


## InTouch

## Information Kiosks

An easy to use computer giving immediate access to information about Sinclair and personal student records.

| Building | Floor |
| :---: | :--- |
| 2 | Third, at walkway |
| 3 | First |
| 4 | First |
| 6 | First |
| 7 | First |
| LRC | Ground |
| 9 | First |
| 10 | Admissions, Second and Fourth |
| 13 | Second |
| 20 | Moore Tech. Ctr., Second Floor |




The success of Sinclair as The Learning College is shown in not only the success of its graduates, but also in the varied talent of every faculty and staff member.

The photographs throughout this catalog illustrate successes of students, faculty and staff as they work together to improve and expand student learning.

w w w.sinclair.edu

Sinclair is meeting your needs... in every way.

## Anytime. Any Place. Any Way.

- Distance/World Wide Web
- Interactive Learning
- On Campus
- Electronic College
- Off-Campus Sites
- Telephone Registration
- E-mail
- Day, Evening, Weekend Classes


## Your levy support guarantees quality and affordability.



Note: This catalog contains official information for the academic years 2001, 2002 and 2003. The college reserves the right to appeal, change, or amend rules, regulations, tuition and fees, and may withdraw, add to, or modify the courses and programs listed herein. The college does not view the catalog as a contractual agreement.

## To the Students

This catalog has been designed to provide students with most of the information they will need about Sinclair. Students should be aware, however, (1) that the catalog is not intended to be a complete statement of all procedures, policies, rules and regulations, and (2) that the college reserves the right to change without notice any academic or other requirements, course offerings, contents, programs, procedures, rules and regulations, fees, etc., in various publications.
For general information about Sinclair or
referrals, call (937) 512-2500, or 512-3000,
1-800-315-3000, www.sinclair.edu

## Non-Discriminatory Practices

Sinclair Community College is strongly committed to a policy of equal opportunity in its employment practices, educational programs and activities, and the many services it offers to the community. The college does not discriminate against applicants, employees or students on the basis of race, color, creed, religion, age, sex, marital status, veteran status, national origin, ancestry, citizenship, or nondisqualifying mental or physical disability. Inquiries concerning this policy should be directed to the Equal Employment/Affirmative Action Officer, Office of Human Resources, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460, (937) 512-2514.

## Right to Know

The U.S. Department of Education requires that all colleges and universities report graduation rate rates to all prospective and current students.

By Fall 1999 there is a success rate of $90.1 \%$ for all of the 1,110 first-time, full-time students who entered Sinclair Fall 1996. This includes students who graduated, are still enrolled at Sinclair, transferred to another college or university, or left Sinclair in good standing:

137 graduated $12.3 \%$
230 enrolled at Sinclair in Fall 1999 20.7\%
Transfer rates are not available because of FERPA regulations.
$88.5 \%$ of non-completers that were not enrolled Fall 1999 left Sinclair in good standing.

## Student Right-To-Know and Jeanne Clery Act (AKA Campus Security Act of 1990)

The federal Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act requires Sinclair Community College annual security report to include statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings owned or controlled by Sinclair Community College; and on public property within, or immediately adjacent to and accessible from the campus. The reportalso includes institutional policies concerning campus safety, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other matters. The public may obtain a printed copy by contacting the college's Campus Police department at (937) 512-2700 or by accessing the following web site: www.sinclair.edu then go to directories for Campus Police.

## Accreditation

The Higher Learning Commission and a member of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, (800) 621-7440, (312) 263-0456, FAX (312) 263-7462.

"There are more than 1,300 community colleges in the U.S. and Canada. Being selected as one of the 12 Vanguard Learning Colleges is a compliment not only to our faculty and staff but to our entire community. This is further validation of Sinclair's leadership with community colleges throughout the world."

Ned J. Sifferlen
President

www.sinclair.edu

## General Information \& Policies

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Labor Day
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Faculty Learning Day
Classes Begin
Employee Learning Day*
Veterans Day Holiday
Thanksgiving Holiday
Classes End
Employee Learning Day*
Winter Holiday
New Year's Day Holiday

## Winter Quarter

Classes Begin
Martin Luther King, Jr. Holiday
Classes End

## Spring Quarter

Classes Begin<br>Memorial Day Holiday<br>Commencement<br>Classes End<br>\section*{Summer Quarter}

Classes Begin
First Five-Week Term
Seven-Week Term
Ten-Week Term
Second Five-Week Term

Independence Day Holiday

Classes End
First Five-Week Term
Seven-Week Term
Ten-Week Term
Second Five-Week Term

## 2001-2002

September 3 (Mon.)
September 12 (Wed.)
September 13 (Thur.)
September 17 (Mon.)
October 8 (Mon.)
November 11 (Sun.)
November 22-25 (Thur.-Sun.)
December 9 (Sun.)
December 19 (Wed.)
December 24-31 (Mon.-Mon.)
January 1 (Tues.)

January 7 (Mon.)
January 21 (Mon.)
March 24 (Sun.)

April 1 (Mon.)
May 27 (Mon.)
June 15 (Sat.)
June 16 (Sun.)

June 19 (Wed.)
June 19 (Wed.)
June 19 (Wed.)
July 24 (Wed.)
July 4 (Thurs.)

July 23 (Tues.)
August 6 (Tues.)
August 27 (Tues.)
August 27 (Tues.)

## 2002-2003

September 2 (Mon.)
September 11 (Wed.)
September 12 (Thur.)
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October 14 (Mon.)
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November 28 - December 1 (Thur.-Sun.)
December 8 (Sun.)
December 18 (Wed.)
December 23-29 (Mon.-Sun.)
January 1 (Wed.)

January 6 (Mon.)
January 20 (Mon.)
March 23 (Sun.)

March 31 (Mon.)
May 26 (Mon.)
June 14 (Sat.)
June 15 (Sun.)

June 18 (Wed.)
June 18 (Wed.)
June 18 (Wed.)
July 23 (Wed.)
July 4 (Fri.)

July 22 (Tues.)
August 5 (Tues.)
August 26 (Tues.)
August 26 (Tues.)

Note: The college reserves the right to make changes to the published schedule.


The philosophy of David A. Sinclair, founder of the college in 1887, was "...find the need and endeavor to meet it." Sinclair Community College continues to serve the community in this way.


## Vision

## Your Bridge to the Future

## Before us lie uncharted worlds of opportunity.

## Sinclair

will be the bridge into that future, giving open access to opportunity, intellectual challenge, and self-discovery for students with diverse needs
With Sinclair, people will pursue their quests for lifelong learning through affordable, high quality education.
At Sinclair, people will benefit from a caring approach to teaching and learning that provides personal attention and encourages individual growth.
Through Sinclair, people will be empowered with knowledge and skills for their journeys into tomorrow.

Our success shall hinge on turning these values into action:

- dedication to quality and excellence;
- reliance on anticipation, imagination, and innovation;
- commitment to responsible citizenship within our community;
- adherence to the Sinclair credo-"find the need and endeavor to meet it;"
- confidence in the courage, determination, and diversity of our students, employees, and supporters; and
- belief in unlimited human potential.

"Sinclair's membership in the League for Innovation in the Community College is a validation of our efforts to be one of North America's leading two-year colleges. If there is such a thing as an Ivy League for community colleges, this is clearly it."

Steven L. Johnson
Provost \& Chief Operating Officer

## Mission

We help individuals turn dreams into achievable goals through accessible, high quality, affordable learning opportunities.
Our mission is guided by our commitment to:

- Offer transfer and technical associate degree programs, certificate programs, and continuing education opportunities through a system of diverse resources and delivery alternatives accessible to the citizens of Montgomery County and the larger learning community.
- Providequality instruction, educational activities, counseling, support services, and assessment tools to facilitate the growth and development of lifelong learning and to assist individuals to achieve personal and professional goals.
- Prepare today's work force to meet the needs of a rapidly changing technologically advanced, global economy through traditional and non-traditional alternatives.
- Challenge individuals to broaden their concepts of self, expand their views of the world and recognize their roles in a global society by fostering values that respect and celebrate diversity while promoting social responsibility, critical thinking, communication, and innovation.
- Promote the development and implementation of new ideas, provide leadership for collaborative activities, and serve as a resource center for community based and regional partnerships.
- Manage our human, physical, and financial resources in a caring, ethical, and prudent way that facilitates a working and learning environment focused on continuous improvement.
-Approved by Sinclair Community College Board of Trustees, February 11, 1997.


## Diversity Vision \& Mission

Sinclair Community College strives to create an inclusive environment in which all people are valued and supported. The goal within this environment is to recognize and acknowledge our similarities; to understand and respect our differences; and to prepare ourselves and our students to live, learn, and work together in a global community.
In pursuit of this vision, the mission of diversity at Sinclair is to:

- Recruit a diverse student population and engage them in an open, supportive, and responsive environment,
- Employ a diverse faculty and staff to reflect the diversity in Montgomery County and beyond,
- Use learning styles and strategies which are compatible with the needs of diverse students,
- Offer a curriculum which reflects the contributions and experiences of a multicultural society,
- Analyze continuously the diverse needs of our internal and external communities and endeavor to meet them,
- Offer education and development opportunities on diversity for all employees, and
- Plan activities and special evenings on campus which promote diverse cultures.


## Sinclair Guarantee

All students entering either a university parallel/transfer program or a technical career program are eligible for the Guarantee of Graduate Quality that applies to their degree programs. See academic counselors for details. More information is on page 25.

## History

Sinclair's early history is entwined with that of the Dayton YMCA. In 1887, the YMCA offered arithmetic, free hand and mechanical drawing classes in a one-room evening school. Courses in business administration were offered later when the YMCA moved to a larger building at West Third and Ludlow streets in 1910.

The YMCA moved once again, in the fall of 1929, to its site on Monument Avenue. The curriculum had now been organized into several disciplines including a school of Liberal Arts, the Dayton YMCA Office Training School, the Dayton Law School, and the Dayton Technical School which began, itself, to offer college level courses in 1938.

In 1948, the YMCA College became Sinclair College when it was renamed in honor of David A. Sinclair, general secretary of the Dayton YMCA from 1874-1902 and founder of the educational program.

Although Sinclair was still housed in the YMCA buildings, by 1959 the college was independently operated and separately incorporated as a non-profit institution of higher learning under the laws of the State of Ohio. The State Board of Education authorized Sinclair to continue to conduct a junior college program and confer associate degrees in arts and sciences.

The Montgomery County Community College District was created by Montgomery County Commissioners in June 1965, and one month later, they appointed a ninemember board of trustees. Downtown land, 20 acres in all, was acquired for the new campus.

The official plan for the community college was approved by the Ohio Board of Regents in February 1966, and one month later its charter was presented. The voters of Montgomery County approved the proposed Montgomery County Community College District in May of the same year, by passing a one mill levy for 10 years, to support it. In 1975, the levy was renewed for a 15-year period. In 1989, voters voiced their confidence in the college by passing a 2.5 mill, ten-year levy.

Montgomery County voters reiterated their support for Sinclair in 1998 by passing a 2.5 mill replacement levy. Yes votes accounted for $73 \%$ of the total count.

Edward Durell Stone of New York, and Sullivan, Lecklider and Jay of Dayton were named architects for the new campus in 1967. The new Sinclair campus opened its doors to students in September 1972. In 1989, Sinclair was selected for membership in the prestigious League for Innovation in the Community College.

A major addition to the campus occurred in 1989 with the opening of the 200,000 square foot David H. Ponitz Sinclair Center. It houses the Corporate \& Community Services division of the college.

In 1993, the Advanced Integrated Manufacturing (A.I.M.) Center, a joint program of Sinclair and the University of Dayton, began with the opening of Building 13. In 1997, Sinclair was re-accredited by the North Central Association of Colleges and Schools and Dr. David H. Ponitz, Sinclair president for 22 years, retired. Dr. Ned J. Sifferlen was appointed as the fourth president by the Board of Trustees. During 1998, both the Center for Interactive Learning (C.I.L.) and the Automotive Technology / Environmental Technologies facility, Building 20, opened. In 2000, Sinclair was chosen as one of only 12 Vanguard Learning Colleges in North America.

## Governance

A nine-member Board of Trustees was named to conduct the college's affairs in 1966, whenSinclair moved from private to public status. As the policy-making body for the college, the board approves plans and internal policy decisions made by the president, administrative officers and faculty. Montgomery County Commissioners appoint six trustees, with the other three appointed by Ohio's Governor.

## Financial Resources

Operated by the Montgomery County Community College District, Sinclair was established by the voters of the county. Revenues are derived from tax levies approved by the voters of Montgomery County, the State of Ohio, and fees paid by students. Capital funds are received from state and federal grants and appropriations. The Sinclair Foundation raises funds from individuals, organizations and corporations to support scholarships and special educational projects.

## Sinclair Foundation

The Sinclair Community College Foundation was established in 1969 to fulfill an ongoing need for student scholarships. The foundation is also a significant source of support for innovative concepts and educational enrichment opportunities when regular college funding is not available.

The Sinclair Foundation is a separate 501 (c)3 tax exempt entity which accepts gifts of cash, bequests, trusts, annuities, securities, insurance and real estate.

## Accreditation

Sinclair is accredited by The Higher Learning Commission and a member of the North Central Association, 30 North LaSalleStreet,Suite 2400,Chicago,IL60602-2504;(800) 6217440; (312) 263-0456, FAX (312) 263-7462. Sinclair is also a member of the Ohio Association of Community Colleges. Programs of study are approved by the Ohio Board of Regents. Sinclair is authorized to grant associate degrees in arts, sciences, applied science, and individualized and technical study.

Programs in mechanical engineering technology, quality engineering technology, and electronics engineering technology are accredited by the Technology AccreditationCommission of the Accreditation Board for Engineering and Technology. The Automotive Technology program is fully certified by the National Automotive Technicians Education Foundation(NATEF).Industrial Design \& Graphic Technology is accredited by the National Association of Industrial Technology. All Allied Health Technologies programs and the Legal Assisting program are fully accredited by national and/or state approved accrediting organizations. Business accreditation is by the Association of Collegiate Business Schools and Programs. Pre-kindergarten Teacher Certification is fully accredited by the Ohio Department of Education, Teacher Certification Office.



The 2003 celebration of one hundred years of flight honors Dayton's own innovators, Orville and Wilbur Wright, and what they brought to the world-and the universe.


Ohio's early leaders founded the seventeenth state in 1803. Celebrating the Buckeye state's bicentennial focuses on innovation shared with the world-and the universe.

> Sinclair continues the Dayton tradition of innovationfinding the need of the community, the state, and now the world.

Academic Counselor - Each division has counselors to help a student plan his or her program of study and course selection.
Academic Probation - A student's grade point average is low enough that he or she is in danger of being dismissed from school. A student on probation is required to see his or her academic counselor prior to the time of registration for classes.
Academic Credit Assessment Information Center (A.C.A.I.C.) provides information about non-traditional ways to receive Sinclair credit; includes agreements with various institutions, college equivalency examinations, and evaluation of prior learning by portfolio, CLEP, PONSI, and Dantes.
Accreditation - Local, state, or national recognition of education competence. Certain minimum competency standards have been met or exceeded to meet requirements for accreditation. Can apply to a particular degree program or approval of a college covering all curriculum areas.
Admission - Fulfilling all entrance requirements so a student may register for classes.
Alumni - Graduates of Sinclair Community College.
Articulation Agreements - Agreements with local universities to identify those courses that will transfer and guarantee junior status. Also refers to agreements with high schools where college credit may be given for selected course work taken in high school. Other articulation agreements exist with companies or agencies; these credits may only apply to specific degree programs.
Assessment Intake - The place for new students to begin at Sinclair. Provides information about how to enroll as a new student, placement testing, orientation, advising, and registering for a student's first term.
Associate Degree - A two-year degree in either a career area or transfer program (associate of arts, associate of applied science, associate of science.)
A.I.S. - Associate of Individualized Study, a degree for students who wish to design an interdisciplinary degree program using the liberal arts or combining liberal arts with technical areas of study.
A.T.S. - Associate of Technical Study degree, an alternative for a student whose technical degree goals cannot be accomplished through existing degree programs.
Audit-A student registers for a course the first two days of classes each quarter (or the first day of classes during summer terms), pays the regular tuition, but is not required to do homework or take tests and does not earn a grade for the course. A course is usually taken as an "audit" either for review or enrichment.
Bachelor's Degree - A degree awarded by a four-year institution; also called a baccalaureate degree.
Bursar - Office responsible for collection of tuition and fees, also known as Cashier.
COMPASS (Computer Adaptive Placement Assessment and Support System) - The test used for academic assessment. All new students who are seeking a degree or certificate must participate in placement testing for English, mathematics and reading.
Career Planning \& Placement Center (C.P.P.C.) - Office where career counseling and testing is performed. A career and employment library and job information is also kept there. The Placement Office arranges initial job interviews and conducts seminars on resume writing and interviewing techniques.
Career Program - An associate (A.A.S.) degree that prepares a student to enter a particular job/vocational area. It is not designed to transfer to a four-year institution.
Center for Interactive Learning (C.I.L.) - Helps Sinclair faculty with adoption of interactive teaching methods, including the use of electronic information resources and instructional technology.
Certificate of Completion - Usually a one-year program of study. It provides training in a particular career area by developing essential skills in the career area, but not the level of completeness of the associate degree.
Change of Major - In order to change from one academic program (major) to another, the student must meet with an academic counselor/ faculty advisor (from the division housing the new academic program) who will implement the change. This change will be indicated on the student's record and will not affect the cumulative grade point average.


Chairperson - A teaching faculty member who has the responsibility for managing an academic department. This person has a reduced teaching load to allow time for management duties within the department.
College for Seniors - Coordinates opportunities for senior citizens, such as special classes, registration in regular classes, and noncredit classes.
College Without Walls (C.W.W.) - is a program in which a selfdirected student may learn/study outside of the traditional classroom utilizing learning contracts.
Community College - A college that offers a wide diversity of course and degree offerings. Courses in the arts, sciences and technical career areas are offered. Associate degrees and certificates are awarded.
Cooperative Education - A student may combine classroom instruction with a part-time job related to the student's area of study.
Credit for Lifelong Learning Program (C.L.L.P.) - is a portfolio development course offering credit for prior learning from experience.
Credit Hour - The number of hours per week a student attends a given class; 3 credit hours mean a student attends a particular course 3 hours per week. If the course is passed, then 3 credit hours may apply toward graduation.
Curriculum - The total program of courses required for a degree in a particular subject.
Dean - Title given to the administrator who directs an academic unit at the college.
Dean's List - A designation which recognizes high scholastic achievement during a particular term. Students with 6 or more credit hours with a grade point average of 3.4 with no grade below a "C," and in good academic standing.
Degree Audit - A process which indicates student progress toward the completion of some degree programs. Students may request a degree audit for some programs from an academic counselor in order to determine how many classes have been completed for a specific major. A separate degree audit must be done if students change majors.
Department - An academic subdivision of the college in which instructional content is taught in a particular subject area.
Developmental Courses - Review courses in reading, mathematics, sciences, and English to help a student prepare for college level course work.
Distance Learning - Courses offered through alternative means of instruction and delivery, i.e., video, audio, print, CD-ROM, on-line, etc. These courses can be taken in the home.
Divisions - An academic unit of study at Sinclair each headed by a dean. These include Allied Health Technologies, Business Technologies, Corporate \& Community Services, Distance Learning, Engineering \& Industrial Technologies, Extended Learning \& Human Services, Fine \& Performing Arts, and Liberal Arts \& Sciences.

Drop/Add - If a student has registered for a course he or she does not want, the student must complete a drop/add form. If the student wishes to take an additional course, he or she must complete a drop/add form.
E.B.E. - Experience Based Education offers a broad range of experiential opportunities for students: a Cooperative Education program; prior learning evaluation through the Academic Credit Assessment Information Center and through the Credit for Lifelong Learning Program; College Without Walls; Associate of Individualized Study degree; Associate of Technical Study degree, and Service-Learning.
E.C.E.C. - Early Childhood Education Centers, provide child care services for faculty staff, students, and community.
Elective - A course that is accepted toward fulfillment of credit for a degree but is not necessarily required for that degree. So termed because the student elects or chooses to take the course.
Financial Aid - A variety of resources available to help students obtain money for attending school.
Fresh Start Policy - "Fresh Start" allows a student, returning to the college after an absence of at least three consecutive years, a "one time only" option of having his or her grade point average recalculated from the point of re-enrollment without losing credit for previous course work for which a grade of "S," "P" or "C" or better was earned.
G.E.D. - General Education Diploma is a nationally recognized high school equivalency diploma awarded for successfully completing the G.E.D. test.
G.P.A. - Grade Point Average is obtained by dividing the total number of points assigned to the letter grades a student has earned by the total number of credit hours the student has attempted in a given period.
Hold - An encumbrance placed on a record because the student owes fees or has books or equipment which belong to the college. A hold prevents further registration and issuance of transcripts.
I.D. Card - See Tartan Card.

InTouch Kiosks - Computer system in several kiosks across campus where visitors and students may find college and personal information.
L.R.C. - The Learning Resources Center, more commonly known as the library, includes Media Services and the Microcomputer Laboratory.
LEARNing Works - The distance learning Lifelong Education and Resources Network which provides "live" interactive courses, oneway video, two-way audio to designated receive sites.
Major - The academic area in which the student specializes, which will be noted on the transcript, diploma, certificate.
Neighborhood Centers - Locations around Montgomery County where Sinclair students can take classes and earn college credit.
Non-Credit - No grades are awarded for certain educational experiences, such as a one-day workshop on improving skills.
Option - A specialized curriculum approved as an alternative area of study under a degree program. Also called a major.
P.A.C. - The Physical Activity Center, located in Building 8, with access from the lower levels of Building 4,5, and 6 .
P.A.C.E. - The Program for Adult College Education is a full-time course of study which gives an adult an alternative scheduling format to complete an Associate of Arts in Liberal Arts or Associate of Science in Business Administration.
P.I.N. - Personal Identification Number, initially the month and day of the student's birth. A zero must be entered before single digit months and birthdays, used to gain, access to telephone registration, grade reporting and InTouch kiosk records.
Placement Testing - An assessment of the student's skills and knowledge of English, mathematics and reading, required for admission to Sinclair for all degree and certificate seeking students. The exam is used for course level placement only and is not a passfail exam.

Prerequisite - A course which must be completed before a student can register for a more demanding or advanced course.
Proficiency Exams - Available to earn college credit for subjects in which the student already has extensive knowledge.
Program Outcomes - A set of learning outcomes describing skills, attitudes and knowledge a student would have acquired at the end of a degree program by completing the curriculum requirements.
Quarter - The academic year at Sinclair is divided into four terms known as Fall, Winter, Spring and Summer quarters.
Registration - The period before each quarter begins when the student signs up for courses and pays fees. Not to be confused with admission. A student must register each quarter.
Residency for Fee Purposes - Rules established by the State of Ohio and Montgomery County to determine the amount of tuition and fees a student is required to pay, based on several factors, including where he or she lives. Changing the address does not automatically change the residency.
Residency for Graduation Purposes - The last 30 hours of credit must be completed at Sinclair before a degree is awarded.
S.S.P. - Standards of Satisfactory Progress. Refers to the conditions required of a financial aid student for receiving federal funds. Requirements are monitored by the office of Financial Aid \& Scholarships.
Section of a Course - Because courses are usually offered more than once each quarter, they are listed as particular sections. When a student registers, he or she will choose a section as well as a course.
Sequence - A continuous series of courses to be taken in a specific order.

