contact and related duties. The student focuses on applying the skills developed in the previous courses. Prerequisite: HSV 231

HUM 101-Leadership Development Studies
(3 credit hours - 3 lecture 0 lab - G)
This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve leadership skills. The course integrates readings from the humanities, experiential exercises, films, and contemporary readings on leadership. Prerequisites: ENG 150 or placement by testing into ENG 150 or grade of C or better in COM 091 and ENG 096

HUM 102-Critical Thinking
(3 credit hours - 3 lecture 0 lab - G)
Critical thinking is the general term given to a wide range of cognitive skills. The purpose of this course is to develop these skills through reading and activities. This will be accomplished through drawing inferences from data; identifying language problems, including ambiguity and vagueness; recognizing hidden assumptions; and developing the skill of making rationally defensible choices. Prerequisites: ENG 150 or placement by testing into ENG 150 or grade of C or better in COM 091 and ENG 096

IDS 101-College Success Strategies
(1 credit hour - 0 lecture 2 lab - G)
This course serves as an orientation to the role of the college student. It familiarizes the student with the campus, student services, and student-related policies and procedures. Course participants will focus on college success strategies related to time management, healthy lifestyle choices, problem solving, academic planning, and utilizing the college's computer resources. The course also provides opportunities for students to examine personal characteristics and motivations and identify an appropriate career path. Prerequisite: None

IDS 203-Introduction to Ethics
(3 credit hours - 3 lecture 0 lab - G)
This course looks at a variety of philosophical theories as a basis for studying ethics and for making determinations of behavior in work and daily living. Students will learn what goes into the creation of a code of ethics and will have a chance to review and evaluate the codes of ethics from a variety of professions. In the final weeks of the course, students will review modern ethical issues and apply course content to making choices within them. Prerequisite: ENG 150

ITC 101-Introduction to Information Technology
(3 credit hours - 2 lecture 3 lab - T)
An introduction to the areas of concentration within Information Technology. Topics covered will familiarize students with basic concepts of information technology areas through hands-on projects. Prerequisite: Proficiency in CPT 105

ITC 102-Introduction to Multimedia Applications
(3 credit hours - 2 lecture 3 lab - T)
Concepts and development of interactive multimedia presentations are covered using essential skills in developing, acquiring, and manipulating images to be integrated into computer-based multimedia applications. A multimedia application will be created. Prerequisite: Proficiency in CPT 105

ITC 103-Introduction to Programming Logic
(3 credit hours - 2 lecture 3 lab - T)
Covers the basic concepts of program flowcharting and design. Provides an understanding of the fundamental concepts of the structures that are used in designing, testing, and implementing a program. Also, covers the basic concepts of object oriented programming. Prerequisite: Proficiency in CPT 105

ITC 110-Basics of UNIX
(3 credit hours - 2 lecture 3 lab - T)
An introduction to the UNIX user environment. The course is recommended for anyone who requires basic UNIX user skills. Standard UNIX environment tasks will be used to gain skills to use UNIX applications effectively, including those for the system administrator. Prerequisite: ITC 103

ITC 112-UNIX Systems Administration
(3 credit hours - 2 lecture 3 lab - T)
Enables the development of effective system administrator skills for the UNIX operating system. Helps individuals master the basics of installation, customization and common UNIX system administration tasks. Prerequisites: ITC 110 and MTH 113

ITC 121-Visual Basic
(3 credit hours - 2 lecture 3 lab - T)
Introduction to the Visual Basic language. Topics include: building a Visual Basic application, working with controls, variables, constants, data types, expressions, selection structures, Loops, procedures, functions, and building menus. Designing, developing, testing and debugging Visual Basic applications will be covered. Prerequisites: MTH 110 or placement into MTH 113, and ITC 103 or EET 114

ITC 122-Web Site Design
(3 credit hours - 2 lecture 3 lab - T)
Designed to give the student a solid understanding of the tools used to create web sites. This course in web design provides hands-on experience in HTML and web presentation. Basic design will be taught in a client-server environment. Prerequisite: ITC 102

ITC 123-Client-Side Scripting
(3 credit hours - 2 lecture 3 lab - T)
Covers writing in JavaScript for the purpose of creating dynamic, interactive web-based applications that run completely within a web browser, without server-side programming. Also includes embedding directly into HTML. An introduction to CSS will also be provided. Prerequisites: ITC 103, and MTH 110 or placement into MTH 113

ITC 124-E-Solutions Fundamentals
(3 credit hours - 2 lecture 3 lab - T)
Covers the e-business cycle and the need for companies to transform their application development practices and how to design applications that fit the e-business application model. Issues surrounding the implementation of e-business applications will be discussed. Hands-on introduction to Java application tool kits is included. Prerequisite: ITC 101 and ITC 102

ITC 130-COBOL I
(3 credit hours - 2 lecture 3 lab - T)
The first course of a two-part study of the COBOL language, introducing computer problem solving using the language. Primary emphasis is the development of a working knowledge of COBOL through the solution of typical business problems. Ample computer time is provided to enable the development of programming proficiency with the COBOL language. Prerequisites: ITC 103, and MTH 110 or placement into MTH 113

ITC 132-COBOL II
(3 credit hours - 2 lecture 3 lab - T)
A continuation of ITC 130. Introduces advanced computer problem solving using the language. Primary emphasis is the development of a working knowledge of COBOL through the solution of typical business problems. Table processing, control breaks, and sorting are emphasized. Prerequisite: ITC 130

ITC 141-Introduction to C++ Programming
(3 credit hours - 2 lecture 3 lab - T)
Introduces the C++ programming language through the use of the Visual C++ compiler and Windows operating system. Themes covered include data types in C++, arithmetic operations, flow of program control, functions and arguments, pointers, I/O, and object oriented programming principles. Prerequisites: ITC 103, and MTH 110 or placement into MTH 113

ITC 142-Imaging & Graphics for the Web
(3 credit hours - 2 lecture 3 lab - T)
Covers the layering levels of Flash, a powerful animation tool used in Web applications, as well as scripting language which gives Flash its flexibility. All this will be done in a hands-on environment where the students have the opportunity to practice the concepts being taught. Prerequisite: ITC 102 or CPT 105

ITC 143-Server-Side Scripting
(3 credit hours - 2 lecture 3 lab - T)
ASP.NET, one of the most powerful methods of providing dynamic content on the Web, is utilized to call external programs for number manipulation, query databases, generate customization graphics, and perform related tasks in the building of the server-side of a Web site. Projects using this powerful technology will enable skill building for using ASP.NET and similar tools. Prerequisites: ITC 123

ITC 144-Digital Photography
(3 credit hours - 2 lecture 3 lab - T)
The techniques of basic photography, both 35mm and digital will be covered. These include an overview of 35mm and digital cameras, exposure basics, aperture, shutter speed, lenses, lighting, and composition. The language of digital imaging as well as other digital techniques will be discussed. Prerequisite: CPT 105 or ITC 101

ITC 150-Microcomputer Hardware
(3 credit hours - 2 lecture 2 lab - T)
Explores related topics in microcomputer operations, including hardware, system maintenance, configurations, upgrades and troubleshooting, and operating system software. Includes decision making regarding hardware and software purchases. Prerequisite: Proficiency in CPT 105

ITC 151-Advanced Visual Basic
(3 credit hours - 2 lecture 3 lab - T)
A continuation of the ITC 121. Topics include: database management, reports, error trapping and creating classes. Database access will be emphasized. Additional designing, developing, testing and debugging Visual Basic applications will be accomplished. Prerequisite: ITC 121

ITC 152-Assembler Language Programming
(3 credit hours - 2 lecture 3 lab - T)
Introduces low-level programming through the use of the IBM Assembler Programming language. Themes covered include the software environment, software design, macro assembler instructions, interrupts, operators and pseudo-ops, extended file management, the coprocessor, and the hardware-software interface. Prerequisites: ITC 103, and MTH 110 or placement into MTH 113

ITC 153-Advanced Graphic Design
(3 credit hours - 2 lecture 3 lab - T)
Covers essential skills in developing, acquiring, and manipulating images to be integrated into computer-based multimedia applications. Includes mastery of scanning devices, digital photo and video equipment, use of paint and draw software, and use of image manipulation software. Emphasizes the development of graphics in the structure and format required to incorporate into interactive multimedia applications. Prerequisite: ITC 102

ITC 160-Print Layout
(3 credit hours - 2 lecture 3 lab - T)
Covers skills necessary for a new generation of typesetters and designers working with new standards in digital page production. Page layout using cutting-edge page layout software is covered. Course includes the principles of typesetting, logo design, brochure development, and other graphic principles necessary to create successful and appealing print pages. Prerequisite: ITC 102 or permission

ITC 202-Java Programming
(3 credit hours - 2 lecture 3 lab - T)
An introduction to programming with Java. Hands-on knowledge of the Java basics, including primitive types and strings, constants, objects, methods, classes, and instance variables are covered. Prerequisites: ITC 103 and MTH 113

ITC 203-Advanced C++ Programming
(3 credit hours - 2 lecture 3 lab - T)
A continuation of ITC 141. Topics include: arrays, pointers and strings, classes, inheritance, file processing, and data structures. Additional designing, developing, testing and debugging C++ applications will be accomplished. Prerequisite: ITC 141

ITC 204-Editing Digital Video
(3 credit hours - 2 lecture 3 lab - T)
Develops skills in developing, acquiring, and manipulating video and sound to be integrated into computer-based multimedia applications. Includes mastery of the use of sound recording and manipulation software plus video capture and editing software. Emphasizes the capture and editing of sound and video in the structure and format required to be incorporated into an interactive multimedia application. Prerequisite: ITC 102

ITC 209-Systems Analysis
(3 credit hours - 2 lecture 3 lab - T)
Enables the development of a working knowledge of the various stages involved in the evolution of information technology projects. Techniques necessary to analyze present information flow and to develop project specifications with respect to equipment selection are covered. An understanding of the problems of implementing a project and the techniques for overcoming these problems are addressed. Prerequisites: Sophomore standing, ENG 180 and ITC 143, or EET 151

ITC 211-Security
(3 credit hours - 2 lecture 3 lab - T)
The fundamentals of providing security for information assets, security terminology and abbreviations, and levels of threats are explored. Discussions will include how information security is achieved using today's technologies. Prerequisites: ITC 103, and MTH 110 or placement into MTH 113

ITC 222-Advanced Java Programming
(3 credit hours - 2 lecture 3 lab - T)
Designed for the Java programmer who has already mastered the basics. Stand-alone applications will be developed. Prerequisite: ITC 202

ITC 225-Database Management Systems
(3 credit hours - 2 lecture 3 lab - T)
Presents the concepts of database management. Concepts are applied to a relational database management system. Database design, creation, queries, forms, reports, and other features are illustrated with the use of database management system software. Prerequisite: ITC 101 or permission

ITC 226-Web Site & Kiosk Authoring Software
(3 credit hours - 2 lecture 3 lab - T)
Provides an opportunity to expand knowledge and develop more sophisticated programs using multimedia and computer graphics software, video, and editing equipment. The basics of Director and Lingo, the programming language for Director will be covered. Interactive design will be addressed. A major project will be created and designed using Director and Lingo. Prerequisite: ITC 204

ITC 229-Systems Design
(3 credit hours - 2 lecture 3 lab - T)
A continuation of the steps required in the design and implementation of information systems. Included is a major project emphasizing the blending of system analysis, synthesis and design. Evaluation the success of the system through follow-up techniques is addressed. Prerequisite: ITC 209

ITC 237-e-Commerce Web Implementation
(3 credit hours - 2 lecture 3 lab - T)
This course provides the skills to create fast, scalable enterprise-wide business applications. The student builds user interfaces, creates databases, SQL and business logic, using ASP .NET component technologies. Students will use the fundamentals of electronic commerce to implement a B2B or E-Commerce site. Prerequisite: ITC 143

ITC 240-Introduction To Networking
(3 credit hours - 2 lecture 3 lab - T)
Covers fundamentals of networking including hardware and software. Novell NetWare will be used to provide experience in installation, operation, and administration of a local area network (LAN). Prerequisite: ITC 101 or CPT 105 or EGT 109

ITC 242-Advanced Animation Scripting
(3 credit hours - 2 lecture 3 lab - T)
Advanced study of animation on the web, focusing on improving interactivity on a wide variety of web sites such as corporate, entertainment, information, and e-commerce sites. Tools include animation scripting language which allows variation from simple linear timelines. Applications to sophisticated content such as games and other interactivity pieces are explored. Prerequisite: ITC 142

ITC 249-Systems Applications
(3 credit hours - 2 lecture 3 lab - T)
A continuation of ITC 229. An actual system application will be developed, tested, and implemented. Incorporation of programming and systems skills in a community or academic setting project is required. Prerequisite: ITC 229

ITC 250-Database and Server Tools
(3 credit hours - 2 lecture 3 lab - T)
Intended to develop skills to manipulate data and extract the required information through the use of external database management software. Structured query language used to allow a programmer to generate complex output from multiple files usually stored in a database will be covered. Prerequisite: ITC 123 or ITC 110 or ITC 130 or ITC 121

ITC 260-3D Animation
(3 credit hours - 2 lecture 3 lab - T)
An introduction to animated 3D graphics modeling. Fundamental concepts of 3D animation, including modeling 2D shapes, lofting, 3D primitives, and box modeling are covered. Techniques of virtual camera placement and fundamental lighting methods are introduced. Additional topics cover material editing, animation, and special effects. Prerequisites: ITC 142 or ITC 102

LAW 101-Criminal Law
(3 credit hours - 3 lecture 0 lab - T)
A study of jurisdiction, structure of court systems, criminal and civil distinctions, use of criminal codes, statute and ordinance, introduction to elements of particular crimes, and brief introduction to laws of evidence. Prerequisite: None

LAW 106-Introduction to Criminal Justice
(4 credit hours - 3 lecture 3 lab - B)
A study of the three branches of the criminal justice system, police, courts and corrections, and how they interrelate with one another. A brief introduction to private security and how it relates to the criminal justice system. Prerequisite: None

LAW 109-Corrections
(3 credit hours - 2 lecture 3 lab - T)
An introduction and overview of the fundamental processes, trends, and practices of juvenile and adult probation, institutional treatment, parole, and contemporary community-based correctional problems—both public and, private. Included is a review of the history and philosophy of corrections. Laboratory time incorporates visits to correctional facilities. Prerequisite: None

LAW 110-Civil Liabilities
(3 credit hours - 2 lecture 3 lab - T)
An examination of civil litigation involving men and women in the Criminal Justice System. Emphasis on preparing for and also avoiding lawsuits. Includes the basics of civil liabilities. Prerequisite: None

LAW 112-Defensive Tactics
(2 credit hours - 1 lecture 3 lab - T)
The theoretical and practical aspects of confronting suspects in a law enforcement capacity. Planning, position, and hand-to-hand defense techniques are covered. Also included is defensive use of the short baton. Prerequisite: None

LAW 115-Police Corrections Defensive Driving
(2 credit hours - 1 lecture 3 lab - T)
A practical course which instructs the student in the safe handling of a motor vehicle in both ordinary and emergency situations. Precision driving is stressed. Prerequisite: Valid Ohio Driver's License

LAW 122-Investigations I
(3 credit hours - 2 lecture 3 lab - T)
A study of investigative procedures; initial contact by the investigator, interviewing, case development, follow-up investigations, handling of leads, hot or cold information, in-custody interviews and procedures. Prerequisite: None

LAW 123-Investigations II
(4 credit hours - 3 lecture 3 lab - T)
A study of the concept of continual investigation, evidence identification, collection, preservation, laboratory capability and limitations, examination of physical evidence, within the resources of the investigator and the demonstration of the laboratory criminalistics to the extent supported by existing facilities. Prerequisite: LAW 122

LAW 124-Community Relations & Crime Prevention
(4 credit hours - 4 lecture 0 lab - T)
A study of the field of police and community relations emphasizing the police officers' role and influence in community relations. The impact of community tensions and conflict on the officer, the department, and the community. In addition, the use of and effect of crime prevention programs to both aid the community, and influence community relations, will be included. Prerequisite: None

LAW 128-Evidence
(3 credit hours - 3 lecture 0 lab - T)
A study of the rules of evidence and of criminal procedure; arrest, search and seizure, kinds of evidence, and admissibility of evidence in court. Prerequisite: None

LAW 130-Contemporary Issues in Correctional Institutions
(3 credit hours - 2 lecture 3 lab - T)
Examination of contemporary problems that exist within juvenile and adult penal institutions. The examination will entail a study of the inmate subculture, riots, and homosexuality. The course will also examine comparative penal systems, treatment approach, and new alternatives. Prerequisite: None

LAW 135-Community Based Corrections
(4 credit hours - 3 lecture 3 lab - T)
An exploration of the philosophy and programs of juvenile and adult probation/parole supervision, halfway houses, work-release and educational-release furloughs. Includes an introduction to classification. Prerequisite: None

LAW 155-Correctional Law
(3 credit hours - 2 lecture 3 lab - T)
An historical and analytical approach will be used in examining constitutional and criminal law which affect the rights of prisoners in the nation's institutions. Recent cases and statutory amendments will be reviewed to create understanding of law for the correctional worker. Prerequisite: None

LAW 162-Criminal Legal Procedures
(4 credit hours - 4 lecture 0 lab - T)
An examination of the legal process from arrest through confinement and release; a review of the court systems' principles of federal, state, and local law and the constitutional history and basis of those laws; the application of laws and the impact of both on the defendant and officer. Prerequisite: None

LAW 191-Police Operations
(3 credit hours - 2 lecture 3 lab - T)
Line activities of the law enforcement profession with special emphasis on the patrol function and crime prevention; also includes preliminary investigations, and introduction to specialized units such as detective, vice, juvenile, etc. Prerequisite: None

LAW 208-Victimology
(4 credit hours - 4 lecture 0 lab - T)
Introduction to the study of criminal/victim relation-ship. A look at the history of the victim; analysis of the criminal/victim relationship with emphasis on specific crimes, personal property, compensation and restitution to victims of crimes. Prerequisite: None

LAW 220-Constitutional Law
(3 credit hours - 3 lecture 0 lab - T)
An enhancement to previous discussions and studies of important United States Supreme Court cases with particular emphasis on corrections and police. Prerequisite: None

LAW 226-Probation and Parole
(4 credit hours - 3 lecture 3 lab - T)
An intensive examination of local, state, and federal probation, parole and pardon systems, staffing and services, and analysis of the potential for reform in the future. Programs such as halfway houses, group homes, and work education release will be explored. Prerequisite: None

LAW 227-Criminology
(4 credit hours - 3 lecture 3 lab - B)
A sociological statement of the crime problem including examination of the characteristics, etiology, and correction of crime with emphasis on the problem within the United States. Attention will be given to particular aspects of crime including the inadequate handling of the problem and its relation to social norms. Prerequisite: None

LAW 229-Juvenile Crime
(3 credit hours - 2 lecture 3 lab - B)
An analysis of the problems of today's "youth in trouble" with special attention being given to training police officers to deal more effectively with juvenile offenders through better understanding of prevention, causes, methods of approach, and disposition. Prerequisite: None

LAW 265-Firearms I
(2 credit hours - 1 lecture 3 lab - T)
A review of handgun shooting fundamentals with an emphasis on safety. Shooting exercises include using the revolver, automatic pistol, and shotgun. Night firing, close combat, pivot, and tactical handgun are included. Prerequisite: None

LAW 266-Firearms II
(2 credit hours - 1 lecture 3 lab - T)
A review of handgun shooting fundamentals with emphasis on safety. Shooting exercises include using the revolver, automatic pistol, and shotgun. Night firing, close combat, pivot, and tactical handgun are included. Prerequisite: LAW 265 or PRW 108, or Military, or POTA Basic Training.

LAW 270-Cultural Sensitivity
(2 credit hours - 2 lecture 0 lab - T)
Terminology, strategies, and methodologies used in delivering services to diverse cultural groups. Definition of terms used interchangeably in cross-cultural communication. Prerequisite: Permission of instructor

LAW 277-Seminar in Administration of Criminal Justice
(3 credit hours - 2 lecture 3 lab - T)
Identification and analysis of current issues and problems in law enforcement and the administration of criminal justice. This is the criminal justice capstone course in which students are required to demonstrate sophomore level academic skills including speaking and writing. Prerequisites: ENG 150 and ENG 180

MAT 101-Introduction to Medical Assisting
(3 credit hours - 2 lecture 3 lab - T)
Introduces the students to the field of medical assisting with emphasis on the administrative and clinical duties. The course highlights scheduling, telephone appointments, records maintenance, medical law and ethics, vital signs, and communications. Prerequisite: Admission to Medical Assisting Program

MAT 105-Basic Medical Lab Techniques
(4 credit hours - 3 lecture 3 lab - T)
Acquaints the medical assisting student with the basic techniques used in the modern medical laboratory, including professional, small organization, basic equipment and instruments used, types of specimens, an overview of basic lab testing, and techniques. Prerequisite: Admission to Medical Assisting Program

MAT 112-Medical Business Practices
(3 credit hours - 2 lecture 3 lab - T)
Students are introduced to the administrative skills needed for medical office operation. Maintaining financial records and insurance claims, filing techniques, banking procedures, and managing office equipment also are introduced. Job shadowing experiences place students in work environments to observe application of medical business practices. Prerequisite: MAT 101

MAT 125-Medical Assisting Procedures I
(3 credit hours - 2 lecture 3 lab - T)
Application of clinical skills is the focus of this course. Common therapeutic procedures, minor surgery procedures, aseptic technique, and patient preparation are included. Prerequisite: MAT 112

MAT 151-Patient Contact and Public Relations
(3 credit hours - 3 lecture 0 lab - T)
The development of personal communication skills and attitudes for allied health professionals is emphasized. The importance of viewing “the whole patient” is stressed. Interaction skills, interviewing techniques, and aspects of working with aging and terminally ill patients are studied as part of the patient-professional relationship. Prerequisite: Admission to Medical Assisting program

MAT 160-Basic Venipuncture for the Medical Assistant
(2 credit hours - 1 lecture 2 lab - T)
Focuses on the principles of blood collection and proper specimen processing techniques needed in a physicians office setting. The student will be able to understand theory and competently perform phlebotomy and medical assistant techniques associated with specimen collected in physicians office setting upon completion of classroom instruction and clinical experience. Prerequisites: Completion of MAT 105 with a grade of "C" or better. Co-requisites: MAT 161 or MAT 261

MAT 161-Clinical Practicum/Seminar I
(4 credit hours - 1 lecture 20 lab - T)
Supervised unpaid work experience required for students in the Medical Assisting program. Students are assigned to area physicians' offices where practical experience and direct observation of job performance and requirements are afforded. MAT students may be required to have experiences at two clinical sites in order to meet administrative and clinical objectives. Prerequisites: Sophomore standing. Internship positions must be approved by the instructor.

MAT 201-Medical Assisting Procedures II
(3 credit hours - 2 lecture 3 lab - T)
An advanced study in clinical procedures used by the medical assistant. Students gain basic knowledge and understanding of special procedures and applications of radiology and electrocardiography. Prerequisite: MAT 161

MAT 211-Pharmacology and Drug Administration
(3 credit hours - 2 lecture 3 lab - T)
Provides basic knowledge of symbols and abbreviations used by the physician in writing prescriptions for drugs frequently prescribed by the physician in the office. The responsibility of the medical assistant and other health professionals in providing the patient with drug therapy is emphasized. Prerequisite: Admission to Medical Assisting program or permission of instructor

MAT 261-Clinical Practicum/Seminar II
(4 credit hours - 2 lecture 14 lab - T)
This unpaid clinical experience is designed to strengthen the administrative and clinical skills of the sophomore student. Students may be required to participate at two clinical sites in order to complete all program competencies. Prerequisites: Satisfactory completion of all required didactic courses and permission of program director

MET 120-Industrial Materials & Processes
(3 credit hours - 2 lecture 3 lab - T)
Introductory course in study of materials and processes used in today's modern manufacturing industries. "Hands-on" projects include testing of various materials and assignments in various industrial processes, such as casting, joining, heat treating, hot working, and cold working of metals. Prerequisite: MTH 110 or placement into MTH 113 and EGT 109 or CPT 105, or instructor permission

MET 201-Engineering Economy
(3 credit hours - 2 lecture 3 lab - T)
Economic analysis of engineering projects and methods of operation, introduction to the analysis of engineering decisions. Topics include time value of money, cost estimation, equipment, comparison, break-even analysis, economic lot size, and replacement analysis. Prerequisites: MTH 113 and EGT 109

MET 210-Computer-Aided Working Drawings
(3 credit hours - 1 lecture 4 lab - T)
Emphasizes design application and background knowledge needed to carry out drafting and design functions to complete working drawings. Includes application of geometric tolerancing and descriptive geometry and extensive projects in designing jigs and fixtures. Prerequisite: CAD 105 or CAD 141, or permission of instructor

MET 216-Operations Management
(3 credit hours - 3 lecture 0 lab - T)
An introduction to the field of operations management. Studies in manufacturing and service industry applications blend material from accounting, industrial engineering, management, and statistics. Topics introduced are operations strategy, forecasting, total quality management, statistical quality control, product and facilities design, location selection, work systems, and layout design. Prerequisite: None

MET 219-Statistical Process Control
(3 credit hours - 2 lecture 2 lab - T)
Study of statistical applications of on-line quality control functions of process control. Includes capability analysis and construction of control charts by variables and attributes with computer utilization. Also includes an introduction to statistics and quality control in general. Prerequisites: MTH 110 or placement into MTH 113, and EGT 109, or instructor permission

MET 220-Statistical Problem Solving
(2 credit hours - 1 lecture 3 lab - T)
Various projects and experiments are conducted, usually in industrial process environments, using techniques such as brainstorming, cause and effect diagrams, Pareto analysis, and Failure Mode and Effect analysis. Statistical methods studied include Chi-square, regressions, ANOVA, and orthogonal arrays. Prerequisite: MET 219 or permission of instructor

MET 221-Statics
(3 credit hours - 2 lecture 3 lab - T)
Analysis of forces and effects of forces acting upon rigid bodies at rest. Essentially a force analysis, i.e., the determination of the total internal forces produced in members of a structure by externally applied loads. Prerequisites: MTH 124 and PHY 201

MET 231-Strength of Materials
(3 credit hours - 2 lecture 3 lab - T)
The study of internal stresses and deformation caused by externally applied loads and how these stresses are used in designing members which will safely carry the imposed loads. Prerequisite: MET 221

MET 243-Dynamics
(3 credit hours - 2 lecture 2 lab - T)
Study of the motion of a given body with and without considering the forces which produce these motions. Emphasis is on the fundamentals of motion, analysis of machine members, and mechanism design. A detailed study of the effect of unbalanced forces on moving rigid bodies. Prerequisite: MET 221

MET 251-Hydraulics & Pneumatics I
(3 credit hours - 2 lecture 3 lab - T)
A study of the principles of fluid power and how to use fluid power in a manufacturing setting on mobile (or portable) equipment. Includes how to make cylinders and motors do what you want them to do, how to size fluid power circuit components, how to connect them together, and how to control them to form a functional system. Prerequisites: MTH 124 and PHY 201 or permission of instructor

MET 261-Machine Design
(3 credit hours - 2 lecture 3 lab - T)
Study of design and determination of the size and shape of various machine components such as beams, bearings, shafts, fasteners, gears, drive belts, and flywheels. Utilizes CAD knowledge previously learned, including solid modeling. A portfolio is required as well as a capstone proficiency exam and a term project. Prerequisites: MET 120, MET 210, and MET 231 or instructor permission

MET 281-Industrial Instrumentation
(3 credit hours - 2 lecture 3 lab - T)
Basic theories underlying design of industrial instruments, pyrometers, thermocouples, manometers, velometers, and other transducers. Also includes digital-to-analog and analog-to digital devices and computer interfacing. Prerequisites: MTH 124, EET 110 and EGT 109, or permission of instructor

MET 282-Robotics
(3 credit hours - 2 lecture 3 lab - T)
An introduction to robotics including coordinate systems, drives, programming and applications. Labs will include programming pneumatic and electric servo robots and their integration into work cells. Prerequisite: EGT 109 or permission of instructor

MKT 100-Marketing
(4 credit hours - 4 lecture 0 lab - T)
A critical study of the field of marketing institutions and functions with an emphasis on problems and practices in marketing. Presents the development and present status of the marketing system in the United States. Areas covered are consumer and industrial markets, retailing and wholesaling structure, and marketing functions and policies. Prerequisite: None

MKT 101-Retail Management
(4 credit hours - 3 lecture 3 lab - T)
A study of the development of retailing in the American economy, including opportunities and historical perspectives of the field, legal aspects, planning considerations in developing strategies, choice of location, store design and layout, and managing and supervising retail personnel. Prerequisite: MKT 100

MKT 202-Advertising
(4 credit hours - 3 lecture 3 lab - T)
A study of the principles of advertising and promotion, stressing history and the development of advertising and advertising techniques, including illustration, copy, slogans, and layout, as well as various advertising media, and direct-mail marketing. Prerequisite: MKT 100

MKT 207-Visual Design & Merchandising
(3 credit hours - 2 lecture 2 lab - T)
Principles and objectives of visual merchandising and store design. The course is structured using various exercises and actual display work. Interior and exterior displays, window construction and display, color and texture, light and lighting, line and composition, mannequins and fixtures, and visual merchandising planning are the focal points of this course. Prerequisite: MKT 202 or permission of instructor

MKT 215-Principles of Professional Sales
(3 credit hours - 2 lecture 3 lab - T)
A study of the principles of professional selling, including its economic aspects, types of selling, and background of professional sales to include products, companies, customers, motivation, and competition, and all aspects of the sales process and techniques. Prerequisite: MKT 101

MLT 102-Introduction to Medical Laboratory Technology
(3 credit hours - 1 lecture 6 lab - T)
Acquaints students with the various aspects of the modern medical laboratory, including professional roles, ethics, basic equipment and instruments used, types of specimens and their collections, the departments of the lab, and an overview of lab tests. The student will be able to competently perform phlebotomy and operate basic lab equipment upon completion of classroom instruction and clinical experience. Prerequisite: Admission to the Medical Laboratory Technology program and placement into MTH 115

MLT 200-Clinical Body Fluids
(3 credit hours - 2 lecture 3 lab - T)
Microscopic and macroscopic evaluation of urine and other non-blood body fluids. Includes review of the urinary system, collection procedures, and lab safety. Prerequisites: MLT 102 with a grade of “C” or better

MLT 201-Clinical Hematology I
(4 credit hours - 3 lecture 3 lab - T)
Introduction to basic principles and laboratory procedures used in hematology and coagulation. Includes basic manual and automated methods used in the study of blood cells and hemostasis. Prerequisite: MLT 102 with a grade of “C” or better

MLT 205-Clinical Hematology II
(4 credit hours - 3 lecture 3 lab - T)
Focuses on advanced principles and procedures used in hematology and coagulation. Identification of various disease states associated with hematology and coagulation is studied. Successful completion of this course enables the students to perform routine hematology and coagulation testing during clinical experience. Prerequisites: MLT 220 with a grade of “C” or better

MLT 220-Immunology
(3 credit hours - 2 lecture 3 lab - T)
Study of the immune system and associated laboratory testing based on antigen-antibody reactions. Calculations, disease correlation, and techniques associated with immunology are emphasized. Successful completion of this course enables students to perform routine serological tests during clinical experiences. Prerequisites: MLT 200 and MLT 201 with a grade of “C” or better

MLT 230-Clinical Microbiology
(5 credit hours - 4 lecture 3 lab - T)
Introduction to the identification of pathogenic microorganisms and associated diseases in humans. Laboratory instruction emphasizes isolation, identification, and evaluation of clinically significant microorganisms. Successful completion of this course enables the students to perform routine microbiological procedures and evaluate test results in the clinical experience. Prerequisites: CHM 201, MLT 205, and MLT 235 with a grade of "C" or better

MLT 231-Clinical Chemistry
(5 credit hours - 4 lecture 3 lab - T)
Study of theories and principles of clinical chemistry including chemistry analysis, instrumentation, and special chemistry. Students perform representative automated and manual laboratory procedures. Quality control and significant results in relationship to disease states are included. Prerequisites: CHM 201, MLT 205, and MLT 235 with a grade of "C" or better

MLT 235-Clinical Immunohematology
(4 credit hours - 3 lecture 3 lab - T)
Focuses on the basic principles of typing, grouping, and cross matching blood and blood products for transfusion, blood donation, component processing, transfusion practices, and various transfusion associated disease states. Successful completion of this course enables students to perform routine immunohematology procedures during clinical experiences. Prerequisites: MLT 220 with a grade of "C" or better

MLT 244-Directed Practice I: Clinical Chemistry
(4 credit hours - 1 lecture 20 lab - T)
Off-campus experiences introduce students to the operation of actual clinical chemistry student elective, and phlebotomy laboratories and enable them to apply skills and theory learned during the didactic portion of the MLT program. Students will spend 40 hours per week for five weeks practicing procedures under the supervision of pathologists and medical technologists in hospital settings. Prerequisites: MLT 205 and MLT 235 with a grade of "C" or better

MLT 245-Directed Practice II: Clinical Immunohematology
(3 credit hours - 1 lecture 12 lab - T)
Off-campus experiences introduce students to the operation of actual clinical immunohematology departments in the laboratory and enable them to apply skills and theory learned during the didactic portion of the MLT program. Students will spend 40 hours per week for three weeks practicing procedures under the supervision of pathologists and medical technologists in hospital settings. Prerequisites: MLT 244 with a grade of "C" or better. Directed practice will be taken concurrently with MLT 262. The instructor will also visit students on a regularly scheduled basis at hospitals.

MLT 246-Directed Practice III: Clinical Hematology and Coagulation
(3 credit hours - 1 lecture 12 lab - T)
Off-campus experiences introduce the students to the operation of actual clinical laboratories and enable them to apply skills and theory learned during the didactic portion of the MLT program. Students will spend 40 hours per week for three weeks practicing procedures under the supervision of pathologists and medical technologists in hospital settings. Prerequisites: MLT 230, MLT 231, and MLT 244 with a grade of "C" or better. Directed practice will be taken concurrently with MLT 262. The instructor will also visit students on a regularly scheduled basis at hospitals.

MLT 247-Directed Practice IV: Clinical Microbiology and Immunology
(3 credit hours - 1 lecture 12 lab - T)
Off-campus experiences introduce students to the operation of actual clinical laboratories and enable them to apply skills and theory learned during the didactic portion of the MLT program. Students will spend 40 hours per week for three weeks practicing procedures under the supervision of pathologists and medical technologists in hospital settings. Prerequisites: MLT 230, MLT 231, and MLT 244 with a grade of "C" or better. Directed practice will be taken concurrently with MLT 262. The instructor will also visit students on a regularly scheduled basis at hospitals.

MLT 262-Role Transition
(3 credit hours - 3 lecture 0 lab - T)
A seminar which prepares students for attaining employment in their profession. Topics covered include career opportunities, resume writing, interviewing, and job seeking skills. Focus is also on activities to prepare students for the certification exam including simulated registry exams and case studies. Prerequisites: MLT 230, MLT 231, and MLT 244 with a grade of "C" or better. Concurrent: MLT 245 and MLT 246

MTH 001-Fractions Review
(1 credit hour - 0 lecture 2 lab - G)
A review of basic fraction concepts, the arithmetic of fractions, vocabulary associated with fractions, and application problems involving fractions.

MTH 002-Whole Numbers Review
(1 credit hour - 0 lecture 2 lab - G)
Designed to review whole number concepts, the arithmetic of whole numbers, vocabulary associated with whole numbers, and application problems involving whole numbers.

MTH 003-Decimals Review
(1 credit hour - 0 lecture 2 lab - G)
Foundations in decimal number concepts, the arithmetic of decimal numbers, vocabulary associated with decimal number operations, and application problems involving decimal numbers.

MTH 004-Percents Review
(1 credit hour - 0 lecture 2 lab - G)
A study of percent concepts and the application problems involving percents.

MTH 005-Ratios, Rates & Proportions Review
(1 credit hour - 0 lecture 2 lab - G)
Topics covering ratios, rates, and proportions concepts and application problems.

MTH 006-Metric Systems & Statistics Review
(1 credit hour - 0 lecture 2 lab - G)
An overview of the metric system of measurement; the conversions of metric units; the basic statistics of mean, median, and mode; and application problems involving metric measurements and basic statistics.

MTH 007-Basic Algebra Review
(1 credit hour - 0 lecture 2 lab - G)
Develop basic algebra concepts, vocabulary associated with algebra, and solve application problems using equations and the principles of equality.

MTH 008-Graphing
(1 credit hour - 0 lecture 2 lab - G)
Develop fundamentals and vocabulary associated with the rectangular coordinate system, graph ordered pairs, solve and graph linear equations, and application problems.

MTH 009-Basic Geometry Review
(1 credit hour - 0 lecture 2 lab - G)
An exploration of basic geometry concepts, vocabulary associated with basic geometry, and application problems involving geometry.

MTH 090-Computation Skills
(4 credit hours - 3 lecture 2 lab - G)
Study and apply whole numbers, fractions, decimals, ratios, rates, proportions, metric measurement, mean, median, mode, and percents. Prerequisite: None

MTH 091-Pre-Algebra
(4 credit hours - 3 lecture 2 lab - G)
Study and apply exponents, order of operation, primes, prime factorization, LCM, GCF, and rational numbers. Build an understanding of key words, symbols, and properties used to evaluate and simplify algebraic expressions and solve equations. Develop skills in using equations to solve application problems involving angles, perimeters, areas, and basic geometric figures. Understand the rectangular coordinate system and solve and graph linear equations. Prerequisite: Pass MTH 090 Exit Exam if placed in MTH 090 by assessment test.

MTH 092-Pre-Business Mathematics
(4 credit hours - 3 lecture 2 lab - G)
Study and apply fractions, decimals, metric measurement, balancing a checkbook, reconciling a bank statement, basic algebraic equations and formulas, percent increase/decrease, complementary percentages, discounts, reading business charts and tables, simple and compound interest, mark-ups, mark-downs, payroll, mean, median, mode, and life insurance. Prerequisite: Pass MTH 090 Exit Exam if placed in MTH 090 by the assessment test.

MTH 104-Math 110 Excel Lab
(1 credit hour - 0 lecture 2 lab - G)
A voluntary lab for students currently enrolled in MTH 110 who want additional assistance but in a less stressful setting. Topics are supplemented by group worksheets and short self-quizzes. Concurrent enrollment in MTH 110 is required.

MTH 106-Math 113 Excel Lab
(1 credit hour - 0 lecture 2 lab - G)
Assists students in understanding the material in MTH 113. A voluntary lab for students currently enrolled in MTH 113. Topics are supplemented by group worksheets and short self-quizzes as in MTH 104. Concurrent enrollment in MTH 113 is required. Students who fail MTH 113 must register for MTH 106 when repeating MTH 113.

MTH 110-Introduction to Algebra
(4 credit hours - 4 lecture 0 lab - G)
Helps the student prepare for the MTH 113 Algebra course. Topics studied are signed numbers, introduction to algebra, simple equations and inequalities, basic algebraic operations, graphing, lines (slopes and simple equations), variation, and introduction to simple factoring. A scientific calculator is required in MTH 110. Prerequisite: (1) Direct placement by ACCUPLACER; or (2) pass MTH 091 Exit Exam if placed in MTH 091; or (3) placement by ACCUPLACER after completion of MTH 090

MTH 111-Mathematics for Business
(4 credit hours - 4 lecture 0 lab - G)
Provides the mathematical skills needed to solve business application problems and satisfies the math requirements of several of the Zane State technologies. Whole numbers, fractions, decimals, checking accounts, percents, trade and cash discounts, markups and markdowns, simple and compound interest, consumer credit, taxes, payroll, insurance, depreciation, home mortgages, the metric system, and business statistics are studied. You may choose to take MTH 111 in a computerized, independent-study format or in a standard format. A scientific calculator is required. Prerequisite: (1) Placement by testing; (2) or a grade of “A” in MTH 090; or (3) a grade of “C” or better in MTH 092. Students who fail MTH 111 must take MTH 092 before repeating MTH 111.

MTH 113-Algebra
(4 credit hours - 4 lecture 0 lab - G)
Serves as a terminal college algebra course or, together with MTH 124 and MTH 125, provides the necessary background for calculus. Topics include factoring algebraic expressions, operations involving algebraic fractions, laws of exponents, roots and radicals, quadratic equations, functions and graphs, and simultaneous linear equations. You may choose to take MTH 113 in a computerized, independent-study format or in a standard format. A scientific calculator is required. Students who fail MTH 113 may not register for MTH 113 again unless they also register for MTH 106 (MTH 113 Excel Lab). Prerequisite: (1) Placement by testing; or (2) pass MTH 110 with a grade of "C" or better if placed in MTH 110 by the placement test; or (3) pass the MTH 110 Credit-by-Exam

MTH 115-College Algebra
(5 credit hours - 5 lecture 0 lab - G)
Together with MTH 134 and MTH 135, provides the necessary background for calculus. Topics include equations and inequalities, functions and graphs, polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, and matrices and determinants. A graphing calculator is required. Prerequisites: (1) MTH 113 with a grade of "C" or better; or (2) successful completion of MTH 113 Credit-by-Exam: or (3) ACT score of 22; or (4) placement by testing into MTH 115

MTH 124-Algebra & Trigonometry I
(4 credit hours - 4 lecture 0 lab - G)
Provides a background to algebra and an introduction to trigonometric concepts. Topics studied are numerical and literal symbols, algebraic laws and operations, equations and formulas, functions and graphs, right triangle trigonometry, systems of linear equations, factoring, fractions, fractional equations, quadratic equations, radians, and vectors and their applications. A graphing calculator is required. Prerequisite: MTH 113 with a grade of "C" or better or successful completion of MTH 113 Credit-by-Exam

MTH 125-Algebra & Trigonometry II
(4 credit hours - 4 lecture 0 lab - G)
Furnishes students the more rigorous background in trigonometry that is necessary to study calculus. Included in the topics are oblique triangles, graphs of trigonometric functions, exponents and radicals, complex numbers, logarithms, determinants, equations and systems of equations of higher degree, and the plane analytic geometry of the line, circle, and parabola. A graphing calculator is required. Prerequisite: MTH 124 with a grade of "C" or better or successful completion of MTH 124 Credit-by-Exam

MTH 134-Pre-Calculus I
(4 credit hours - 4 lecture 0 lab - G)
Affords students the opportunity to develop an extensive trigonometric background. Included topics are right triangle trigonometry, trigonometric functions of any angle, graphs of the trigonometric functions, inverse trigonometric functions, oblique triangles, vectors, the trigonometric form of a complex number, trigonometric identities, equations, and formulas, and functions and their graphs. A graphing calculator is required. Prerequisites: MTH 115 with a grade of "C" or better, or successful completion of MTH 115 Credit-by-Exam

MTH 135-Pre-Calculus II
(4 credit hours - 4 lecture 0 lab - G)
Broadens the algebra background that is necessary for a student to study calculus. Topics are polynomial and rational functions, exponential and logarithmic functions, systems of equations and inequalities, matrices and determinants, and plane analytic geometry. A graphing calculator is required. Prerequisites: MTH 134 with a grade of "C" or better, or successful completion of MTH 134 Credit-by-Exam

MTH 225-Introductory Calculus
(4 credit hours - 4 lecture 0 lab - G)
A college calculus course that includes plane analytic geometry, the derivative, derivative applications, integration, and integration applications. A graphing calculator is required in Introductory Calculus. Prerequisite: MTH 125 with a grade of "C" or better or successful completion of MTH 125 Credit-by-Exam

MTH 227-Statistics
(4 credit hours - 4 lecture 0 lab - G)
Equips student with understanding of statistical concepts dealing with the processing and interpretation of numerical information. Basic statistical applications including measures of central tendencies and variations, probability, sampling, hypothesis testing, and correlation analysis will be studied. A graphing calculator is required. Prerequisite: MTH 113 with a grade of “C” or better or successful completion of MTH 113 Credit-by-Exam

MTH 251-Calculus I
(5 credit hours - 5 lecture 0 lab - G)
The first course in a sequence of three covering the fundamental concepts of calculus and their applications. Topics in this course are functions and graphing, limits and continuity, derivatives, and derivative applications. Concepts of differential calculus as applied to trigonometric functions and curve sketching are included. A graphing calculator is required. Prerequisite: (1) MTH 125 with a grade of “C” or better; or (2) successful completion of MTH 125 Credit-by-Exam; or (3) MTH 225 with a grade of “C” or better; or (4) MTH 135 with a grade of “C” or better; or (5) successful completion of MTH 135 Credit-by-Exam

MTH 252-Calculus II
(5 credit hours - 5 lecture 0 lab - G)
Calculus II is a second course in a sequence of three covering the fundamental concepts of calculus and their applications. Topics in this course are integrals, applications of integration, differentiation and integration of logarithmic, exponential, and inverse trigonometric functions, logarithmic differentiation, indeterminate forms and L'Hospital's rule, and techniques of integration including integration by parts, the method of partial fractions, the Trapezoid Rule, the Midpoint Rule, and improper integrals. Concepts of integral calculus as applied to trigonometric functions, finding areas, and finding volumes are included. Prerequisite: MTH 251 with a grade of "C" or better

MTH 253-Calculus III
(5 credit hours - 5 lecture 0 lab - G)
Calculus III is a third course in a sequence of three covering the fundamental concepts of calculus and their applications. Topics in this course are further applications of integration, infinite sequences and series, parametric equations, polar coordinates, conic sections, the geometry of space, and vectors. Concepts of integral and differential calculus as applied to parametric equations, polar equations, finding lengths of curves, and finding areas of polar regions are included. Prerequisite: MTH 252 with a grade of "C" or better

MTH 295-Special Problems
(0.1-8 credit hours - G)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences that contribute substantially to a student’s program of study. Prerequisite: Dean approval

NFS 102-Natural Science Computer Applications
(3 credit hours - 2 lecture 3 lab - B)
Introduction to computers, computer concepts, and terminology, as well as the impact of computers on today’s society. Graphical and statistical analysis of natural science data are combined with the use of word processing, spreadsheet, presentation graphics, and database applications software on microcomputers. Prerequisite: None

NFS 106-Employment Search
(1 credit hour - 1 lecture 0 lab - G)
A seminar course discussing the necessary skills and procedures to conduct a successful job search. Prerequisite: None

NFS 200-Internship I
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience required for natural science students. Includes student applying for a job in a related area, on-the-job supervision, scheduled visits by coordinators, and periodic evaluations. Prerequisite: Sophomore standing. Internship positions must be approved by the Dean.