Sinclair Central - Provides registration assistance to new and continuing students.
Sinclair Guarantee - A policy guaranteeing transfer credit for graduates earning Associate of Arts and Associate of Science degrees at Sinclair Community College and guaranteeing job competency for graduates earning Associate of Applied Science degrees at Sinclair.
T.B.A. - To be arranged; meeting details to be decided on an individual basis with an academic department to complete a course requirement.
T.D.D./T.T.Y - Telecommunications device for the deaf - a device with a keyboard that connects with most analog telephones enabling people who are deaf, hard of hearing or speech impaired to communicate with others who have a T.D.D./T.T.Y.
Tartan Card - An I.D. card a student receives during registration that identifies him or her as a Sinclair student. Allows the student to use the L.R.C., P.A.C., etc., and pay for various services on campus (bookstore, food services, copiers, parking, and so forth).
Telephone Registration (T.R.E.G.) - System that allows students to gain access and change their registration schedules, utilizing a touchtone telephone, their Social Security numbers, and Personal Identification Numbers (PIN).
Teleport - Technology Enhanced Learning Environments Port open lab for students and faculty with state-of-the-art computer equipment and software.
Transcript - The official written record of a student's course registrations and grades received.
Tuition - The dollar amount a student pays for his or her academic instruction.
Tutor - Academic assistance provided outside the regular classroom through Tutorial Services.
University Parallel - Programs designed to transfer to four-year colleges and universities toward a baccalaureate degree.


Sinclair Community College campus map.

## The Campus

Sinclair's main campus is adjacent to Interstate 75 on the western edge of downtown Dayton. Primarily bounded by West Third, Fifth and Perry streets, the 50 -acre campus is a delightful blend of modern architecture and green space. Traversing the compact campus is easy, indoors or out, thanks to underground corridors and enclosed third floor walkways which connect the campus' primary structures.

The college's modern day campus dates to its opening in 1972. At that time, the campus consisted of seven major structures, Buildings 1-7, the Automotive Technology building, and Building 9 at West Fifth and Perry streets. Since that time the Physical Activity Center, Building 8, underground and above ground parking garages, and Buildings 10-16, 20 have been added to the campus landscape.

Various properties adjacent to or near campus are in the college's inventory for potential development.

## Room Numbering

It is easy for students to find their way around campus by familiarizing themselves with the numbering system used to identify buildings and classrooms. Buildings 1-7 surround the main plaza with the Learning Resources Center lying beneath with access from all seven buildings from the basement level. Building 8 (P.A.C.) is accessible from the basement level as well. Building 9 and 13 can be accessed through the Fifth Street or Lot A parking garage. Campus buildings are not necessarily located in consecutive order.

The classrooms are numbered in a consecutive system that includes the building, level, and quadrant of each building. For example, the first digit of a room number identifies the building, the second digit indicates the level (with 0 used for lower level), and the third and fourth digits, specific room numbers. Thus, Room 5346 is located in Building 5 on the third floor, Room 46. Room 3011 is in Building 3, basement level, Room 11.


## Parking

Sinclair student parking is available at a nominal charge in the multi-level parking garage ( $\operatorname{Lot} \mathrm{A}$ ) immediately west of South Perry Street (entrances from West Fifth and Mead streets); Building 20 (Lot M), entrance from Fifth Street; on South Perry Street (Lot E) between Fourth and Fifth streets; and, under I-75 on Robert Drive (Lot H). Lot B is an employee lot. Lot C serves the David H. Ponitz Sinclair Center (Building 12), but includes parking for the disabled. Normal hours of operation for Fall, Winter, Spring are:

## Monday - Thursday

Lot A 6:30 a.m. - 10:30 p.m.
Lot B 6:00 p.m. - 8:00 p.m.
Lot E 7:00 a.m. - 10:00 p.m.
Lot H 7:30 a.m. - 10:00 p.m.
Lot I $\quad$ 7:00 a.m. - 6:00 p.m.
LotK 7:00 a.m. - 5:00 p.m.
Lot M 6:00 p.m. - 8:00 p.m.
Friday
Lot A 6:30 a.m. - 6:00 p.m.
Lot B Opens at 3:00 p.m. (Free Parking)
Lot E 7:00 a.m. - 6:00 p.m.
Lot H 7:30 a.m. - 6:00 p.m.
Lot I 7:00 a.m. - 6:00 p.m.
Lot K 7:00 a.m. - 5:00 p.m.
Lot M 7:00 a.m. - 6:00 p.m.
Saturday
Lot A 6:30 a.m. - 6:00 p.m.
Lot B Opens at 3:00 p.m. (Free Parking)

- Motorcycle parking available in Lot A only in marked assigned area.
- Parking for the disabled is located in all student lots.

Normal hours of operation for Summer quarter are:
Monday - Thursday - Summer Quarter
Lot A 6:30 a.m. - 9:30 p.m.
Lot B
CLOSED
Lot E
No student or part-time
Lot H
employee parking
Lot I

Friday - Summer Quarter
Lot A 6:30 a.m. - 6:00 p.m.
Lot B Opens at 3:00 p.m. (Free Parking)
Lot E
CLOSED
Lot H
No student or part-time
Lot I
Lot K employee parking

## Saturday - Summer Quarter

Lot A Closed
Lot B Opens at 6:30 a.m. (Free Parking)
Lot E CLOSED
Lot H No student or part-time
Lot I
Lot K employee parking

## Student parking fees are posted at the entrance to each lot.

## Blair Hall Theatre

Blair Hall Theatre exemplifies the excellent, contemporary college facilities that serve the entire community.

Blair Hall Theatre, located in Building 2, is the resident home of Sinclair Theatre productions, Music department concerts, and Dance department performances. In addition, Blair Hall is used by many organizations for special events, corporate annual meetings, and a wide range of cultural programs from the Miami Valley community. The theatre may be booked by calling Corporate \& Community Services, (937) 512-3046.

## Tartan Campus Store

## tartanstore.sinclair.edu

Textbooks and supplies may be purchased from the Tartan Campus Store, located on the first floor of Building 7. Convenience items such as postage stamps, RTA bus passes, greeting cards and newspapers are also available.

The beginning date textbooks are available for purchase is posted each quarter. To receive a refund for textbooks purchased on or after this date, students mustreturn textbooks (in clean and resalable condition) within 30 days from the start of the quarter for which they were purchased. Return dates will vary during summer term. Textbooks bought any other time and all other merchandise must be returned within 30 days of purchase. Complete return information is provided with the sales receipt. The cash register receipt is required for all returns and exchanges. MasterCard and Visa are accepted.

The Tartan Campus Store buys used textbooks during regular store hours throughout the year.

Textbook information and purchase are available online at tartanstore.sinclair.edu.

Hours (when classes are in session): Monday - Thursday, 8:30 a.m. to 7:00 p.m.; Friday, 8:30 a.m. to 4:00 p.m.; Saturday, 8:30 a.m. to 12:30 p.m. Special extended hours are announced for the first week of classes. Hours of operation during summer term and when classes are not in session will be posted in the Tartan Campus Store.

## Center for Interactive Learning (C.I.L.)

## Building 14

The Center for Interactive Learning helps Sinclair faculty with the adoption of interactive learning methods, including the use of electronic information resources and instructional technologies. The goal of the C.I.L. is to transform the educational process from passive lecture based classes to an environment in which students are intensely engaged and absorbed in the learning process. To this end, the C.I.L. sponsors faculty workshops and seminars, offers internal grants for innovative projects, and provides a laboratory with multimedia resources for use by faculty. The C.I.L. houses an interactive classroom, multimedia theatre, and four pilot project classrooms.

In partnership with Distance Learning, the C.I.L. introduces new educational technologies to the Sinclair academic community through hands-on interactive experiences. The C.I.L. also hosts special events, demonstrations, and training sessions for Sinclair faculty, staff, administrators, and visitors from the Miami Valley business community.

## Food Service

Aramark Dining Services provides a variety of foods throughout the campus in various, convenient locations:

|  | Location | Days | Hours* $^{*}$ |
| :--- | :--- | :--- | :--- |
| Tartan | Building 7, | Mon.-Thurs. | 7:00 a.m. - 8:00 p.m. |
| Marketplace | Basement | Friday | 7:00 a.m. $-2: 30$ p.m. |
|  |  | Saturday | 7:30 a.m. - 2:30 p.m. |

Enjoy the Chef's Table for hot entrées cooked to order; the Italian Oven for freshly baked pizza; the Corner Bakery for freshly baked muffins and Danish; the Green Pickle Deli for made-to-order sandwiches and wraps; the Salad Garden for fresh salad fare; and the Fireside Grill for cheese steaks and burgers.

| Tartan Sports | Building 8, | Mon.-Thurs. | 7:30 a.m. $-8: 00$ p.m. |
| :--- | :--- | :--- | :--- |
| Café | Lower Level | Friday | 7:30 a.m. $-2: 30$ p.m. |
|  |  | Saturday | Closed |

Freshly baked pizza, fruit smoothies and hand dipped ice cream, prepared salads and assorted beverages.

| Subshop | Building 3, <br> Third Floor | Mon.-Thurs. <br> Friday <br> Saturday | $\begin{aligned} & \text { 7:30 a.m. }-8: 00 \text { p.m. } \\ & \text { 7:30 a.m. - 2:30 p.m. } \\ & \text { Closed } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Made to or | wiches, fresh sou | s, hot dogs, salad | and assorted beverages. |
| Pizza Cart | Building 2 \& 10 | Mon.-Thurs. | 7:30 a.m. - 8:00 p.m. |
|  | Walkway, | Friday | 7:30 a.m. - 2:30 p.m. |
|  | Third Floor | Saturday | Closed |
| Freshly ba | hot dogs, prepared | salads, snacks, | assorted beverages. |
| Snack Bar | Building 13 | Mon.-Thurs. | 7:30 a.m. - 8:00 p.m. |
|  | Fourth Floor | Friday | 7:30 a.m. - 2:30 p.m. |
|  |  | Saturday | Closed |

Pizza, deli sandwiches, hot entrées, prepared salads and assorted beverages.

| Espresso Cafe | Building 11 | Mon.-Thurs. | 7:30 a.m. $-6: 00$ p.m. |
| :--- | :--- | :--- | :--- |
|  | Third Floor | Friday | 7:30 a.m. - 2:30 p.m. |
|  |  | Saturday | Closed |

Seattle's Best coffee blends, cappuccino, lattes, box lunches and breakfast pastries. There are several vending locations throughout the campus providing a wide variety of food products including:

- freshly brewed coffee by the cup
- regular and "wellness connection" health conscious snacks
- canned and bottled cold beverages
* Summer hours may vary.


## The Learning Center at Miami Valley Research Park <br> 1900 Founders Drive, (937) 252-9787

The Learning Center at Miami Valley Research Park provides Dayton's technology community with the facility, classes and resources to create and sustain a high performance I.T. work force. The mission is to develop the area's I.T. economy through world class programs and partnerships.
The Learning Center utilizes more than 10,000 square feet of space including:

- Four computer labs designed for high end technical training, each capable of holding 16 students and containing leading edge equipment and instructional environments.
- One seminar room for general instructional purposes.
- Two conference rooms for small training programs or breakout sessions.
- Oneindividualized learning room for asynchronouslearning
- Faculty Prep/Partner Area designed for faculty and industry partners who wish to use the Learning Center to meet their own instructional needs.
- Interactive videoconferencing capable of delivering point-to-point or multi-point distance learning instruction or training
The Learning Center provides open enrollment and customized training in Network Security; Programming; Web Development; Software Process Improvement/Quality; Office Applications; I.T. Management and Marketing.


## Learning Resources Center

## Building 7L, (937) 512-2855

The Learning Resources Center (L.R.C.) consists of the College Library, Microcomputer Lab, and Media Services.

The College Library, Microcomputer Lab and Media Services are located beneath the central plaza of the college with access from the basement level of Buildings 1 through 7.

Hours: Monday-Thursday, 8:00 a.m.-9:30 p.m.; Friday, 8:00 a.m. - 5:00 p.m.; and, Saturday, 8:00 a.m. - 3:00 p.m. Summer session and interim hours vary.

Materials in the collection include books, periodicals, newspapers, sound recordings, CD-ROM's, audio and video tapes, and electronic resources.

Services includelibrary orientations, reference assistance, and interlibrary loans for items not available at Sinclair or through OhioLINK, and course reserves. Sinclair provides web based access to L.R.C. on-line catalog, OhioLlNK Central Catalog, research databases, and Internet resources.

Sinclair is a member of OhioLINK, a growing computer network of libraries and electronicinformation resources, offering access to 100 research databases and a combined central catalog of nearly 23 million records from many Ohio universities, colleges, community colleges and theStateLibrary of Ohio. Its goal is to provide easy access to information and rapid delivery of library materials throughout the state. All sites offer on-line access to the central catalog and extend on-site borrowing privileges to patrons of other OhioLINK institutions.

Copiers, microcomputers, and typewriters are available for student use, in addition to equipment to read and print microforms.

Borrowing privileges are extended to currently enrolled students, staff and faculty. A Sinclair Community College Tartan Card photo I.D., which includes the Sinclair I.D. number, serves as the library card. Graduates ofSinclair possessing an Alumni card may also borrow materials from the L.R.C. For specific information pertaining to the borrowing of materials and the direct access to other academic and public libraries in the area, contact ReferenceServices,(937)512-2855.

Eating or drinking is not permitted on the mezzanine level (study area) or on the lower level of the Library and Media Services. Connect to the L.R.C./home page at: http:/ /library.sinclair.edu. For further information about accessing resources outside the L.R.C., contact References Services, (937) 512-3004.

## Testing Center

## Building 10, Room 10445, (937) 512-3076

In addition to placement testing, the Testing Center provides support for students, faculty, and staff involved in individualized testing and assessment activities. Hours: Monday-Thursday, 9:00 a.m. - 8:00 p.m.; Friday, 9:00 a.m. 4:00 p.m.; and, Saturday, 9:00 a.m. - 2:00 p.m. Summer Quarter hours vary.

## Academic Computer Resources

Microcomputers and/or computer terminals are available to students in the locations listed below. Students with disabilities should contact Disability Services at (937) 5125113 if adaptive equipment is needed. Computer hardware and software available to students, operating hours and access restrictions for each location can be found in the Computer Access pamphlet available in the L.R.C. and Teleport or by contacting one of the following offices:

- Accounting Laboratory, Room 5213
- B.I.O.S.I.S. (Biology), Room 1043
- Career Planning \& Placement Center, Room 10315
- Center for Interactive Learning (C.I.L.), Building 14
- Computer Information Systems Laboratories, Rooms 3241, 4111, 5041, 5043, 5212, 14306, 14312
- Corporate\&CommunityServicesLaboratories,Room12374
- Design Laboratories, Building 13
- Developmental Studies Laboratories, Rooms 6231,6331
- Industrial Design \& Graphics Technology Laboratory, Rooms 10446, 11441
- Educational Materials Center, Room 9108
- ElectronicsEngineeringTechnology Laboratory,Room1230
- Engineering/Robotics Laboratory, Room 11126
- Health Information Management Laboratory, Room 4213
- Industrial Manufacturing Technology Laboratory, Room 11141
- Library Microcomputer Laboratory (L.R.C.),lower level of Building 7
- Mathematics Laboratory, Room 1315
- Nursing Laboratories, Rooms 3322, 3333
- Office Information Systems Laboratories, Rooms 4110, 5113, 5214, 5224, and 5231
- Physics Laboratory, Room 4241
- Psychology Laboratory, Room 4212
- Teleport I, Third Floor, Building 11, Rooms 11324, 11346
- Teleport II, Second Floor, Building 13, Room 13223
- Writing Center, Room 3221


## Teleports

## Building 11, Third Floor, (937) 512-2002 <br> Building 13, Second Floor, (937) 512-5394

Teleports (Technology Enhanced Learning EnvironmentsPort) are state-of-the-art computer laboratories. They are open lab facilities for students and faculty to use with individual and small group work spaces. Teleports provide students with convenient access to high quality computing equipment, software and a multimedia production facility. Teleports have printers, scanners, satellite TV with VCR's, cassette players and copiers.

A Tartan Card is required to access Teleports resources. There are always lab assistants at the Teleports to help students with their learning objectives. Tutors are also available.

Teleports work stations are high end PC's that have the Sinclairacademicimage and over 200 division specificsoftware applications; TeleportsalsohaveMacintosh workstations with software to support the arts and design department.

Teleports have extended hours for the convenience of Sinclair students:

- Teleport I, Building 11, Room 11346 is open Monday Saturday.
- Teleport II, Building 13, Room 13223 is open Monday Sunday.
- The Teleports are also open between quarters with special hours. Signs will be posted with hours on bulletin boards around the campus and at the Teleports.


## InTouch Kiosks

An easy to use computer giving immediate access to information about Sinclair and personal student records.

| Building | Location |
| :---: | :--- |
| 2 | Third Floor, at Walkway |
| 3 | First Floor |
| L.R.C. | Library |
| 6 | First Floor |
| 7 | First Floor (Tartan Campus Store) |
| 9 | First Floor |
| 10 | Admissions, Second and Fourth Floors |
| 13 | Second Floor |
| 20 | Moore Technology Center, Second Floor |

## Student Lounges

Lounges are provided in the atriums of most buildings. Food is not permitted in any of the lounges, although drinks in disposable containers are allowed. No player/ recorders or televisions are permitted in the lounges. Smoking is not permitted in lounges.

## Physical Activity Center

## Building 8

Sinclair's Physical Activity Center (P.A.C.), located in Building 8 , is one of the finest facilities at any community college in the nation.Included in the facility are asix-laneswimming pooland diving well, four racquetball courts, gymnasium, aerobic and self defense room, weight room, saunas, a multi-purpose field house, plusothersupportareasincludingfully equippedmen's and women's locker rooms, training room, and athletic locker rooms. The $40,000-$ square-foot fieldhouse provides a $1 / 9$ mile running track, tennis, volleyball and badminton courts, and a netting system for golf and baseball.

## David H. Ponitz Sinclair Center

Building 12, (937) 512-3061
Sinclair Center is a creative educational facility designed to meet the critical training and educational needs of the Miami Valley. A state-of-the-art instructional environment, Sinclair Center is more than just a place for training; it also provides all thecrucial support facilities and services essential for successful learning. Sinclair Center is certified by the International Association of Conference Centers of North America (I.A.C.C.). It is the only I.A.C.C. certified conference center in the Dayton area.

The center combines world-class technology and highly flexible use of space with the responsive programs, the innovation minded faculty, and the comprehensive facilities of the college. Sinclair Center offers an incredible array of features that can be tailored to meet any adult learning and training needs:

- A full-time registration staff helps coordinate activities and recordkeeping.
- A 400 -car parking garage underneath Sinclair Center means complete independence of inclement weather.
- Any required audio-visual equipment is already available or will be secured.
- Allied health/science laboratories occupy the center's third floor and are available for special presentations or training.
- Seminar rooms can accommodate five to 300 participants. Groups as large as 500 can meet or dine in the Great Hall.
- The college provides complete catering services from gourmet meals to business lunches. Morning and afternoon break services are available as well.
- Video and electronic programming can reach meeting rooms throughout the facility using the latest equipment.
- Each seminar room can be linked electronically with computers in remote locations on or off campus and is equipped for microwave television distribution. National teleconferences can be received through the center's satellite receiving equipment.


## Student Activities Center

## Building 8, Room 8025, (937) 512-2509

The new Student Activities Center provides many opportunities for co-curricular involvement for students by managing activities and participation in student clubs, organizations, social activities, honorary societies, sports clubs, special interest groups, concerts, family shows, musicals and theatre activities. The center is located in the basement of Building 8 and includes a multi-purpose room, entertainment area, game room, Sports Cafe, and conference rooms.

Student clubs and organizations host group meetings, dances, lectures, dramatic presentations, festivals (and many other activities, events), programs and services in the Student Activities Center. The Student Activities office serves as a contact point for faculty, staff, student organizations, and community groups to schedule activities or to use the Student Center.

Students are encouraged to participate in competitive games, tournaments, and leadership development training programs, annual cultural events, success seminars and educational workshops. A full range of scheduled activities and services focusing on student success and information are offered throughout the quarter. Included are workshops, retreats, classes and experiences to develop skills and provide opportunities for social interaction with other students, faculty, and staff.
The Student Center Academic Quarter Hours
Monday - Thursday, 8:00 a.m. - 8:00 p.m.; Friday, 8:00 a.m. - 5:00 p.m.; Saturday, 8:00 a.m. - 2:00 p.m.

Other evening and weekend hours based on scheduled events
Non-Academic Quarter Hours
Monday - Friday, 8:00 a.m. - 5:00 p.m.
Closed Saturday and Sunday


With the experience Shannon Hale gained as editor of the Clarion, she has prepared herself for the real world of journalism. As a Communication Arts major, she found the extracurricular work at the campus newspaper to be an important learning process to enhance the classroom experience.

## First, Complete the Application for Admission

Obtain an application packet from Admissions, Building 10, Room 10112 or call (937) 512-3000 or (800) 315-3000 and one will be mailed to you. The packet contains information about enrolling at Sinclair that are specific to your needs.

There are academic programs in the Allied Health Technologies division as well as the Legal Assisting Program that have special admission requirements. Those packets also can be obtained from Admissions.

Once the application for admissions is complete, it is taken or sent to Registration \& Student Records, Building 10 , second floor. Since all applicants with the exception of international students on an F-1 visa, are accepted to Sinclair, you can begin the next steps in enrolling at Sinclair. These steps are described on the next page.