NFS 201-Community Service
(2-4 credit hours - 0 lecture - 20-40 lab - T)
Supervised work experience by students performed for pay or gratuitously for a public agency or non-profit entity. Qualifying agencies and entities include, but are not limited to, those providing health or child care, legal assistance, consumer services, corrections, civic affairs, neighborhood improvement, rural development, environmental quality, gerontology, and other fields of human betterment and community improvement. Prerequisite: Special approval

NFS 205-Seminar
(1 credit hour - 1 lecture 0 lab - T)
A seminar course accompanying Internship including group discussions on internship experiences, applying learned concepts to the employment experience, and internship critique. Prerequisite: Special approval of instructor and dean

NFS 210-Internship II
(2-4 credit hours - 0 lecture 20-40 lab - T)
A continuation of Internship I. Prerequisite: NFS 200

NFS 215-Introduction to Geographic Information Systems
(3 credit hours - 2 lecture 3 lab - T)
Provides an introduction to the concepts and application of Geographic Information Systems (GIS). Emphasis is placed on basic cartographic principles, data sources, data acquisition, data presentation in tabular and thematic formats, and basic project design. The basic platform for presentation will be ArcView software. Prerequisites: CPT 105 or EGT 109 or NFS 102

NFS 240-Wetlands Ecology
(3 credit hours - 2 lecture 3 lab - T)
Serves as a capstone experience for all natural science students. Topics include the ecology of wetlands, wetland plants, hydric soils, wetland animals, wetland delineation, constructed wetlands, and wetland mitigation. A group field research assignment with written and oral reports will allow students to use and apply previous technology courses. Prerequisites: BIO 141 and ENV 171. Co-requisite: PRW 270

NFS 295-Special Problems
(0.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, seminars, directed individual study, and other quality educational experiences which contribute substantially to a Natural Science student's program of study. Prerequisite: Dean approval

NFS 296-Vocational Education Experience
(1-12 credit hours - T)
This course number designates transfer credit awarded for the satisfactory completion of an approved secondary or post-secondary program in vocational education. If approved six (6) credit hours are awarded for each academic year completed in a full-time vocational education program for up to twelve (12) credit hours. This credit is to be evaluated by the student's advisor and Division Dean.

NFS 297-Technical Work Experience
(1-12 credit hours - T)
The 297 course number designates transfer credit awarded for the satisfactory acquisition of knowledge through the performance of verified (documented) work experience in an occupation specialty at the level of journeyman, technician, semiprofessional, or paraprofessional, or mid-management person. If approved, up to six (6) credit hours are awarded for each calendar year of full-time work completed at a specified level. There is no tuition fee. The maximum number of credits to be thus awarded is twelve (12). The judgment of the Division Dean determines if any (or how much) credit will be awarded.

The following OPT courses are open only to students enrolled in the Ohio Peace Officer Training Academy:

OPT 106-Introduction to Criminal Justice
(4 credit hours - 3 lecture 3 lab - B)
A study of the three branches of the criminal justice system, police, courts and corrections, and how they interrelate with one another. A brief introduction to private security and how it relates to the criminal justice system. Prerequisite: None

OPT 112-Defensive Tactics
(2 credit hours - 1 lecture 3 lab - T)
The theoretical and practical aspects of confronting suspects in a law enforcement capacity. Planning, position, and hand-to-hand defense techniques are covered. Also included is defensive use of the short baton. Prerequisite: None

OPT 115-Defensive Driving
(2 credit hours - 1 lecture 3 lab - T)
A practical course which instructs the student in the safe handling of a motor vehicle in both ordinary and emergency situations. Precision driving is stressed. Prerequisite: Valid Ohio Driver's License

OPT 122-Investigations I
(3 credit hours - 2 lecture 3 lab - T)
A study of investigative procedures; initial contact by the investigator, interviewing, case development, follow-up investigations, handling of leads, hot or cold information, in-custody interviews and procedures. Prerequisite: None

OPT 123-Investigations II
(4 credit hours - 3 lecture 3 lab - T)
A study of the concept of continual investigation, evidence identification, collection, preservation, laboratory capability and limitations, examination of physical evidence, within the resources of the investigator and the demonstration of the laboratory criminalistics to the extent supported by existing facilities. Prerequisite: OPT 122

OPT 162-Criminal Legal Procedures
(4 credit hours - 4 lecture 0 lab - T)
An examination of the legal process from arrest through confinement and release; a review of the court systems' principles of federal, state, and local law and the constitutional history and basis of those laws; the application of laws and the impact of both on the defendant and officer. Prerequisite: None

OPT 191-Police Operations
(3 credit hours - 2 lecture 3 lab - T)
Line activities of the law enforcement profession with special emphasis on the patrol function and crime prevention; also includes preliminary investigations, and introduction to specialized units such as detective, vice, juvenile, etc. Prerequisite: None

OPT 265-Firearms I
(2 credit hours - 1 lecture 3 lab - T)
A review of handgun shooting fundamentals with an emphasis on safety. Shooting exercises include using the revolver, automatic pistol, and shotgun. Night firing, close combat, pivot, and tactical handgun are included. Prerequisite: None

OPT 266-Firearms II
(2 credit hours - 1 lecture 3 lab - T)
A review of handgun shooting fundamentals with emphasis on safety. Shooting exercises include using the revolver, automatic pistol, and shotgun. Night firing, close combat, pivot, and tactical handgun are included. Prerequisite: OPT 265

OPT 270-Community Diversity
(3 credit hours - 3 lecture 0 lab - T)
Terminology, strategies, and methodologies used in delivering services to diverse cultural groups. Definition of terms used interchangeably in cross-cultural communication. Prerequisite: None

OTA 107-Fundamentals for the Occupational Therapy Assistant
(4 credit hours - 4 lecture 0 lab - T)
Introduces the student to the definition of occupational therapy, areas of practice, major approaches to occupational therapy, roles and functions of occupational therapy personnel, occupational analysis, and the OT processes. Also provides an introduction to the organizational structure of the profession. Prerequisite: Admission into the Occupational Therapy Assistant program

OTA 113-Fundamentals of Occupational Therapy: Media I
(3 credit hours - 2 lecture 3 lab - T)
Instruction in the use of crafts and therapeutic media related to daily living, self-management, and avocational pursuits in treatment geared toward restoration of function. Concepts of occupational analysis and therapeutic adaptations will be emphasized. Teaching/learning methods as part of the therapeutic process will be addressed. Prerequisite: OTA 107

OTA 130-Directed Practice I (Level I Fieldwork)
(4 credit hours - 2 lecture 10 lab - T)
Provides students with the opportunity for observation and participation in the community, in the occupational therapy clinic, and/or related service program. This experience is integrated with coursework in OTA 136 and supplemented with weekly seminars. Focus of the learning experience is on observation, communication, professional behavior, therapeutic relationships, and use of therapeutic modalities. Prerequisites: OTA 107, OTA 113, HLT 121 and ENG 150

OTA 136-Physical Disabilities in Occupational Therapy: Media II
(3 credit hours - 2 lecture 3 lab - T)
Introduction to the role of occupational therapy in the treatment of individuals with physical dysfunction in a variety of treatment settings. Emphasis is on understanding the general treatment and supportive concepts utilized for various disabling conditions. The treatment planning process and implementation are incorporated with documentation skills. Prerequisites: BIO 240, HLT 121, HLT 173, OTA 107, OTA 113, ENG 150, and HSV 103. Co-Requisites: BIO 242

OTA 210-Physical Agent Modalities in Occupational Therapy
(1 credit hour - 1 lecture 0 lab - T)
This course will teach students about physical agent modalities for entry level occupational therapy assistant practice. Included in the course design will be opportunity for students to give return demonstration of the use of equipment and positioning of clients. Prerequisites: BIO 240, BIO 241, BIO 242, BIO 243, HLT 121, HLT 173, OTA 136, and OTA 217, or permission of the instructor

OTA 217-Advanced Physical Disabilities in Occupational Therapy: Media III
(4 credit hours - 3 lecture 3 lab - T)
Further detail about the role of occupational therapy in the treatment of individuals with physical dysfunction in a variety of treatment settings. Emphasis is on understanding the specific treatment and supportive techniques utilized for additional disabling conditions. The treatment planning process and implementation continues to be incorporated with documentation skills. Prerequisites: BIO 240, BIO 242, HLT 121, HLT 173, OTA 107, OTA 113, OTA 136, ENG 150 and ENG 180

OTA 220-Psychosocial Concepts & Skills for Occupational Therapy: Media IV
(4 credit hours - 3 lecture 3 lab - T)
Provides the occupational therapy assistant student with an introduction to the etiology and symptomatology of psychosocial dysfunction. The student gains an understanding of the residual effects of the condition or impairment and of the expected cognitive, psychological, and/or social functions. Appropriate occupational therapy treatment techniques will be emphasized. Documentation skills will be continued. Prerequisites: PSY 101, PSY 201, OTA 107, OTA 113, OTA 130, OTA 136, HSV 103, HLT 121, ENG 150 and ENG 180

OTA 221-Occupational Therapy in Geriatric & Alternative Practice Settings: Media V
(4 credit hours - 3 lecture 3 lab - T)
Introduction to the role of occupational therapy with the elderly population. Emphasis is on understanding the aging process and function, pertinent to the elderly. Attention will be given to treatment modalities specific to the population. Prerequisites: HSV 103, BIO 240, BIO 242, HLT 173, HLT 121, OTA 107, OTA 113, OTA 130, OTA 136, OTA 217, OTA 220, ENG 150 and ENG 180

OTA 225-Occupational Therapy Concepts & Media for Children: Media VI
(4 credit hours - 3 lecture 3 lab - T)
Introduction to the role of occupational therapy with children and adolescents with psychological and/or physical dysfunction. The course will build on concepts from Human and Child Development courses with some additional focus on development from age 0-3. Pathology of diseases/disabilities common to children will be reviewed. Course emphasis on application of modalities to children, applying information from previous OTA courses to a variety of populations. Prerequisites: HSV 103, BIO 240, BIO 242, HLT 173, HLT 121, OTA 107, OTA 113, OTA 130, OTA 136, OTA 220, OTA 217, EDU 183, ENG 150 and ENG 180

OTA 232-Clinical Laboratory Experience I (Level II Fieldwork)
(10 credit hours - 0 lecture 32 lab for 10 weeks - T)
Students spend 32 hours each week of the quarter gaining clinical experience in an occupational therapy program under the general supervision of a registered occupational therapist and daily supervision of, either an OTR or a COTA. Students provide direct care to patients/clients with a variety of disabling conditions and complete necessary documentation and record keeping. Prerequisites: HLT 121, HLT 173, HSV 103, BIO 240, BIO 242, OTA 107, OTA 113, OTA 130, OTA 136, OTA 210, OTA 217, OTA 220, OTA 221, OTA 225, PSY 101, PSY 201, EDU 183, ENG 150, and ENG 180. Level II Fieldwork must be finished within 18 months of completion of academic coursework.

OTA 233-Clinical Laboratory Related Topics I
(2 credit hours - 2 lecture 0 lab - T)
Topics related to the clinical laboratory experiences are presented and discussed in seminar format. Discussion of clinical activities reinforce academic coursework and address new or updated information related to OT practice. Prerequisites: HLT 121, HLT 173, HSV 103, BIO 240, BIO 242, OTA 107, OTA 113, OTA 130, OTA 136, OTA 217, OTA 220, OTA 221, OTA 225, PSY 101, PSY 201, EDU 183, ENG 150, and ENG 180.

OTA 242-Clinical Laboratory Experience II (Level II Fieldwork)
(10 credit hours - 0 lecture 32 lab for 10 weeks - T)
Students spend 32 hours each week gaining in-depth clinical experience and providing patient care under the supervision of a registered occupational therapist. Prerequisites: HLT 121, HLT 173, HSV 103, BIO 240, BIO 242, OTA 107, OTA 113, OTA 130, OTA 136, OTA 210, OTA 217, OTA 220, OTA 221, OTA 225, PSY 101, PSY 201, EDU 183, ENG 150, and ENG 180. Level II Fieldwork must be completed within 18 months of academic coursework

OTA 243-Clinical Laboratory Related Topics II
(2 credit hours - 2 lecture 0 lab - T)
Additional topics related to the clinical laboratory experience are presented and discussed in seminar format. Discussion of clinical activities will reinforce academic coursework and address new or updated information related to OT practice. Prerequisites: HLT 121, HLT 173, HSV 103, BIO 240, BIO 242, OTA 107, OTA 113, OTA 130, OTA 136, OTA 217, OTA 220, OTA 221, OTA 225, PSY 101, PSY 201, EDU 183, ENG 150, and ENG 180

PAR 151-Introduction to Law for the Paralegal
(3 credit hours - 3 lecture 0 lab - T)
Introduces students to the legal system as well as to the substance of constitutional, statutory, criminal, and civil laws, and to the legal reasoning and writing skills required of paralegals. Prerequisite: Placement into ENG 150 or permission of instructor

PAR 152-Computerized Legal Concepts for Paralegals
(3 credit hours - 2 lecture, 2 lab - T)
An introduction to the computerization of the concepts, processes, and procedures of the law and to the use of on-line data bases in researching and resolving legal issues, as well as in constructing legal documents. This course will, thus, help students to begin to analyze and research legal issues, and to draft legal documents. Co-requisite: PAR 151 or permission of instructor. Basic word processing and internet search skills are also required.

PAR 153-Techniques of Legal Research
(3 credit hours - 2 lecture 3 lab - T)
Familiarizes students with the law library and helps them develop legal research skills. Prerequisite: PAR 151 or permission of instructor

PAR 155-Family Law
(3 credit hours - 2 lecture 2 lab - T)
The legal formalities of family law are studied, including marriage, annulments, divorce, property rights and distribution, custody and visitation, alimony, separation agreements, adoptions, parent, and child law. Students learn to interview clients with family law problems and to prepare complaints and agreements. Prerequisite: PAR 151 or permission of instructor

PAR 159-Civil Law & Procedures for the Paralegal
(3 credit hours - 2 lecture 2 lab - T)
An overview of the paralegal's function in the pretrial civil litigation process. Develops the skills to prepare relevant litigation documents. Prerequisite: PAR 151 or permission of instructor

PAR 160-Drafting Wills & Probating Estates in Ohio
(3 credit hours - 2 lecture 2 lab - T)
Examines the requirements of a will and how estates are probated. Students will also consider the more common forms of wills, trusts, and intestacy, while being introduced to elementary estate planning techniques. Prerequisite: PAR 151 or permission of instructor

PAR 250-Criminal Law for the Paralegal
(3 credit hours - 3 lecture 0 lab - T)
The course consists of a primary overview of both the substance and procedure of criminal law as a paralegal would experience it at both the state and federal level of investigation, prosecution, and appeal. Prerequisites: PAR 151 or permission of instructor

PAR 251-Legal Writing I
(3 credit hours - 2 lecture 3 lab - T)
Covers objective legal writing while emphasizing office memoranda and the refinement of analytical reasoning skills. Prerequisite: PAR 153 or permission of instructor

PAR 253-Real Estate Transactions for the Paralegal
(3 credit hours - 3 lecture 0 lab - T)
A practical introduction to the drafting of deeds, deeds of trust, contracts, promissory notes, senior and junior mortgages, wrap-around mortgages and settlement sheets, and related real estate concepts. Prerequisite: PAR 151 or permission of instructor

PAR 255-Legal Writing II
(3 credit hours - 2 lecture - 3 lab - T)
Continues the development of basic analytical and writing techniques commenced in PAR 251, but emphasizes adversarial rather than objective writing skills. Students will prepare trial memoranda and briefs, and develop elementary appellate advocacy writing skills. Prerequisite: PAR 251

PAR 258-Bankruptcy Law for the Paralegal
(3 credit hours - 3 lecture 0 lab - T)
Reviews substantive bankruptcy law, while examining the legislative intent and historical underpinnings of the bankruptcy code. Also reviews procedures that guide and often control substantive bankruptcy law, and its practical implementation, while focusing
on bankruptcy's procedural complications. Prerequisite: PAR 151 or permission of instructor

PAR 259-Corporate & Partnership Law
(3 credit hours - 2 lecture 2 lab - T)
An overview of the formation and operation of corporations, as well as of general and limited partnerships, and limited liability companies. Prerequisite: PAR 151 or permission of instructor

PAR 262-Torts & Insurance Law
(3 credit hours - 2 lecture 2 lab - T)
Students will study tort law and the documents associated with tort litigation. Insurance law, including insurable interests to compromise, accord, and release, will also be studied. Prerequisite: PAR 153 or permission of instructor

PAR 265-Paralegal Seminar
(3 credit hours - 3 lecture 0 lab - T)
Students will display their paralegal skills and legal aptitudes by constructing portfolios of their major written assignments and by sitting for a comprehensive written examination covering the law's principal substantive areas. Students will also be directed in their search for suitable paralegal employment. Prerequisite: PAR 251 or permission of instructor

PBT 180-Phlebotomy I
(2 credit hours - 1 lecture 3 lab - T)
Focuses on the principles of blood collection and proper specimen processing techniques. The student will be able to understand theory and competently perform phlebotomy and clinical assistant techniques upon completion of classroom instruction and clinical experience. Prerequisites: Placement into ENG 150, and satisfactory score on reading comprehension and placement into Math 110, completion of health requirements.

PBT 181-Phlebotomy II
(2 credit hours - 1 lecture 6 lab - T)
Focuses on continued development of phlebotomy and clinical skill in varied clinical settings. The student will spend 6 hours per week in the clinical setting and 1 hour per week in lecture. Prerequisite: PBT 180 with a grade of "C" or better

PBT 182-Phlebotomy III
(2 credit hours - 1 lecture 6 lab - T)
Focuses on continued development of phlebotomy and clinical skill in varied clinical settings. The student will spend 6 hours per week in the clinical setting and 1 hour per week in lecture. Prerequisite: PBT 181 with a grade of "C" or better

PHY 110-Physical Science
(4 credit hours - 3 lecture 3 lab - G)
Provides the student with an overview of physical science. Primary emphasis is placed on the basics of physics. Prerequisite: MTH 110 or placement into MTH 113

PHY 201-Physics I
(4 credit hours - 3 lecture 3 lab - G)
Observation and measurement of the behavior of our physical world. Covers an introduction to the mechanics of solids and liquids and the fundamentals of heat. Co-requisite: MTH 124

PHY 202-Physics II
(4 credit hours - 3 lecture 3 lab - G)
Observation and measurement of behavior of our physical world. Covers an introduction to wave motion, light, electricity, and magnetism. Prerequisite: PHY 201

PRW 108-Field Technician Orientation
(3 credit hours - 2 lecture 3 lab - T)
An orientation to field sport techniques and terminology needed by employees in Natural Resources. Includes certification in Ohio Division of Watercraft Basic Boating course, ACA flat water canoeing, and Division of Wildlife Hunter Education. Labs include on-the-water and shooting range experience. Prerequisite: None

PRW 115-Forest Fire Suppression & Safety
(2 credit hours - 1 lecture 2 lab - T)
An introduction to forest fire fighting that includes the material from the U.S. Forest Service course S130, S190 and Standards for Survival for a total of 32 hours of instruction. Successful completion permits the student to take the physical examination and qualify for the "Ohio Team." Prerequisite: None

PRW 120-Wildlife of Ohio
(3 credit hours - 2 lecture 3 lab - T)
An introduction to the game and non-game species of Ohio. Students will study identification, distribution, life history and basic morphological structures and their adaptations. Prerequisite: BIO 141 or permission of instructor

PRW 130-Soil and Water Conservation
(3 credit hours - 2 lecture 3 lab - T)
Introduction to soil science including physical, chemical, and biological properties related to land use, environmental quality, and plant growth. Soil conservation practices will also be emphasized. Prerequisite: None

PRW 131-Recreation Area Construction
(3 credit hours - 1 lecture 4 lab - T)
Overview of tools, materials, and techniques used in construction and maintenance of outdoor recreation facilities. Labs include use of tools and completion of one or more construction projects. Prerequisite: None

PRW 250-Wildlife Habitat Management
(3 credit hours - 2 lecture 3 lab - T)
Habitat evaluation and manipulation techniques are studied and put into practice in the field. Cover mapping habitats, quantitative vegetation analysis, release cutting, and controlled burning are some of the operations used in the ecological assessment and management of successional stages for game and non-game species. Prerequisites: BIO 141, BIO 151, and PRW 120, or permission of instructor

PRW 254-Recreation Power Equipment
(3 credit hours - 1 lecture 4 lab - T)
The operation, maintenance, and safety of equipment used in outdoor recreation facilities. Includes knowledge of mechanical systems. Labs include operation and/or maintenance of chainsaws, mowers, tractors, and welding equipment. Prerequisite: None

PRW 257-Forestry
(3 credit hours - 2 lecture 3 lab - T)
An introduction to forestry science and dendrology. The course emphasizes tree identification, silviculture, planting, harvest, and forest measurement methods. Prerequisite: BIO 151 or permission of instructor

PRW 260-Wildlife Population Management
(3 credit hours - 2 lecture 3 lab - T)
The sampling and analysis of wildlife populations are emphasized. Census techniques, mark-recapture, and removal methods are used to assess population numbers. Age and growth studies, survivorship curves, population biology of vertebrates (pest and non-pest species), condition, sexing, and necropsy techniques for birds and mammals are covered. Prerequisite: PRW 250 or permission of instructor

PRW 261-Recreation Management
(3 credit hours - 2 lecture 3 lab - T)
A survey of existing recreation areas to include their diversity, development, mission, budgeting, and management. Facility design and function will be analyzed. Labs include trips to various recreation sites. Prerequisite: Sophomore status

PRW 262-Natural Resources Laws and Enforcement
(3 credit hours - 2 lecture 3 lab - T)
An overview of natural resource law enforcement from historic roots in constitutional law to current duties of officers. The process of training, investigation, search and seizure, arrest, and court appearances from a natural resources officer perspective. Prerequisite: PRW 108 or permission of instructor

PRW 270-Fisheries Management
(3 credit hours - 2 lecture 3 lab - T)
Freshwater fish are studied in terms of their taxonomy, morphology, life history, and ecology. Aquatic habitat evaluation is combined with management practices for lakes, ponds, and stream systems. Population studies, age and growth, food habits, and stocking techniques are incorporated into sound ecological practices. Prerequisite: BIO 141 or permission of instructor

PRW 271-Landscaping-Design & Management
(3 credit hours - 2 lecture 3 lab - T)
Identification and use of plant materials and horticultural practices in landscape design and turf management. Includes at least one design project and trips to various horticultural and recreational facilities. Prerequisites: Sophomore status

PRW 274-Nature Interpretation
(3 credit hours - 2 lecture 3 lab - T)
Designed to acquaint students with the techniques and theories related to interpreting the natural environment. Students are expected to utilize information learned in previous courses or experiences to develop and present informative and educational interpretative programs. Prerequisite: Sophomore status or permission of instructor

PSV 200-Internship I
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience required for students in public service technologies (Early Childhood Education, Criminal Justice). Includes student applying for a job in a related area, on-the-job supervision, scheduled visits by coordinators, and periodic evaluation. Prerequisite: Sophomore standing. Internship positions must be approved by the Dean

PSV 201-Community Service
(2-4 credit hours - 0 lecture 20-40 lab - T)
Supervised work experience by students performed for pay or gratuitously for a public agency or non-profit entity. Qualifying agencies and entities include, but are not limited to, those providing health or child care, legal assistance, consumer services, corrections, civic affairs, neighborhood improvement, rural development, environmental quality, gerontology, and other fields of human betterment and community improvement. Prerequisite: Special approval

PSV 210-Internship II
(2-4 credit hours - 0 lecture 20-40 lab - T)
Continuation of Internship I. Prerequisite: PSV 200

PSV 295-Special Problems
(.1-8 credit hours - T)
Provides the opportunity to apply selected and current courses, directed individual study, and other quality educational experiences which contribute substantially to a Public Service student's program of study. Prerequisite: Dean approval

PSV 296-Vocational Education Experience
(1-12 credit hours - T)
This course number designates transfer credit awarded for the satisfactory completion of an approved secondary or post-secondary program in vocational education. If approved six (6) credit hours are awarded for each academic year completed in a full-time vocational education program for up to twelve (12) credit hours. This credit is to be evaluated by the student's advisor and Division Dean.

PSV 297-Technical Work Experience
(1-12 credit hours - T)
The 297 course number designates transfer credit awarded for the satisfactory acquisition of knowledge through the performance of verified (documented) work experience in an occupation specialty at the level of journeyman, technician, semiprofessional, or paraprofessional, or mid-management person. If approved, up to six (6) credit hours are awarded for each calendar year of full-time work completed at a specified level. There is no tuition fee. The maximum number of credits to be thus awarded is twelve (12). The judgment of the Division Dean determines if any (or how much) credit will be awarded.

PSV 299-Seminar
(3 credit hours - 3 lecture 0 lab - T)
This course is taken in conjunction with Internship. It includes discussion of students' intern experiences, principles of employment practices, and improvement of employee traits. Prerequisite: Permission of instructor

PSY 101-Introduction to Psychology
(4 credit hours - 4 lecture 0 lab - G)
An overview of the major theories, concepts, and biological processes involved in the study of human behavior. Topics include history of psychology, research methods, biological bases of behavior, sensation and perception, consciousness, learning, memory, cognition and intelligence, motivation and emotion, lifespan development, personality, stress and coping, and psychological disorders and their treatment, and social behavior. Prerequisite: If placed by testing, a grade of "C" or better in COM 090 and/or COM 091 or completion or enrollment in ENG 150.

PSY 110-Life Skills for Women
(4 credit hours - 4 lecture 0 lab - G)
Explores the role of the adult female as an individual in the context of a larger society through readings and reflective assignments such as journal writing and self-assessment exercises. Topics include self-discovery, family relationships, career exploration, and health awareness. Prerequisite: If placed by testing, a grade of "C" or better in COM 090 and/or COM 091 or completion or enrollment in ENG 150

PSY 201-Abnormal Psychology
(4 credit hours - 4 lecture 0 lab - G)
Students will learn the diagnostic criteria for mental disorders and the different theoretical approaches to treatment. Classes of mental disorders covered include: anxiety, cognitive, developmental, dissociative, eating, gender identity, impulse control, mood, personality, schizophrenia, sexual, sleep, somatoform, and substance-related disorders. Prerequisite: PSY 101

PSY 203-Child/Adolescent Psychology
(4 credit hours - 4 lecture 0 lab - G)
An examination of the normal physical, cognitive, and emotional changes that occur as a child develops from conception to adolescence. Developmental problems such as attention deficit disorder, autism, and juvenile delinquency are also covered. The student will critically examine the major theories of development and use these theories as a conceptual framework for understanding development. Prerequisite: PSY 101 or HSV 103

PSY 217-Social Psychology
(4 credit hours - 4 lecture 0 lab - G)
A discovery of how other people can influence the thoughts, feelings, and behaviors of an individual. Topics include formation of perceptions about self and others, attitude formation and change, social influences on behavior (e.g., obedience, conformity, etc.), group processes, prosocial and aggressive behaviors, and prejudice/discrimination. Written and interactive assignments are part of the course. Prerequisite: PSY 101

PSY 231-Educational Psychology
(4 credit hours - 4 lecture 0 lab - G)
Examines normative and non-normative cognitive, social and emotional development in children and adolescents. The student will use developmental theory as a basis for understanding how problems occur and may be addressed in this age group. Theories of learning, motivation, instructional strategies, and assessment are examined. Prerequisite: PSY 101

PTA 101-The Paraprofessional in Physical Therapy
(3 credit hours - 3 lecture 0 lab - T)
Introduces the history and principles of physical therapy and the role of the physical therapist assistant within the field. Prerequisite: Admission to the PTA program

PTA 107-Physical Therapy Procedures I
(3 credit hours - 2 lecture 3 lab - T)
Introduces fundamental treatment considerations and techniques including body mechanics, gait training, and mobility. Prerequisite: Admission to the PTA program

PTA 108-Introduction to the Clinical Setting
(3 credit hours - 2 lecture 3 lab - T)
Provides the opportunity to observe PTs and PTAs in the clinical setting while initiating problem solving and documentation skill training. Prerequisites: PTA 101 and PTA 107

PTA 109-Physical Therapy Procedures II
(3 credit hours - 2 lecture 3 lab - T)
Presents the principles, concepts, and application of introductory level therapeutic exercises along with objective assessment techniques. Prerequisites: PTA 108 and PTA 112

PTA 111-Physical Therapy & Dysfunction of the Musculoskeletal System
(4 credit hours - 4 lecture 0 lab - T)
Emphasizes the effects of disease and injury on the musculoskeletal system and the physical therapy options available to treat the resulting dysfunctions. Prerequisites: PTA 108 and PTA 112

PTA 112-Neurological Conditions & Physical Therapy Treatment
(3 credit hours - 3 lecture 0 lab - T)
Presents the principles and concepts associated with neuroanatomy and neurophysiology and their relationship to conditions treated with physical therapy. Prerequisites: PTA 101 and PTA 107

PTA 124-Kinesiology
(4 credit hours - 3 lecture 3 lab - T)
Integrates the principles and concepts of anatomy, biomechanics, and physics with the functions and movements of the human body. Prerequisites: PTA 108 and PTA 112

PTA 130-Directed Practice Orientation Seminar
(2 credit hours - 2 lecture 0 lab - T)
Students review basic concepts and techniques of physical therapy treatment in preparation for the initial clinical experience. Prerequisites: Successful completion of all first year PTA courses

PTA 220-Physical Therapy Procedures III
(3 credit hours - 2 lecture 3 lab - T)
Presents principles, concepts, and applications of physical therapy procedures emphasizing deep heat, electrical, and traction modalities. Prerequisite: Successful completion of all first year PTA courses

PTA 227-The Role of the Physical Therapist Assistant in Rehabilitation
(3 credit hours - 2 lecture 3 lab - T)
Presents the concepts, principles, and application of physical therapy procedures emphasizing therapeutic techniques for rehabilitation of persons with severe or chronic conditions or disabilities. Prerequisite: Successful completion of all previous PTA courses

PTA 229-Related & Advanced Topics in Physical Therapy
(3 credit hours - 3 lecture 0 lab - T)
This course consists of a series of seminars. These presentations are designed to provide the second year Physical Therapist Assistant student with a variety of information and experiences that expand upon material previously covered. This course also provides the opportunity to introduce the student to subject matter that may be more specialized than the content of the other PTA courses. Prerequisite: Successful completion of all previous PTA courses

PTA 230-Directed Practice I
(3 credit hours - 0 lecture 21 lab - T)
Provides students with the opportunity to apply classroom knowledge and laboratory skills in the clinical setting while closely supervised by a physical therapist or physical therapist assistant. Prerequisite: Successful completion of all first year PTA courses

PTA 232-Therapeutic Exercises-Concepts and Applications
(3 credit hours - 2 lecture 3 lab - T)
Emphasizes the concepts of advanced exercises along with the application of specific techniques. Prerequisite: Successful completion of all first year PTA courses

PTA 233-Physical Therapy Concepts & the Treatment of Special Populations
(3 credit hours - 2 lecture 3 lab - T)
Consists of two modules which address the special considerations associated with the treatment of children and older adults. Prerequisites: PTA 220 and PTA 232

PTA 240-Directed Practice II
(3 credit hours - 0 lecture 21 lab - T)
The student continues to apply classroom knowledge and laboratory skills in the clinical setting with an emphasis on measuring independence while under the supervision of a licensed PT or PTA. Prerequisite: PTA 230

PTA 255-Advanced Directed Practice
(6 credit hours - 0 lecture 32 lab - T)
Requires students to apply theory and advanced skills with entry-level competence while under the supervision of a licensed PT or PTA. Prerequisite: PTA 240

PTA 265-Role Transition and Professionalism
(4 credit hours - 4 lecture 0 lab - T)
Prepares the student for the transition to practicing physical therapist assistant including job search techniques and licensure preparation. Prerequisites: PTA 233, PTA 227, and PTA 229

RAD 100-Introduction to Medical Imaging
(2 credit hours - 2 lecture 0 lab - T)
An introduction to Radiologic Technology which includes the history of the profession, technologist responsibilities, work ethics, hospital organization, patient care assessments, radiation protection, and basics of radiographic equipment. Prerequisite: Status as RAD or RTW student

RAD 105-Radiation Equipment & Production
(4 credit hours - 4 lecture 0 lab - T)
A review of topics in modern physics and mathematics for an understanding of the physical principles upon which radiologic technology is based. Prerequisites: Freshmen in RAD and "C" or better in MTH 113

RAD 121-Radiographic Procedures I
(4 credit hours - 3 lecture 3 lab - T)
Introduces the analysis of theory in radiography of the extremities, chest, abdomen, and urinary tract studies. Introduces medical terminology and radiographic terminology. Prerequisites: Admission to Radiologic Technology, RAD 100, BIO 240

RAD 122-Radiographic Procedures II
(4 credit hours - 3 lecture 3 lab - T)
A continuation of RAD 121, emphasizing theory of radiography of the alimentary canal, vertebral column, bony thorax, and mobile examinations. Prerequisites: RAD 121, BIO 242

RAD 124-Advanced Radiographic Procedures
(4 credit hours - 3 lecture 3 lab - T)
The principles of advanced radiographic procedures of the skull, facial bones, and specific angiographic procedures. Emphasis is placed on anatomy and positioning, accessory equipment, contrast media, and film critique. Prerequisites: RAD 121 and RAD 122

RAD 130-Directed Practice I
(3 credit hours - 1 lecture 14 lab - T)
Clinical application of radiographic techniques. The student will acquire competencies in the radiology office, file room, darkroom, and transporting of patients to and from the department. Competencies are limited to only those covered as part of RAD 121. Students observe, assist and perform basic radiographic procedures. Prerequisites: Admission to Radiologic Technology, current CPR certification and RAD 100

RAD 131-Directed Practice II
(3 credit hours - 1 lecture 14 lab - T)
Continuation of clinical experience with increased responsibility in preparation, care, and radiographic exposure of the hospital patient. Students are expected to perform routine radiographic procedures with technologist supervision. Prerequisite: RAD 130

RAD 132-Directed Practice III
(3 credit hours - 1 lecture 14 lab - T)
Continuation of clinical experience with increased responsibilities. Students are expected to perform routine radiographic procedures with technologist supervision. Additional emphasis is placed on less routine special radiographic procedures in affiliating radiology departments. Prerequisite: RAD 131

RAD 202-Radiographic Pathology
(2 credit hours - 2 lecture 0 lab - T)
The course will emphasize common pathologies of the different body systems and how these pathologies are demonstrated radiographically or through other imaging modalities. Prerequisite: RAD 124

RAD 203-Radiobiology/Radiation Protection
(3 credit hours - 3 lecture 0 lab - T)
A study of radiation effects upon living tissue and the protective procedures which reduce undesirable radiobiologic effects. Topics include radiation detection and measurement, principles of radiobiology, principles of radiation protection, and radiation protection standards. Prerequisite: RAD 105

RAD 204-Radiographic Imaging and Processing
(4 credit hours - 3 lecture 3 lab - T)
This course is designed to establish a knowledge base in factors that govern and influence the production and recording of radiologic images. Film and electronic imaging with related accessories will be emphasized. Prerequisites: MTH 115 and RAD 105

RAD 210-Radiographic Image Analysis
(3 credit hours - 2 lecture 3 lab - T)
Provides in-depth analysis of radiographic images. Application of concepts learned in prior courses will be included in image evaluation. Prerequisites: RAD 124 and RAD 204

RAD 211-Medical Imaging Ethics & Law
(2 credit hours - 2 lecture 0 lab - T)
A discussion of the background of ethics, legal issues, and ethical behavior required in radiologic sciences. Prerequisites: Sophomore standing and RAD 100

RAD 212-Allied Imaging Modalities
(2 credit hours - 2 lecture 0 lab - T)
This course will emphasize the basic principles, procedures, and terminology associated with computed tomography (CT), digital radiography, magnetic resonance imaging (MRI), nuclear medicine (NM), radiation therapy, ultrasonography (US), bone densiometry, and administration. Prerequisite: RAD 105 or permission of instructor

RAD 215-Pharmacology for Medical Imaging
(2 credit hours - 2 lecture 0 lab - T)
This course is designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of venipuncture and admission of diagnostic contrast agents and/or intravenous medications are included. The appropriate delivery of patient care during these procedures is emphasized. Prerequisites: RAD 100 and RAD 124

RAD 230-Directed Practice IV
(4 credit hours - 1 lecture 21 lab - T)
Continuation of clinical experience with emphasis placed on seldom done procedures and afternoon shift rotation. Students also rotate through an affiliating physician's office for one day. Prerequisite: RAD 132

RAD 231-Directed Practice V
(4 credit hours - 1 lecture 21 lab - T)
Continuation of clinical experience in a different affiliating radiology department. Students may also complete rotations in CT, bone density, and mammography. Prerequisite: RAD 230

RAD 232-Directed Practice VI
(4 credit hours - 1 lecture 21 lab - T)
Continuation of clinical experience in affiliating radiology departments. Emphasis is placed on rotations in other imaging modalities and afternoon shifts. Prerequisite: RAD 231

RAD 233-Directed Practice VII
(4 credit hours - 1 lecture 28 lab - T)
Final quarter of supervised work experience in the clinical setting. Emphasis is placed on areas for student improvement and students' individual interests. Progression is evaluated in all clinical areas and includes rotations through afternoon and evening shifts. Prerequisite: RAD 232

RAD 299-Preparation for Role Transition
(3 credit hours - 2 lecture 2 lab - T)
Seminar discussions concerning the RT's role as a health care professional, interviewing skills, resume writing, reality shock, trauma lab simulations, and methods of registry examination preparation. Prerequisite: Sophomore standing or permission of instructor

SFM 105-Introduction to Sport Industry
(3 credit hours - 3 lecture 0 lab - T)
Introductory course that showcases the multiple facets of sport industry. The knowledge gained in this course will help students identify different career paths within the sports and fitness industry as well as provide a foundation for other SFM courses. Prerequisite: None

SFM 107-History of Sport
(4 credit hours - 4 lecture 0 lab - T)
Introduces students to the history of sport in America. The historical development of the philosophical, cultural and social aspects will be analyzed in light of the advancement in technology and related to the physical activity profession. Prerequisite: None

SFM 110-Personal Wellness
(3 credit hours - 3 lecture 0 lab - G)
Introduces students to the different dimensions of health; physical, psychological, spiritual, social, intellectual and environmental. Students will learn how to make informed health decisions about nutrition, stress management and active living in order to positively impact their own personal health. Prerequisite: None

SFM 120-Introduction to Resistance Training
(2 credit hours - 1 lecture 2 lab - T)
Introduction to resistance training for the individual user. Students will gain a basic understanding of positioning and safety, as well as the basic concepts underpinning any resistance training program. Prerequisite: None

SFM 140-Practicum I
(2 credit hours - 1 lecture 7 lab - T)
This initial observation practicum is designed to give students an everyday look into the workplace of sports and recreation facilities. The shadowing experience permits the student time to observe the daily working of personnel in sports, fitness and recreational environments. Opportunities to see a variety of routine tasks and responsibilities, question and answer time, and learning what expectations are required of those who work in this exciting field comprises the fundamentals of this class. Prerequisite: SFM 105, BIO 240, and BIO 241

SFM 150-Individual Activities
(1 credit hour - 0 lecture 2 lab - T)
This course provides students the necessary tools and opportunities to analyze individual sport skills, demonstrate effective instructional techniques, and work with others in a positive and reinforcing fashion to enhance skill performance. Prerequisite: None

SFM 160-Dual Sport Activities
(1 credit hour - 0 lecture 2 lab - T)
This course provides students the necessary tools and opportunities to analyze an individual's dual-sport skills, demonstrate effective instructional techniques, and work with others in a positive and reinforcing fashion to enhance skill performance. Prerequisite: None

SFM 180-Group Fitness Activities
(2 credit hours - 1 lecture 2 lab - T)
This course provides an introduction to the methods of teaching and encouraging participation in group fitness settings. Students will work in large groups to set fitness goals and facilitate group fitness activities. Lab will include performance of activities along with peer instruction, both designed to foster clear communication of directions and safety related issues. Prerequisite: None

SFM 200-Sport Management Foundations
(4 credit hours - 3 lecture 2 lab - T)
This course is a survey of the needs of a variety of recreational facilities. Included within the content is an analysis of the physical needs, safety considerations, equipment, personnel process, staffing requirements, and activity programming. Prerequisites: BUS 111

SFM 215-Practicum II
(3 credit hours - 2 lecture 7 lab - T)
This course provides the opportunity for supervised practical experience in an area of the sport, fitness and recreation industry. Through an externship, students will work side-by-side with industry professionals to apply knowledge and to develop leadership and managerial skills. Prerequisites: SFM 120 and SFM 140

SFM 220-Intermediate Resistance Training
(3 credit hours - 2 lecture 2 lab - T)
Builds upon the introductory course work to broaden the student's knowledge about the benefits and application of resistance training. Students will develop individual exercise programs by exploration and application of major resistance training concepts and demonstration of appropriate spotting, safety and lifting techniques. Prerequisites: BIO 242 , BIO 243, and SFM 120

SFM 230-Management of Athletic Injuries
3 credit hours - 2 lecture 2 lab - T)
Focus is upon the initial management of common injuries resulting from physical activity. By understanding risk factors associated with participation in a variety of sports, students learn skills related to prevention, recognition and treatment. Prerequisite: BIO 242 and BIO 243

SFM 240-Exercise Physiology
(5 credit hours - 4 lecture 3 lab - T)
Instruction in testing processes and techniques for individual evaluation of body fat analysis, aerobic and anaerobic fitness, muscle mass and, flexibility combines with the physiological study of the body's systemic responses to exercise. Prerequisites: BIO 242, BIO 243, and HLT 222

SFM 265-Practicum III
(4 credit hours - 2 lecture 14 lab - T)
This capstone field experience provides the student with supervised, experiential learning in an area of the sport, fitness or recreation industry. This externship will allow students to work with other professionals in the industry while gaining a sense of autonomy in the directed delivery of services to clients. Prerequisites: SFM 200, SFM 215 and SFM 240

SFM 271-Activities for Special Populations
(3 credit hours - 2 lecture 2 lab - T)
This course is designed to prepare physical activity professionals to identify, select and implement appropriate strategies, services and resources to meet the needs, learning styles and experiences of those with special needs. Field based experience with self-analysis is required. An appropriate field placement must be agreed upon between the student and the course instructor. Prerequisite: SFM 215

SFM 275-Philosophy and Ethics in Sport Industry
(3 credit hours - 3 lecture 0 lab - T)
Students will compare and contrast the philosophical underpinnings and ethical considerations that shape decisions made in a variety of sport, fitness and recreational settings. In addition, students will explore the historical development and future trends of these overarching philosophies. Prerequisite: SFM 215

SOC 101-Introduction to Sociology
(4 credit hours - 4 lecture 0 lab - G)
Introduces students to the basic concepts, theories, perspectives, and processes in sociology. Topics include culture, socialization, groups, organizations, social deviance, social class and inequality, social change and social institutions. This course will help students better understand themselves as well as their relationship to the larger society. Prerequisite: If placed by testing, a grade of C or better in COM 090 and/or COM 091 or completion or enrollment in ENG 150

SOC 206-Cultural Diversity
(4 credit hours - 4 lecture 0 lab - G)
An exploration of American diversity in terms of the dynamics of intergroup relations, focusing on selected racial and ethnic groups. In addition, other diversities that will be included in the exploration: religion, gender, sexual preference, and the Appalachian area. Prerequisite: SOC 101

SOC 218-Social Problems
(4 credit hours - 4 lecture 0 lab - G)
An overview of contemporary social problems to include poverty, substance abuse, discrimination, crime, family violence, and environment degradation. Students explore the nature of these problems, how they developed, and potential solutions. Students will look at these problems in the United States and within a global society. Prerequisite: If placed by testing, a grade of C or better in COM 090 and/or COM 091 or completion or enrollment in ENG 150

SUR 142-Remote Sensing & Cartography
(3 credit hours - 2 lecture 3 lab - T)
Remote sensing and cartography resources, principles, and techniques used in the natural sciences. Natural resources management applications for topographic and specialty maps, aerial photographs, satellite imaging, computer navigation systems, GPS, and GIS. Data collection and manipulation are practiced in lab. Co-requisite: MTH 110

SUR 219-Fundamentals of Surveying
(3 credit hours - 2 lecture 3 lab - T)
An introduction to basic land measurement including horizontal distance, elevation, and angle measurements. An introduction to global positioning is included. Students will operate transits, level and total stations. Students will prepare basic surveying drawings. Prerequisite: MTH 110 or placement into MTH 113

WLD 100-Oxy-Fuel Safety & Proficiency
(0.5 credit hours - 3 lecture 4 lab - T)
Students will demonstrate knowledge through written tests, oral exams and lab proficiency testing that they understand safe operational principles of Oxy-fuel torch, as this is a vital part of the total welding process. Prerequisite: None