A one-time, non-refundable $\$ 10.00$ application fee will be assessed at your initial registration for classes.

| If you are: | And your Goal is: | Step 1 <br> Special Application Procedures | Step 2 <br> Welcome |
| :---: | :---: | :---: | :---: |
| New, First-ime in Collegeis a high school student seeking to enroll at Sinclair after graduation and adults with no prior college | Seeking a Degree or Certificate at Sinclair or another college/university | None | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| Former Sinclair Student has previous college experience at Sinclair | Seeking a Degree or Certificate at Sinclair or another college/university | - If you have not enrolled in classes for the last two years, complete a new application for admissions. (Note: You will not be assessed another $\$ 10$ application fee.) | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| Incoming Transfer Student - has attended or is currently attending another college or university | Seeking a Degree or Certificate at Sinclair or another college/university | - Have official transcripts sent directly from the issuing institution to: <br> Office of Registration \& Student Records <br> Sinclair Community College <br> 444 West Third Street <br> Dayton, Ohio 45402-1460 <br> Note: Hand carried copies are not considered official transcripts. <br> - Petition for admission to Sinclair if you were academically dismissed from a previous institution. The petition is available at the office of Registration \& Student Records (Building 10, second floor). Submit the completed form to your academic counselor prior to the deadline published in the quarterly class schedule. | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| Transient Student is attending another college or university and is taking Sinclair courses to transfer back to a home institution | Seeking a Degree or Certificate at another college/university | - Declare PI as a major. <br> - Check "yes" in the box on the application that asks, "Are you taking a course(s) to transfer back to your home college/university?" | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| Taking classes for personal enrichment and job/career enhancement/ selected courses for a new career | Not Seeking a Degree or Certificate at Sinclair or another college/university | - Declare PI or CD as a major. | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| High School Student enrolling in the College Advance Program (CAP) at Sinclair while still attending high school | Taking Sinclair classes while a high school student | - Present a letter of permission from the high school principal or guidance counselor at or before registration for classes each quarter to the office of Registration \& Student Records (Building 10, second floor). | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| High School Student prior to graduation or completion of a GED who is not attending high school | Seeking or not seeking a Degree or Certificate at Sinclair or another college/university | - Present a letter from the principal of the high school last attended, giving you permission to attend classes at Sinclair, to the office of Registration \& Student Records (Building 10, second floor). | Obtain information on the individualized steps for enrollment in the office of Admissions (Room 10112). |
| High School Student enrolling in the PostSecondary Enrollment Options (PSEO) at Sinclair while still attending high school | Taking Sinclair classes while a high school student | - Complete placement testing for English, reading, and mathematics. No appointment is needed and there is no charge for testing. Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. <br> - When notified of eligibility, obtain a PSEO application for Sinclair from your high school guidance counselor. <br> - Send the completed application and all requirements to the office of Admissions (Building 10, Room 10112). | Refer to written correspondence from the PSEO program. |

## Step 4 <br> Placement Testing

You must complete placement testing for English, reading, and mathematics. No appointment is needed and there is no charge for testing. Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. Call (937) 512-2210.

Placement testing may be recommended even if you have previous college experience. Discuss with your academic counselor.

Placement testing may be recommended even if you have previous college experience. Discuss with your academic counselor.

## Step 3

Orientation

This mandatory two-hour session will provide valuable information about Sinclair. You will learn what services are available, whom to contact, how to get around campus, and when to do all the important things needed to be a successful Sinclair student. Morning, afternoon, and evening sessions are available.

Orientation may be recommended even if you have previous college experience. Discuss with your academic counselor.

Orientation may be recommended even if you have previous college experience. Discuss with your academic counselor.

Divisional academic counselors/faculty advisors will provide:

- important major specific information
- review placement test results
- help students choose classes
(Advising sessions can only take place after completion of placement testing.)

Call to make an appointment with your academic counselor/faculty advisor in the division of your intended major (or be referred to a faculty advisor).

Call to make an appointment with your academic counselor/faculty advisor in the division of your intended major (or be referred to a faculty advisor).

If you intend to take English and math courseswithout record of transfer credit in English and math, you must complete placement testing in those areas. Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. Call (937) 512-2210.
If you intend to take English and math courses without record of transfer credit in English and math, you must complete placement testing in those areas. Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. Call (937) 512-2210.

Students who intend to take English and math courses must complete placement testing in those areas. No appointment is needed and there is no charge for testing. Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. Call (937) 512-2210.

You must complete placement testing for English, reading, and mathematics. No appointment is needed and there is no charge for testing.
Placement testing is in Building 10, Room 10445. Allow about three (3) hours for testing. Call (937) 512-2210.

Refer to special PSEO application procedures.

Orientation is mandatory for degree and certificate seeking students. You will learn what services are available, whom to contact, how to get around campus, and when to do all the important things needed to be a successful Sinclair student. Morning, afternoon, and evening sessions are available.
This mandatory two-hour session will provide valuable information about Sinclair. You will learn what services are available, whom to contact, how to get around campus, and when to do all the important things needed to be a successful Sinclair student. Morning, afternoon, and evening sessions are available.

Once you become eligible and complete the PSEO application process, written notification about the mandatory PSEO Orientation will be sent to you.

## Assessment \& Placement Policy

Entry level assessment is crucial to providing students the opportunity to succeed in their educational pursuits. Educational research shows that students who are assessed and enroll in courses appropriate to their skill levels are four times as likely to succeed academically as those students who are not assessed or who ignore placement requirements. Because Sinclair Community College is committed to providing accessible, high quality education the following assessment policy was implemented Fall 1990.

Prior to initial registration, students who designate themselves as degree or certificate seeking must be assessed for reading, language usage and writing and numerical skills. Transfer students who are degree or certificate seeking and who do not have transferable equivalent math or English courses must be assessed. No degree or certificate seeking students can register for any credit courses until they have test scores on file. Special needs and English as a Second Language students should make appropriate assessment arrangements with Educational Support Services.

Students who are not degree or certificate seeking, but who are taking courses for personal interest or career development, do not have to be assessed. However, with the exception of transfer students who have math or English credits accepted for equivalent courses, ALL students who take a mathematics or English class must be assessed prior to enrolling in those classes.

Students must begin mathematics and/or English course sequences at or below the level indicated by their assessment results. Students who possess less than a ninth grade level of mastery in reading must complete "Fundamentals of Reading," DEV 064, as a prerequisite to enrollment in any college level courses, except those specifically identified as exempt from this requirement.

## Admissions Policies <br> Overview

Sinclair Community College believes human resources, the greatest asset of any community, can be enhanced through higher education. Sinclair's mission is to help individuals turn dreams into achievable goals through accessible, high quality, affordable learning opportunities:

- Offer transfer and technical associate degree programs, certificate programs, and continuing education opportunities through a system of diverse resources and delivery alternatives accessible to the citizens of Montgomery County and the larger learning community.
- Provide quality instruction, educational activities, counseling, support services, and assessment tools to facilitate the growth and development of lifelong learning and to assist individuals to achieve personal and professional goals.
- Prepare today's work force to meet the needs of a rapidly changing technologically advanced, global economy through traditional and non-traditional alternatives.
- Challenge individuals to broaden their concepts of self, expand their views of the world and recognize their roles in a global society by fostering values that respect and celebrate diversity while promoting social responsibility, critical thinking, communication, and innovation.
- Promote the development and implementation of new ideas, provide leadership for collaborative activities, and serve as a resource center for community based and regional partnerships.
- Manage our human, physical, and financial resources in a caring, ethical, and prudent way that facilitates a working and learning environment focused on continuous improvement.


## Open Door Policy

Admission toSinclair is open to all applicants except international students on the F-1 visa. Some academic majors have additional requirements which must be completed prior to actually beginning the program. These include all of the Allied Health programs, Legal Assisting, the Police Academy, Early Childhood Education, A.S.E.P., C.A.P., Tooling \& Machining certificate (Step II), and the A.I.S./ A.T.S. degrees. To fully understand the new student enrollment process, all prospective students are encouraged to talk with an admissions representative. Appointments including a campus tour can be scheduled by contacting the office of Admissions at (937) 512-3000 or in state at 1-800-315-3000. T.D.D.: (937) 512-2187. F-1 visa holders should contact the office of Registration \& Student Records, (937) 512-3024.

## Cyber Services

Many admission and registration services are available to applicants, students, and alumni on Sinclair's web page at www.sinclair.edu. These cyber services include requests for course catalog, scheduling a campus visit, class schedules, application for admission, searchable course descriptions, searchable quarterly class schedule, registration for classes, name/address changes, grade reporting system, transcript request forms, and access to Selective Service registration. Important information about the admission, registration, and records processes and services are available at this web site. The Tartan Campus Store provides online purchases and information.

## Admissions

## Building 10, Room 10112, (937) 512-3000, 1-800-315-3000 (Ohio) ww w.sinclair.edu T.D.D. 512-2187

Prospective students begin their relationship with Sinclair at Admissions where application packets for admission and information about academic programs can be obtained. Prospective students can schedule admission interviews and campus tours by calling either (937) 512-3000 or 1-800-$315-3000$, by visiting the office in Room 10112, or www.sinclair.edu and click on Visitors, then Admissions.

Students interested in applying for Allied Health or Legal Assisting programs must complete additional requirements and can obtain specific program admissions packets in the office of Admissions. Information about the Police Academy, Early Childhood Education, A.S.E.P., C.A.P., Step II and A.I.S./A.T.S. is available in the specific academic departments.

Admissions also coordinates the marketing strategies for the college and implements outreach activities such as high school visitations, college fairs, agency visits, career days, campus visitation program and the mobile recruiting program.

Phase I of the Young Scholars and the Post Secondary Enrollment Options programs are also coordinated by Admissions.

## International Students

To obtain an F-1 Student visa:

- Complete the international student Application for Admission and submit it to Registration \& Student Records, second floor, Building 10. A one-time, non-refundable application fee will be assessed at the time of initial registration.
- Score 190 or above with no section score below 18 on the T.O.E.F.L. (Test of English as a Foreign Language) or Band 6 on the I.E.L.T.S. (International English Language Testing System).
- Submit official transcript of high school completion or its equivalent with certified English translation.
- Complete the Sinclair Declaration and Certification of Finances form. Submitall documents at least two months prior to the first day of classes.
- Deposit with the college a tuition deposit of $\$ 3,075$ which will cover most of the first two quarters' and the last quarter's tuition and fees.
- Any unused portion of the deposit will be refunded to the student upon termination of studies and when appropriately requested.
- Complete the placement tests upon arrival and enroll in those courses indicated. Failure to do so may result in administrative withdrawal from courses.


## All materials concerning international students must be

obtained from Registration \& Student Records, second
floor, Building 10.

## Golden Age Senior Citizen Applicants

(persons 60 years or older who wish to enroll free of charge) must:

- Complete a golden age application/ registration form. This form may be obtained from the counter at Registration on the second floor of Building 10 or College for Seniors, Room 10424.
- Enroll on an audit, space available basis during late registration periods.
- Pay all laboratory fees and purchase required books and materials.
$\square$ Students Who Want to Audit Classes must follow guidelines described in the college catalog.
If one of these does not identify you and the steps for enrolling at Sinclair, please call the office of Admissions so the process for enrolling can be determined.
$\square$ Financial Aid applications must declare a major other than Personal Interest (PI), Career Development (CD), or undecided (LS).
- Applicants with disabilities who would like assistance can contact the office of Disability Services, (937) 5125113, T.T.Y. (937) 512-3096.


## P.S.E.O. Class Participation Policy

The Post Secondary Enrollment Options (P.S.E.O.) Program was mandated by Senate Bill 140 in August 1990. The guidelines for the implementation of this program are located in the office of Admissions. Sinclair Community College reserves the right to review the final selection of college classes approved by the high school and to limit participation in any class based on such circumstances as extraordinary lab fees, age, safety issues, excessive course load, or academic probation.

## Readmission Policy

A student who has been dismissed from Sinclair for academic reasons and wishes to be readmitted must petition for readmission. The petition for readmission is available in Registration \& Student Records, second floor, Building 10. It must be submitted to the appropriate division academic counselor's office at least three weeks before the first day of classes for the quarter the student wishes to enter. Exceptions can be made only by the division dean and division counselor.

A student dismissed for the first time must remain out of school for a minimum of one quarter, including summer. (For example, if dismissal was at the end of Fall Quarter, the student may not attend Winter Quarter and may petition for readmission to Spring Quarter.) A student dismissed for a second time must remain out of school for one academic year (three quarters). A student dismissed for the third time will not be readmitted to Sinclair unless there are documented, extenuating circumstances.

A student who has been dismissed from another college, and wants to be admitted to Sinclair, must petition for admission. The petition is available in Registration \& Student Records, second floor, Building 10. After completing this petition, the student must return it to the appropriate division academic counselor's office and check the quarterly bulletin of the schedule of classes for the petition deadlines.

## Veterans Note:

To re-establish veterans benefits, a student must bring a copy of the readmissions petition to the Veterans Officer, Room 10324, after readmittance to the college.

## Residency Rules

The residency status of each student is determined during the admissions process, based upon the information available to make that decision and reviewed each quarter. Tuition surcharges to the student and college's subsidy payments are based upon that decision. The definitions and rules used by all Ohio educational institutions are contained within the document entitled Ohio Board of Regents 3333-1-10, generically known as Rule 10.

## Ohio Residency

A student who is a non-resident of Ohio must pay a tuition surcharge in addition to other fees. The following rules determine who can be considered an Ohio resident and cite specific exceptions to the general rules:

- To be considered a resident of Ohio a person must maintain a 12 -month place of residence in Ohio, be qualified to vote in Ohio and to receive state welfare benefits, and be subject to tax liability under Section 5747.02 of the Ohio Revised Code. A person is not permitted to remain a resident of any other state or nation for any purpose within the time prescribed.
- A person who has established a place of residence in Ohio for the purpose of attending a college or university will be considered a non-resident for fee purposes.
- A person admitted to this country as a residentalien may establish Ohio residency in the same manner as any other non-resident.
- An alien admitted to this country on a student visa or other visas, which do not qualify the person to remain in this country on a permanent basis, will be considered a non-resident for fee purposes.

Within the above stated general rules, a student will be considered a resident for fee purposes if the student:

- Has resided in Ohio for at least 12 consecutive months immediately preceding enrollment and is not receiving, and has not received in that time period, financial support from persons or entities who are not residents of Ohio.
- Is a dependent student and at least one of his or her parents or legal guardians has been a resident for at least 12 consecutive months immediately preceding enrollment.
- Is living in Ohio and employed on a self-sustaining basis in Ohio, and is attending college on a part-time basis. The student's spouse who is a full-time homemaker will also be considered gainfully employed.
- Has a parent or spouse who has accepted full-timeemployment and has established a place of residence in the State of Ohio as of the first day of the term the student enrolls.


## Specific Exceptions

The student, his or her dependents, and spouse are considered residents of Ohio if the person:

- Is on active duty in the armed forces of the United States and is stationed and resides in Ohio.
- Is on active duty in the armed forces of the United States, and Ohio is the state of residence for legal purposes.
- Is transferred by his or her employer beyond the territorial limits of the 50 states of the United States and the District of Columbia, and Ohio is the state of residence for legal purposes.
- Has been employed as a migrant worker in Ohio and has worked in the state at least four months during each of the three years preceding the date of enrollment.


## Montgomery County

A student who qualifies as a resident of Ohio, but who does not qualify for Montgomery County residency, must pay an instructional surcharge in addition to other fees.

- The student must qualify as a resident of the State of Ohio in order to qualify as a resident of Montgomery County.
- A person who has established a place of residence in Montgomery County for the purpose of attending Sinclair will be considered a non-resident for fee purposes.
- A student who has been classified as a Montgomery County resident shall be considered to have lost his or her residency after he or she, or in the case of a minor, his or her parents or legal guardian move out of the county. Within the above stated general rules, a student will be classified as a resident of Montgomery County for fee purposes if the student:
- Has resided in Montgomery County for at least 12 consecutive months immediately preceding enrollment at Sinclair, and is not receiving, and has not directly or indirectly received during that time financial support from persons or entities who are not residents of Montgomery County.
- Is a dependent student and at least one of his or her parents or legal guardians has been a resident of Montgomery County for at least 12 consecutive months preceding enrollment.
- Is gainfully employed on a self-sustaining basis and resides in Montgomery County and is enrolled on a parttime basis (less than 12 credit hours). The spouse who is a full-time homemaker will also be considered gainfully employed.
- Has a parent or spouse who has accepted full-time employment and has established a place of residence in Montgomery County as of the first day of the term the student enrolls.


## Specific Exceptions

The student, his or her dependents, and spouse will be considered residents of Montgomery County if the person:

- Is on active duty in the armed forces of the United States and is assigned to Wright-Patterson Air Force Base.
- Entered active duty in the armed forces of the United States as a resident of Montgomery County and can provide proof of eligibility to vote in the county and intends to maintain Montgomery County as the legal residence.
- Has been employed as a migrant worker in Montgomery County and has worked in the county at least four months during each of the three years preceding the date he or she enrolled.
If a student has been classified as a non-resident of the State of Ohio or Montgomery County, he or she must apply for reclassification when the student meets the qualifications for residency. A change of address does not change residency.

The student must present evidence to support the request for reclassification, including proof of place of residence, place of employment, and sources of financial support. If the student is reclassified from non-resident to resident of Ohio or Montgomery County, he or she will be eligible to pay the resident fees from the date of reclassification; the reclassification will not be retroactive to any previous term.

Information concerning residency, types of documents required, and residency forms are available at the Registration \& Student Records office on the second floor of Building 10. Requests for reclassification and supporting documents must be submitted prior to the end of the first week of classes.

## Placement Testing (C.O.M.P.A.S.S.)

## Assessment Intake Center, Building 10, Fourth Floor

All new students who are seeking a degree or certificate must participate in placement testing for English, mathematics and reading. This testing begins at the Assessment Intake Center, Building 10, fourth floor lobby.

Reservations are not necessary as new students are individually tested on a drop-in basis. Transfer students should contact an academic counselor /faculty advisor to determine if they will be required to participate in placement testing. There is no charge for testing.
Testing hours are:

| Monday-Thursday | 8:00 a.m.-8:00 p.m. |
| :--- | :--- |
| Friday | 8:00 a.m.-4:00 p.m. |
| Saturday | 9:00 a.m.-2:00 p.m. |

Please allow approximately three hours to complete the tests. Summer and holiday office hours vary.

## Fees (per credit hour)*

The college reserves the right to change without notice statements concerning rules, policies, fees, curricula, courses, or other matters.

| Montgomery County residents | Other Ohio residents | Out-of-state residents \& international residents |
| :---: | :---: | :---: |
| Students instructional fees | \$ 31.25 | \$ 31.25 |
| Instructional surcharge | \$ 22.00 |  |
| Tuition surcharge |  | \$ 59.00 |
| General fee \$ 3.50 | \$ 3.50 | \$ 3.50 |
| Total (per credit |  |  |
| hour) \$34.75 | \$ 56.75 | \$ 93.75* |
| Other fees |  |  |
| Application for Admission | \$ | 10.00 |
| Late Registration Fee |  | 20.00 |
| Graduation: Degree | \$ | 10.00 |
| Certificate | \$ | 5.00 |
| Transcripts (each) | \$ | 2.00 |
| Transcripts (same day service) | \$ | 7.00 |
| Returned Check (penalty per check) | eck) \$ 10 | 10.00 |
| Laboratory fees determined for individual classes. |  |  |

* NOTE: New incoming foreign $(F-1)$ students are required to make a deposit with the college in the amount of $\$ 3,075$, which will cover most of their first two quarters and the last quarter's tuition and fees.


## Selective Service Fees

Ohiolaw requires that all males whoarenotin compliancewith the federal Selective Service laws pay out-of-state fees. All males who are 18 through 25 years of age must be registered with Selective Service. Men who are on active duty in the U.S. military service are exempt. Students who are not in compliancewillbeassessed out-of-statefees and, if thefees arenot paid within the specified period, the students will be withdrawn from all classes. Students may register at any U.S. post office or at www.sss.gov. For information concerning status, call 1-708-688-2576, Monday-Friday, 8:30 a.m. - 6:45 p.m.

## Payment of Fees

Payment of fees is due at the Bursar's office on the date published in the quarterly bulletin. Checks must be made to SinclairCommunity College.SocialSecuritynumbersshould beshown on the face of the check toensure proper credit. VISA and MasterCard payments may be made at the cashier's window or through the telephone registration system, (937) 512-5454, following the voice instructions. A student may use one of the following options to check his or her registration:

- Call telephone registration at (937) 512-5454 and listen to the voice prompts.
- Use an on-campusSinclair Intouch Kiosk to print the feebill.
- Go to Registration \& Student Records, second floor, Building 10, and request a fee bill.

Assessment of a $\$ 10.00$ processing fee plus any collection costs incurred will be made for payment of tuition and fees with a check returned by the bank for any reason. Cancellation of registration will result from any unsettled bad checks, and the student will remain liable for all assessments, even though no longer registered.

A student may not register, receive a transcript, or graduate if the college records are not clear of all charges and assessments.

## Refund of Fees

A student must have filed the appropriate drop form in the office of Registration \& Student Records, within the refund period, to receive a refund of fees. Refund dates are published in the quarterly class schedule.

If a student withdraws by the tenth calendar day (including Saturday and Sunday) of Fall, Winter, and Spring quarters, a $100 \%$ refund check will be issued without further action by the student (see refund check information at the end of this section). After that date, the student will receive no refund for dropped classes. Different refund schedules apply for Summer Quarter, and for courses that have beginning and ending dates that do not correspond to the regular quarter dates. For information, contact Registration \& Student Records, second floor, Building 10, (937) 512-2736.

If the student withdraws after the tenth day of the quarter, he or she will not receive a refund of tuition or fees unless the withdrawal was due to exceptional circumstances such as a medical emergency. For consideration of the specific situation, the student must submit a tuition refund appeal request. Forms are available in the Bursar's Office, second floor, Building 10.

If the student's class is canceled by Sinclair Community College, the student will receive a $100 \%$ refund.

Refunds are issued by check one week after the close of the refund period. Checks will be mailed to the student's home address currently on file with the Registration \& Student Records office.

## Student I.D. Cards

The student I.D. card, known as "The Tartan Card," is proof of student status. It is required throughout the college in order to use services, or when participating in college sponsored activities. The
 Tartan Card stores information about each student's enrollment status electronically encoded on line via a magnetic stripe placed on the back of the card. Card readers located throughout campus scan the information and provide access for such transactions as checking out materials in the L.R.C., using the P.A.C., parking facilities, and such. It also allows the student to place money on their account to pay for various campus services such as books, food, parking and copier usereducing the need to carry cash on campus.

To have an I.D. card made, the student must present a paid registration receipt to Registration \& Student Records, second floor, Building 10 . There is no charge for the firstI.D. card. If the card is lost or stolen, however, there is a fee for replacement. The I.D. card does not expire. Enrollment information is automatically downloaded for each student within 24 hours after he or she registers for classes for the current term.

## Registration

Complete information about how to register for classes, including drop/add, audit, withdrawal, and registering after the quarter has begun, is found in the most current issue of the Sinclair Quarterly Class Schedule/Bulletin. Schedules are available in the office of Admissions, Room 10112 and other campus locations, about one week before a new quarter begins and at various off-campus sites, including Montgomery County public libraries, municipal offices, personnel offices of major industries and businesses and Wright-Patterson Air Force Base.

## Telephone Registration

Students can utilize a touchtone telephone to register, add and drop courses, review their class schedules, and pay fees by calling (937) 512-5454 and accessing the college data processor. Adding and dropping classes using telephone registration is no different than having the college staff doing the input on campus. Students need to use their Social Security Number and a Personal Identification Number (P.I.N.) to access telephone registration. Eligibility requirements, telephone registration worksheet, and complete instructions are contained in the quarterly class schedule bulletin published prior to registration periods each quarter.

## Office of Registration \& Student Records

## Building 10, Second Floor, (937) 512-2736, T.D.D. 512-2395

The office of Registration \& Student Records handles student records, registration activities, transcripts, diplomas, I.D. cards, and reviews student eligibility for any number of awards such as scholarships, graduation honors, the Dean's List and degrees. It is also the place to make changes (for example, change of address, residency, name and so on).