WLD 101-Basic Electricity
(0.5 credit hours - 5 lecture 0 lab - T)
Students will demonstrate knowledge through written tests and oral exams that they understand how industrial electricity is used in the work place and why electrical safety training is mandatory to protect today's workers. Prerequisite: WLD 100

WLD 102-Welding Terminology
(0.5 credit hours - 5 lecture 0 lab - T)
Students will demonstrate knowledge through written tests and oral exams that they understand the basic principles of welding safety, welding symbols, how to prepare joints to be welded and the properties of the welding process. Prerequisite: WLD 101

WLD 103-Fast Freeze Electrode I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge through written tests, oral exams and skills testing that they understand the characteristics and basic manipulation techniques of the specified electrode group in the flat position. Prerequisite: WLD 102

WLD 104-Fast Freeze Electrode II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the vertical position. Prerequisite: WLD 103

WLD 105-Fast Freeze Electrode III
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the overhead position. Prerequisite: WLD 104

WLD 106-Fill Freeze Electrode I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge through written tests, oral exams and skills testing that they understand the characteristics and basic manipulation techniques of the specified electrode group in the flat position. Prerequisite: WLD 105

WLD 107-Fill Freeze Electrode II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the horizontal position. Prerequisite: WLD 106

WLD 108-Fill Freeze Electrode III
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the vertical position. Prerequisite: WLD 107

WLD 109-Fill Freeze Electrode IV
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the overhead position. Prerequisite: WLD 108

WLD 110-Fast Fill Electrode I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge through written tests, oral exams and skills testing that they understand the characteristics and basic manipulation techniques of the specified electrode group in the flat position. Prerequisite: WLD 109

WLD 111-Low-Hydrogen Electrode I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge through written tests, oral exams and skills testing that they understand the characteristics and basic manipulation techniques of the specified electrode group in the flat position. Prerequisite: WLD 110

WLD 112-Low-Hydrogen Electrode II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the vertical position. Prerequisite: WLD 111

WLD 113-Low-Hydrogen Electrode III
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the overhead position. Prerequisite: WLD 112

WLD 114-Low-Hydrogen Electrode IV
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the flat position. The groove weld will be introduced and destructive bend testing performed. Prerequisite: WLD 113

WLD 115-Low-Hydrogen Electrode V
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the vertical position. Groove welds and destructive bend testing will be performed. Prerequisite: WLD 114

WLD 116-Low-Hydrogen Electrode VI
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills and basic manipulation techniques of the specified electrode group in the overhead position. Groove welds and destructive bend testing will be performed. Prerequisite: WLD 115

WLD 117-Low-Hydrogen Electrode VII
(1 credit hour - 0 lecture 20 lab - T)
Students will practice vertical welding techniques preparatory to the ODOT state certification test. Prerequisite: WLD 116

WLD 118-Low-Hydrogen Electrode VIII
(1 credit hour - 0 lecture 20 lab - T)
Students will practice overhead welding techniques preparatory to the ODOT state certification test. Prerequisite: WLD 117

WLD 119-Hardfacing Electrode
(0.5 credit hours - 2 lecture 6 lab - T)
Students will demonstrate knowledge through written tests, oral exams and proficiency testing that they understand the basic uses of and manipulation techniques of the specified electrode group. Prerequisite: WLD 118

WLD 130-Blueprint Reading I
(1 credit hour - 10 lecture 0 lab - T)
Students will demonstrate knowledge through completion of workbook assignments and written tests that they understand the blueprint reading concepts of: Basic Lines and Views, Sketching, Notes, Specifications, Dimensions and Bill of Materials. Prerequisite: None

WLD 131-Blueprint Reading II
(1 credit hour - 10 lecture 0 lab - T)
Students will demonstrate knowledge through completion of workbook assignments and written tests that they understand the blueprint reading concepts of: Structural Shapes, Other Views, Sections, Detail Prints and Welding Symbols & Abbreviations. Prerequisite: WLD 130

WLD 132-Blueprint Reading III
(1 credit hour - 10 lecture 0 lab - T)
Students will demonstrate knowledge through completion of workbook assignments and written tests that they understand the blueprint reading concepts of: Basic Joints, Fillet Welds, Groove Welds, Back or Backing Welds, Melt-Thru Welds and Pipe Welding Symbols. Prerequisite: WLD 131

WLD 133-Plasma Arc Cutting
(0.5 credit hours - 2 lecture 6 lab - T)
Student will demonstrate knowledge through written tests and lab exercises that they understand the safety aspects of plasma arc cutting process and gain proficiency in the manipulation of the plasma torch. Prerequisite: None

WLD 150-Introduction to GMAW I
(0.5 credit hours - 5 lecture 0 lab - T)
Students will demonstrate knowledge through written tests, that they understand the safety aspects of Gas Metal Arc Welding. They will also demonstrate knowledge of the basic GMAW process. Prerequisite: None

WLD 151-Introduction to GMAW II
(0.5 credit hours - 2 lecture 6 lab - T)
Students will demonstrate knowledge through written tests and laboratory exercises, that they understand the setup and safe operation of Gas Metal Arc Welding equipment. They will begin skills practice in the flat position. Prerequisite: WLD 150

WLD 152-GMAW Horizontal
(0.5 credit hours - 0 lecture 10 lab - T)
Students will demonstrate skills using the GMAW process in the horizontal position. Prerequisite: WLD 151

WLD 153-GMAW Vertical
(0.5 credit hours - 0 lecture 10 lab - T)
Students will demonstrate skills using the GMAW process in the vertical position. Prerequisite: WLD 152

WLD 154-GMAW Overhead
(0.5 credit hours - 0 lecture 10 lab - T)
Students will demonstrate skills using the GMAW process in the vertical position. Prerequisite: WLD 153

WLD 155-GMAW Dual Shield
(0.5 credit hours - 0 lecture 10 lab - T)
Students will demonstrate skills using cored wire (FCAW) in all positions. Prerequisite: WLD 154

WLD 156-GMAW Plate I
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills with the GMAW process in all positions. The groove weld and CO2 as a shielding gas will be introduced and destructive bend testing performed. Prerequisite: WLD 155

WLD 157-GMAW Plate II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills with the GMAW process in all positions. The open root weld will be introduced and destructive bend testing performed. Prerequisite: WLD 156

WLD 163-GMAW Aluminum
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate skills with the GMAW process in all positions. The welding of aluminum will be introduced and fillet-break tests performed. Prerequisite: WLD 154

WLD 164-GMAW Pulse
(0.5 credit hours - 0 lecture 10 lab - T)
Students will demonstrate skills with the GMAW process in all positions. The welding of steel utilizing the pulse-spray mode of metal transfer will be introduced and fillet-break tests performed. Prerequisite: WLD 154

WLD 165-GMAW Stainless
(0.5 credit hour - 0 lecture 10 lab - T)
Students will demonstrate skills with the GMAW process in all positions. The welding of stainless steel will be introduced and fillet-break tests performed. Prerequisite: WLD 154

WLD 200-Introduction to GTAW
(0.5 credit hours - 5 lecture 0 lab - T)
Students will demonstrate knowledge through written tests, that they understand the safety aspects of Gas Tungsten Arc Welding. They will also demonstrate knowledge of the basic GTAW process. Prerequisite: None

WLD 201-GTAW Steel I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will begin developing TIG welding skills, both fusion welding and utilizing the addition of filler metal on mild steel plate. Prerequisite: WLD 200

WLD 202-GTAW Steel II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will develop TIG welding skills, both fusion welding and utilizing the addition of filler metal on mild steel plate. Out-of-position welding will be introduced. Prerequisite: WLD 201

WLD 203-GTAW Aluminum I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will develop TIG welding skills, both fusion welding and utilizing the addition of filler metal on aluminum. Prerequisite: WLD 200

WLD 204-GTAW Aluminum II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will develop TIG welding skills, both fusion welding and utilizing the addition of filler metal on aluminum. Out-of-position welding will be introduced. Prerequisite: WLD 203

WLD 205-GTAW Stainless I
(1 credit hour - 1 lecture 18 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will develop TIG welding skills, both fusion welding and utilizing the addition of filler metal on stainless steel. Prerequisite: WLD 200

WLD 206-GTAW Stainless II
(1 credit hour - 0 lecture 20 lab - T)
Students will demonstrate knowledge of the basic GTAW setup, equipment and process. Students will develop TIG welding skills, both fusion welding and utilizing the addition of filler metal on stainless steel. Out-of-position welding will be introduced. Prerequisite: WLD 205

WLD 250-Welding Fabrication I
(1 credit hour - 10 lecture 0 lab - T)
Students will demonstrate knowledge through written tests, sketches, oral exams and a final project that they understand the basic principles of welding fabrication. Prerequisite: WLD 119 and WLD 156, or permission of instructor

WLD 251-Welding Fabrication II
(1 credit hour - 5 lecture 10 lab - T)
Continuation of WLD 250. Prerequisite: WLD 250

WLD 252-Welding Fabrication III
(1 credit hour - 3 lecture 14 lab - T)
Continuation of WLD 251. Prerequisite: WLD 251

WLD 253-Welding Fabrication IV
(1 credit hour - 0 lecture 20 lab - T)
Continuation of WLD 252. Prerequisite: WLD 252

WORKFORCE DEVELOPMENT

Training and Consulting Division
The Training and Consulting Division is responsible for services delivered to business, hospital, industry, public service, and social service organizations within the College's service area. In addition, the Division is responsible for providing services for dislocated workers, economically disadvantaged persons, and individuals incarcerated at the Belmont Correctional Institution. Services are provided on the main campus in Zanesville, the Zane State College - Willett-Pratt Training Center in Cambridge, and at the location of the organization being served.

The Training and Consulting Division at Zane State College goes beyond the historic community outreach and public service mission of publicly supported colleges to establish "engagement" or "partnerships" in the Zane State College service area. To accomplish these goals the Training and Consulting Division employs these approaches:

1. Responsiveness—the Division assesses the educational and training needs in the Zane State College service area.
2. Respect for Community Partners—the Division encourages joint academic-community identification of problems, solutions, and successes.
3. Academic Neutrality—in its outreach to the community, the Division often serves as a neutral facilitator and source of information for purposes of expanding partnerships.
4. Accessibility—the Division helps community partners understand what educational and training programs Zane State College has to offer and to understand the institution's academic requirements and policies.
5. Integration—the Division promotes the public service mission with efforts to facilitate the learning and training of the workforce and other populations in the Zane State College service area.
6. Coordination—the Division strives to coordinate its educational and training activities with other offices at Zane State College, as well as with the resources of the community, to achieve maximum benefit to community partners.
7. Partnership—the Division strives to establish productive relationships with government, business, labor, education, and non-profit organizations.
8. Commitment—the Division has a strong commitment to function as a community-serving entity at Zane State College, be democratic in purpose and operation, and be accessible to all people who can benefit from further education and training.

ZANE STATE COLLEGE - WILLETT-PRATT TRAINING CENTER
The Zane State College Willett-Pratt Training Center, located in the D.O. Hall Industrial Park in Cambridge, provides training to develop the area's workforce to meet the needs of a variety of employers. Additional services provided at the Zane State College Willett-Pratt Training Center include:

College Classes
Traditional Courses: Learners have the opportunity to participate in traditional classes offered by the College that include English, social sciences, math, business courses, and medical assisting.

Distance Education: Distance Education Alternative Learning (DEAL) courses are offered in several formats. Students who are self-motivated, independent, persistent, and resourceful will find that DEAL courses can enhance their learning, provide flexibility, and potentially save time and money. A $15 per credit hour surcharge is due for each DEAL course a student takes. This fee is in addition to any other tuition and fees associated with Zane State College's course offerings.

Internet Courses: Some of Zane State's traditional classes are offered through the Internet. Please refer to the quarterly schedule to determine if the course that you are seeking is offered through the Internet. Information presented through the Internet is available 24 hours per day, seven days per week.

ITV: Both the main campus in Zanesville and the Zane State College Willett-Pratt Training Center facility in Cambridge have the capability of broadcasting and receiving classes over interactive television. Selected courses are offered throughout the year.

Independent Study: Students learn and complete course assignments by following study guides, reading books, using computers, and watching videos. Course instructors are available for assistance via phone calls, office visits, or e-mail.

Modular Courses: Welding courses are offered in self-paced modules. Learners may come to the Training Center nearly any time during the year to obtain welding skills.

Business and Industry Training
The Business and Industry Training Department of Zane State College Willett-Pratt Training Center is dedicated to partnering with business, industry, schools, and other organizations and agencies to improve performance and increase productivity. Services include: assessment of employees to determine skill levels for hiring or training; design and delivery of customized training for employers; and professional development seminars.

Training is developed to meet the specifications of employers and training may be delivered on site or in one of the College's classrooms. Examples of training topics include management, safety, computers, and industrial maintenance. All classes are offered as contract training programs tailored to meet the needs of the workforce and can be offered in a variety of formats at times convenient for our clients. Training may be offered for credit or non-credit. Grant funding provided through Enterprise Ohio directly subsidizes customized non-credit training for local employers.

SkillsMAX is a unique bundle of human capital products and services designed to help companies hire, train, and promote individuals to make better career decisions. As a certified SkillsMAX Center, additional services provided to business and industry include assessments from a variety of recognized vendors, job profiling, corporate university, IT certifications, training and development, skill and competency management, computer-based training, and job matching.

Zane State College Business and Industry Training Online Instruction Center
We offer a wide range of highly interactive courses that you can take entirely over the Internet. All of your courses include expert instructors, many of whom are nationally known authors. Our online courses are affordable, fun, fast, convenient, and geared just for you. We offer courses from the JER Group as well as Ed2go. The following is a listing of Ed2go current offerings:

101 Tips and Tricks for the iMac and Macintosh
A+ Certification Prep, Advanced, CompTIA
A+ Certification Prep, Basic, CompTIA
A+ Certification Prep, Intermediate, CompTIA
Accounting Career Certificate Program
Accounting Fundamentals II
Accounting Fundamentals
Administrative Assistant Applications
Administrative Assistant Fundamentals
Adobe FrameMaker 7.1, Introduction to
Adobe Illustrator CS, Design Projects for
Adobe Illustrator CS2, Design Projects for
Business Analysis, Introduction to
Business Fundamentals, Mastery of
Business Writing, Effective
Business and Marketing Writing
C# Programming, Intermediate
C++ for the Absolute Beginner
Certificate in Complementary and Alternative Medicine
Certificate in Spirituality, Health, and Healing
Communicating Like a Leader
Communication, High Powered
Computer Skills for the Workplace
Construction Business Management, Successful
Crystal Reports 10, Introduction to
Customer Service Fundamentals

Database Development, Introduction to
Designing Effective Websites
Distribution and Logistics Management
Dreamweaver 8, Introduction to
Dreamweaver MX 2004, Introduction to
Dreamweaver MX, Introduction to
Editing, The Keys to Effective
End of Life Care, Certificate In
French, Beginning Conversational
Fundamentals of Supervision and Management I
Gerontology, Certificate in
Grammar Refresher
Grant Proposal Writing, Advanced
Grant Proposals, Writing Effective
Grants, Get
Growth and Development Through the Lifespan, Certificate in
High Speed Project Management
Home Inspector Career Certificate Program
Human Resources Function, Understanding the
Individual Excellence
Internet, Introduction to the
Introduction to C# Programming
JSP Programming, Introduction to
Java for the Absolute Beginner
Keyboarding
Legal and Ethical Issues in Nursing, Certificate in
Linux, Introduction to
Manufacturing Applications
Manufacturing Fundamentals
Mastery of Business Applications
Medical Coding and Billing Career Certificate Program - Accelerated
Medical Coding and Billing Career Certificate Program - Comprehensive
Medical Office Assistant Career Certificate Program - Accelerated
Medical Office Assistant Career Certificate Program - Comprehensive
Medical Transcriptionist Career Certificate Program - Accelerated
Medical Transcriptionist Career Certificate Program - Comprehensive
Microsoft Access 2003, Intermediate
Microsoft Access 2003, Introduction to
Microsoft Excel 2003, Advanced
Microsoft Excel 2003, Intermediate
Microsoft Excel 2003, Introduction to
Microsoft FrontPage 2003, Introduction to
Microsoft Outlook 2003, Introduction to
Microsoft PowerPoint 2003, Introduction to
Microsoft PowerPoint, Intermediate
Microsoft Project 2003, Introduction to
Microsoft Publisher 2003, Introduction to
Microsoft Windows Certification Prep: Exam 70-270
Microsoft Word 2003, Advanced
Microsoft Word 2003, Intermediate
Microsoft Word 2003, Introduction to
Network + Certification Prep, CompTIA
Network, Creating a Small Office
Networking, Intermediate
Networking, Introduction to
Networking, Wireless
Nonprofit Management, Introduction to
Oracle, Intermediate
Oracle, Introduction to
Oral and Written Errors, Correcting

Oxygenation Issues , Certificate in
PC Repair Career Certificate Program
PC Security, Introduction to
PC Troubleshooting, Introduction to
PMP Certification Prep 2
PMP Certification Prep I
Pain Assessment and Management, Certificate in
Perinatal Issues, Certificate in
Perl Programming, Introduction to
Photographing People with your Digital Camera
Photoshop 7 for the Absolute Beginner
Photoshop 7, Introduction to
Photoshop CS, Introduction to
Photoshop CS2 for the Digital Photographer
Photoshop CS2, Intermediate
Photoshop CS2, Introduction to
Photoshop Elements 2.0 for the Digital Photographer
Photoshop Elements 3.0 for the Digital Photographer
Photoshop Elements 4.0 for the Digital Photographer II
Photoshop Elements 4.0 for the Digital Photographer
Photoshop Elements Projects
Project Management Applications
Project Management Fundamentals
Purchasing Applications
Purchasing Fundamentals
QuickBooks 2005, Introduction to
QuickBooks for Contractors
QuickBooks, Performing Payroll in
SQL, Introduction to
Sales Management, Principles of
Sales Skills, Professional
Search Engine Positions, Achieving Top
Security+ Certification Prep, CompTIA
Security, Advanced PC
Selling, Effective
Six Sigma: Total Quality Applications
Speed Spanish III
Speed Spanish II
Speed Spanish
Supervision and Management II, Fundamentals of
Supply Chain Management Applications
Supply Chain Management Fundamentals
Technical Documents, Writing Great
Technical Writing, Fundamentals of
Total Quality Fundamentals
User Requirements Documents, Creating
VBA, Introduction to
Visual Basic .NET, Intermediate
Visual Basic .NET, Introduction to
Visual Basic 2005, Introduction to
Web Pages II, Creating
Web Pages, Creating
Windows XP, Introduction to
Writeriffic 2: Advanced Creativity Training for Writers
Writeriffic: Creativity Training for Writers

Employment Training Center
The Employment Training Center is a partnership between Zane State College and the Guernsey County Department of Job and Family Services. The Employment Training Center equips youth and adult clients with the skills necessary to secure and retain employment which leads to lifelong self-sufficiency and career success. The open entry-open exit program offers self-paced training. Services include exposing clients to post-secondary education and training programs and assisting them with enrollment; relating basic academic skills to employer needs and expectations; helping clients develop positive social and work place behaviors; and emphasizing job search preparation.

Continuing Education
The Training and Consulting Division cooperates with companies, associations, professional organizations, and institutions to provide credit or non-credit continuing education opportunities. Learners may apply to the College to have their accumulated CEU's evaluated for credit toward an associate degree.

Belmont Correctional Institution College Program
The College, through the Training and Consulting Division, administers and provides instruction for two college-level, career-oriented certificate programs—the Small Business Management Certificate program and the Microcomputer Application Specialist Certificate program—for inmates who wish to further their education and prepare themselves for full-time employment after their release from the Belmont Correctional Institution. The primary goals of the Zane State College/BCI College Program are to improve clients' prospects for career development and employment, achieve personal independence, transfer to degree programs upon parole or release, and reduce recidivism.

Institutes, Workshops, and Community Education
Several other types of workshops and community education classes are offered through the College or the Willett-Pratt Training Center. These offerings include the following:

Community Education: Classes are offered throughout the year on a variety of topics such as health and exercise, pet care, cooking, and life enrichment. Offerings are updated daily on the College website under Community Education.

Computer Institute: A series of workshops that provide training in numerous types of software. The complete series of Office XP is covered in the various workshops that are offered each academic quarter. In addition, other software is examined, and training may be offered based on demands within the service district. MOS and A+ certifications also are available through the Institute.

Safety Institute: A series of workshops and courses focusing on OSHA mandated training. Included are 8- to 40- hour courses that are provided to businesses as they are needed. If projected enrollments from a single firm are not sufficient to justify a stand-alone class, partnerships are encouraged. The Institute also provides training related to the transportation of hazardous materials. Other courses include studies of hazardous material handling and disposal (HAZMAT) and HAZWOPER.