## Auditing a Course

A student who audits a course will not receive a grade or credit. He or she is permitted to attend classes but will not be required to take exams. The fee for auditing is the same as that for enrolling for credit. Audit status is not convertible to credit status nor is credit status convertible to audit status once the registration has been completed. Registration and/or adds for audit status will be accepted only during designated late registration periods. Audit status must be indicated on the registration card or drop/add form. A veteran may not use educational benefits to audit a course. In addition, financial aid may not be used to pay for courses that are audited.

## Dropping Courses or Withdrawing from the College

The drop form must be processed in the office of Registration \& Student Records or by utilizing the automated telephone registration system (T.R.E.G.), (937) 512-5454, in order to drop a class or to withdraw from all classes. Failure to process the form means the student will receive a grade, usually an " F ", in the class. A student may drop standard term courses during the first eight weeks of the quarter. A grade of "W" will be recorded on the permanent record if the class is dropped after the refund period. Summer Quarter, which consists of multiple terms, has deadlines for each term which are printed in the Summer Quarter

Schedule. Short term courses (less than a quarter in length) also have special withdrawal deadlines which are listed in the Quarterly Class Schedule.

If the student is withdrawing from all classes for the quarter, he or she may do so by calling (937) 512-2736 or by calling Sinclair's automated telephone registration system (T.R.E.G.), (937) 512-5454. A copy of the withdrawal form will be mailed to the student; this is proof of withdrawal and should be kept for the student's records.

Veterans: If a student drops a course or withdraws from all classes, it is the student's responsibility to notify the Veterans Assistance Office, Room 10324. Courses dropped any time during the quarter could result in an overpayment dating back to the first day of the quarter. Mitigating circumstances may be considered for payment purposes.

Financial aid students should see the section on dropping classes for information on how the financial aid award is affected when classes are dropped.

## Transcripts

Official transcripts of academic work completed at Sinclair may be requested either by completing the appropriate form in Building 10, Second Floor, by sending a written request to the office of Registration \& Student Records or by faxing or mailing the transcript request form found on the web page. The cost is $\$ 2.00$ per transcript. All copies are mailed; they are not available at the office. Same day counter service is available for a fee of $\$ 7.00$. When requesting a transcript, include Social Security number, birthdate, the term the student last attended Sinclair, legal signature, daytime telephone number, and payment.

## Changing Sections of a Course

A student may seek permission to change into any open section of the same course after the drop/add period. Acceptable reasons for changing sections may include the following: work schedule change, child care, transportation or health problems. The student may be required to show documentation to support the request, and must include verification of attendance and must obtain written authorization from the counselor on the drop/add form. The above procedure is applicable through the last day for withdrawal with a "W" grade.

## Repeating a Course

A student may repeat a course for any reason. When a course is repeated, the second grade will be used in calculating the cumulative grade point average (G.P.A.) in place of the original grade. If the same course is taken again, the third grade and credit hours and any subsequent grades and credit hours will be averaged into the cumulative G.P.A. All grades will remain on the transcript even if they are not counted in the cumulative G.P.A.

There are some courses which will be counted in the cumulative G.P.A. each time they are taken; the original grade is not replaced by the second one. Such courses are designated in the course descriptions with an "R." If a student wants to have a previous grade in such a course replaced by a later grade, special arrangements must be made with the department chairperson.

Veterans and other students who receive financial assistance from an outside agency might find that the agency has rules which do not permit payment for courses which are taken more than once.

## Prerequisites

A prerequisite is a course which must be completed before a student can register for a more advanced course. Prerequisites are indicated in the course descriptions. Students need to complete necessary course prerequisites in order to have their registration processed, for credit or for audit status.

Transfer students who wish to use courses completed at another institution to meet a prerequisite must have transcripts sent from the previous institution to the Sinclair Registration \& Student Records office for evaluation by the students' academic counselor/faculty advisor.

## Changing Personal Data

If a student has a change of name, address, or Social Security number, a change form mustbe filed in Registration \& Student Records, second floor, Building 10. If the student is a veteran, he or she must report the change to the Veterans office, Room 10324. A change of address does not automatically change a student's residency for fee purposes. A separate application for a change of residency must be filed.

## Senior Citizens

If a student is age 60 or older, he or she may enroll in credit classes without charge on an audit basis only. This student must pay any special laboratory fees for the class. He or she may register the first two days of Fall, Winter, Spring terms or during the first day of the Summer terms during late registration times. If the student wants college credit for the course, he or she must pay the regular tuition fees.

## College for Seniors

The College for Seniors program includes two options that are complementary to the regular Sinclair curriculum: Developing Community Change Agents, a leadership development course;Senior Academy, non-credit short courses requested and taught by seniors. For further information stop by Room 10424, or call (937) 512-5184.

## Late Registration \& Change of Schedule

- During the late registration period, that is the first two days of Fall, Winter and Spring quarters and during the first day of the Summer terms, students will be able to register for open classes.
- After the official late registration period concludes:
- Students will be able to register at the office of Registration \& Student Records for classes that have not met for the first time. If the first class meeting has been conducted, students will not be permitted to register for that class without permission from the division dean.
- For students enrolled in a cancelled class, the change to a new class or section will require written permission from the division dean on the drop/add form. Deans will be able to sign students into classes that have already met under this circumstance. Students transferring to classes or sections that have not met do not need written permission to do so.
- Any changing of sections within the same course will require a dean's signature.
- Where a level change to a new course is required (e.g., MAT 101 to 102), the office of Registration \& Student Records will accommodate the request with written permission from the division dean.
- Audit enrollments will be processed only during late registration.
- Off-campus registrations will be processed with the approval of the dean of Distance Learning.
- A student may seek permission to change into any open section of the same course after the drop/add period. Acceptable reasons for changing sections may include the following: work schedule change, child care, transportation or health problems. The student may be required to show documentation to support the request, must include verification of attendance, and must obtain written authorization from the counselor on the drop/ add form. The above procedure is applicable through the last day for withdrawal with "W" grade.
- A non-refundable late fee ( $\$ 20.00$ ) is charged for late registration, but not when adding a course or registering for audit status. Late registration times are listed in the Quarterly Class Schedule/Bulletin.


## Student Classification

## First and Second Year

A full-time student is one who carries 12 or more credit hours per quarter. A part-time student carries 11 credit hours or less per quarter. Credit hours indicate the number of hours a student will be in class per week. For example, English 111, a three-credit-hour course, generally requires three hours of class attendance weekly. Short term classes meet more often each week.

A first-year student is one who is registered in a specific program and has earned fewer than 46 quarter hours of credit, including transfer credit.

A second-year student is one who is registered in a specific program and who has earned at least 46 quarter hours of credit, including transfer credit, but not a degree.

## Course Numbering System

Courses in the 100 series are usually recommended for first-year students and courses in the 200 series for secondyear students. Those numbered less than 100 are developmental courses and may or may not be accepted by other colleges and universities as transfer credits.

Creativity abounds in Melissa Weitzel, Culinary Arts graduate. While excelling in academics at Sinclair, Melissa was honored as the Academic All-American by the National Junior College Athletic Association.



Sinclair graduate Sherrita AllenBradshaw started as a Young Scholar, went to Disney University, was designated a Disney Leader in Learning, and received Sinclair's Leaders of the Future Award. She worked in Sinclair Admissions and plans to continue her leadership at a four-year university.

## Office of Financial Aid \& Scholarships

Building 10, Room 10343, (937) 512-2765
The primary goal of the office of Financial Aid \& Scholarships at Sinclair Community College is to provide financial assistance to students who, without such aid, would be unable to attend college. Although thestudent and family areexpected to provide the primary resources for financing a college education, Sinclair will make every effort to meet the difference between the student's total educational expenses and family resources.

Sinclair's financial aid program includes grants, loans, scholarships, and part-time employment. In order to reflect changes in the financial information or needs of the student and changes in the cost of attendance, applications for assistance are required annually. Financial aid is awarded for one academic year at a time.

It is important to read all information carefully in order to ensure compliance with regulations governing receipt and maintenance of financial aid funds. If at any time the student does not meet stated policies and requirements, the Financial Aid office reserves the right to revoke the financial aid.

## Eligibility Requirements

## Eligibility Requirements for Federal Aid:

In general, the student is eligible for federal aid if he or she meets the following requirements. The student must:

- Be enrolled at least 6 credit hours (for some federal programs);
- Be a U. S. citizen or an eligible non-citizen;
- Have a demonstrated financial need;
- Be making satisfactory progress (as defined by the office of Financial Aid \& Scholarships) in the course of study;
- Not be in default on a Federal Perkins Loan, Federal Stafford Loan, or Federal PLUS Loan;

- Be enrolled at Sinclair Community College for the purpose of obtaining a degree or certificate;
- Have a high school diploma or G.E.D., or meet special ability to benefit requirements.
- Be registered with the selective service, if required to do so; and
- Not owe a refund on a Federal Pell Grant or Federal Supplemental Educational Opportunity Grant.
Note: The student who has received a bachelor's degree or has attempted 153 or more credit hours is not eligible to receive federal financial assistance.


## Eligibility Requirements for State Aid:

In general, the student is eligible for state aid if he or she meets the following requirements. The student must:

- Be an Ohio resident;
- Be planning to attend on a full-time basis for Ohio Instructional Grant (O.I.G.);
- Be enrolled in at least one credit hour for Part-time Ohio Instructional Grant (O.I.G.); and
- Be enrolled at Sinclair Community College for the purpose of obtaining a degree.
- Be a U.S. citizen or eligible non-citizen.


## Types of Aid Available

## Federal Pell Grant

The Federal Pell Grant is funded by the federal government. Full payment of the award is made only if the student carries 12 credit hours per quarter. A student carrying one credit hour to 11 credit hours may receive a proportionately reduced award. In some cases, however, a student enrolled for one credit hour may not receive a Federal Pell Grant.

## Ohio Instruction Grant (O.I.G.)

This program is funded by the State of Ohio. Only Ohio residents are eligible to apply. For this award, a student must carry at least 12 credit hours per quarter.

The amount of the O.I.G. may be used only for instructional and general fees. Award information is sent directly to Sinclair from the Ohio Board of Regents.

## Part-time Ohio Instruction Grant (O.I.G.)

This program is funded by the State of Ohio. Only Ohio residents are eligible to apply. For this award, a student must carry one credit hour to 11 credit hours per quarter.

The amount of the O.I.G may be used only for instructional and general fees.

## Federal Supplemental Educational Opportunity Grant (F.S.E.O.G.)

The F.S.E.O.G. is provided to assist a student who has an exceptional financial need. The maximum amount that can be granted for the academic year is $\$ 4,000$. F.S.E.O.G.'s are dependent upon yearly federal allocations, the amount awarded, therefore, may be much less than the authorized maximum.

A typical F.S.E.O.G. award at Sinclair will range from $\$ 200$ to $\$ 1,000$ per academic year.

## Federal Direct Student Loans

The Federal Stafford Loan (subsidized and unsubsidized), and Federal Parent Loan for Undergraduate Students (F.P.L.U.S) all come under the umbrella of Federal Direct Student Loans.

Although a student applies through the institution, Direct Student Loans are administered by the Federal Department of Education. The applicant must meet eligibility requirements explained elsewhere in the financial aid information section of this catalog.

All first-time recipients of Federal Direct Student Loans must participate in an entrance counseling session before loan checks are issued.

Generally, student loan checks are issued on the 14th day of classes each term. Exception: The first check for firsttime Federal Stafford Loan borrowers will be disbursed 31 days after the loan period begins.

## Federal Direct Student Loan Program

The Federal Direct Student Loan Program is designed to assist a student with low interest educational loans from the Department of Education.

A student is eligible to request a maximum of $\$ 2,625$ per year for the first year of undergraduate study and $\$ 3,500$ for the second year. Repayment of the loan will begin six months after the borrower ceases to be enrolled as at least a half-time student (six credit hours). The interest rate is variable, but is capped at $8.25 \%$.

The interest for the Federal Direct Subsidized Loan is paid by the federal government while the borrower is in school. Once the borrower has entered the repayment period, interest will begin to accrue.

The interest on Federal Direct Unsubsidized Loans is paid by the borrower while in school.

Federal Direct Loan monies will be sent to Sinclair from the Department of Education in at least two disbursements. Excess loan funds will be mailed to eligible students on the 14th day of classes with the exception of first-time borrowers. First-time borrowers may expect to receive their excess loan funds approximately 31 days after the loan period begins. One quarter loans are disbursed in two disbursements. Federal P.L.U.S. loan checks are disbursed as soon as enrollment is verified.

## Federal Parent Loan for Undergraduate Students

The Federal Direct P.L.U.S. Program is a financial aid program designed for parents of a dependent undergraduate student. Parents are eligible to borrow up to the costs of attendance minus estimated financial aid per academic year. The student must meet the general eligibility requirements explained on page 21.

The interest rate is a variable rate capped at $9 \%$. Repayment will begin within 30 to 60 days after disbursement of the funds.

## Scholarships

Through the generosity of individuals, businesses, foundations, and many community, professional and service organizations, the Sinclair Community College Foundation is able to provide hundreds of scholarship awards annually. Such support enables the college to maintain and enhance the quality and diversity of its student body by awarding scholarships to students on the basis of excellence, motivation and academic achievement.

A complete listing of scholarships, qualifying criteria, and application deadlines may be obtained from the office of Financial Aid \& Scholarships.

## Sinclair Grant for Serious Students

The Sinclair Board of Trustees has made funds available to assist the student who is ineligible for federal or state assistance and has a financial barrier to continuing his or her education.

The student must apply for federal and state financial aid and submit verification of ineligibility. The Sinclair Grant for Serious Students may be awarded only once per academic year.

## Financial Aid Application Process

To be considered for financial aid, a student must complete the following documents:

1. Sinclair Financial Aid Office Application. Complete and return to the office of Financial Aid \& Scholarships, Room 10343. The financial aid applicant should complete this application, except scholarship applicant.
2. Federal Application for Federal Student Aid (F.A.F.S.A.). Complete and mail to the agency noted on the application or submit directly to the office of Financial Aid \& Scholarship for electronic processing. Notice of eligibility will be sent directly to the student.
3. A student loan applicant must also complete the loan application (Intent to Borrow).

## Receiving Financial Aid

Notices of eligibility for financial aid are forwarded directly to the applicant. The student will receive a Financial Aid Award Notification Letter. This letter tells the type of award the student will receive, the amount available per quarter, and the terms and conditions the student agrees to meet while receiving financial aid.

Federal Direct Stafford Loans and Federal Direct P.L.U.S. Loans are treated differently. The student receives notification that the loan has been approved on a "Disclosure Notice" from the agency working in cooperation with the Department of Education.

## Paying Fees

The financial aid award is applied toward direct educational costs of tuition and fees. The amount applied will be automatically subtracted from the total tuition and fees and will be displayed on the fee bill.

## Buying Books

If after tuition and fees are paid, there are remaining funds in a Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (F.S.E.O.G.), and/or Federal Stafford Loan, it will be displayed on the fee bill as a book allocation. (The maximum book allocation that will appear on the fee bill is $\$ 350$.) The student should present the bill to the Tartan

Campus Store as verification. When purchasing books and supplies, the student will need a valid Tartan Card I.D. Book charge dates vary each quarter. Check the fee bill for dates. Note: If the book the student wants to purchase is not in stock by the last day to use book charges, he or she must check with the Tartan Campus Store cashier. The cashier will issue a credit slip and books may be picked up at a later date.

## Financial Aid Refund Checks

If after the award is applied to tuition, fees, and books, there is an unused balance in Federal Pell, F.S.E.O.G., Federal Stafford Loan and designated scholarships, the student will receive the unused amount in the form of a check. The Ohio Instructional Grant never exceeds the cost of tuition and fees; the student, therefore, will not receive a check for O.I.G. unless he or she has paid the fees and received the grant eligibility subsequently to that time.

Financial aid refund checks will be mailed to eligible students approximately 14 days after the beginning of each quarter. The student not attending classes will not receive a financial aid check.

## Dropping Classes

During the $100 \%$ refund period, a student's financial aid award will be adjusted up or down according to the number of classes added or dropped. If classes are dropped and the award is reduced to an amount which will not cover tuition, fees and any books already charged at the Tartan Campus Store, a student must pay the balance due and/or return the books to the Tartan Campus Store.

## Withdrawing from Classes

The financial aid student who withdraws from classes prior to completing $60 \%$ of the enrolled class time, will be subject to a return of Title IV funds refund calculation.

Students who never attend one or more of their classes will have their federal aid reduced and/or removed depending on how many classes they actually do attend.

As a part of the refund and federal policies, the institution will credit refunds in the following order:

1. Outstanding balances on Federal Direct Loans
2. Federal Pell Grant awards
3. F.S.E.O.G. awards
4. Federal Work Study Programs
5. Other Title IV Student Assistance
6. State grants and aid
7. The student

## Developmental (DEV) Course Work Limitation

Federal Department of Education regulations prohibit the use of federal financial aid for Developmental classes in excess of 45 credit hours. Once a student has attempted in excess of 32 developmental credit hours, they will be sent a letter notifying them of how many additional hours of developmental classes they may take before their federal financial aid will be affected. Once a student has attempted 45 credit hours of developmental course work, their federal aid will cover only non-developmental course work.
NOTE: This requirement does not apply to English as a Second Language courses.

## Receiving Financial Aid Award Retroactively

The student may be eligible for a retroactive award if Federal Pell Grant eligibility is received after the tuition and fees are paid for any given term within the academic year. The student must, however, be enrolled and be an eligible student at the time the Federal Pell Grant information is received by the office of Financial Aid \& Scholarships.

Retroactive awards are based on the number of credit hours registered or credit hours that are actually completed during a given term. If the student withdraws from all classes, he or she will not receive a retroactive award.

The retroactive award is given to the student in the form of a check which will be issued depending on when the Federal Pell Grant is received and finally processed. Note: An Ohio Instructional Grant may also be a retroactive award if the student paid his or her own fees and received the grant subsequently to that time. The O.I.G. is usually retroactive for one quarter only.

## Academic Requirements for Maintaining Financial Aid

Students are expected to meet Standards of Satisfactory Progress (S.S.P.) while working toward a degree, certificate or transfer credits. The office of Financial Aid \& Scholarships is required by the U.S. Congress and the U.S. Department of Education to enforce Standards of Satisfactory Academic Progress for students who receive Federal Pell Grant, F.S.E.O.G., Federal Work-study, Federal Direct Student Loans and Federal Direct Plus. Sinclair's policy is explained below.
Note: The policy is applied to all financial aid applicants regardless of whether they received financial aid previously. Fresh Start has no bearing on financial aid.

## 1. Credit Hour Requirement

The students must have completed at least $75 \%$ of the credit hours they have registered for since the first quarter of enrollment at Sinclair regardless of whether they received financial aid.
Thereafter, the $75 \%$ credit hour requirement will be monitored on a quarterly basis. The chart below will serve as a guide to determine the number of credit hours which should be completed each term.

| Student registered for: | Minimum credit hours <br> student must earn <br> per quarter |
| :--- | :---: |
| 18 or more credit hours per quarter 14 |  |
| 17 credit hours per quarter | 13 |
| 16 credit hours per quarter | 12 |
| 15 credit hours per quarter | 12 |
| 14 credit hours per quarter | 11 |
| 13 credit hours per quarter | 10 |
| 12 credit hours per quarter | 9 |
| 11 credit hours per quarter | 9 |
| 10 credit hours per quarter | 8 |
| 9 credit hours per quarter | 7 |
| 8 credit hours per quarter | 6 |
| 7 credit hours per quarter | 6 |
| 6 credit hours per quarter | 5 |

Credit hours will be evaluated quarterly.
2. Degree/Certificate Requirements

For students pursuing an associate degree, a maximum of 153 credit hours may be attempted and for students pursuing a certificate, a maximum of 77 credit hours may be attempted before financial aid will be terminated.
3. Grade Point Requirements

Students are required to maintain a specific grade point average that is dependent upon number of credit hours attempted after at least 12 credit hours have been attempted. The chart below will serve as a guide to determine grade point average required:

## Total Credit Hours <br> Attempted

## Cumulative Grade Point Average

| $12-30$ | 1.60 |
| :--- | :--- |
| $31-45$ | 1.80 |
| 46 or more | 2.00 |

Grades of W, F, Z, I and IP will be considered as credit hours not successfully completed. Grades of A, B, C, D, Y, $\mathrm{N}, \mathrm{P}$, and S will be considered as credit hours successfully completed.
4. Notification of Ineligibility

Students will receive a written notification informing them of not meeting one or more of the minimum requirements. The letter will explain the appeal process and will give a deadline for submitting appeals.

## 5. Probation

If it has been determined that the students do not meet S.S.P., they may be continued on financial aid under the following conditions:
a. Does not meet credit hour requirement

- Students who are 1-12 credit hours short of meeting minimum requirements will be given one quarter of financial aid to meet requirements.
- Students who are 13-24 credit hours short of meeting minimum requirements will be given two quarters of financial aid to meet requirements. If students fail to complete at least $1 / 2$ of the requirements during the first quarter of probation, their federal financial aid will be terminated.
- Students who are 25-36 credithours short of meeting minimum requirements will be given three quarters of financial aid to meet requirements. If students fail to complete at least $1 / 3$ of the requirements during each of the first two quarters of probation, their federal financial aid will be terminated.
- Students who are more than 36 credit hours short of meeting minimum requirements will be terminated from federal financial aid.
b. Degree/certificate requirement
- Students pursuing degree programs will be placed on financial aid probation when 119 credit hours have been attempted.
- Students enrolled in certificate programs will be placed on financial aid probation when 53 credit hours have been attempted.
c. Does not meet grade point average requirement
- Students not meeting the minimum cumulative grade point average requirement will be given one quarter of probation with financial aid to achieve the minimum grade point average for that quarter.

6. Regaining Eligibility

Students may be reinstated for federal financial assistance after one or more of the following:
a. Approval of an appeal by the office of Financial Aid \& Scholarships, or
b. Successfully completing the deficiencies at their own expense. Students are required to notify the office of Financial Aid \& Scholarships when they are eligible for reinstatement.

## Financial Aid for the Student Who Does Not have a G.E.D. or High School Diploma

The student who is admitted to Sinclair and who does not havea G.E.D./high school diploma may receive federal financial aid providing he or she meets the following requirement:

Complete the A.S.S.E.T. skills assessment and achieve a score of 34 in Reading; 34 in Writing and 33 in Numerical; or complete the C.O.M.P.A.S.S. assessment and achieve a score of 60 in Reading, 31 in Writing and 21 in Numerical.

If a student does not meet the requirement stated above, he or she must obtain the G.E.D. (submit a copy of the G.E.D. certificate to the office of Financial Aid \& Scholarships) before receiving federal financial aid.


Sociology Assistant Professor Sandra Apgar not only works closely with Sinclair students, but also shares her expertise with other communities. Following the September 11 disaster in New York City, Sandy spent a month counseling victims and families on behalf of the American Red Cross, bringing back her experiences to share with her Sinclair learners.