Welding Training Modules:

Basic Shielded Metal Arc Welding (SMAW)	
WLD 100 Oxy-Fuel Safety and Proficiency	0.5 Credit
WLD 101 Basic Electricity	0.5 Credit
WLD 102 Welding Terminology	0.5 Credit
WLD 103 Fast Freeze Electrode Group I	1.0 Credit
WLD 104 Fast Freeze Electrode Group II	1.0 Credit
WLD 105 Fast Freeze Electrode Group III	1.0 Credit
WLD 106 Fill Freeze Electrode Group I	1.0 Credit
WLD 107 Fill Freeze Electrode Group II	1.0 Credit
WLD 108 Fill Freeze Electrode Group III	1.0 Credit
WLD 109 Fill Freeze Electrode Group IV	1.0 Credit
WLD 110 Fast Fill Electrode Group I	1.0 Credit
WLD 111 Low-Hydrogen Electrode Group I	1.0 Credit
WLD 112 Low-Hydrogen Electrode Group II	1.0 Credit
WLD 113 Low-Hydrogen Electrode Group III	1.0 Credit
WLD 114 Low-Hydrogen Electrode Group IV	1.0 Credit
WLD 115 Low-Hydrogen Electrode Group V	1.0 Credit
WLD 116 Low-Hydrogen Electrode Group VI	1.0 Credit
WLD 117 Low-Hydrogen Electrode Group VII	1.0 Credit
WLD 118 Low-Hydrogen Electrode Group VIII	1.0 Credit
WLD 119 Hardfacing Electrode Group	0.5 Credit
	18 Credits
Gas Metal Arc Welding (MIG)	
WLD 150 Intro to GMAW I	0.5 Credit
WLD 151 Intro to GMAW II	0.5 Credit
WLD 152 GMAW Horizontal	0.5 Credit
WLD 153 GMAW Vertical	0.5 Credit
WLD 154 GMAW Overhead	0.5 Credit
WLD 155 GMAW Dual Shield	0.5 Credit
WLD 156 GMAW-Plate I	1.0 Credit
WLD 157 GMAW-Plate II	1.0 Credit
WLD 163 GMAWAluminum	1.0 Credit
WLD 164 GMAW-Pulse	0.5 Credit
WLD 165 GMAW Stainless	0.5 Credit
	7.0 Credits
Pipe Welding (SMAW)	
WLD 120 Open root-plate; 1G	1.0 Credit
WLD 121 Open root-plate; 2G	1.0 Credit
WLD 122 Open root-plate; 3G (Downhill)	1.0 Credit
WLD 123 Open root-plate; 3G (Uphill)	1.0 Credit
WLD 124 Open root-plate; 4G	1.0 Credit
WLD 125 Open root-pipe; 1G	1.0 Credit
WLD 126 Open root-pipe; 2G	1.0 Credit
WLD 127 Open root-pipe; 5G (Downhill)	1.0 Credit
WLD 128 Open root-pipe; 5G (Uphill)	1.0 Credit
WLD 129 Open root-pipe; 6G	1.0 Credit
	10 Credits
Pipe Welding (MIG)	
WLD 158 GMAW-pipe; 1G	1.0 Credit
WLD 159 GMAW-pipe; 2G	1.0 Credit
WLD 160 GMAW-pipe; 5G (Downhill)	1.0 Credit
WLD 161 GMAW-pipe; 5G (Uphill)	1.0 Credit
WLD 162 GMAW-pipe; 6G	1.0 Credit
	5.0 Credits
Advanced Welding	
WLD 130 Blueprint Reading I	1.0 Credit

WLD 131 Blueprint Reading II	1.0 Credit
WLD 132 Blueprint Reading III	1.0 Credit
WLD 133 Plasma Arc Cutting	0.5 Credit
WLD 250 Fabrication I	1.0 Credit
WLD 251 Fabrication I	1.0 Credit
WLD 252 Fabrication III	1.0 Credit
WLD 253 Fabrication IV	1.0 Credit
WLD 290 Internship	4.0 Credits
WLD 291 Seminar	0.5 Credit
	12 Credits

Gas Tungsten Arc Welding (TIG)

WLD 200 Introduction to GTAW	0.5 Credit
WLD 201 GTAW Steel I	1.0 Credit
WLD 202 GTAW Steel II	1.0 Credit
WLD 203 GTAW Aluminum I	1.0 Credit
WLD 204 GTAW Aluminum II	1.0 Credit
WLD 205 GTAW Stainless I	1.0 Credit
WLD 206 GTAW Stainless II	1.0 Credit
WLD 207 GTAW Pipe-1G	1.0 Credit
WLD 208 GTAW Pipe-2G	1.0 Credit
WLD 209 GTAW Pipe-5G	1.0 Credit
WLD 210 GTAW Pipe-6G	1.0 Credit
	10.5 Credits

Total Number of Credit Hours = 54.0

Photo credit: Jenn Folden, Marketing Specialist, Zane State College

Photo credit: Lynn Wells, Professor, Information Technology, Zane State College

COLLEGE PERSONNEL

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President's Office

Paul R. Brown ..... President
..... B.A., University of Maryland - Psychology
..... M.A., University of Northern Colorado - Public Administration
..... Specialist in Education, George Peabody College of Vanderbilt University
..... Human Development Counseling
..... Ed.D., Vanderbilt University - Human Development Counseling
Santanu Bandyopadhyay ..... Director of Institutional Research
..... B.S., Presidency College - Physics
..... M.B.A., Ohio University - Business Administration
Pamela Jira ..... Executive Director Foundation/Assistant to the President
..... B.A., Muskingum College - English
..... M.S., Franklin University - Marketing and Communications
George Ruberg ..... Director of Grants and Contracts
..... B.S., Drexel University - Humanities and Technology
..... M.A., Tulane University - Political Science
Julie Sterling ..... Director of Human Resources
..... B.G.S., Ohio University - General Studies
..... M.Ed., Ohio University - Higher Education
..... M.A., The Ohio State University - Public Administration

President's Cabinet

Paul R. Brown ..... President
Robin Menschenfreund ..... Vice President for Educational Services and Quality Improvement
Albert Brown ..... Vice President for Business Services/Treasurer
Dotty Welch ..... Vice President for Student Services
David Blum ..... Executive Director of Information Technology Services/CIO
Chad Brown ..... Dean, Health, Public Service & Service-Related Programs
Gary Dodge ..... Dean, General Education, Adjunct Faculty and Evening Programs
Sally Francis ..... Associate Dean, Workforce Development
Jeffery Gibbs ..... Dean, Engineering, Natural Science, Business & Information Technology
Pamela Jira ..... Executive Director, Foundation/Assistant to the President
Julie Sterling ..... Director of Human Resources
(Elected Annually) ..... Faculty Senate Chair
(Elected Annually) ..... Staff Senate Chair
(Elected Annually) ..... Student Senate President

Academic Services

Robin Menschenfreund ..... Vice President for Educational Services and Quality Improvement
..... Certificate, University of Pennsylvania - Dental Hygiene
..... B.H.S., University of Kentucky - Health Education
..... M.S., University of Kentucky - Curriculum and Instruction
..... Ph.D., University of Nebraska - Education/Adult, Vocational, and Continuing Education
Chad Brown ..... Dean of Health, Public Service, and Service-Related Programs
..... B.A., Capital University - Athletic Training
..... M.S., University of Michigan - Kinesiology
..... Ph.D., Ohio University - Higher Education Leadership
Gary Dodge ..... Dean of General Education, Adjunct Faculty, and Evening Programs
..... B.A., Eastern Michigan University - Communications
..... M.A., University of Michigan - Education
Jeffery Gibbs ..... Dean, Engineering, Natural Science, Business & Information Technology
..... A.A.S, Muskingum Area Technical College - Mechanical/Industrial Engineering
..... B.S., Ohio University - Industrial and Systems Engineering
..... M.B.A., University of Dayton - Business Administration

Business Services

Albert Brown ..... Vice President for Business Services/Treasurer
..... B.A., University of Denver - Psychology
..... M.B.A., Oregon State University - Business Administration
..... Certified Public Accountant
Tammy Huffman ..... Director of Accounting Services
..... A.A.B., Muskingum Area Technical College - Accounting
Linda Metz ..... Director of Bookstore Operations
..... A.A.B., Muskingum Area Technical College - Business Administration
..... B.B.A., Ohio University - Business Administration
..... M.B.A., University of Findlay - Public Management
Judy Lind ..... Payroll Specialist, Business Office
..... A.A.B., Muskingum Area Technical College - Business Administration

Information Technology Services

David Blum ..... Executive Director of Information Technology Services/CIO
..... B.S., Ohio University - Communication System Management
Bryan Baker..... Director of Network and Security Services
..... A.A.B., Muskingum Area Technical College - Computer Science
John Jacobs..... Director of User Support Services, Information Technology Services
..... A.A.S., Muskingum Area Technical College - Information Technology
..... B.S., Franklin University - Information Technology

Marketing and Communications

Tammarra Pace..... Director of Marketing and Communications
..... B.A., Miami University - English/Journalism

Student Services

Dotty Welch..... Vice President for Student Services
..... B.S., Akron University - Elementary Education
..... M.A., Austin Peay State University - Psychology
..... Ph.D., Ohio University - Student Personnel Administration, Leadership, Research, and Counseling
Stacie Clapper ..... Director of Student Success Center
..... B.S., The Ohio State University - Family Relations and Human Development
..... M.Ed., Ashland University - Curriculum and Instruction
..... Licensed Social Worker
..... Diplomat of American Psychotherapy Association
Jamie Clark ..... Director of Career and Employment Services
..... A.T.S., Muskingum Area Technical College - Technical Studies
..... B.S.C., Ohio University - Interpersonal Communication/Human Services
..... Certified Job and Career Transition Coach
..... Certified Professional Secretary
..... Certified Job Search Trainer
Larisa Harper ..... Director of College Tech Prep
..... B.A., Ohio University - Psychology and English
..... M.A., Northern Arizona University - English
Amanda McPherson ..... Director of Student Financial Aid
..... B.S., The Ohio State University - Human Ecology
Paul Young ..... Director of Admissions
..... B.S., Miami University - Business Education

Workforce Development (Zane State College Willett-Pratt Training Center)

Sally Francis..... Associate Dean of Workforce Development
..... B.S., Ohio University - Elementary Education
Konrad Akens..... Director, Learning Resource Center
..... B.A., Muskingum College - Political Science and History
Dorinda Byers..... Director, SkillsMAX and Community Outreach
..... B.S., The Ohio State University - Agriculture
..... M.A., Muskingum College - Education (Teacher Leader)
..... Certified Program Planner
..... Certified SHL Administrator
Carol Cheesman ..... Prison Education Coordinator
..... Certificate in Applied Business, Muskingum Area Technical College
..... A.A.B., Muskingum Area Technical College - Accounting
Deanna Duche ..... Trainer
..... A.A.S., Belmont Technical College - Welding
..... B.S., The Ohio State University - Agriculture
..... M.S., The Ohio State University - Reproductive Physiology
..... Welding Procedures Certification
Shelly Hesson..... Administrative Assistant II
..... A.A.B., Muskingum Area Technical College - Secretarial Science

Gary King..... Community Education Coordinator
.....B.A., Ohio University - Psychology
..... M.A., Ohio University - Political Science
Debbie Kirsch ..... Director, Employment & Training Center/Community Outreach
.....B.S., Ohio University - Elementary Education
.....Certified SHL Administrator
Dave Pennington.....Employment Training Specialist
..... B.A., Mount Vernon Nazarene College - Sociology
Cindy Voorhies .....Director of Small Business Development Center
..... B.S.S., Ohio University - Specialized Studies
Bill Whipple ..... Director of Business & Industry Training
.....Certified Program Planner
.....Certified SHL Administrator

Photo credit: Tamra Pace, Marketing and Communications Director, Zane State College

Faculty

Marco Adornetto ..... Instructor, Culinary Arts
..... Associate of Culinary Arts, The Culinary Institute of America
Rebecca Anderson ..... Professor, Microcomputer Applications
..... A.A.B., Muskingum Area Technical College - Secretarial Science
..... B.S.Ed., Ohio University - Business Education
..... M.B.A., Wheeling Jesuit University - Business Administration
Mary Arnold ..... Assistant Professor, Occupational Therapy Assistant
..... B.S., The Ohio State University - Allied Health
..... M.A., Ohio University - Interpersonal Communications
Will Bailey ..... Assistant Professor, Electrical/Electronics Engineering Technology
..... A.A.S., Muskingum Area Technical College - Electrical/Electronics Engineering Technology
..... A.A.S., Muskingum Area Technical College - Mechanical/Industrial Engineering Technology
..... B.S., Franklin University – Electrical Engineering Technology
..... M.S., Nova Southeastern University – Computing Technology in Education
..... CET - Certified Engineering Technician
..... CNA - Certified Novell Administrator
..... CNE - Certified Novell Engineer
..... CCNA - Cisco Certified Network Administrator
..... CCAI - Cisco Certified Academy Instructor
..... Network+ Certified
Timothy L. Berger ..... Professor, Medical Assisting/Sport and Fitness Management
.....B.A., Capital University - Education
..... C.A.S., West Virginia Northern - Emergency Medical Services
..... M.A., Western Michigan University - Sports Medicine
..... A.A.S., Ohio University - Nursing
..... Registered Emergency Medical Technician
..... Certified Athletic Trainer
Charles Brookover ..... Instructor, Information Technology
.....A.A.B., Muskingum Area Technical College - Computer Science
..... B.S., The Ohio State University - English Education
..... M.S., Nova Southeastern University – Computing Technology in Education
Charles Butcher ..... Associate Professor, Computerized Machine Tool Systems
..... A.A.S., Hocking Technical College - Electronics
..... A.A.S., Hocking Technical College - Drafting & Design
..... B.S., Ohio University - Industrial Technology
..... M.A., Ball State University - Industrial Education
..... Certified Manufacturing Technologist
Becke Butler ..... Assistant Professor, Mathematics
..... B.S., West Chester University - Mathematics/Secondary Education
..... M.Ed., Millersville University – Mathematics
Kristeen Calderhead ..... Instructor, Medical Assisting
.....A.A.S., Zane State College – Medical Assisting
.....B.T.A.S., Ohio University – Technical and Applied Studies
Kelly Coffey ..... Instructor, Early Childhood Education
.....B.S., Ohio University - Elementary Education
..... M.A., Muskingum College - Education
Julie Cooprider ..... Assistant Professor, Business Management
..... B.S., Saint Mary-of-the Woods College - Management and Financial Information Systems
..... M.B.A., Southern Illinois University - Business Administration
William Curran, III ..... Assistant Professor, Paralegal
..... B.S., Creighton University - Mathematics
..... J.D., Creighton University – Law

James Davis..... Professor, Electrical/Electronics Engineering Technology
.....A.A.S., Muskingum Area Technical College - Electrical/Electronics
..... B.S., The Ohio State University - Agricultural Engineering
..... M.Ed., The Ohio State University - Training and Human Resource Development
..... Licensed Professional Engineer
..... Certified Engineering Technician
Daniel Durfee ..... Professor, Physical Science/Environmental Resource Management
..... B.S., Marshall University - Geology/History
..... M.S., Marshall University - Physical Science
Margaret Earhart..... Assistant Professor, Human Services Assistant
..... B.A., Ohio University – Sociology
..... M.S.W., The Ohio State University – Social Work
..... Licensed Independent Social Worker
Roy Fish .....Instructor, Psychology
..... B.S., The Ohio State University - Psychology
..... Ph.D., The Ohio State University - Human Development and Family Science
Laura Geiger..... Instructor, Medical Laboratory
..... B.S., The Ohio State University – Medical Technology
.....M.B.A., The University of Findlay – Organizational Leadership
Mark Gerko .....Instructor,
.....Computer-Aided Drafting and Design/Mechanical Engineering
..... B.S., University of Akron – Mechanical Engineering Technology
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..... A.A.S., Hocking College – Health Information Management
Marcie Hawkins..... Instructor, Administrative Office Assistant
..... A.A.B., Muskingum Area Technical College - Administrative Office Assistant
..... B.S., Franklin University - Technical Administration
..... Certified Professional Secretary and Certified Administrative Professional
Janet Herron ..... Instructor,
.....Computer Aided Drafting and Design - Architectural Drafting
..... A.A.S., Muskingum Area Technical College - Architectural/Building Construction
..... B.G.S., Ohio University - General Studies
George Hicks..... Associate Professor, Business Management
..... A.B., Youngstown State University - Economics
..... M.B.A., Ohio University - Business
Susan Holdren ..... Professor, English
..... B.A., Denison University - English
.....M.A., Ohio University - Interpersonal Communication
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..... A.A.S., Muskingum Area Technical College - Law Enforcement
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..... B.S., Pacific Western University - Criminal Justice
..... M.Ed., Ohio University - Higher Education
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..... B.S., Bowling Green State University - Clinical Laboratory Science
..... M.S., The Ohio State University - Allied Medicine
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..... B.A., The Ohio State University - English
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..... B.S., Ohio University - Mathematics Education
..... M.S., Ohio University - Mathematics Education
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.....M.A., State University of New York at Fredonia - English

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..... M.S., University of Akron - Biology
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..... M.S., Saint Joseph's College of Maine - Education
..... Registered Radiologic Technologist
Scott Lenthe ..... Professor, Parks, Recreation, & Wildlife
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..... B.S., The Ohio State University - Natural Resources
..... M.Ed., Ohio University - Curriculum & Instruction
..... Ph.D., Ohio University - Higher Education Administration
Senti Longkumer ..... Instructor, English
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..... B.S., Allegheny College - Biology
..... M.A., Bowling Green State University - Biology
..... Ph.D., Bowling Green State University - Biology
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..... M.A., Ohio University - Communications
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..... B.S., Robert Morris College - Business Administration and Accounting
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..... M.A., Franciscan University of Steubenville – Philosophy
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..... Certified Medical Assistant
..... Certified Group Fitness Instructor
..... Emergency Medical Technician
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..... M.S., Duquesne University - Multimedia Technology
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..... M.B.A., University of Delaware - Accounting
..... Certified Public Accountant

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..... B.A., Queens College - Economics
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..... Licensed Personnel Manager (Ohio)
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..... M.S., Pittsburg State University - Business Education
..... Ed. S., Pittsburg State University - Vocational Education
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Lisa Hendren ..... Sales and Merchandising Associate, Campus Bookstore
..... A.A.B., Muskingum Area Technical College – Retail Management
..... B.B.A., Mount Vernon Nazarene University – Business Administration
James Henthorn ..... Part-Time Security Officer, Business Services
Mysti Hittle ..... Supervisor, Word Processing
..... A.A.B., Muskingum Area Technical College - Administrative Office Assistant
..... B.A., Franklin University - Applied Management
Jeannette Householder ..... Administrative Assistant II, President's Office
..... A.A.B., Zane State College - Administrative Office Assistant
Randy Hutchinson ..... Duplicating Technician, Business Services
..... A.A.S., Muskingum Area Technical College - Parks, Recreation & Wildlife
Kaci Hutchison ..... Administrative Assistant II, Financial Aid
..... A.A.B., Muskingum Area Technical College - Administrative Office Assistant
Beverly Janke ..... Administrative Assistant III, Vice President for Educational Services and Quality Improvement
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Saylor Kelly ..... Administrative Assistant II, Engineering, Natural Science,
..... Business, and Information Technology
..... A.A.B., Muskingum Area Technical College - Marketing and Management
..... A.A.B., Muskingum Area Technical College - Microcomputer Applications
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..... B.B.A., Mount Vernon Nazarene College – Business Administration
..... M.B.A., Franklin University – Business Administration
Kathy McCaslin ..... Inventory Control Clerk, Campus Bookstore
..... A.A.B., Muskingum Area Technical College - Retail Management
..... B.A. Logos Christian College - Christian Counseling
Jean McDonald ..... Administrative Assistant II, Student Success Center
..... A.A.B., Muskingum Area Technical College - Administrative Office Assistant
Jeffrey McIntire ..... PC/LAN Technician I, Information Technology Services
..... A.A.B., Muskingum Area Technical College - Computer Science
Kim Melvin ..... Account Clerk I, Business Services
..... A.A.B., Muskingum Area Technical College - Administrative Office Assistant
..... B.S., Franklin University – Applied Management
Taumi Miller ..... Academic Advisor
..... B.A., Muskingum College - Art Education and Psychology

Bonny Mitchell ..... Administrative Assistant II, The Learning Center
..... A.A.B, Muskingum Area Technical College - Administrative Office Assistant
..... A.T.S., Zane State College - Administrative Office Management
..... B.A., Franklin University - Applied Management
Terry Moore ..... Director of Safety and Security
..... A.A.S., Muskingum Area Technical College - Criminal Justice
..... B.S., Ohio University - Criminal Justice
..... OPOTA Certification
..... OPOTA Instructor License
.....Advisor Certification
Andrew Morrison .....Textbook Buyer, Campus Bookstore
.....A.A.S., Zane State College - Electrical/Electronics Engineering
.....B.B.A., Ohio University - General Business
Carole Pitts ..... Natural Science Lab Tech, Engineering & Science/Health
..... A.A.S., Muskingum Area Technical College - Environmental Resource Management
Betty Quinn..... Administrative Assistant III, President's Office
..... A.T.S., Muskingum Area Technical College - Technical Studies
..... Certified Professional Secretary
Cris Redfern .....Administrative Assistant II, General Education Adjunct Faculty, Evening Programs
..... A.A.B., Muskingum Area Technical College, Executive Secretarial Sciences
..... A.A.B., Muskingum Area Technical College, Business Administration
Bruce Shearn..... Software Integration Analyst, Information Technology Services
..... A.A.B., Muskingum Area Technical College - Computer Science
Amy Sigman .....Student Support Advisor
..... A.A.S., Muskingum Area Technical College – Social Work Assistant
..... B.S., Capital University – Social Work
Linda Sinift..... HR Generalist/Benefits Coordinator, Human Resources
..... A.A.B., Muskingum Area Technical College - Secretarial Science
.....Certified Human Resources Specialist
Todd Slater ..... Faculty Development Coordinator
..... A.B., Ohio University - Spanish
..... M.Ed., Ohio University - Curriculum and Instruction
Virginia Strock..... Writing Tutor, The Learning Center
.....B.A., Muskingum College – Communication
..... M.S., Miami University – Mass Communication
Lucinda Swope..... Coordinator, Records Office
..... A.A.B., Muskingum Area Technical College - Secretarial Science
..... B.B.A., The University of Findlay - Business Administration
Alice Wilkins ..... Account Clerk II, Business Office
..... B.B.A., Ohio University - Business Administration and Accounting

Jim Woodworth.....Peer Tutor Coordinator, The Learning Center
.....A.A.S., Muskingum Area Technical College - Environmental Resource Management
.....B.S., Muskingum College - Biology
.....M.A., Muskingum College - Adult Education

Adjunct Faculty

Konrad Akens ..... B.A., Political Science & History
Daniel Amspaugh ..... B.S., Business Management
Lea Anderson ..... M.A., Educational Theory and Practice
Lori Bailey ..... B.S., Computer Science
Kim Baldwin ..... M.A., English Literature and Language
William Barber ..... M.A., Interpersonal Communication
Adam Barclay ..... J.D., Law
Linda Bates ..... B.S., Elementary Education
Mark Baughman ..... . B.S., Education
Trina Beem ..... A.A.B., Culinary Arts
Michael Blake ..... B.A., Criminal Justice
David Blum ..... B.S., Communication Systems Management
Karen Bricker ..... A.A.B., IT Web Design
Karla Brown ..... Certified Radiologic Technologist
Kathy Brown ..... 2-year Certificate Teaching Provisional
Mary Brown ..... B.B.A., Business Administration
Varhonda Burlingame ..... B.A., Organizational Leadership and Development
Michelle Campbell ..... M.B.A., Business Management
Jamie Clark ..... B.S.C., Interpersonal Communication
Melissa Choate ..... B.A., Elementary Education
Theresa Cochran ..... B.A., Sociology
Chad Cook ..... B.S., Community Health Services
James Cope ..... B.S.ED., Physical Education
Kenneth Cornwell ..... M.A., Sociology
Joni Criswell ..... B.S., Biochemistry
Gail Deitrick ..... M.A., Education
Tricia Dickson ..... B.S., Education
Mary Dillehay ..... A.A.S., Dietetic Food Service
Stephen Dixon ..... M.A., Education
Heather Dolen ..... B.A., Accounting
Lisa Douglass ..... M.A., Math Education
Jodi Dozer ..... J.D., Law
Michaele Druckenbrodt ..... B.A., Business Administration
Wayne Dumolt ..... Certificate in Defensive Tactics
Josh Durst ..... M.A., Political Science
Staci Edwards ..... B.A., Early Childhood
Tricia Emerson-Bible ..... M.A., Education
Michael Farmer ..... M.A., Mathematics
Charney Fitz ..... M.A., Communication
Peter Fleming ..... A.A.S., Medical Lab Technologies
Gordon Forster ..... M.A., Biology
Kelly Foster ..... B.S., Speech Pathology and Audiology
Edwin Fouts ..... B.S., Business & Accounting
Karla Frye ..... M.A., Psychology
Vicky Fulkerson ..... .M.A., Social Science
Barbara Funk ..... B.S., Education
Nicole Galloway ..... B.A., Elementary Education
Margaret Garner ..... M.S., Mathematics
Edward Geis ..... M.Ed., Secondary Mathematics
John Gibson ..... B.S., Criminal Justice Administration
Stephanie Glassmire ..... A.A.S., Child Development
Amy Jo Green ..... B.A., Sociology
Julia Griffin ..... B.S., Elementary Education
Samuel Griffin ..... M.A., Education
Debbie Grubb ..... B.S., Elementary Education
Nicole Hafer ..... B.S., Nature Interpretation