## The Sinclair Community College Guarantee of Graduate Quality

As a result of the development of a college-wide assessment system, the Board of Trustees adopted a policy guaranteeing transfer credit for those graduates obtaining Associate of Arts and Associate of Science degrees at Sinclair Community College and a guarantee of job competency for those who have obtained an Associate of Applied Science degree at the college.

All students entering either a university parallel/transfer program or a technical career program are eligible for the Guarantee of Graduate Quality that applies to their degree programs.

This tuition-free education as described below constitutes the sole and exclusive remedy under the Sinclair Community College Guarantee of Graduate Quality.

## Guarantee of Transfer Credit

## (A.A. and A.S. Degrees)

Sinclair Community College guarantees to its Associate of Arts and Associate of Science graduates, the transfer of course credits to those Ohio colleges or universities which have articulation agreements with Sinclair Community College. The guarantee applies only to courses included in a written transfer/articulation plan which must be on file in the Academic Credit Assessment Information Center. Transfer must take place within 12 months of graduation.

Limitations on the total number of credits accepted in transfer, grades required, relevant grade point average, and duration of transferability apply as stated in the catalog of the receiving institution.

If courses included in the articulation agreement are rejected by the college or university, the graduate may take

tuition-free alternate courses at Sinclair which are acceptable to the receiving college or university.

Cost of books, insurance, laboratory and activity fees, and other course related expenses are the responsibility of the graduate.

## Guarantee for Job Competency

## (A.A.S. Degrees)

Sinclair Community College guarantees to its Associate of Applied Science graduates appropriate technical job skills identified in the program outcomes for a specific degree. The guarantee applies only to graduates employed on a full-time basis directly related to the area of program concentration as certified by the vice president for Instruction. Employment must commence within twelve (12) months of graduation.

If an Associate of Applied Science (A.A.S.) graduate is judged by his or her employer to be lacking in technical job skills identified by the program outcomes for his or her specific degree program, the graduate will be provided up to nine (9) tuition-free quarter credit hours of additional training by Sinclair Community College under the conditions of the guarantee policy.

Cost of books, insurance, uniforms, laboratory and activity fees, and other course related expenses are the responsibility of the graduate and/or the employers.

## Special Conditions for the Job Competency Guarantee

- The employer must:
- Certify in writing the employee is lacking job skills which relate directly to the degree's program outcomes.
- Specify areas of deficiency within six months of the graduate's initial employment.
- Develop a written educational plan for retraining in cooperation with the appropriate academic department at the college.
- Retraining will be limited to nine (9) quarter hours of credit related to the identified skill deficiency and to those classes regularly scheduled during the period covered by the retraining plan, and must be completed within a calendar year from the time the educational plan is agreed upon.
- The guarantee does not imply the graduate will pass any licensing or qualifying examination for a particular career.


## Academic Counseling/Advising

Academic counseling/advising at Sinclair is provided by division counselors and full-time tenure track faculty in six academic divisions as indicated below. Each of the six academic divisions is staffed by highly qualified, professional academic counselors who assist students in exploring ways to maximize their potential, and provide problem resolution. Because of the wide range of degree/certificate programs offered, specialized academic counselors provide key services.

Academic counselors assist students in understanding transfer and career program requirements and work closely with them to help monitor their progress toward degree or certificate completion and graduation. Their in-depth understanding of both their respective division/department courses and degree/certificate programs is routinely required to interface appropriately with other campus resources as well as with other institutions and agencies.

Academic counseling is not mandatory for students in good standing; however, all students are encouraged to avail themselves of these services. Those students experiencing academic difficulty or concerns (i.e., probation status) must seek academic assistance quarterly. Policies are available to assist students who are seeking readmission or applying for a "Fresh Start."

Academic Counselors may be reached at:<br>Allied Health Technologies Room 6120, (937) 512-3029<br>Business Technologies Room 6131, (937) 512-3054<br>Engineering \& Industrial Technologies<br>Room 3142, (937) 512-7922<br>Extended Learning \& Human Services<br>Fine \& Performing Arts<br>Liberal Arts \& Sciences<br>Room 6141, (937) 512-2760<br>Room 6222, (937) 512-2701<br>Room 2222, (937) 512-2544<br>Room 6121, (937) 512-5134

## Transfer

Students can earn an associate degree at Sinclair and use many of those credits toward four-year bachelor degrees. Sinclair students can take advantage of small class sizes, caring faculty, and a supportive administration while completing many "freshman" and "sophomore" level courses before transferring to their four-year institutions. Other Sinclair students can choose to complete most of their general education requirements by taking courses from the Transfer Module before transferring to the four-year institution. The following information is critical to the transfer experience. Students will gain an understanding about how the transfer admissions process works, the Transfer Module, Sinclair's Guarantee of Transfer Credit, what articulation agreements are and with whom Sinclair has agreements, how to transfer from Sinclair, how to transfer to Sinclair and what is expected of students.

## Institutional Transfer \& the Transfer Module

The Ohio Board of Regents, following the directive of the Ohio General Assembly, has developed a new statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. The purpose of the state policy is to avoid duplication of course requirements and to enhance student mobility throughout Ohio's higher education system. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to an independent institution are encouraged to check with the college or university of their choice regarding transfer agreements.

## Transfer Module

The Ohio Board of Regents Transfer and Articulation Policy established the Transfer Module, which is a specific subset of the entire set of a college or university's general education requirements. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of specified course credits in English composition, mathematics, fine arts, humanities, social science, behavioral science, natural science, physical science, and interdisciplinary course work.

A transfer module completed at one college or university will automatically meet the requirements of the transfer module at the receiving institution, once the student is accepted. The student may be required, however, to meet additional general education requirements that are not included in the Transfer Module.

## Conditions for Transfer Admission

Students meeting the requirements of the Transfer Module are subject to the following conditions:

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module and either the Associate of Arts or the Associate of Science degrees. These students will be able to transfer all courses in which they received a passing grade of "D" or better. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module.
2. The policy also encourages receiving institutions to give preferential consideration for admission to students who complete the Transfer Module with a grade of "C" or better in each course and 90 quarter hours or 60 semester hours. Students must have an overall grade point average of 2.0 to be given credit for the Transfer Module and only courses in which a "C" or better has been earned will transfer.
3. The policy encourages receiving institutions to admit, on a non-preferential consideration basis, students whocomplete the Transfer Module with a grade of "C" or better in each course and less than 90 quarter hours or 60 semester hours. These students will be able to transfer all courses in which they received a grade of " C " or better.
Admission to a given institution, however, does not guarantee that transfer students will be automatically admitted to all majors, minors, or fields of concentration at that institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to granting of a degree.

## Completing the Transfer Module

Many students will elect to complete the Transfer Module at Sinclair prior to transferring to their four-year institution. By doing so they are guaranteed completion of the Transfer Module requirements at any state college or university in the state of Ohio. To satisfy the requirements for the Transfer Module at Sinclair, students must start by completing the required minimum hours of the Transfer Module from each section on the list below. The total number of "minimum hours" is equal to 42 . Since the Transfer Module at Sinclair requires 54 quarter hours to be complete, students should consult with their academic counselor to determine the most appropriate courses to take to complete the Transfer Module depending upon their major and transfer institution.


NOTE: The Transfer Module is updated twice per year. Consult academic counselors/faculty advisors for the most up-to-date list of approved courses.

## Articulation Agreements

Articulation agreements are formal agreements between organizations detailing the recognition of college credit between the entities. Sinclair uses articulation agreements as a means to avoid duplication of resources and to encourage and enhance interest in postsecondary education and transfer from one institution to another. The college has developed articulation agreements with secondary schools, hospitals, professional organizations, and colleges and universities.

Articulation agreements canbe categorized in two ways:
Incoming agreements are with secondary schools, hospitals and professional organizations detailing recognition of Sinclair courses based on successful completion of the requirements. These agreements indicate how credits will be recognized at Sinclair Community College. Detailed information regarding incoming agreements is available at the Academic Credit Assessment Information Center [Room 6130; (937) 512-2800].

Outgoing agreements are with other colleges and universities indicating how Sinclair Community College programs and courses will transfer to those institutions. The specific agreements are detailed in transfer guides which may be obtained from an academic counselor/faculty advisor. The following is a list of some of the colleges and universities Sinclair Community College has worked with in the past:

- Andrews University
- Art Academy of Cincinnati
- Bellevue University
- Bowling Green State University
- Capital University
- Central State University
- College of Mt. St. Joseph
- DeVry Institute of Technology
- Ferris State University
- Governors State University
- Indiana State University
- Kettering University
- McGregor University
- Miami University
- Ohio State University
- University of Cincinnati
- University of Dayton
- University of Toledo
- Urbana University
- Wilberforce University
- Wittenberg University
...and others
In addition to "incoming" and "outgoing" agreements, the college has several One-Plus-One agreements with certain community colleges. These agreements detail how students can begin a program at one institution and complete it at the other school.

All articulation agreements are maintained in one central location, the Academic Credit Assessment Information Center. The center serves as an information source for students, as well as a clearinghouse to ensure that the credits for the incoming articulation agreements are recorded on the student's permanent record.

Since the development of articulation agreements with Ohio colleges and universities is an ongoing process, students should check with their academic counselors/faculty advisors for the most current listing of agreements. A complete list of all agreements is available in the Academic Credit Assessment Information Center.
For detailed information about the guarantee of transfer credit see an academic counselor.

## Transfer of Credit from Sinclair

Students who plan to transfer credits earned at Sinclair to another institution should follow the steps below to ensure an efficient transfer process.

1. Meet with the appropriate Sinclair academic counselor/ faculty advisor AND speak with a representative at the institution to which the student plans to transfer, early and often during their academic career. This will help ensure that he or she is selecting the appropriate courses.
2. Follow the transfer admissions procedures for the institution to which the student plans to transfer.
3. Have official Sinclair transcripts sent to the institution where the student will be transferring. Be sure to contact the transfer institution to be certain they received and evaluated the transfer credits.
Remember:

- In order to make the transfer process as "seamless" as possible, students planning to transfer should speak with their academic counselors/faculty advisors early in their academic careers. It is the students' responsibility to keep their academic counselors/faculty advisors aware of their intended majors and/or transfer institution.
- In addition,studentsshould contact theinstitution towhich they are planning to transfer as soon as possible. It is preferred that students ask for specific course recommendations from the school to which they will be transferring. This allows the students to structure their degree programs atSinclair as closely as possible around the requirements of their transferinstitution. Furthermore, by speaking tocounselors from both institutions, students can be sure they are receiving timely, accurate transfer information.
- Students should always confirm their course choices with the institution to which they plan to transfer. Because Sinclair is accredited by the Higher Learning Commission and a member of the North Central Association as well as the Ohio Board of Regents, most credits will transfer to other colleges and universities. University Parallel courses usually transfer more easily than technical courses.


## Transfer of Credit to Sinclair

Students who want to transfer to Sinclair should follow the steps below to ensure an efficient transfer process.

1. Have official transcripts sent directly from their previous college(s)/university(ies) to the office of Registration \& Student Records at Sinclair. Once Sinclair receives the transcripts students will receive notification in the mail of how to proceed. Students should be sure to contact the academic counselors/faculty advisors for their program to have all credits evaluated before registering. Academic counselors/faculty advisors may need students to provide course descriptions/syllabi in order to accurately evaluate transfer credits. Transfer credits that have been accepted but not evaluated will not be recognized by registration when students go to schedule for the quarter.
2. Students who have transfer credit for English and/or Mathematics equivalent to courses offered atSinclair may not need to take the C.O.M.P.A.S.S. placement test. Contact the appropriate academic counselors/faculty advisors before taking the C.O.M.P.A.S.S. placement test.
3. Students who need to take the C.O.M.P.A.S.S. placement test go to Building 10, Fourth Floor, Room 10445, or call (937) 512-2210 for additional information.
4. Those who were dismissed from a previous institution, please follow the Admission Petition process explained in this catalog.

## Grades \& Grade Point Average

Grades are issued at the end of each quarter. Letter grades earn a number of quality points per credit hour. The most commonly used model is listed below as an example for how grade point averages are computed.

| Grade | Quality <br> Points |  | Grade | Quality <br> Points |
| :--- | :--- | :---: | :--- | :---: |
| A | Excellent | 4 | $90-100 \%$ | S Satisfactory |

The grade point average is computed by dividing the total points earned by the total credit hours attempted. Courses in which a student earns grades of "X", "I", "W", " P ", " N ", " S ", "IP", or " Y " are not computed in the total credit hours attempted.
For example:

| Course | Credit hours | Grade | Points |
| :--- | :---: | :---: | :---: |
| English Composition I | 3 | B | 9 |
| College Algebra | 5 | C | 10 |
| General Psychology I | 3 | A | 12 |
| Western Civilization I | 3 | B | 9 |
| Physical Education | $\underline{1}$ | A | $\underline{4}$ |
| $\quad$ TOTALS | 15 |  | 44 |
| $44 \div 15=2.933$ Grade Point Average |  |  |  |

A student may be given an "I" if his or her work has been passing but a specific course assignment has not been completed. The student must contact his or her instructor and request an "I" grade. If the instructor agrees, the student AND instructor must sign the "Incomplete Grade Contract." When the required work is completed within 30 calendar days after the beginning of the next term, a grade will be submitted for the " I " grade. If this is not removed within this time, the "I" becomes an "F." This time limit may be extended by special permission of the instructor.

If the student fails to contact the instructor to arrange an incomplete grade, the instructor is required to assign an " F " instead of an "I" for the quarter's work. For cases in which hardships are involved, the student may make up the work which could change the " F " to the grade otherwise deserved. The instructor's permission is required.

An " N " grade indicates the student attended classes and made satisfactory progress but didn't complete all course requirements.

A " $Z$ " grade indicates the student was registered for class but never attended.

To challenge a grade the student believes is incorrect, he or she must contact the instructor as soon as possible. Under no circumstances will a grade be changed after two years have elapsed from the end of the quarter in which the grade was recorded. Within the two-year limitation, a petition may be filed with the office of the vice president for Instruction asking consideration for change of " $F$ " grade to "W," ONLY if emergency circumstances supported by documentation prevented either withdrawal by deadline date or completion of class requirements after that date.

## Degree Audit

Degree audit is a process which indicates student progress toward the completion of a degree program. Students may request a degree audit from an academic counselor in order to determine how many classes have been completed for a specific major. A separate degree audit must be done if students change majors.

## Dean's List, Academic Honors

Tobeeligible for the Dean's List in any quarter, a student must completesix or more credit hours of college level course work, have a grade point average of 3.4 with no grade below a " C " for that term, and be in good academic standing. Courses in which a student earns grades of " X ", "IP", "I", "W", " P ", " N ", " S ", or " Y " are not computed in the total credit hours attempted. Dean's List will be noted on the academic transcript.

Graduation honors will be awarded for a cumulative grade point average of 3.4 to 3.899 . High honors will be awarded for a cumulative grade point average of 3.900 and above. Honors will be noted on the academic transcript.

For further information concerning Honors programs, see page 36.

## Academic Probation \& Dismissal Policy

A student will be placed on academic probation if his or her cumulative grade point average after attempting 12 or more credit hours, falls below the following requirements:

| Total credit hours | Cumulative grade |
| :---: | :---: |
| attempted | point average |
| $12-30$ | Below 1.6 |
| $31-50$ | Below 1.8 |
| 51 or more | Below 2.0 |

The student will be returned to good standing when the cumulative grade point average exceeds the levels indicated above. He or she will be continued on probation if a minimum grade point average of 2.0 is achieved for the next 12 credit hours attempted following placement on probation and if the cumulative grade point average is below the minimum stated above.

Thestudent will be dismissed if he or she (1) earns less than a 2.0 grade point average for the next 12 credit hours attempted after being placed on probation, and (2) the cumulative grade point average is below the minimums above. Note: If the student is on academic probation he or she must have the signature of the division counselor or faculty advisor to register or add a class.
Also, see Readmission Policy.

## Fresh Start Policy

"Fresh Start" allows a student, returning to the college after an absence of at least three years, a "one time only" option of having his or her grade point average recalculated from the point of re-enrollment without losing credit for previous course work for which a grade of "S" or "C" or better was earned.
The academic Fresh Start Policy and its conditions are as follows:

1. To be eligible for Fresh Start, a student must:

- be re-enrolled in the college after an absence of at least three consecutive calendar years
- have been assessed by appropriate means for reading, language usage, writing, and numerical skills
- have successfully completed a minimum of 6 credit hours toward a degree, with a grade of "S", "P" or "C" or above since the time of re-enrollment
- request in writing that policy be applied to remove effects on G.P.A. of grades received prior to Fresh Start date.

2. The policy can be applied only once and only to classes taken before re-enrollment. Once approved, the application of this policy against the student's record is irrevocable.
3. After a student elects Fresh Start and eligibility is verified, a notation will be added to the student's transcript indicating that all Sinclair credit hours earned prior to policy enactment will be subject to the following conditions:

- the previous G.P.A. is recalculated based upon the elimination of "D," "F," "Z" and repeated grades
- credit earned at Sinclair with a grade of at least "S", " P " or " C " is carried over
- credit earned at Sinclair with a grade of "D" is forfeited
- grades from all course work taken at Sinclair will be shown on the transcript

4. Fresh Start may not be applied to any course completed prior to the award by the college of an Ohio Board of Regents authorized certificate or associate degree.
The academic transcript would show:
The Fresh Start Policy has been applied for academic work taken at Sinclair prior to

Term/Year

## Associate Degree Requirements

To be a degree candidate, the student must:

- Fulfill requirements of the degree program and the institution;
- Complete a minimum of 90 credit hours (accredited programs must meet accreditation association requirements and the last 30 credit hours must be earned at Sinclair);
- Maintain a cumulative grade point average of at least2.0; and,
- Complete an application for graduation in the office of Registration \& Student Records, second floor, Building 10, by deadline dates published in quarterly class schedules.
The student must meet degree requirements listed in the Sinclair catalog in effect at the time he or she begins study. However, if the course of study is prolonged beyond six years after beginning, the student must consult with the department chairperson to determine graduation requirements. Permission to graduate under a catalog more than six years old will be considered if the student has been enrolled continuously and the degree program has not changed appreciably. Requests for this exception should be directed to the program chairperson and be approved by the division dean.


## Certificate Requirements

Certificate programs recognized by the Ohio Board of Regents require completion of a minimum of 45 credit hours of a specific curriculum with an overall grade point average of at least 2.0. A student must complete at least 13 credit hours of Sinclair course work within the area of study to qualify for a Certificate of Completion and fulfill the institution's requirements. The student must complete an application for the certificate in the office of Registration \& Student Records, second floor, Building 10, at least 30 days prior to the end of the quarter in which he or she completes the requirements.

## Changing Major

In order to change from one academic program (major) to another, the student must meet with an academic counselor/faculty advisor (from the division housing the new academic program) who will implement the change. This change will be indicated on the student's record and will not affect the cumulative grade point average

## Applying for Graduation

Students who wish to apply for graduation must first contact their academic counselor/advisor for a graduation evaluation of the explicit major and degree that will be obtained. Students then complete the graduation application during the quarter in which all requirements will be met, pay the application fee at the Cashier's office, and return the completed application packet to the office of Registration \& Student Records by the published deadline.

If course requirements are not completed in the quarter indicated by students on the graduation applications, students must reapply and pay the required fees again. College Without Walls courses must be completed in the quarter in which students apply for graduation. Students who receive incompletes for any course in the quarter in which they apply for graduation must finish the required work in the timeframe stipulated in the incomplete contract. Failure to do so will result in students having to reapply and pay fees for graduation during a later quarter once the final grade is submitted.

The commencement ceremony is held at the end of Spring quarter. Students who graduate with an associate degree for Fall through the following Summer quarters may elect to participate in the commencement ceremony. Applicants for certificates may not participate in the commencement ceremony. Applicants for graduation during the Summer quarter who wish to participate in the Spring commencement ceremony must apply for graduation during the Spring quarter. However, Summer graduation applicants must indicate Summer on the application. Check the quarterly class schedule/bulletin for the graduation application deadlines.

## Academic Credit Assessment Information Center (A.C.A.I.C.)

## Building 6, Room 6130, (937) 512-2800

A student often enters Sinclair with a variety of learning experiences and is interested in translating the learning into college credit by building on experiences through classroom learning. The Academic Credit Assessment Information Center is designed to help a student learn about non-traditional ways to translate learning into college credit.

Specifically, the center provides information about the following areas:

## Articulation Agreements

Sinclair has established articulation agreements with local high schools and other institutions to award credit for Sinclair courses based on completion of predefined training. The Academic Credit Assessment Information Center has a listing of the articulation agreements. The following policies have been established:

- A student must have applied for admission, been accepted, and paid the appropriate fee before any credits earned through articulation agreements can be recorded on the student's record.
- There is a $\$ 10$ administrative fee for each articulation agreement processed by a student.
- A student must provide documentation of successful completion of requirements per the agreement. Each department will be responsible for determining appropriate documentation.
- A student must obtain departmental approval before the information will be recorded on the student's transcript by the office of Registration \& Student Records
- The course(s) will be recorded on the student's transcript with a "Y" grade.
- No more than 45 credit hours earned through proficiency examinations/articulation agreements can be applied toward degree requirements.
- Credits earned via an articulation agreement do not apply toward the college residency requirements.


## College Level Equivalency Examinations Advanced Placement Examinations

Sinclair participates in the Advanced Placement Program for secondary schools. The amount of credit awarded will be determined by the Academic Credit Assessment Information Center and the academic departments.

## Policies:

- A student must have applied for admission, been accepted at Sinclair and paid the appropriate fees.
- A student must receive a 3 or better on the Advanced Placement Program examinations.
- The course(s) will be recorded on the student's transcript with a "Y" grade.
- No more than 45 credit hours earned through A.P.P./ proficiency examinations/articulation agreements/ P.O.N.S.I./C.L.E.P./D.A.N.T.E.S. can be applied toward degree requirements.
- Credits earned via A.P.P. examinations do not apply toward the college residency requirements.


## College Level Examination Program

Sinclair awards credit for the College Level Examination Program based on the scores earned. The amount of credit awarded is determined by the Academic Credit Assessment Information Center and the academic department.

## Policies:

- A student must have applied for admission, been accepted at Sinclair, and paid the appropriate fees.
- The course(s) will be recorded on the student's transcript with a "Y" grade.
- No more than 45 credit hours earned through A.P.P./ proficiency examinations/articulation agreements/ P.O.N.S.I./C.L.E.P./D.A.N.T.E.S. can be applied toward degree requirements.
- Credits earned via C.L.E.P. examinations do not apply toward the college residency requirements.


## Defense Activity for Non-Traditional Education Support (D.A.N.T.E.S.)

Sinclair awards credit for the D.A.N.T.E.S. Examinations based on the scores earned. The amount of credit awarded is determined by the Academic Credit Assessment Information Center and the academic department.

## Policies

- A student must have completed a Sinclair Community College application and paid the appropriate fees.
- The course(s) will be recorded on the student's transcript with a "Y" grade.
- No more than 45 credit hours earned through A.P.P./ proficiency examinations/articulation agreements/ P.O.N.S.I./C.L.E.P./D.A.N.T.E.S. can be applied toward degree requirements.
- Credits earned via A.P.P. examinations do not apply toward the college residency requirements.


## Proficiency/Challenge Examinations

A student who can demonstrate ability and knowledge in a particular subject area may earn credit for certain courses without enrolling in them. This is done by taking a special examination or performing special assignments, or both, through the appropriate department. Credit by examination requires departmental approval. This process is coordinated by the Academic Credit Assessment Information Center, Room 10311, (937) 512-2770. There is a non-refundable fee for each proficiency examination. The following policies have been established:

## Policies

- A student must obtain departmental approval before taking a proficiency examination.
- A proficiency examination cannot be taken until a student has completed a Sinclair Community College application and paid the appropriate fee.
- A student must have successfully completed course prerequisites before taking the proficiency challenge examination. Exceptions to this requirement are made at the discretion of the department chairperson.
- A proficiency examination can be taken only once for any course. If a student has taken a course and received a failing grade, with departmental approval he or she may take a proficiency examination one time in order to improve the grade. The grade for the proficiency will replace the previous grade, if the student has taken the course only once.
- A proficiency examination cannot be taken nor credit awarded during any quarter in which the student was previously registered for that course.
- A student will be awarded an "A", "B", "C", or "F" for a proficiency examination; however, only an " $A$ ", " $\mathrm{B}^{\prime}$, or "C" grade will be recorded on the student's transcript.
- No more than 45 credit hours earned through proficiency/challenge examinations can be applied toward degree requirements.
- Proficiency credits do not apply toward the college residency requirements.
- Proficiency fees are non-refundable.
- Proficiency examination grades will be recorded on the student's transcript with a notation that clearly shows which grades are the result of taking a proficiency/ challenge examination.


## Evaluation of Prior Learning

The Credit for Lifelong Learning Program (C.L.L.P.) allows a student to have significant learning experiences from work, volunteer services, conferences, workshop attendance, in-service training, avocational interests, travels, or from independent reading evaluated for college credit through the development ofa "portfolio" of priorlearning from experience.

A portfolio will consist of a written description of learning with supporting documentation. It is prepared by enrolling in EBE-100 (Prior Learning Portfolio Development, 3 credit hours). This course may also serve as a general elective. Faculty members knowledgeable in the student's specific area of learning then evaluate the portfolio for college equivalent learning and make final decisions on college credit award and grades.

For more information, contact the Experience Based Education department (937) 512-5385, Room 9201.

## Policies:

- Students must enroll in, and successfully complete,EBE100 Prior Learning Portfolio Development.
- Evaluation of prior learning competencies are conducted by faculty. Fee is required for evaluation.
- If credit is awarded for the course, the credit and letter grades will be transcribed on the student's transcript.


## Military Training

Military training will be evaluated according to the American Council on Education recommendations. Contact the Registration \& Student Records office for a list of official documentation that is acceptable for evaluation. The following policies have been established for awarding credit based on military training:

- A student must have applied for admission, been accepted at Sinclair, and paid fees.
- Credit will be awarded only if Sinclair offers an equivalent course.
- Credit will not be awarded if the student has received or transferred credit for a comparable college course.
- Credit awarded will be treated as transfer creditatSinclair.
- Credits awarded as a result of military training do not apply toward the college residency requirements.


## Student Conduct, Rights \& Responsibilities

## Student Activities, Building 8, Room 8025, (937) 512-2509 Student Handbooks are available in the Student Activities office.

## Student Conduct Code

The college must provide an atmosphere which is conducive to study and educational growth and one that enables students to develop in a positive manner. By virtue of enrollment at Sinclair Community College, students consent to follow the policies and procedures of Sinclair.

In order to assure this type of environment, the Board of Trustees has adopted standards of conduct for the students, faculty, staff and visitors to the campus. College officials including, but not limited to, the director of Student Activities, who has been designated to handle student grievances/judicial affairs, shall have the responsibility and authority for the discipline of all students in accordance with college policy as well as the authority to impose formal sanctions as described in this document.

Disciplinary action as described herein may be taken against a person who has been admitted to Sinclair, as well as against student organizations and guests to the campus.

This Student Conduct Policy has been established to provide guidance for enforcing this policy at Sinclair Community College. All cases which utilize this policy shall be heard by the designated college official or Student Conduct Committee.

Procedures for student conduct are listed in the Student Handbook.

## Ohio Campus Disruption Act House Bill 1219

The Ohio Campus Disruption Act passed by the 108th Ohio General Assembly became effective in September 1970. This act directly affects the operation of the state supported colleges and universities in Ohio. The act has specific ramifications for the students, faculty and staff at Sinclair Community College. In essence, any individual who violates the provisions of this legislation and is arrested for a violation is subject to immediate suspension from the college. The act reads in part that a student, faculty or staff member or employee of a college or university which receives any state funds in support thereof, arrested for any of the so-called trigger offenses listed shall be afforded a hearing, as provided in this act to determine whether he or she shall be immediately suspended from such college or university. For details see the Student Handbook.

## Sexual Harassment Policy

It is the policy of Sinclair Community College to maintain an environment free from discrimination. Sexual harassment is a form of discrimination and may be a violation of Title IX of the Civil Rights Act of 1964. Accordingly, sexual harassment is hereby prohibited.

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment under certain conditions.

See Student Handbook for details of filing a complaint and the hearing process.

## Student \& Organization Rights Policy

Sanctions recommended or imposed by the Student Conduct Committee or Hearing Officer must be proportionate to the gravity of the offense. These sanctions are explained in the Student Handbook in detail.

## Student Substance Abuse \& <br> Prevention Policy for Students

Alcohol and other drug misuse or abuse creates an obstruction of the goals of quality higher education by impeding the level of academic performance for a student and the student's overall mental and physical well-being. Also, the student should be aware that illegal drug trafficking and/ or possession may make him or her ineligible for federal educational financial aid (Pell grants, student loans, etc.) if convicted. It is Sinclair Community College's policy that clear realistic behavioral expectations are an effective force in guiding an individual's decision making regarding the use of mood altering drugs.

This policy is intended to ensure the health, safety, and well-being of all students of Sinclair Community College by encouraging a college atmosphere free of coercion for those who choose not to use any mood altering chemicals. Maintaining a college environment where the adverse effects of alcohol or other drug abuse are minimized; informing individual users about all federal and state regu-
lations regarding misuse and about how the potential for problem behavior related to usage can be reduced.

The details regarding the policy are in the Student Handbook.

## Student Grievance Procedure

If a student has non-academic grievance with the college the first thing to do is talk to the person who may be responsible for the dissatisfaction. If this is not sufficient, the next step is to discuss the matter with the supervisor, director or department chairperson involved. Following that, one should take the problem to the dean of the division or the director. The final resort is to submit a written grievance to the vice president for Student Services (Room 10323) who will refer it to the director of Student Activities within seven (7) days of the incident or submission of the written complaint.

More information and further details are available in the Student Handbook.

## Student Records Policy

As a student, you have the right to inspect and review your education records. To do so, submit a written request to the office of Registration \& Student Records, specifying the records desired and their location. Your request will be granted as soon as practicable, but in no more than 45 days.

Your right to inspect and review records does not extend to personal notes of faculty or staff, law enforcement records maintained by the Campus Police, medical treatment records, your parents' financial records, and certain confidential letters and recommendations.

If upon inspection and review of your records, you wish to challenge (correct or delete) inaccurate or misleading data or any records which you believe violate your right to privacy or other rights, you may request a correction or deletion in writing. If the record custodian denies the request, you will be given a copy of the record(s) in question, and you have the right to request a hearing in writing. Submit the request to the vice president for Student Services specifying the portion of the record to be challenged, the reason(s) and the desired change(s). The record challenge hearing will be held within a reasonable time of your request; a written decision will be issued. If you are not satisfied, you may submit written comment(s) which will be maintained with the challenged record(s).

The Family Educational Rights \& Privacy Act (F.E.R.P.A.) affords a student certain rights with respect to educational records. Copies of your educational records or personally identifiable information concerning you will not be released to anyone outside the college, except as required or allowed by law, without your written consent. However, directory information may be released without your written consent. Directory information includes: your name, address, e-mail address, I.D., photo, telephone number, date and place of birth, major field of study, participation in Sinclair activities and sports, weight and height of members of athletic teams, dates of your attendance at Sinclair, degrees, certificates and awards received, and the most recent previous educational institution you attended. If you do not want your directory information released, you must complete a form requesting it not be released and file the form with the director of Registration \& Student Records.

The Sinclair Student Records Policy is available for review and inspection at the office of Registration \& Student Records. A copy is available upon request. Problems or questions concerning the Sinclair Records Policy may be brought to the F.E.R.P.A. coordinator, director of Registration \& Student Records. You also have the right to file complaints with the U.S. Department of Education F.E.R.P.A. office.

## Miscellaneous Rules

## Attendance

A student is expected to attend all classes. If he or she must be absent due to illness or emergency, that student is responsible for contacting the instructor to make up any missed work.

If the student is a veteran, he or she is required by the Veterans Administration to attend all classes. If the student is receiving federal financial aid, he or she is required to attend all classes. If instructors indicate that the student has ceased attending all classes, the student may expect to have a portion of his or her federal financial aid award(s) returned to the federal government.

## Children in Classes

Children (and others who are not officially enrolled) are not permitted in classrooms or laboratories when classes are in session.

## Smoking Policy

In 1988 the Sinclair Board of Trustees, upon the recommendation of a campus-wide committee, adopted a smoking policy that prohibits smoking in designated locations on the campus. Because of the continued concerns about the health and comfort of the Sinclair community, the committee, faculty, staff and student groups recommended in 1993 that Sinclair's campus is smoke free. Smoking is permitted outdoors.

Professor of Physical Education, Norma J. Dycus was named 2001 Ohio Community College Athletic Conference Athletic Director of the Year as well as National Association of Collegiate Women Athletic Administrators' Administrator of the Year for 2001. She joined the department in 1976, served as head coach of the volleyball and softball teams, and was named Athletic Director in 2000.



Student Government Association president Will Banks, originally from Cleveland, became involved as a student assistant and, in a short time, was elected president. He combines course work and S.G.A. duties with a music promotion career.

## Organizations \& Clubs

## Building 8, Room 8025, (937) 512-2509

The college encourages participation in the co-curricular life of Sinclair as another way of learning. If a student is interested in joining one or more of the clubs or organizations listed in the following, he or she should stop by the office of Student Activities/Student Government, Room 8025, Building 8 basement.

## Honor Societies

- Phi Theta Kappa (national honor society, membership by invitation)
- Psi Beta Club (psychology honor society)


## Leadership Development

- Sinclair Ohio Fellows Leadership Program (S.O.F.)


## Clubs \& Organizations

- Accounting Club
- African-American Cultural Club
- African-American Men of the Future
- Association of Information Technology Professionals (A.I.T.P.)
- Architecture Club
- Aviation Club
- Badminton Club
- Baptist Collegiate Ministry
- Biology Club
- Business Professionals of America (B.P.A.)
- Campus Bible Fellowship
- Campus Crusade for Christ
- Chemistry Club
- Child \& Family Education
- Co-operative Education Club
- Culinary Arts Club
- Dietetics Club
- Disney Club

- Free Thinkers (philosophy club)
- Gay And Lesbian Alliance (G.A.L.A.)
- Gerontology Club
- International Student Club (I.S.C.)
- Judo Club (Epizoundes)
- Jukado Club
- Manual Communication Club (M.A.C.)
- Men's Tennis Club
- Native American Cultural Club
- Occupational Therapy
- Ohio Collegiate Music Education Association (O.C.M.E.A.)
- Phi Theta Kappa (national honor society, membership by invitation)
- Physical Therapy Club
- Psi Beta Club (psychology honor society)
- Psychology Club
- Radiology Club
- Respiratory Therapy Club
- Rowdy Tartan Pep Club (Cheerleaders)
- Servants of the Cross
- Social Issues Club (sociology club)
- Student American Dental Hygienist Association (S.A.D.H.A.) 1st Year
- Student American Dental Hygienist Association (S.A.D.H.A.) 2nd Year
- Student Medical Assistants Association
- Student Nurses Association (S.N.A.)
- Travel \& Tourism
- Women in Engineering \& Technology (W.l.E.T.)
- Women's Soccer Club
- Women's Tennis Club


## Fine \& Performing Arts Activities

The Guest Artist and Lecture Series, and Fine \& Performing Arts division, in cooperation with Student Government and the Student Activities Program Board, brings to Sinclair a wide variety of events, performances, presentations and activities that are artistic or relate to current events.

The following are activities available for students through the Fine \& Performing Arts programs:

- African-American History Art Show
- Design Graduate Show
- Classical Guitar Ensemble
- Community Concert Band
- Concert Handbell Choir
- Fine Art Faculty Show
- Golden Age Art Show
- Holocaust Remembrance Program
- Sinclair Community Wind Symphony
- Sinclair Concert Chorale
- Sinclair Dance Ensemble
- Sinclair Jazz Combo
- Sinclair Jazz Ensemble
- Sinclair Singers
- Sinclair Youth Wind Ensemble
- Student Fine Art Show
- Theatre productions
- Theatre touring productions
- Women's Annual Art Show
- Fine Art Galleries (L.R.C. Gallery, Zone VI Gallery, Burnell R. Roberts Triangle Gallery, Hypotenuse Gallery)


## Intercollegiate Sports

## Building 8, Room 8023, (937) 512-2860

The intercollegiate sports program includes four men's intercollegiate teams (basketball, tennis, baseball and golf) and three women's teams (basketball, volleyball and tennis).

Sinclair is a member of the National Junior College Athletic Association and participates with 29 other community colleges in Region XII, which includes a three-state area (Ohio, Michigan, and Indiana).

Athletic scholarships are available in all seven sports. Additional information can be obtained by contacting the appropriate coach, (937) 512-2860:

| Paul Bryant | Men's Basketball |
| :--- | :--- |
| K.C. Gan | Women's Volleyball |
| Don Cundiff | Golf |
| Walt Triplett | Men's Tennis |
| Linda O'Keefe | Women's Basketball |
| Jim Harrison | Men's Baseball |
| Dave Pence | Women's Tennis |

## Intramurals

Building 8, Room 8023, (937) 512-2860
Sinclair is a member of the National Intramural Recreational Sports Association and offers over 20 different intramural activities for both male and female students, faculty, staff and alumni. Team and individual recreational programs include volleyball, basketball, tennis, and racquetball. An intramural handbook that contains specific information (dates, times, places) related to a quarter-by-quarter activity schedule, may be obtained in the intramural office, Room 8023. Additional information can be obtained by contacting the intramural director, Travis Beetley, (937) 512-2860.

## Physical Activity Center

See page 10.

## Sinclair Honors Program

## Building 10, Room 10339, (937) 512-2517

The Sinclair Honors Program is designed to meet the special academic and leadership needs of highly motivated students. The program provides a student the opportunity to become an independent learner through in-depth study of academic disciplines.

The qualified student may elect to participate in one of two ways:HonorsScholars program, or individualHonors courses.

The Honors Scholars program provides special recognition and scholarship opportunities. Application and acceptance require the student to complete five Honors experiences in at least three Liberal Arts \& Sciences disciplines, including one Honors Interdisciplinary course, and maintains a grade point average of 3.25 or higher.

Any student may enroll in individual Honors courses. Students with no G.P.A. or a G.P.A. under 3.25 must see the Honors director for permission. To receive Honors credits, a student must earn an " $A$ " or " B " grade in the course.

Earned Honors credit is recorded on the student's transcript. A student may earn Honors recognition by successfully completing any of the following:

- Honors designated courses
- Honors seminars
- Honors contracts

For an application form and further information, contact the director of Honors, Room 10339, (937) 512-2517, or the office of the dean, Liberal Arts \& Sciences, Room 6122, (937) 512-2916, www.sinclair.edu/departments/honors/

## Phi Theta Kappa Honor Society

## Building 8, Room 8025, (937) 512-2509

Sinclair students have the opportunity to earn scholastic recognition through membership in Phi Theta Kappa, the honors society for two-year colleges. Sinclair's chapter, Nu Pi , one of the most active student organizations on campus, provides opportunities for campus and community service, leadership development, and scholarships. The student who qualifies for membership and joins, wears the Phi Theta Kappa gold stole at graduation and has the Phi Theta Kappa gold seal affixed to his or her diploma.

The Phi Theta Kappa member becomes part of the international organization that offers national scholarships and scholastic development through the honors study topic.

To be eligible for membership, a Sinclair student must be in a degree granting program, have earned 15 academic credit hours or more at Sinclair with a G.P.A. of 3.5 or higher. After the student becomes a member, the student will receive a Phi Theta Kappa notation on the Sinclair transcript and must maintain a 3.5 G.P.A. If the G.P.A. falls below the 3.5 standard, the student member will have one quarter to raise the G.P.A. to 3.5 in order to maintain membership. If the student graduates with a G.P.A. below 3.5 , the Phi Theta Kappa notation will be removed from the college transcript.

## Sinclair Ohio Fellows Leadership Program

## Building 8, Room 8025, (937) 512-2509

The Sinclair Ohio Fellows Leadership Program is designed to develop leadership skills of Sinclair students who demonstrate initiative, maturity, intellectual curiosity, social concern, and a genuine desire to grow and lead.

The program requires each student to complete a growth contract, attend two cultural events per quarter (cost subsidized by the program), attend monthly meetings, successfully complete the courses,HUM195, Patterns of Leadership and HUM 297, Community Speakers Series (tuition and texts paid for by the program), and to complete a community internship. The program also includes a mentor component, programs and activities designed to develop leadership skills of participants, planning and executing service and leadership projects and individual life/ career planning.

Students may be nominated by a faculty member or may self-nominate. The program advisory board interviews nominees and then selects those students it feels will benefit from, and also contribute to, the program. A new group of students is inducted each quarter.

For more information contact the Sinclair Ohio Fellows Leadership office, Room 8025, (937) 512-2509.

## Student Activities Center

## Building 8, Room 8025, (937) 512-2509

The new Student Activities Center provides many opportunities for co-curricular involvement for students by managing activities and participation in student clubs, organizations, social activities, honorary societies, sports clubs, special interest groups, concerts, family shows, musicals and theatre activities. The center is located in the basement of Building 8 and includes a multi-purposeroom, entertainmentarea, game room, Sports Cafe, and conference rooms.

Student clubs and organizations host group meetings, dances, lectures, dramatic presentations, festivals (and many other activities, events), programs and services in the Student Activities Center. The Student Activities office serves as a contact point for faculty, staff, student organizations, and community groups to schedule activities or to use the Student Center.

Students are encouraged to participate in competitive games, tournaments, and leadership development training programs, annual cultural events, success seminars and educational workshops. A full range of scheduled activities and services focusing on student success and information are offered throughout the quarter. Included are workshops, retreats, classes and experiences to develop skills and provide opportunities for social interaction with other students, faculty, and staff.
The Student Center Academic Quarter Hours
Monday - Thursday, 8:00 a.m. - 10:00 p.m.; Friday, 8:00 a.m. 5:00 p.m.; Saturday, 8:00 a.m. - 2:00 p.m.
Other evening and weekend hours based on scheduled events

## Non-Academic Quarter Hours

Monday - Friday, 8:00 a.m. - 5:00 p.m.
Closed Saturday and Sunday

## Student Government

## Building 8, Room 8025, (937) 512-2509

The Student Government Association serves and represents the needs and desires of the student body, members of the faculty,administration and trustees; and promotesleadership in Student Activities. The S.G.A. is an important part of student life. Upon acceptance into the college, students automatically become members of the association. All students are encouraged to become active members, so that the association is a truly representative body of student thought and opinion, voicing the needs and concerns of the student body.

The Student Government executive board members may assist Student Activities in authorizing the chartering of all student organizations, approve constitutional or bylaw changes by an organization under its jurisdiction, recommend action or policy to the college administration, and investigate any matter affecting the student body. One representative of the S.G.A. executive board serves on the Student Program Board and Student Conduct Hearing Board, President's Cabinet and attends the college's Board of Trustee meetings.

The S.G.A. is charged with the responsibility of planning and presenting student programs. It is funded through the Student Activities Advisory Board.S.G.A.sponsorsWellness Week, Student Appreciation AwardsCeremony,Commencement Graduation party, Winter festivities, Spring Fling, Holiday Giveawaybaskets, Thanksgivingbaskets, Adopt-A-Family, dances, concerts, movies and many other events.

To become an active member, students are encouraged to attend the Student Government meetings held biweekly during each academic term. No meetings are scheduled during the summer term. Information is available in the Student Activities office, Room 8025. The Student Government Association's constitution and information to develop a club or organization is available in the Student Activities office.

## Sinclair New spaper - The Clarion

Building 7, Room 7240, (937) 512-2744
Sinclair's newspaper, the Clarion, is "dedicated to the cause of communication" among students, faculty and administration. Students may become involved in reporting, typesetting, layout and design, cartooning, proofreading, distribution, advertising, and business management. Some areas provide opportunities for students to earn college credit for their work and be paid as student assistants. To become involved with the newspaper, contact the Clarion office. The Clarion is published weekly during the regular academic year and twice during summer quarter.

After finishing his associate degree, Tartan basketball center Cedric Davis continues his education at the University of Alabama at Birmingham and is a candidate for Division I.



Mother of four girls, Joann Vitiello is studying full time to obtain a nursing degree. Many Sinclair students are balancing homelife and college, fulfilling dreams and sharing lifelong experience with other learners.

## Academic Credit Assessment Information Center

See page 30 .

## Admissions Office

See page 14.

## Adult ReEntry \& Special Programs

## Building 10, Room 10424, (937) 512-3032

The Adult ReEntry department provides special services for adults who want to begin or resume a college education. The staff can ease re-entry into student life through support services and programs that minimize potential problems.

The staff understands that many adults feel uncertain about returning to college. A comfortable environment has been created in which adults may talk about future plans. The staff helps provide solutions and strategies for dealing with the concerns adults encounter when they become college students.

The staff offers the following free services:

- Pre-entry counseling to help with initial questions about college
- Application and registration information
- Career counseling
- Referrals to academic counselors and campus services

Hours: Monday-Friday, 8:00 a.m. - 5:00 p.m.; evenings by appointment.


## Experienced Worker Program <br> Building 10, Room 10424, (937) 512-5347

A work force training program that provides a wide range of training opportunities for individuals who are 55 and unemployed or 45 who are dislocated because of company closure, relocation, merger and/or reduction in force. Eligibility is based on age and income. Participants must be residents of Montgomery County. Services provided include assessment of current skills, employment counseling, short term training at no cost, effective job search skills and referrals to employers.
Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m.