Larisa Harper ..... M.A., English
Melvin Hathaway ..... B.S., Biology
Amanda Hayes ..... M.A., English
Phillip Headington ..... M.S., Botany/Mycology
Kathy Hetrick ..... CRB, GRI
David Hildebrand ..... B.S., Natural Resources
Danielle Hiles ..... M.A., Education
Mysti Hittle ..... B.S., Applied Management
Brandy Hussing ..... B.A., Applied Management
Richard Irvin ..... M.A., Clinical Psychology
John Jacobs ..... B.S., Information Technology
Susan Jividen ..... A.B.D., Higher Education
Todd Johnson ..... B.A., Accounting/Business Administration
Lisa Kasper ..... B.S., Education
Gary Keffer ..... A.A.S., Environmental Resource Management
Nathan Keirns ..... M.A., Sociology
Saylor Kelly ..... B.S., Business Administration
Marsha King ..... M.A., Early Childhood Education
Deborah Kirsch ..... B.S., Elementary Education
Mary Klamut ..... B.S., Language Arts
Bruce Kolopajlo ..... B.A., Economics
Andrew Koscoe ..... M.A., Psychology
Susan Lake ..... B.S., Business Administration
Eric Lambes ..... A.A.S., Criminal Justice
Diana Lanning ..... B.A., Biology
Susan Markel ..... M.A., Sociology
Karen Marshall ..... M.A., Speech/Theatre
Eric Martin ..... J.D., Law
Tawny McBride ..... M.Ed., Special Education
Kristin McCombs ..... M.A., Psychology
Brett McConaha ..... A.A.S, Mechanical/Industrial Engineering
Jean McDonald ..... A.A.B., Administrative Office Assisting
Gail McGreevy ..... M.B.A., Business Administration
Fred McNutt ..... M.B.A., Finance
Laura Medkeff ..... B.A., Education
Beth Meredith ..... M.A., English Literature
Linda Metz ..... M.B.A., Business Management
Taumi Miller ..... B.A., Psychology
Bonny Mitchell ..... B.S., Applied Management
Philip Mock ..... A.A.S, Tool, Die & Moldmaking
Scott Montgomery ..... B.A., Accounting/Business/Economics
Ron Moore ..... M.ED., Education Administration
Carole Morgan ..... B.S., Elementary Education
Melissa Mummey ..... M.A., Sociology/Labor, Human Relations
Julie Nash ..... B.S., General Dietetics
Jeff Newlon ..... A.A.S., Natural Park Service
Jeremy Ohde ..... M.B.A., Financial Administration
Tracey Owen ..... B.S., Education
Rob Pachuta ..... B.B.A., Marketing/Business Administration
Yvonne Perkins ..... B.A., English/Education
Roy Peterman ..... B.S., Education
Shawn Phelps ..... M.B.A., Personal Finance
Carole Pitts ..... A.A.S, Environmental Resource Management
Donald Plummer ..... M.A., English
Jeff Rhodes ..... M.A., Psychology
Greg Ritter ..... M.A., Business Administration
David Roach ..... A.B., Culinary Arts/Restaurant Management

Cindy Robson ..... M.A., Human & Consumer Science/Child & Family Studies
Richard Roush .....A.A.S, Criminal Justice
Tamera Saum .....B.A., Business Administration
Douglas Scheck .....B.S.S., Specialized Studies
Alan Seidler..... B.S., Chemistry
Connie Schneider .....M.A., Education
Betsy Skrobot..... B.S., Nursing
Debra Smith .....B.S.S, Specialized Studies
Diana Smith .....M.ED., Education Administration
Karen Spriegel .....M.S., Mathematics
Kenton Stillwell ..... M.A., Educational Leadership
Debra Stockwell .....M.A., Interpersonal Communication
Cindi Swope.....B.B.A., Business Administration
Nathan Tanner.....M.S., Integrated Marketing Communication
Jeremy Taylor ..... A.A.S., CAD/Air Traffic Control
John Taylor.....M.B.A., Business Administration
John Taylor-Lehman..... M.S., Botany
Gerald Tiberio.....J.D., Law
Martha Timberman.....B.A., Business Administration
Jacqueline Tresl.....J.D., Law
Cindy Voorhies .....B.S.S., Business & Human Relations
Jerry Wade ..... OPOTA
Ruth Ware .....M.A., Art of Teaching
Whit Weiser .....A.A.B, Information Technology
Kurt White ..... M.A., Curriculum and Instruction
Larry Welch.....M.S., Mathematics
Valerie Williamson.....B.S.N., Nursing
Amy Wilson .....J.D., Law
Janet Winland ..... .B.S., Allied Health Occupational Therapy
Shelley Zimmerman.....M.S., Physical Education

Police Academy Instructors

David M. Addis.....Deputy, Muskingum County Sheriff's Office
William Barker ..... Sheriff, Perry County
..... A.A.S. – Muskingum Area Technical College – Law Enforcement
Richard L. Cline, Jr..... Perry County Children's Services
Richard L. Conder .....Retired, ODNR
Vicky Conder.....Retired, ODNR
Wayne Dumolt..... Deputy, Muskingum County Sheriff's Office
James E. Finley, Sr. ..... Patrol Officer and Community Relations, New Lexington Police Department
John Gibson..... Training Officer, The Boeing Company
..... A.A.S., Muskingum Area Technical College – Police Science
Robert Hill.....Criminal Justice Faculty, Career and Technology Centers of Licking County
..... A.A.S., Hocking Technical College – Police Science
John B. Hittle ..... Deputy, Muskingum County Sheriff's Office
Bryan M. Hoover..... Colonel, Muskingum County Sheriff's Office
Susan Jividen ..... MS, Ohio University
Travis A. Keylor..... Officer, New Lexington Police Department
Michael N. LeCocq ..... Detective, Muskingum County Sheriff's Office
Mark D. Lenhart..... Officer, Zanesville Police Department
Scott Mast..... Sergeant, Coshocton County Sheriff's Office
..... A.A.S., Central Ohio Technical College – Criminal Justice
David Neal ..... Deputy, Muskingum County Sheriff's Office
Jeffrey Newlon..... Chief, New Lexington Police Department
..... A.A.S., Hocking Technical College – National Park Service
Terry Newman.....Major, Muskingum County Sheriff's Office
..... B.S., Circleville Bible College - Pastoral Ministry and Counseling

Mark Ross..... Captain, Muskingum County Sheriff's Office
Jerry L. Wade.....Auxiliary, Muskingum County Sheriff's Office

Belmont Correctional Institution Instructors

Michael Alloway ..... B.S., Ohio University
Kathy Brown ..... B.A., The Ohio State University
Jeffrey Burger ..... M.A., Ashland Theological Seminary
Carol Cheesman .....A.A.B., Accounting, Muskingum Area Technical College
Harold Eighme .....B.S., Miami (Ohio) University
Steve Klos ..... B.S.E.D., Ohio University
Dale Lipscomb..... B.S., Youngstown State University
Scipio Myers .....
Linda Poland..... A.A.B., Belmont Technical College
Gisela Sattler..... B.S., Fairmont State College
John Vickers ..... B.A., West Liberty State College
Jason Wilhelm..... B.A., West Virginia Wesleyan College

Photo credit: Vicky Conder, Instructor and Commander,
Willett-Pratt Training Center's Ohio Peace Officer Training Academy (OPOTA)

ADVISORY COMMITTEES

ACCOUNTING PROGRAM ADVISORY COMMITTEE

Diane Braden ..... Braden Medical Services
Martin Brady, CPA, CMA ..... Department of Economics, Business & Accounting, Muskingum College
Katie Brown ..... CPA
Beth Burton ..... CFS, Muskingum County Department of Job & Family Services
Bruce Fouch ..... Business Director, Chapel Grove Inn
Fred McNutt ..... Adjunct Faculty, Zane State College
John Power ..... CPA
Paul Ritchey, CPA ..... Norman Jones Enlow & Company
Jim Michaels ..... Zane State College Faculty
Grace Peng ..... Zane State College Faculty

ADMINISTRATIVE OFFICE ASSISTANT PROGRAM ADVISORY COMMITTEE

Janet Crawford ..... Account Clerk II, Noble Correctional Institution
Shannon Kenily ..... Coordinator Student Placement Services, Mid-East Career & Technology Center
Julie MacLaine ..... Executive Assistant, The Longaberger Company
Linda Pritchett-Brinker ..... Shelly & Sands, Inc.
Betty Quinn ..... Zane State College
Christine Shaw ..... Ohio University-Zanesville
Sherry Wilkins ..... Director's Administrative Assistant, Colgate-Palmolive
Vickie Wolfe ..... Executive Assistant, Zanesville-Muskingum County Health Department
Marcie Hawkins ..... Zane State College Faculty
Donna Shaad ..... Zane State College Faculty

BUSINESS MANAGEMENT/MARKETING/HR PROGRAM ADVISORY COMMITTEE

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Sandi Byers ..... Human Resources Manager, Dollar General
Patty Scott ..... Realtor and Review Appraiser
Gregory Ritter ..... Human Resources Manager, Detroit Diesel
Vicki Taylor ..... Vice President, Huntington Bank
Julie Cooprider ..... Zane State College Faculty
George Hicks ..... Zane State College Faculty
Ray Polchow ..... Zane State College Faculty

COMPUTER AIDED DRAFTING AND DESIGN PROGRAM ADVISORY COMMITTEE

Ryan Carpico ..... HRJL Architects, INC.
Jeremy Davis ..... Stubbs-Addis Architects
Melvin Hazzard ..... Replex Plastics
Mike Hinton ..... Stewart-Glapat
Dale Lewis ..... Engineering Manager, Mock Wood Working
Dora McElroy ..... Mid-East Career and Technology Center
Terry Richards ..... Holophane
Robert Rhoads ..... .Ohio State University
James Davis ..... Zane State College Faculty
Jeff Gibbs ..... Zane State College Dean
Janet Herron ..... Zane State College Faculty
Mark Gerko ..... Zane State College Faculty
Stephen Rostek ..... Zane State College Retired
Mike Whitson ..... Zane State College Faculty

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Steve Brock ..... Plant Manager, EMCO Mold
Darren Burrow ..... Plant Manager, Anchor Container
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Phil Janke ..... Quality Assurance Manager, Detroit Diesel

Matt Lucas.....National Sales manager, Laser Reproductions
Charlie McQuain .....Engineering Manager, Cambridge Tool & Die Corporation
Phil Mock.....Instructor, Mid-East Career and Technology Center
Charles (Mort) Butcher ..... Zane State College Faculty

CRIMINAL JUSTICE PROGRAM ADVISORY COMMITTEE

William Barker ..... Sheriff, Perry County
Alan Bennett .....Superintendent, Juvenile Detention, Muskingum County
Bryan Hoover ..... Chief Deputy, Muskingum County Sheriff's Department
Dan Kieffer.....Court Director, Muskingum Juvenile Court
Eric Lambes ..... Chief, Zanesville Police Department
Phil Snider..... Law Enforcement Program Director, Mid-East Career and Tech. Center

CULINARY ARTS PROGRAM ADVISORY COMMITTEE

James Adornetto .....Manager, Adornetto's Selected Foods, Inc.
Phil Ahl..... Phil's Seafood
Nancy Argo..... Bob Evans Restaurant
Barbara Bechtel .....Bureau of Services for the Visually Impaired
Bill Bird..... Zandex Health Care Corporation
Robert Cramer ..... Roberta's Professional Cakes & Catering
Mike Gillespie ..... Director of Food & Nutrition Service, Bethesda Hospital
John C. Matesich, III ..... President, Matesich Distributing Company
Chris Norton..... Chef, Zanesville Country Club
David Roach.....Owner, David's Catering
Al Zakany ..... Zak's Restaurant
Marco Adornetto ..... Zane State College Faculty

EARLY CHILDHOOD EDUCATION PROGRAM/
EDUCATION PARAPROFESSIONAL PROGRAM ADVISORY COMMITTEE

Casey Coffey ..... Principal, Sheridan Middle School
Kay Davis .....Director, Byesville Head Start
Staci Edwards .....Adjunct Faculty, Zane State College
Debbie Fisher .....Director, Careytown
Jeri Johnson ..... Executive Director, Child Care Resources, Incorporated
Marsha King.....Adjunct Faculty, Zane State College
Michelle Love .....EDP, Meadowbrook High School
Hannah Nissen .....Assistant Professor, Ohio University-Zanesville
Sue Smith..... Instructional Aide, Mid-East Career & Technology Center
Beverly Steinbrecher .....Morgan Local School District
Kelly Coffey .....Program Director, Zane State College

ELECTRICAL/ELECTRONICS ENGINEERING TECHNOLOGY PROGRAM ADVISORY COMMITTEE

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Curt Clark .....AT&T
Matt Dudas..... Mid-East Career & Technology Center
Shelly Grandstaff .....Application Link
Jason Griffith ..... T Mobile
Dan Hooper..... Colgate-Palmolive
Tom Householder.....Zane State College Associate Professor Emeritus
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Aaron Johnson ..... Southwestern Bell Corporation
Jamie Kennedy ..... Genesis HealthCare System
Adam Larson.....American Electric Power
Dan Nelson .....Zanesville Times Recorder
Shannon Simmerman .....American Electric Power
Shawn Smith..... Southeastern Ohio Medical Center
Randy Tolley .....American Electric Power

Victor Valazquez ..... American Electric Power
Kelly Wayne ..... Genesis HealthCare System
Kim West ..... American Electric Power
Jeff Wilbur ..... The Longaberger Company
Mickey Yarger ..... Kellogg Company
Bob Zullo ..... Byesville Aseptics
Will Bailey ..... Zane State College Faculty
Jim Davis ..... Zane State College Faculty

ENVIRONMENTAL SCIENCE, SAFETY & HEALTH PROGRAM ADVISORY COMMITTEE

Amy Fuller ..... Lab Supervisor, City of Zanesville WW Division
Gigi Hammond ..... Environmental Specialist, American Electric Power
Gary Keffer ..... Health & Safety Director, American Electric Power
Roger Loomis ..... Utilities Director, City of Newark/Division of Wastewater
Mike Murphy ..... Environmental Specialist, Ohio EPA SE District Office
Lloyd Owens ..... Soil Scientist, USDA/ARS
Mark Rowland ..... Director, Environmental Division, Burgess & Niple, Incorporated
Judith Scott ..... Administrator of Treatment & Distribution, City of Mt. Vernon
Bethany Schunn ..... Chemist, American Electric Power
Ed Shafer ..... Senior Public Health Sanitarian, Zanesville-Muskingum County Health Department
Erich J. Skelley ..... Energy Production Superintendant, American Electric Power
Heidi Suhoski ..... Health & Safety Coordinator, MIBA Bearings, US LLC
Carie Zigan ..... Laboratory Supervisor, Anamatic Corporation
Dan Durfee ..... Zane State College Faculty
John Marks, Ph.D. ..... Zane State College Faculty
James Shepherd ..... Zane State College Faculty

GENERAL EDUCATION ADVISORY COMMITTEE

Jim Boyd ..... Library Extension Services, Muskingum County Library
Milt Cerny ..... Wright Agency
Dr. Nick Dubbeling ..... Six County, Incorporated
Karla Frye ..... Muskingum Valley Educational Service Center
Margaret Garner ..... Mathematics Retired, Zanesville High School
Jeff Hooper ..... Judge, Muskingum County Domestic Relations Court
Bruce Kolopajlo ..... Vice President, Century National Bank
Pam Montgomery ..... Morgan County OSU Extension
Vance Perkerson ..... Mt. Aloysius Corporation
Sue Thuma ..... Mathematics, West Muskingum High School
Becke Butler ..... Mathematics, Zane State College Faculty
Roy Fish ..... Psychology, Zane State College Faculty
Ronald Huth ..... English, Zane State College Faculty
Becky Kellum ..... Mathematics, Zane State College Faculty
Pam Kirst ..... English, Zane State College Faculty
Steve Kish ..... Biology, Zane State College Faculty
Senti Longkumer ..... English, Zane State College Faculty
Lisa McDonald ..... Communication, Zane State College Faculty
Robert Miller ..... Mathematics, Zane State College Faculty

HEALTH INFORMATION MANAGEMENT ADVISORY COMMITTEE

Vern Benyon ..... Red Carpet HealthCare Center
Dan Cohen ..... Southeastern Ohio Regional Medical Center
Donald Crock ..... Summit Acers Nursing Home
Dave Davis ..... Genesis Health and Rehabilitation
Melody Gray ..... Medical Associates
Misty Hamilton ..... Faculty, Zane State College
Judy Hardwick ..... Cardiology Associates
Nancy Schmitt ..... Primecare
Debbie Tisonyai ..... Quality Care Partners

HUMAN SERVICE PROGRAM ADVISORY COMMITTEE

John Allen, LISW ..... Vice President, Habilitation Services, Six-County, Incorporated
James Applegate ..... Emergency Services Director, Red Cross-Muskingum Valley Chapter
Danny Brenneman ..... Administrator, Coshocton County Job & Family Services
Joanne Butcher, MSW, LISW ..... Social Work Administrator, Retired
Steve Carrel, LISW ..... Executive Director, Muskingum Behavioral Health
Yvonne Factor ..... Director, Zandex HealthCare Corporation
Constance Gordon, LISW ..... Case Manager, St. Anne's Hospital
John Hill ..... Superintendent, Muskingum County Board MR/DD
Kelly Lynch ..... Director, Guernsey County Children's Services
Edie Wilson, LSW, LPC ..... D/C Planner, Genesis HealthCare System
Peg Earhart ..... Zane State College Faculty
Bonnie Taylor ..... Zane State College Faculty

INFORMATION TECHNOLOGY PROGRAM ADVISORY COMMITTEE

Lonny Claypool ..... IT Consultant, DeVore Technologies
Ralph Hollingsworth, Ph.D ..... Professor, Muskingum College
Chris Hortsman ..... Instructor, Mid-East Career & Technology Center-Buffalo
Al Miller ..... Systems Analyst, Smurfit Stone Container
Robert Pardo ..... Claims Representative
Paul Ragias ..... Data Service Manager, Advantage Bank
Don Riley ..... Owner, Computer Plus Technologies
Ed Romito ..... Director and CIO, Genesis HealthCare System
Mark Still ..... Instructor, Mid-East Career & Technology Center
John Taylor ..... Senior Programmer, Resource Systems
Phil Wentowrth ..... Network Administrator, The Fabri-Form Company
Jim Wilson ..... Consultant, Rocky Shoes & Boots
Will Bailey ..... Zane State College Faculty
David Blum ..... Executive Director of IT Services, Zane State College
Charles Brookover ..... Zane State College Faculty
Jennifer Folden ..... Marketing and Communications Specialist, Zane State College
Barbara Miller ..... Zane State College Faculty
Debbie Neuenschwander ..... Zane State College Faculty
Lynn Wells ..... Zane State College Faculty

MEDICAL ASSISTING PROGRAM ADVISORY COMMITTEE

Henry Beasley, MA .....
Kristeen Calderhead, CMA ..... Faculty, Zane State College
Lori Danison ..... Medical Office Manager
Rick Day, M.D. ..... Medical Advisor/Adjunct Faculty, Zane State College
Teresa Halsey, CMA ..... Graduate, Zane State College
Kristy Minner, CMA ..... Medical Office
Sara Moore, CMA ..... Graduate, Zane State College
Patricia Paul ..... Public-Service, Bank Manager
India Revennaugh, CMA ..... Medical Office
Shanna Morgan, CMA ..... Zane State College Faculty

MLT AND PHLEBOTOMY PROGRAMS ADVISORY COMMITTEE

Jeannie Farrar, CLA ..... Medical Laboratory, Southeastern Ohio Regional Medical Center
Judy Groves.....Phlebotomy Supervisor, Barnesville Hospital
Cathy Hargrove, MT (ASCP)..... Lab Education, Fairfield Medical Center
Deena Kirker ..... Lab Services Manager, Genesis HealthCare System
Karen Krebs, MT.....Laboratory Director, Hocking Valley Community Hospital
Diana Lanning, MLT (ASCP) .....Laboratory Supervisor, Healthcare Specialists
Dorothy Lordo, PhD, MT..... Clinical Coordinator, Ohio Health
Pam Perone, MT (ASCP) .....Lab Technical Manager, Genesis HealthCare System
Charlene Pica ..... Phlebotomy Supervisor, Coshocton County Memorial Hospital
Maggie Pyles, BS, MT .....Lab Manager, Ohio Valley Medical Center
Lorei Reinhard, MT (ASCP).....Laboratory Director, Licking Memorial Hospital
Susan Robinson, MLT (ASCP).....Lab Manager, Eastern Ohio Regional Hospital
Denise Williams, MLT ..... Laboratory Supervisor, Medical Associates
Judy Wright, MT .....Assistant Lab Director, Coshocton County Memorial Hospital
Laura Gieger, MBA, MT ..... Zane State College Faculty
Vicki Huntsman, MS, MT..... Zane State College Faculty

OCCUPATIONAL THERAPY ASSISTANT PROGRAM ADVISORY COMMITTEE

Laura Brady, COTA/L .....Occupational Therapy, Genesis HealthCare System
Mary Davis, COTA/L .....Occup. Therapy, Southeastern Ohio Regional Medical Center
Peg Earhart ..... Human Services Program Faculty, Zane State College
Lora Harvey COTA/L .....COTA/L
Gail Stamm-Requardt, OTR/L..... OTR/L
Robin Tackett, OTR/L ..... OTR/L
Nicole Wilkins, COTA/L .....COTA/L
Jan Winland, OTR/L .....Adjunct Faculty, Zane State College
Mary Arnold, OTR/L ..... Zane State College Faculty
Kimberly Lawler, OTR/L..... Zane State College Faculty

PARALEGAL PROGRAM ADVISORY COMMITTEE

Ward D. Coffman, III .....Attorney
Kelly J. Cottrill.....Judge, Muskingum County Court House
Justin Gates..... Crime Victims Service
Joseph A. Gormley .....Judge, Muskingum County Probate Court
Jacqueline Martincic..... Graduate
Faith McGregor..... Graduate
Greg Starcher..... Muskingum County Child Support Enforcement Agency
William Curran..... Zane State College Faculty