## Student Support Services <br> Building 11, Room 11342, (937) 512-3550

Student Support Services (S.S.S.) is a program funded by the UnitedStatesDepartmentofEducation tohelpeligiblestudents overcome the challenges of college life. The major purposes of the program are to facilitate friendly college climate, student persistence, and higher graduation rates. Additionally, S.S.S. assists participants in their efforts to transfer to four-year colleges and/or universities. At Sinclair, the Student Support Services program strives to develop new ways to help students achieve their educational and career goals. Services include:

- Orientation/freshman seminar
- Personal, career and financial counseling
- Professional and/or peer tutoring
- Faculty and peer mentoring
- Study and life skills workshops
- Textbook loan bank
- Transfer information, planning and assistance
- Cultural enrichment activities
- Linkage with campus services
- Advocacy


## Workforce Investment Act (W.I.A.) Counseling Building 10, Room 10424, (937) 512-3032

Provides counseling services, as needed for Montgomery County residents who are determined eligible for the program. The counselor serves as a liaison for the many areas of interaction among students, the college, and WIA.
Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m.

## Alumni Affairs

## Building 15, Room 15104, (937) 512-2510

The Alumni Affairs office develops and maintains relationships with all Sinclair alumni through social, service, and professional networking opportunities. Alumni Affairs develops a variety of activities for alumni to attend and provide volunteer service on campus. In addition, all Sinclair alumni receive periodic newsletters to keep them up to date on the college and fellow alumni.

## Alumni Association

Upon graduation, alumni receive a one-year, complimentary membership to the Sinclair Alumni Association. Association members enjoy access to college facilities and may participate in the association's monthly meetings, run for a seat on the 21-member council, or volunteer at any of the association's special events and activities. Proceeds from fund raising events support the association's scholarship program. Dues are $\$ 20$ per year, or $\$ 100$ for a lifetime membership.

## Campus Ministry

## Building 10, Room 10317, (937) 512-2768

The Campus Ministry Center is staffed by Roman Catholic and Protestant campus ministers. Services provided include personal and crisis counseling, programming for spiritual growth, guest lectures, discussion groups, support groups, Bible studies, workshops, retreats, spiritual direction, and a browsing library.

## Campus Police

## Building 7, Room 7112, (937) 512-2700

Crimes occur throughout society, and college campuses are not immune. Sinclair takes pride in its safety record and is committed to continue providing a safe environment. Each individual must take responsibility to be aware of his or her own environment to reduce the chance of becoming a crime victim. While on campus be aware of personal safety along with the safety of personal belongings.

To reduce crime and ensure the campus community is safe and secure, the Sinclair Campus Police department has authorized strength for 21 sworn police officers, 35 part-time security officers, and 20 student security officers. All these officers provide visible police presence to prevent crime. See www.sinclair.edu for campus crime statistics.

Students, faculty, staff and visitors are expected to conduct themselves as law-abiding members of the campus community. If an incident of a criminal nature occurs, it should be immediately reported to the Campus Police who will investigate the incident and initiate the required legal actions. Everyone is encouraged to promptly and accurately report any crime or incident that negatively affects the college, to Building 7, Room 7112 or call (937) 512-2700.

Even though the patrolling of campus parking lots by campus police is a prime factor in keeping crime to a minimum, a student should lock car doors and take the keys.

A student should also avoid leaving property in plain view on the seats, but rather place it in the trunk. Personal property-purses, briefcases, books, etc.-should never be left unattended. A student should carry these items whenever leaving a classroom, the L.R.C., or other areas.

Sinclair is an urban campus and should be traveled with care at night. A student should avoid walking alone. Campus Police can provide escorts to the parking lots.

In addition, the Lost \& Found is located in the Campus Police office, Room 7112.

## Emergency Telephones/Intercoms

Emergency telephones and elevator intercoms are in the following locations on campus:

- Third floor of all buildings
- Basement level of Buildings 1,2,3,4,5,6
- First floor of Building 11
- North and south stairwells, first and second floor, Building 12
- Each elevator in all buildings

When using a telephone, remove the handset and dial 2700 for emergency assistance. Elevator telephones will automatically dial the Campus Police number when the button is pressed.

Additionally, an emergency blue light system is installed in several outside areas:

- Parking Garage
- First floor levels of Buildings 1, 9, 10, 15, 16
- First floor level between Buildings 3 and 4

The outside blue light, including those in the Parking Garage, are distinguished by the blue light on top of the pole. To receive emergency assistance, simply open the door to the intercom box and press the red button.

Everyone is encouraged to become familiar with each emergency telephone/intercom location on campus. If a person experiences an emergency, these systems will provide direct contact with the Campus Police office.

Students should keep personal items with them at all times. Theft of unattended items is the most common crime on campus. For additional information concerning safety and the safety of belongings, contact the Sinclair Campus Police.

## Career Planning \& Placement Center

## Building 10, Room 10315, (937) 512-2772

Career Planning Services
Career planning services are offered to assist students and community members in determining short and long term goals, selecting college majors, and/or changing career fields. Career services help students make the most of their education, talents, and experiences. Students can receive assistance individually or in groups. A variety of workshops is presented each quarter to assist students in career decision making. Services include:

- Computerized career assessments that provide inventories of interests, abilities, and values
- Career counseling
- Assistance with matching career fields with Sinclair majors
- Quick reference guide of salary information that corresponds to Sinclair majors
- Access to alumni who share information about their careers
- Extensive career library materials
- Job market information based on Ohio statistics
- Scholarship and financial aid information for students planning to transfer and/or continue their education. This information is obtained through a personalized computer search.


## Placement Services

Placement services are available to students who will be graduating within three (3) quarters, or who are graduates or alumni. Students who are planning to graduate from Sinclair and who have accumulated 75 credit hours toward an associate degree should register for a Placement Services Orientation. Alumni are required to register with the Alumni Association prior to registering with C.P.P.C.

## Automated On-line Placement Management System

This web accessible placement system makes the job search process easier and more convenient. From any Internet accessible computer, qualified students are able to register for Placement Services, create and post a resume to the C.P.P.C. web site, review current job opportunities and future interview schedules. Once students are registered, the computer matches candidates by academic majors and/ or skills to available job opportunities, and refers resumes to the employers for consideration.

## Additional Services:

- On-Campus Recruitment
- Resume Critiquing
- Employer Library
- Employment Counseling
- Part-time, and temporary job postings
- Allied Health Job Fair
- Career Exploration Fair
- Career Opportunity Corner
- Lists of employers by academic majors
- Mini Resume booklet (sent to 500 employers)


## Job Seeker's Training

The Job Seeker's Training program is a free community service for anyone for whom finding full-time employment is a top priority. This intensive workshop meets once per week, for seven weeks, $2^{1} / 2$ hour session per day, and trains participants in assertive job seeking techniques. Interviewing, resumé development, networking and use of the Internet for job searching are just a few of the program's services.

## Child \& Family Education Laboratories

Language Lab/Computer Lab, Building 9, Room 9108, (937) 512-2787

Lending/Resource Library, Building 9, Room 9223, (937) 512-3497
Computer Classroom, Building 9, Room 9308, (937) 512-8177
All laboratory privileges are extended to currently enrolled students, faculty and staff. A component of the Child \& Family Education department, the labs provide materials and resources relevant to child care and early childhood education, manual communication/American Sign Language, disability intervention services, infant/toddler education, and gerontology.

Services include a toy lending library, materials production lab (including laminating), an audiovisual library, instructional computing centers, and a sign language lab.

## Cooperative Education

See page 48.

## Counseling Services

## Building 10, Room 10324, (937) 512-2752

Counseling Services offers a wide range of services that help students achieve personal and professional growth and academic success:

- Individual counseling sessions are available to assist the student with academic, personal, professional, and career related concerns.
- Intake assessment is provided at no cost to Sinclair students. Included are career and personal skills assessments and learning style inventories.
- Counseling services also include personal enrichment, time management counseling, stress management, coping with fears and anxiety, study skills, alcohol and drug abuse, goal setting, entry/re-entry to work world, career decision-making, values clarification, and family/relationship counseling.
- A comprehensive community referral system is available that can direct students to off-campus agencies for additional assistance.
All counseling services are free, confidential, and available on a walk-in basis or by appointment.
Hours: Monday-Thursday, 8:00 a.m. - 7:00 p.m.; Friday, 8:00 a.m. - 5:00 p.m.


## Peer Counselor Assistants

PeerCounselor Assistants assist professional staff in providing individual and group counseling services (including personal, interpersonal, social, and career development services.) The peer counselors also conduct workshops and support groups. Peer Counselors are available in Building 10, Room 10324. Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m.

## Prevention Education Resource Center

Building 10, Room 10316, (937) 512-5110
The Prevention Education Resource Center (P.E.R.C.) offers a variety of services to help students obtain information and education about alcohol or drug abuse or assistance for substance abuse related problems. Information is available at no cost to the students. If a private session with a counselor is desired, students may stop by the center in Room 10316 or call (937) 512-5110.
Hours: Posted on Room 10316.

## African-American Male Initiative

 Counseling Sevices, Building 10, Room 10324, (937) 512-2752The African-American Male Initiative (A.A.M.I.), is a comprehensive program designed to assist and support Afri-can-American male students as they make their transition into the mainstream of college life. Through collaboration among Student Services, Experience Based Education, and the Career Planning \& Placement Center, the men in the A.A.M.I. can attain their vocational and educational goals.
A.A.M.I. provides a nurturing and supportive environment in which the student can experience a sense of belonging. Through the use of support groups and mentoring, students build self-esteem and gain self-confidence. Students will complete a comprehensive Experience Based Education (EBE) course that teaches basic resume writing skills, job interviewing techniques and other necessary employment survival skills. Students are also introduced
to existing college services, such as Tutorial, Career Planning \& Placement Center, Financial Aid \& Scholarships, Student Activities and other support services. Students are involved in individual advising sessions and introduced to community resources.

## Eligibility Requirements for A.A.M.I. include:

- recommended 2.0 quarterly grade point average or cumulative grade point average upon completion of the first quarter in the program.
- willingness to participate in planned quarterly activities.
- enrollment in EBE-170.
- willingness to follow an individualized advising plan


## Veterans Assistance Office

See page 46.

## Disability Services

Building 10, Room 10421, (937) 512-5113 or 512-3096 (T.T.Y.) Sinclair is committed to providing the means to enable a student with a disability to develop his or her potential. Early identification is recommended to ensure timely provision of materials and services. In order to gain access to the appropriate services and information regarding program requirements, a student with a disability should contact the office of Disability Services at least eight weeks before the initial quarter of attendance.

## Available Services

- Reader/Writers
- Volunteer notetakers
- Tutors
- Taped textbooks
- Interpreters
- Adapted testing
- Braille printing


## Auxiliary Aids

- Assistive listening devices
- Computer screen enlargement
- Tape recorders
- C.C.T.V. magnification device
- Talking computers
- Perkins brailler
- Xerox/Kurzweil personal reader


## Counseling Services

- Academic counseling
- Career counseling
- Community resource information
- Personal counseling

These services are provided within the framework of the college. Disability Services is an informational and resource center to ensure mainstreaming. A student requests and receives services on a voluntary basis.

Once registered with Disability Services, those who qualify for services must contact this office at least two weeks before each quarter begins. The student is also responsible for informing an instructor of any instructional accommodations and/or special learning needs at the beginning of each quarter.

## Early Childhood Education Centers

## Building 9, Room 9101, (937) 512-7945

The Early Childhood Education Centers include the Early Childhood Learning Center (E.C.E.C.) and the Flex-Time Center. These child care services are available to faculty, staff, students, and the community as space is available. They provide laboratory settings for Early Childhood Education students, as well as educational settings for children three through five years of age. The E.C.E.C. is approved and licensed by the Ohio Department of Human Services and located in Building 9 . They are also accredited by the National Academy of Early Childhood Programs.

## Educational Support Services

See Disability Services, English as a Second Language/ Limited English Proficiency Program, Supported Education Program, and Tutorial Services.

## English as a Second Language

## Building 10, Room 10421, (937) 512-5113

Students for whom English is a second language who need assistance with registration or placement testing, should contact the English as a Second Language program.

## Enrollment Services

## Assessment Intake Center

During the New Student Enrollment process, well trained staff at the Assessment Intake Center welcomes students, assist them ingoal/major clarification, identify special needs and resources, prepare them for placement testing and schedule them into a new student orientation session as well as into the appropriate academic advising session. The student leaves the center with an Individualized Enrollment Plan based on their needs and next enrollment steps.

## Assessment Center

The Assessment Center provides both academic and placement testing to students. Academic testing serves as an alternative to in-class testing for many courses, including distance learning. Placement testing for all degree-seeking students is also available to students in the Assessment Center. Pen and paper tests as well as C.O.M.P.A.S.S. and Question Mark are provided in the center with full supervision at all times.

## New Student Orientation

An interactive, meaningful two-hour orientation session is mandatory for students and is designed to clarify campus policies and procedures. Topics include how to register, how to navigate campus, how to apply for financial aid as well as understanding the benefits of academic counseling and campus resources. In this professional presentation, students participate in activities that stimulate goal clarification, time management strategies, and self-motivation.

## Sinclair Central

Sinclair Central offers "one stop" enrollment and registration assistance. The center is conveniently located near the Registrar's office and is staffed by professional counselors from the academic divisions and studentservices departments. Services include academic advising, counseling, registration assistance, financial aid information, and referral to specialized services on campus.

## Enrichment Center: K-12 Pre-College Programs

## Building 12, Room 12331, (937) 512-5188

This office works with pre-college enrichment programs which provide an array of age appropriate exciting programs for students at the elementary, middle, and high school level. They offer enrichment opportunities, academic development, college readiness and opportunities in workforce development.
Students and the community benefit because Sinclair strives to:

- Ensure access to the college's overall programs and services
- Provide social, cultural and academic readiness activities
- Strengthen and support existing partnerships with area elementary, middle or high school programs by providing supplemental education to students
- Encourage personal growth and development for students
- Decrease the number of high school graduates enrolling in remediation courses
- Encouragehigh school graduates to move from prospect to college applicant
- Assist with career guidance and career development

Enrichment programs are designed to better serve stakeholders by assisting students with becoming more academically and socially prepared to pursue higher education. With career goals established in higher education, students are better prepared for college.

## Pre-College Enrichment Programs:

## Science, Engineering, Mathematics, Aerospace Academy

S.E.M.A.A. is a year around $\mathrm{K}-12$ program funded by NASA John Glenn Research Center in Cleveland, Ohio. It is designed to increase the participation of under-represented groups in science, mathematics, engineering and aerospace careers. Enrollment preference is given to past participants. For further information call (937) 512-2335.

## Summer Adventure Camp

Offers a fun, learning centered environment with activities such as computers, art, math, theatre, physical activities, etc. The program serves students in grades 3-12, with a special curriculum for high school students.

## Upward Bound

A federally funded pre-college program for low income, first generation (neither parent has a four-year college degree) college students. The program is designed to increase the probability that high school students will complete their high school education, enroll and graduate from college. The program serves 50 students in grades 9-12. There is no fee to participate in the program. For further information call (937) 512-2331.

## Quick Start

This program is a local initiative that offers advanced levels of instruction for high school junior and senior students in courses related to technical and vocational education. Current instruction is in robotics, computers and visual communications. Students are taught by Sinclair faculty on campus or on site in stand-alone course sections. For further information call (937) 512-5188.

## Learning to Learn Camp

The transition to the college program integrates two key processes of learning-how to learn and mentoring. Students will learn how to build relationships and improve their ability to perform in the classroom. Participants will receive one hour of college credit. For further information call (937) 512-5188.

## Post Secondary Enrollment Program

The Post Secondary Enrollment Option (P.S.E.O.) program is a state program designed for high school students, grades $9-12$, who are intellectually and socially capable of doing college level work. Eligible students can take college classes while still in high school; one option allows the student to earn both high school credit and credit for the course work. For further information call (937) 512-3060.

## Think College

Think College is a program to encourage elementary school students to think about college as a realistic option in their future. Students in two designated elementary schools are paired with high school students in their community and these students serve as mentors to the children.

## Voyager

An activity based, hands-on, challenging program that develops, reading, math, science, reasoning and technical skills by providing adventures such as Time Warp Reading, Discovery PreMed, and NASA National Space Camp. This camp targets grades 3-6.

## Women in Engineering Technologies

W.E.I.T. is designed to introduce more women to the field of engineering. Students receive hands-on experience by working with faculty in various labs. The program recruits girls entering grades 11 and 12.

## Women in Science Career Day

Hands-on program designed to explore careers in science, engineering and mathematics for females interested in pursuing non-traditional careers. Middle school teachers and counselors bring girls from grades 7 and 8 on campus within a two-day period for a field trip.

## Young Scholars Program

Designed to provide eighth grade, first generation students residing in Montgomery County with the opportunity to become academically and socially prepared for college. The program offers ten, two-hour Saturday sessions to coincide with the educational theme for each grade level:

- Eighth grade - personal development
- Ninth grade - academic development
- Tenth grade - career development
- Eleventh grade - leadership training
- Twelfth grade - preparation to enroll in higher education.
For application information call (937) 512-3730.


## Financial Aid \& Scholarships

See page 21.

## Health Insurance

## Counseling Services

Building 10, Room 10324, (937) 512-2752
While Sinclair does not provide health care insurance, information is available on an optional basis to full-time students(12 ormorecredithours) atspecial rates.Studentswith at least 9 credits are eligible for Student Select Insurance.

F1 International students must purchase different insurance. F1 insurance information is available at the office of Registration \& Student Records, Room 10231.

## Health Services

SinclairCommunity College provides only emergency care in the form of first aid for those who become ill or are injured while on campus. Sinclair Campus Police officers are all trained in emergency first aid and Cardiopulmonary Resuscitation (C.P.R.) and are able to handle emergency situations.
First-aid kits are located in the following areas:

| Room | Room | Room | Room | Room |
| :--- | :--- | :--- | :--- | :--- |
| 1012 | 3033 | 4320 | 10112 | 11141 |
| 1015 | 3112 | 5021 | 10244 | 11426 |
| 1023 | 3122 | 5030 |  | Auto Lab |
| 1030 | 3134 | 5141 | 10324 | Mail Room |
| 1123 | 4001 | 6022 | 10411 | Bookstore |
| 1143 | 4012 | 6040 |  | L.R.C. |
| 2220 | 4224 | 7112 |  | Bldg. 12 |
| 3013 | 4232 | 8026 |  | 13307 |
| 3021 | 4241 | 9106 |  | 13420 |
| 3023 | 4311 | 10001 |  | 16106 |

Note: If additional attention is needed, please contact Sinclair Campus Police, Room 7112, (937) 512-2534.

## Dental Clinic

## Building 4, Room 4332, (937) 512-2779

Students may have their teeth cleaned and help a fellow student complete degree requirements at the same time. The cost is $\$ 10.00$.

## Learning Resources Center

## Building 7, Low er Level, (937) 512-2855

The Learning Resources Center (L.R.C.) consists of the College Library, Microcomputer Lab, and Media Services.

The College Library, Microcomputer Lab and Media Services are located beneath the central plaza of the college with access from the basement level of Buildings 1 through 7.
Hours: Monday-Thursday, 8:00 a.m. - 9:30 p.m.; Friday, 8:00 a.m. - 5:00 p.m.; and, Saturday, 8:00 a.m. - 3:00 p.m. Summer session and interim hours vary.

Materials in the collection include books, periodicals, newspapers, sound recordings, CD-ROM's, audio and video tapes, and electronic resources.

Services include library orientations, reference assistance, and interlibrary loans for items not available at Sinclair or through OhioLINK, and course reserves. Sinclair provides web based access to L.R.C. on-line catalog, OhioLINK Central Catalog, research databases, and Internet resources.

Sinclair is a member of OhioLINK, a growing computer network of libraries and electronic information resources, offering access to 100 research databases and a combined central catalog of nearly 23 million records from many Ohio universities, colleges, community colleges and the State Library of Ohio. Its goal is to provide easy access to information and rapid delivery of library materials throughout
the state. All sites offer on-line access to the central catalog and extend on-site borrowing privileges to patrons of other OhioLINK institutions.

Copiers, microcomputers, and typewriters are available for student use, in addition to equipment to read and print microforms.

Borrowing privileges are extended to currently enrolled students, staff and faculty. A Sinclair Community College Tartan Card photo I.D., which includes the Sinclair I.D. number, serves as the library card. Graduates of Sinclair possessing an Alumni card may also borrow materials from the L.R.C. For specific information pertaining to the borrowing of materials and the direct access to other academic and public libraries in the area, contact Reference Services, (937) 512-2855.

Eating or drinking is not permitted on the mezzanine level (study area) or on the lower level of the Library and Media Services. Connect to the L.R.C./home page at: http:/ /library.sinclair.edu. For further information about accessing resources outside the L.R.C., contact References Services, (937) 512-3004.

## Living Accommodations

Sinclair does not provide housing facilities for students. Dormitory housing is available for women at the Central YWCA, 141 West Third Street, only two blocks from the Sinclair campus. The Student Activities and Student Government office (512-2509) can assist students with basic housing information. Apartment search information is also available.

## Military Services

## Building 10, Room 10324, (937) 512-2586

The Army Reserve Officers' Training Corps (R.O.T.C.) program provides the Army, Army Reserve and National Guard with commissioned officers. The program aims to develop decision making capabilities through detailed examination of leadership facts, expand oral and written communication skills, provide technical training in basic military skills and develop an understanding of the relationship between the student's basic degree field and its application in the United States Army.

A full-time student at Sinclair may enroll in Army R.O.T.C. and participate without obligation in the first two years of the four-year program. If desired, he or she may also complete the final two years at another institution, or apply for advance placement and participate in only the final two years of R.O.T.C., receiving commission as a second lieutenant upon graduation from Sinclair. A student may also participate in the Air Force Reserve Officer Training Corps (A.F.R.O.T.C.) at Wright State University.

Registration is performed by the Southwestern Ohio Council for Higher Education through Sinclair's office of Registration \& Student Records, Second Floor, Building 10 For further information contact:
Army R.O.T.C. University of Dayton (937) 229-3326
Wright State University (937) 873-2763
Air Force R.O.T.C. Wright State University (937) 873-2730

## Physical Activity Center (P.A.C.)

See page 10.

## Registration \& Student Records

See page 18.

## Sinclair Central

## Building 10, Room 10242, (937) 512-2201

Sinclair Central assists students with enrollment and registration. The center, located in Room 10242 near the Registrar's office, is an easily identifiable information source, staffed by professional counselors from the academic divisions and the student services departments. Terminals are located in the center to provide current information about open classes.
Services include:

- registration and scheduling assistance
- academic advising
- financial aid information
- general information (directions, campus policies)
- referral to specialized services on campus.


## Supported Education Program

## Building 10, Room 10421, (937) 512-5113

The Supported Education Program offers support and guidance to assist persons with mental disabilities toward successfully completing a college degree. Some of the services provided include orientation to the college, walkin support, problem solving, development of peer relationships, educational survival skills, and linkage to college-wide resources. If students believe their academic success is being hindered by an emotional complication, they may drop by and discuss concerns.

## Student Activities

See page 37.

## Student Government

See page 37.