PARKS, RECREATION AND WILDLIFE PROGRAM ADVISORY COMMITTEE

Todd Beisser ..... Superintendant, Seneca Hatchery, Ohio Division of Wildlife
John Bird ..... District Supervisor, Division of Watercraft
Bob Cifranic ..... Ranger, U.S. Army Corps of Engineers
Bob Daniels..... Instructor, West Muskingum High School
Jim Dooley, Ph D. ..... Department of Biology, Muskingum College
Jennie Freidhof..... Assistant District Ranger, Wayne National Forest
Nicole Hafer .....Outdoor Education Specialist, Muskingum Soil & Water Conservation Dist.
David Hildebrand..... Forest Manager, Blue Rock & Perry State Forests
Paul Holdsworth .....Muskingum Soil & Water Conservation District
Cathy Janosko ..... Officer, Ohio Division of Watercraft
Clifton Kilpatrick .....Resource Manager, U.S. Army Corps of Engineers
Earl Murphy.....Evergreen Consulting Services
Margaret Popovich ..... GIS Coordinator, Dawes Arboretum
Allan Ranck.....Assistant Manager, Dillon State Park
Elizabeth Reeb .....Abandoned Mine Lands, Ohio Division of Mineral Resource Management
Mike Reed..... Wildlife Officer Ohio Division of Wildlife

Thomas Shuman ..... Forest Manager, Ohio Division of Forestry, Blue Rock & Perry Forests
Dick Sorg ..... Supervisor, Muskingum Soil & Water Conservation District
Robert Stonerock ..... Mineral Resources Inspector, Ohio Division of Mineral Resources
Mark West ..... Manager, Dillon State Park, Ohio Division of Parks & Recreation
Brian Wilforg ..... Instructor, Mid-East Career & Technology Center
Mike Zaleski ..... Area Manager, Tri-Valley Wildlife Area, Ohio Division of Wildlife
Dan Durfee ..... Zane State College Faculty
Jeff Gibbs ..... Zane State College, Dean
Scott Lenthe, Ph.D ..... Zane State College Faculty
John Marks, Ph.D. ..... Zane State College Faculty
James Shepherd ..... Zane State College Faculty
Lynn Wells ..... Zane State College Faculty

PHYSICAL THERAPIST ASSISTANT PROGRAM ADVISORY COMMITTEE

Roxanna Figgins, PTA ..... Program Graduate
Joe Grabaskas, PT ..... Longaberger Co.
Trudy Krischak, PTA ..... Program Graduate
Kathy Kropf, PT ..... Hocking College
Jenna McConnell ..... Rehabilitation Services Manager, Genesis HealthCare System
Michael McCoy, PTA ..... Zandex
Mary Ann Metry, PT ..... Community Member
Susan Tobin, PT ..... Rehabilitation Manager, Cambridge Health & Rehabilitation
Jacquelyn Tom, PT ..... Genesis Coor Building
Barbara Shelby, PT ..... Zane State College Faculty
Lori Wahl, PT ..... Zane State College Faculty

RADIOLOGIC TECHNOLOGY PROGRAM ADVISORY COMMITTEE

Judy Addy, RT ..... Primecare, Inc.
Leisa Arnold, RT ..... Clinical Instructor, Southeastern Ohio Medical Center
Karla Brown, RT ..... Radiology Education Director, Genesis HealthCare System
Mark Dinges, RT ..... Radiology Supervisor, Genesis HealthCare System
Mary Failla, RT ..... Clinical Instructor, Union Hospital
LeAnn Fisher, BS, RT(S) ..... Supervisor, CareSource Inc.
Marc Fowler, RT ..... Director Diagnostic Imaging, Southeastern Ohio Medical Center
Cindy Gaylord RT ..... Manager of Imaging Services, Genesis HealthCare System
Nina Kowalczyk, RT ..... Faculty, The Ohio State University
Debbie Medley, RT ..... Clinical Instructor, Genesis HealthCare System
Richard Mellon, MD ..... Medical Director, Radiology Associates
Dena Putnam, RT ..... Clinical Instructor, Twin City Hospital
Monica Saling, RT ..... Graduate/Pediatric Associates
Craig Shetterly, RT ..... Director of Imaging, Twin City Hospital
Cheryl Stillberger, RT ..... Director of Radiology, Genesis HealthCare System
Jerry Tyree, RT ..... Radiography Program, Columbus State Community College
John Wright, RT ..... Director of Radiology, Union Hospital
Tricia Leggett, RT ..... Zane State College Faculty
Lauren Thompson, RT ..... Zane State College Faculty

SPORT AND FITNESS MANAGEMENT PROGRAM ADVISORY COMMITTEE

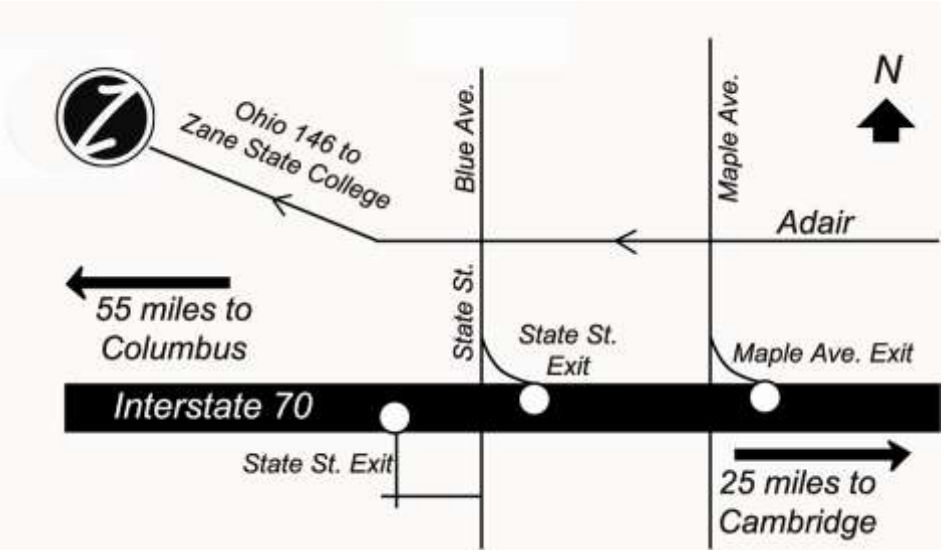
Mick Amicone ..... President, The Fieldhouse
Tim Berger ..... Zane State College Faculty
Beth Chapman ..... Director, Genesis Lifestyle and Fitness Center
Craig Miracle ..... Executive Director, Muskingum Family Y
Bill Schimmel ..... Director, Schimmel Fitness Center
Barbara Shelby PT ..... Zane State College Faculty
Jacquelyn Tom, PT ..... Genesis Coor Building
Lori Wahl PT ..... Zane State College Faculty

MAPS

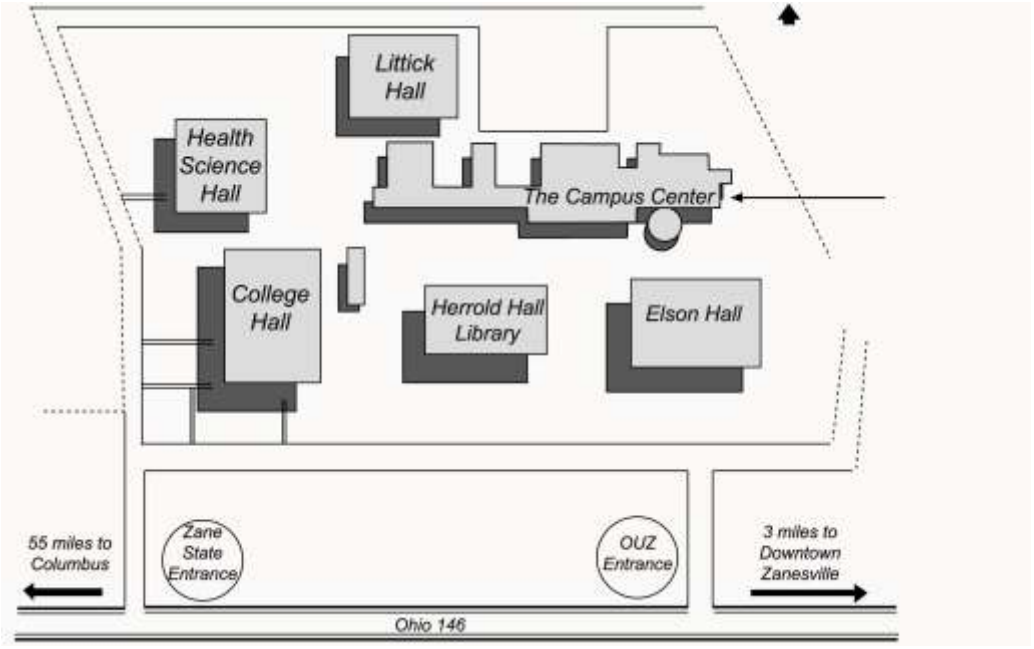
The scenic Zane State College campus is located on the west side of Zanesville, Ohio, with easy access to Interstate 70. Located in the foothills of the Appalachian Mountains and surrounded by several lakes, Zanesville is an ideal location for experiencing the beauty of Central Ohio. The area is filled with recreational and historic points of interest, including the unique Y-Bridge which has been a hallmark of the community since 1814.

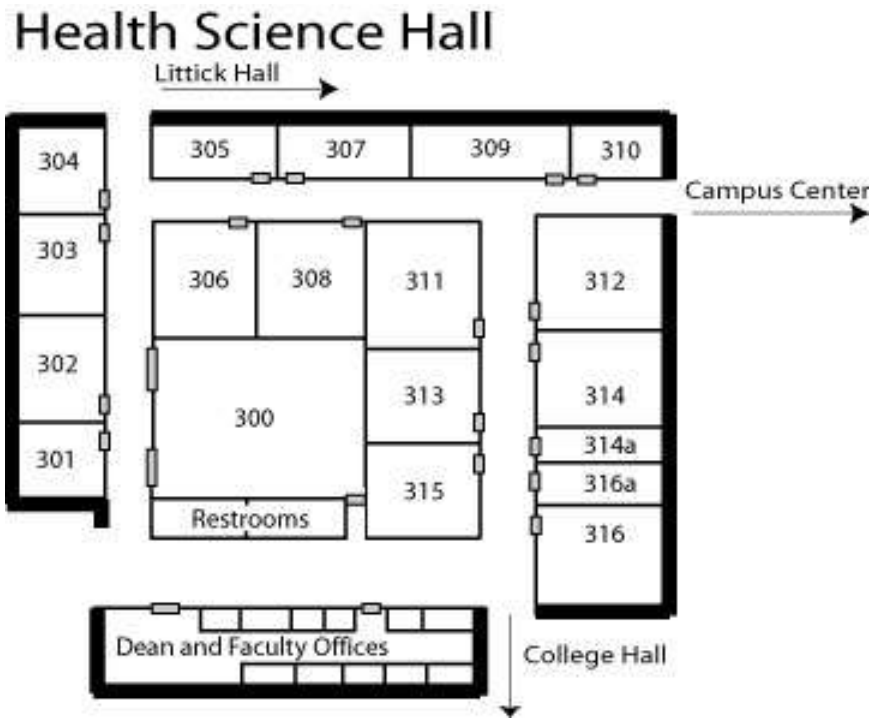
The College campus is shared with a branch of Ohio University and is known as the Zanesville Campus. As a dual-college campus, the services and facilities represent contributions of two institutions and are often greater than can be offered by a single unit. Students have access to a full-service library, gymnasium and weight training facility, and a complete cafeteria.

The Zanesville Campus provides a unique opportunity for students to receive a quality, affordable education with the amenities of larger academic institutions.



ZANESVILLE CAMPUS




Health Science Hall
Littick Hall
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Campus Center
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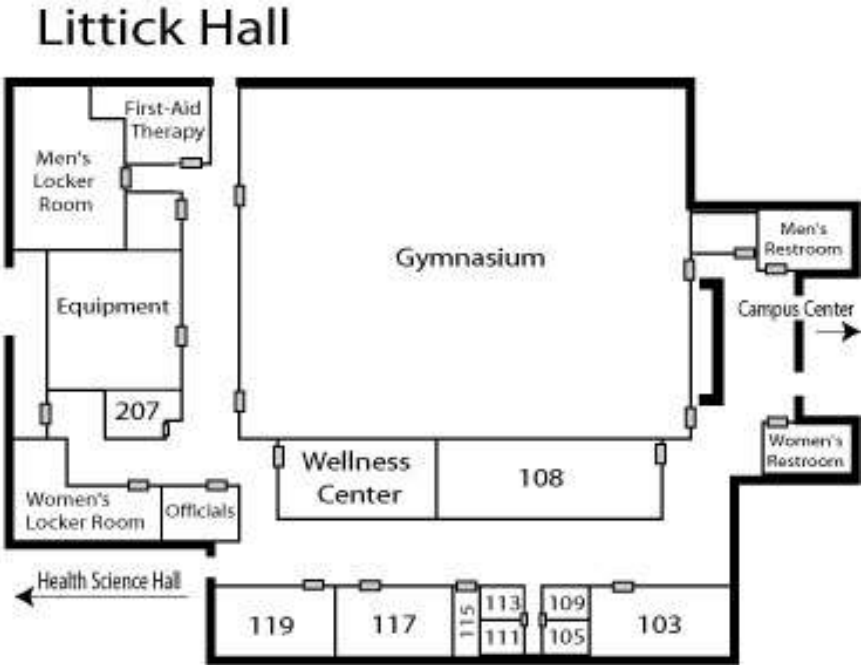
Restrooms
316
Dean and Faculty Offices
College Hall


Littick Hall
First-Aid Therapy
Men's Locker Room
Gymnasium
Men's Restroom
Equipment
Campus Center
207
Women's Restroom
Wellness Center
108
Women's Locker Room
Officials
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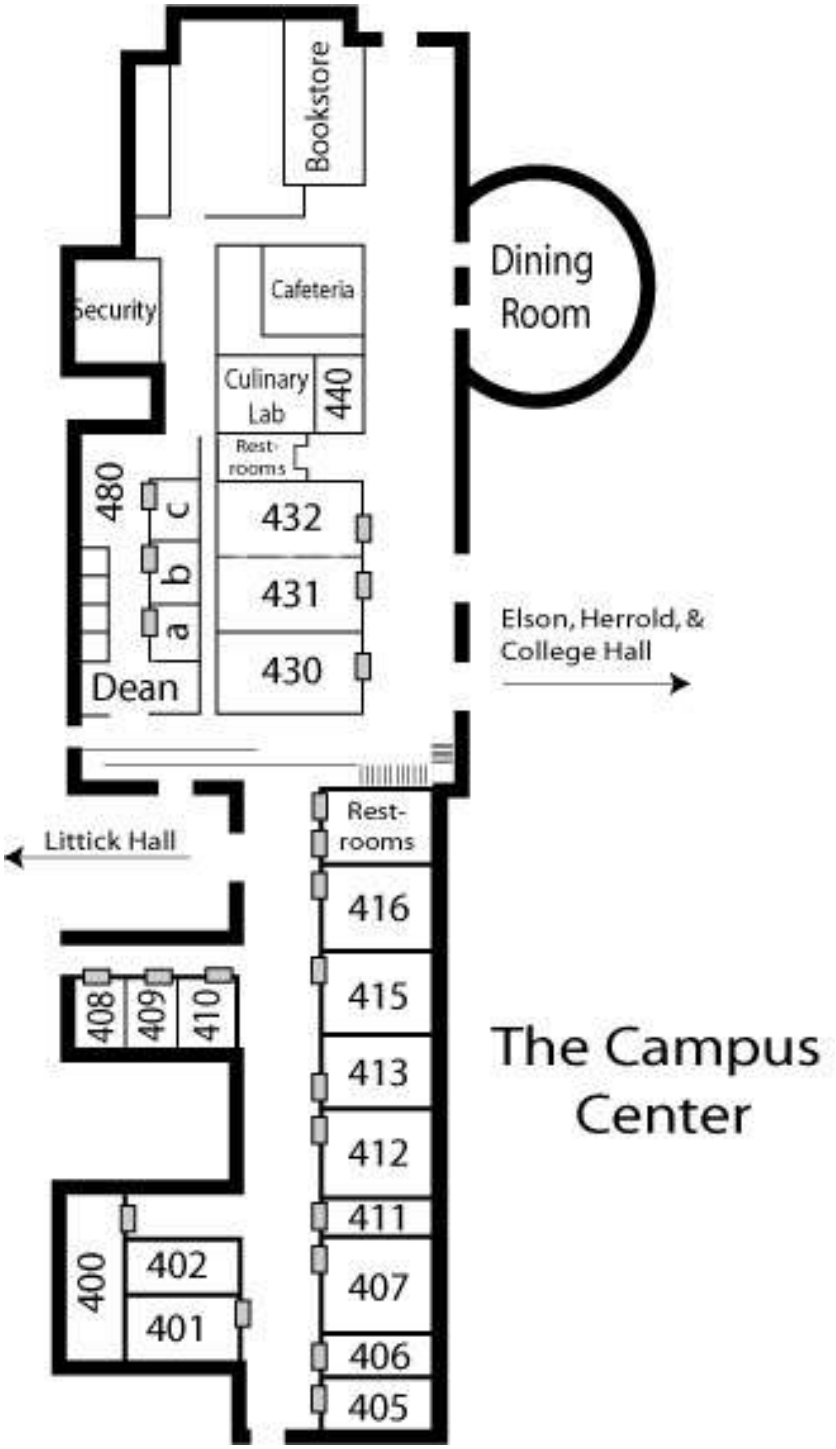
Bookstore
Security
Cafeteria
Dining Room
Culinary Lab
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Rest-rooms
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Dean
Elson, Herrold, & College Hall
Littick Hall
Rest-rooms
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The Campus Center

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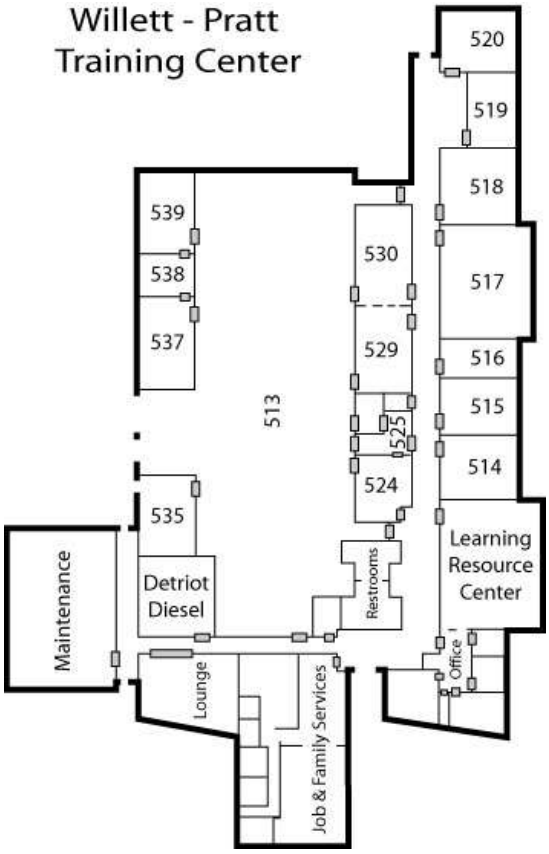
Willett - Pratt
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Maintenance
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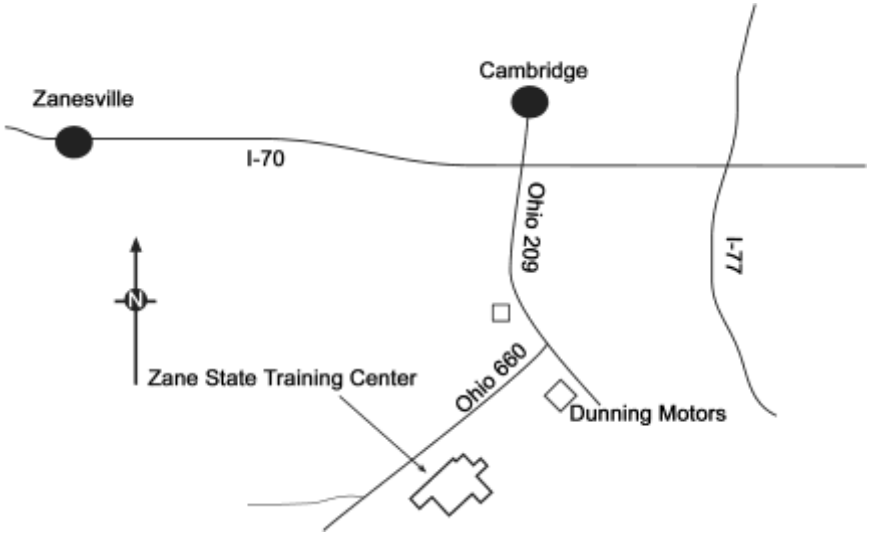
Office
Lounge
Job & Family Services


Cambridge
Zanesville
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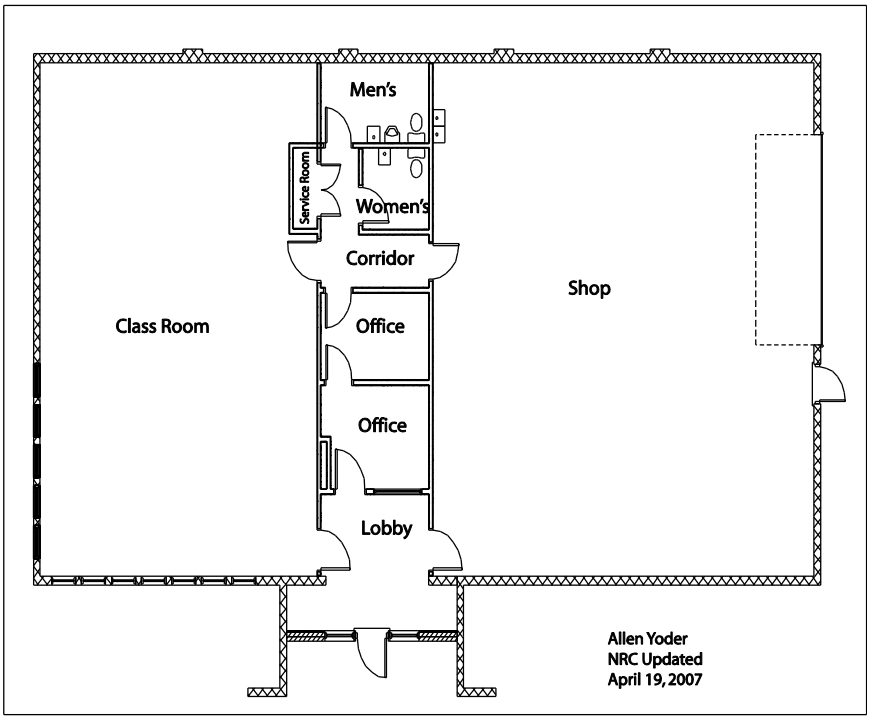
Ohio 209
I-77
N
Zane State Training Center
Ohio 660
Dunning Motors

NATURAL RESOURCE CENTER



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