## Student Support Services

## Building 11, Room 11342, (937) 512-3550

Student Support Services (S.S.S.), is a program funded by the United States Department of Education to help eligible students overcome the challenges of college life. The major purposes of the program are to facilitate friendly college climate, student persistence, and higher graduation rates. Additionally, S.S.S. assists participants in their efforts to transfer to four-year colleges/universities. At Sinclair, the Student Support Services program steadily strives to develop new ways to help students achieve their educational and career goals. Services include:

- Orientation/freshman seminar
- Personal, career and financial counseling
- Professional and/or peer tutoring
- Faculty and peer mentoring
- Study and life skills workshops
- Textbook loan bank
- Transfer information, planning and assistance
- Cultural enrichment activities
- Linkage with campus services
- Advocacy.


## Teleport

Building 11, Third Floor, Rooms 11324, 11346, (937) 512-2002
Building 13, Second Floor, Room 13223, (937) 512-5394
Teleports (Technology Enhanced Learning EnvironmentsPort) are state-of-the-art computer laboratories. They are open lab facilities for students and faculty to use with individual and small group work spaces. The Teleports provide students with convenient access to high quality computing equipment, software and a multimedia production facility. The Teleports have printers, scanners, satellite TV with VCR's, cassette players and copiers. There are always lab assistants at the Teleports to help students with their learning objectives. Tutors are also available.

Teleport work stations are high end PC's that have the Sinclair academic image which includes: NT Operating System, Microsoft Office 2000, Internet Explorer, Library CD-ROM access, access to clip art on the network server, Telnet, Adobe Acrobat Reader, Question Mark Presenter, software license metering and virus protection software. The Teleports have over 200 division specific software applications.

The Teleports have extended hours for the convenience of Sinclair students to meet their busy schedules:

## Room 11324

8:00 a.m. - 8:00 p.m., Monday - Thursday
8:00 a.m. - 4:00 p.m., Friday
Closed Saturday, Sunday

## Room 11346

8:00 a.m. - 9:30 p.m., Monday - Thursday
8:00 a.m. - 4:00 p.m., Friday
9:00 a.m. - 4:00 p.m., Saturday
Closed Sunday

## Room 13223

8:00 a.m. - 9:30 p.m., Monday - Thursday
8:00 a.m. - 4:00 p.m., Friday
9:00 a.m. - 4:00 p.m., Saturday
12:30 p.m. - 5:30 p.m., Sunday
The Teleports are also open between quarters. Signs will be posted with special hours on bulletin boards around the campus and at the Teleports.

## Tutorial Services

## Building 10, Room 10444, (937) 512-2792

The Tutorial Services program provides free educational assistance for any Sinclair student who is enrolled for credit in most 100 level courses. Tutoring is available for individual help with course work on a walk-in basis, in open learning laboratories, on a scheduled basis in the Tutorial Center, and in group supplemental instruction sessions. Tutors are selected on the basis of scholastic ability and interpersonal skills. A student interested in receiving free tutoring or applying to become a paid tutor should come to the Tutorial Center.
Hours: Monday - Thursday, 8:00 a.m. - 8:00 p.m.; Friday, 8:00 a.m. - 5:00 p.m.; Saturday, 10:00 a.m. - 2:00 p.m. Summer hours: Monday -Thursday, 8:00 a.m. - 5:30 p.m.; Friday, 8:00 a.m. - 4:30 p.m.

## Tutoring on the Web

Students can visit the Tutorial Services home page at: www.sinclair.edu/departments/tutorial/ (all lower case) for Lab and Supplemental Instruction schedules. For online tutoring click on Submit questions for tutors. Enter the course number (such as ACC 111) and the question. Students should enter their complete e-mail addresses so tutors can respond to their questions via e-mail. Questions that cannot be answered by tutors will be forwarded to faculty or college departments for response. For more information, call (937) 512-2792.

## Veterans Assistance

## Building 10, Room 10324, (937) 512-2586

The Veterans Assistance unit is in the department of Counseling Services. Veterans Assistance provides support for service members, veterans, reservists, national guard, and dependents regarding V.A. educational benefits.
Hours: Monday and Thursday, 8:00 a.m. -7:00 p.m.; Tuesday, Wednesday, and Friday, 8:00 a.m. - 5:00 p.m. Summer hours may vary.

A student with V.A. eligibility may be certified to receive educational benefits by registering with Sinclair Community College's V.A. coordinator. There are currently six chapters of benefits: Chapter 34/30 (Old \& New G.I. Bill); Chapter 32 (Veteran Educational Assistance Program, V.E.A.P.); Chapter 35 (Dependent); Chapter 30 (New G.I. Bill)*; Chapter 106 (New G.I. Bill Reservist National Guard) and Chapter 31 (Vocational Rehabilitation).

The following are benefits received for full-time (12 credit hours) attendance:

1. Chapter 34/30: $\$ 838.00$ single veteran; $\$ 905.00$ married plus dependents per month.
2. Chapter 32: Varies in contribution.
3. Chapter 35: $\$ 588.00$ per month.
4. Chapter 30: $\$ 650.00$ per month.
5. Chapter 106: $\$ 263.00$ per month.
6. Chapter 31: $\$ 537.00$ married.

Benefits for three-quarter time ( 9,10 , and 11 credit hours) and half-time ( 6,7 , and 8 credit hours) are proportional.

- A student enrolling on a less than half-time basis is reimbursed for tuition and fees only, under Chapters 34/30,30,35 and 31. Developmental Studies courses are approved for all chapters as long as the student has tested into the courses through placement testing. Specific payment information may be obtained from the Veterans Assistance office. A benefit recipient may be certified before classes begin in order to receive an ADVANCE PAYMENT which is an early check to assist in payment of registration expenses.
- Prior Credit

A student who has attended a prior college or military school must have these transcripts evaluated by the Registration \& Student Records office and these results must be submitted to the V.A. by the end of the second quarter of attendance. If this information is not provided to the V.A. by the school V.A. coordinator V.A. benefits will be suspended.

Under certain circumstances, withdrawing from courses could mean repayment of V.A. benefits, and a veteran should contact the V.A. coordinator before withdrawing. Non-attendance of classes could also result in repayment. To eliminate any problems with benefits, each veteran must verify courses with paid receipt each term of enrollment. If the benefit recipient receives an " N " grade, a " $Z$ " grade or all " $F$ " grades in one term, benefits will be affected that term or in future use of benefits.

Two-year associate degree programs qualify for educational benefits. One-year certificate programs do not qualify.

The following is a listing of courses which are not approved for V.A. benefits:

1. All certificate (one year) programs.
2. Mini-modular of individualized instruction programs.
3. Any course that cannot be credited toward graduation in the degree program.
4. A third attempt at a failed (" F ") course.
5. Real estate courses through Dayton Board of Realtors for students not enrolled in Real Estate \& Property Management degree program.
Remember: Assistance may be received in course selection, but the final course selection is the student's responsibility. A student should follow the course outline as contained in the college catalog and see the academic counselor.
*The regulations vary for Chapter 31 veterans.


Thomas Martin has been honored by the Campus Compact National Center for Community/College for teaching, scholarship and leadership on campus and in the community. Tom directs the Sinclair Honors and the Dayton Model United Nations programs.

## Distance Learning

Building 14, Room 14318, (937) 512-2990, 1-888-226-2457
http://ww w.sinclair.edu/distance
See page 89 for more information.

## Senior Citizens College for Seniors

## Building 10, Room 10424, (937) 512-5184

The College for Seniors coordinates several opportunities for seniors to continue their education, and are as follows:

- Senior Academy non-credit courses, devised to suit seniors' needs; modest fees. Register through College for Seniors office, Room 10424.
- Registration for Sinclair credit courses on campus and at Sinclair Credit Centers. Registration to audit, tuition free for persons age 60 and over, is on campus during the first two days of the quarter. Persons under 60 or who want to earn credit pay the usual Sinclair fees, and may register as soon as registration begins.
- Registration for Sinclair credit courses at Senior Citizen and Community Centers. Courses from the regular Sinclair curriculum are offered at 23 senior citizen and community centers. These classes are especially for seniors and may be audited free by persons age 60 and over. Seniors may register through some centers; call the College for Seniors office for more information.
- Senior Art Show, held on campus each spring, includes works by seniors in the art classes held at various senior citizen and community centers.
- Reduced admission fees for Sinclair Theatre presentations. Make reservations through the College for Seniors, (937) 512-5184.



## Senior Academy

The Senior Academy offers non-credit classes, arranged in response to seniors' requests. Most classes are on campus during daytime hours. Modest fees are charged. To receive a schedule of class offerings, call the College for Seniors office.

## Corporate \& Community Services

The Corporate \& Community Services division administratively supports coverage of the David H. Ponitz Sinclair Center, Building 12, and provides full service event scheduling, coordinating, and support for corporate and community training and education throughout the college. Programs can be customized to meet the training and education needs of the Miami Valley. College sponsored seminars and non-credit registrations are also coordinated through this division.

This division also coordinates all class scheduling for both on- and off-campus non-credit programs and courses, as well as off-campus credit courses conducted at businesses, industries, and non-profit organizations. Additionally, it arranges publicity for non-credit programs open to the general public, registers students, maintains non-credit student enrollment records and transcripts, and provides certificates of completion. Seminars and courses open to the general public are publicized in the quarterly schedule of classes or are announced by special mailings. Persons interested in further information should call (937) 512-3061.

## Part-time Faculty Support Services

Corporate \& Community Services provides support services to part-time faculty of the college to include the personnel function, facilitate payroll activities, provide typing and duplication services, mail services, and information services, and administration of student opinionnaires in on- and off-campus evening and Saturday classes.

Students enrolled in classes taught by part-time faculty may contact this office, (937) 512-2783, to leave messages for their instructor and obtain instructor telephone numbers, if available.

## Experience Based Education

The Experience Based Education (E.B.E.) department supports a broad range of experiential opportunities and college equivalency examinations to enable a student to earn college credit based upon previous experience and to help develop career and lifelong learning skills. The programs within this department are as follows:

## Academic Credit Assessment Information Center

Building 6, Room 6130, (937) 512-2800

The Academic Credit Assessment Information Center (A.C.A.I.C.) is designed to help an individual learn about non-traditional ways to receive credit for Sinclair classes.

Since learning is an everyday activity, and does not always take place in a classroom setting, a Sinclair student may have a variety of learning experiences as well as the desire to translate learning experiences into college credit and build on those experiences through classroom learning.

There are several ways to translate learning into college credit atSinclair. The center will provide information about:

- Incoming articulation
- Agreements with various institutions
- College equivalency examinations (proficiency exams CLEP, DANTES, and advanced placement exams)
- ACE/CREDIT credit recommendations
- Evaluation of prior learning by portfolio.

More information is available in the Academic Credit Assessment Information Center, Room 6130,(937) 512-2800.

## Associate of Individualized Study

## Building 6, Room 6130, (937) 512-2692

The Associate of Individualized Study (A.I.S.) degree is open to any student who wishes to design an interdisciplinary degree program using the liberal arts or combining liberal arts with technical areas of study. The student may focus specifically on education for individual development and enrichment or may design a curriculum which allows for employment or continuation into selected four-year degree programs. A student is assisted in the degree planning process by faculty members.

See the Extended Learning \& Human Services chapter on curricula to find degree requirements. More information is available, Room 6130, (937) 512-2692.

## Associate of Technical Study Building 6, Room 6130, (937) 512-2692

The Associate of Technical Study (A.T.S.) degree is open to any student whose technical degree goals cannot be accomplished through enrollment in one of Sinclair's existing degree programs.

The student may design a degree which combines two or more technical areas from existing Sinclair programs into a new degree plan. As an alternative for some students, a portion of the degree requirements may incorporate credit awarded through articulation agreements with education providers. Faculty members assist the student in planning the most appropriate course of study for the individual student.

See Extended Learning \& Human Services chapter on curricula to find degree requirements. More information is available, Room 6130, (937) 512-2692.

## College Without Walls

Building 6, Room 6130, (937) 512-2791

College Without Walls (C.W.W.) is designed for students who need a study plan which allows for self-paced learning within a flexible time frame. Students have one to three quarters to complete C.W.W. courses. Every C.W.W. student is assigned a core faculty member who helps in the development of a learning contract, a comprehensive guide for achieving course objectives and evaluation of the work.

The following programs offer opportunities for self-directed learning through the College Without Walls program: Accounting, Business Information Systems, Business Management, Computer Information Systems, Early Childhood Education, Financial Management, Hospitality Management, Labor Studies, Law Enforcement, Logistics Management, Marketing Management, Mid-Management Retailing, Personal Computer Applications, Procurement \& Materials Management, Production \& Inventory Control, Traffic \& Transportation Management; Corrections, Public Services; Communication Arts (Speech), Art, Visual Communications Technology including Interior Design, Printing Technologies; and Liberal Arts including Psychology, Sociology, and Social Work.

For additional information about specific course offerings and the application process, please contact the Experience Based Education office, Room 6130, (937) 512-2791.

## Cooperative Education

## Building 10, Room 10311, (937) 512-2769

Sinclair's Co-op/Internship program provides students an opportunity to relate classroom studies to the world of work. It serves as a bridge between the classroom and the workplace. The program offers students with little or nojob experience the opportunity to learn important job skills while they work toward their college degree. Students enrolled in a co-op/internship become more familiar with a particular career before they graduate from college. Internships encourage students to apply the principles and theories learned in the classroom to their on-the-job experiences. Co-op internships can result in college credit.

In order to participate in a Co-op program, the student is required to enroll in EBE 170 (Introduction to Cooperative Education/Internship and Career Planning). The student who has this course or its equivalent may be allowed to enroll directly in an internship upon approval by the Experience Based Education department, Room 10311.

EBE 170 is designed to prepare a student for job placement. The course includes resume preparation and interview tips which will assist in competing for jobs. Prerequisites include the completion of 12 credit hours and good academic standing (2.0 G.P.A.). Although Sinclair makes every possible effort to place a student in a job related to his or her area of study, placement cannot be guaranteed. Employment is often determined on the basis of actual interviews with prospective employers.

The student is required to register for EBE 270 or related internship once he or she has been placed in ajob. If currently employed in a job related to the major, a student may use it as an internship, with appropriate departmental approval.

ACo-op student will develop "learning outcomes" (goals) with the faculty coordinator and employer. These goals, in addition to a project or a report (relating off-campus learning or to principles and theory taught in the classes), will be evaluated and assigned a grade at the end of the quarter. Coop credits typically count toward degree requirements. More information is available, Room 10311, (937) 512-2769.

## ACE/PONSI Credit Recommendation Services (ACE/CREDIT)

## Building 6, Room 6130, (937) 512-2800

In 1994, ACE/CREDIT made the strategic decision to expand its outreach to the business and educational communities by establishing state offices. Sinclair was asked to establish the State Office for Ohio. The state offices are responsible for:

- Marketing the ACE/CREDIT program to training providers of collegiate level instruction
- Promoting the recognition of the ACE/CREDIT credit recommendations by accredited colleges and universities in the postsecondary community
- Coordinating and conducting ACE/CREDIT reviews of collegiate level instruction by training providers.
The state offices serve as the representative of ACE/
CREDIT, ensuring the same quality academic review of workplace learning and adhering to the same polices, guidelines and procedures established by the Commission on Educational Credit and Credentials of the American Council on Education. Currently, state offices have been established in 17 states: Arizona, California, Colorado, Georgia, Illinois, Maine, Michigan, Nebraska, New Jersey, Ohio, Oklahoma, South Carolina, Tennessee, Vermont, Virginia, West Virginia and Wisconsin.

More information is available, Room 6130, (937) 512-2800.

## Service-Learning

Building 6, Room 6130, (937) 512-2790
Service-learning is designed to create an opportunity to provide practical applications as well as critical reflection related to community and civic issues in society. Servicelearning activities provide a reciprocal "growing and learning" experience between the student participant and cooperating agencies and organizations.

Additional information is available in the Cooperative Education office, Room 10311, (937) 512-2769, or in the Experience Based Education office, Room 6130, (937) 5122790.

## Credit for Lifelong Learning

Building 9, Room 9201, (937) 512-5385
Another component of the Experience Based Education department, Credit for Lifelong Learning (C.L.L.P.), allows the student to be evaluated for college credit based on his or her significant learning experiences. These experiences can be from work, volunteer services, conferences, workshop attendance, in-service training, vocational interests, or independent research, documented through the development of a "portfolio" of prior learning from experience.

The portfolio consists of a written description of the learning with supporting documentation. The process begins with a three-credit-hour course, Prior Learning Portfolio Development (EBE 100), in which a student identifies specific Sinclair courses, articulates college level learning, and develops educational plans to accomplish professional and educational goals. This course may also serve as a general elective. Faculty knowledgeable in each specific area of learning will then evaluate the portfolio for college credit and award a grade. There is an evaluation fee for each course evaluated.

For more information, contact the Credit for Lifelong Learning office, Room 9201, (937) 512-5385.

## P.A.C.E. (Program for Adult College Education) Building 6, Room 6130, (937) 512-2962

P.A.C.E. is open to all students but designed especially for adult working students who need a study plan which allows for accelerated learning. Blocks of courses, which may involve several disciplines, have been developed around specific themes. Students have the opportunity to register each quarter for a full course of study requiring class attendance in the evening and/or weekend. In some quarters, classwork may be supplemented with alternative delivery. P.A.C.E. students have the opportunity to take a full course of study leading to the Associate of Arts in Liberal Arts or the Associate of Science in Business Administration. Blocks of general education courses are also available. Information is available from an academic counselor or P.A.C.E. Coordinator, Room 6130, (937) 512-2962.

## Developmental Studies Program (DEV) <br> Building 6, Room 6222, (937) 512-2701

Sometimes students enter college only to find they are unprepared for college level academic work. Some students have not followed a high school curriculum which prepares them for college, while others do not decide to begin college until some years after graduation. Some decide to enter college after a record of poor high school studies and find that further education is desirable. For whatever reasons, the Developmental Studies program is designed to assist in adjustment to college through special academic and counseling support services.

An incoming full-time student is required to take a test of skills in reading, English and mathematics. If the resulting scores are below the established requirements on these tests, the student may be required to enroll in one or more of the Developmental courses. Any student, however, who wishes to improve his or her skills may enroll in the Developmental Studies program.

A variety of courses is offered in mathematics, reading, English, science, and English as a Second Language (E.S.L.). Instructors work closely with the student to meet individual learning needs. Counseling services are also available to complement classroom instruction through educational, vocational and personal counseling.

## Sinclair Honors Program

See page 36.

## Sinclair Ohio Fellows Leadership Program

See page 37.

## Southw estern Ohio Council for Higher Education

A full-time student at Sinclair may register for courses for credit at Southwestern Ohio Council for Higher Education (S.O.C.H.E.) institutions (see below for a complete list) at the rate per credit hour. Students will pay any applicable lab or related fees at the host institution. This policy applies only if the course is not available at Sinclair, space is available at the S.O.C.H.E. institution, and pertains only to regular sessions of the academic year (summer sessions and self-supporting or sustaining programs are excluded). The student also is required to have the counselor's permission, must satisfy all course prerequisites, and must meet the host institution's admissions requirements. For more information, contact the office of Registration \& Student Records, second floor, Building 10.

The consortium of 20 colleges and universities, three corporate partners, and one foundation, was established to promote inter-institutional cooperation and community service. S.O.C.H.E. holds regular conferences for faculty and staff, serves as a clearinghouse for the exchange of information, and promotes projects of educational research and experimentation. Many cooperative programs exist in teaching, research, publishing, college finance and administration and other areas.

Consortium schools include: Air Force Institute of Technology, Antioch University, Capital University-Dayton Center, Cedarville University, Central State University, Clark State Community College, Edison Community College, Kettering College of Medical Arts, Miami-Jacobs College,Sinclair Community College,Southern State Community College, United Theological Seminary, Union Institute \& University, University of Dayton, University of Phoenix Dayton-Troy Center, Urbana University, Wilberforce University, Wilmington College, Wittenberg University, and Wright State University.

For more information, visit www.soche.org.

## International Study Abroad

Studying abroad allows a student to become fully immersed in a foreign country's culture and every day life. The student becomes sensitized to perspectives that may be different than his or her own such as religious tolerance and practice, the role of women, foreign language competence, business practices, and so on. Academic credit may be earned in a wide variety of disciplines. Study abroad opportunities range from a few weeks to an entire academic year, with a quarter or semester being the most common

In order for a student to qualify for a study abroad opportunity, the student must have a grade point average of 2.0 or better at Sinclair and meet any other specific requirements of the particular study abroad opportunity. Interested students are encouraged to come to the Study Abroad office in Building 16, Room 16118, or call (937) 5125306 for information.

Information about the International Student I.D. Card (I.S.I.D.) and overseas medical insurance is available in the Student Activities office, Room 10413.

Many Sinclair employees are involved in giving back to this community. Sinclair educated Michael Sanchez has coached wrestling, baseball, and football to Carroll High School and Pinewood Park students. As Mail Center and Shipping \& Receiving supervisor, Michael and his staff oversee three million outgoing and incoming mail items per year.



Professor Thomas M. Singer of the Industrial Design E Graphic Technology department researched a virtual office project at Sinclair that led to the award, Innovative Excellence in Teaching and Learning Technology. This project focused on the Internet as a communication tool with students and instant messaging technology.

There are many opportunities to earn college credit at Sinclair. Students may choose to earn associate degrees in career-related areas, obtain transfer credits toward a fouryear degree following University Parallel programs, or obtain a certificate which can be applied to degree programs. In addition, there is a variety of alternative learning opportunities such as Distance Learning, College Without Walls, Credit for Lifelong Learning, and Cooperative Education. Students may also register for courses at other colleges through the Southwestern Ohio Council for Higher Education for Sinclair credit.

Whatever students choose to study, it is recommended that they plan the programs with an academic counselor and faculty advisor. Students are required to complete specific course work to earn a degree or a certificate and must follow certain prerequisites. A complete list of counselors and department chairpersons can be found before each division's listing. Please contact any of them if there are questions.

Career-related degree programs are designed to prepare students for entry into a specific job field, for advancement in a current job, or for making a career change. A list of career programs offered at Sinclair can be found on the following pages.

University parallel degree programs are designed for those who plan to transfer to four-year colleges and universities after completing course work at Sinclair. Most Liberal Arts \& Sciences courses completed with a final grade of "C" or better will transfer with no loss of credit. Transferability of all courses should be determined BEFORE students begin taking classes at Sinclair. Remember that the transfer school has the final determination of what courses will be accepted for that school's degree requirements.


University parallel programs are suggested programs of study if the student ultimately plans to major in one of the areas listed on the following pages at a four-year school. The students are encouraged to plan the program carefully both with a Sinclair academic counselor and an advisor at the transfer school. Sinclair has some direct transfer programs with a number of institutions such as Bowling Green State University, Governors State University, The McGregor School at Antioch University, Miami University, Wright State University, University of Dayton, Central State University, and College of Mount St. Joseph.

Graduates of a university parallel program will receive either an Associate of Arts or an Associate of Science degree and will usually be given junior status at the four-year school.


## A Vision

We believe in unlimited human potential. General Education is a process whereby lifelong learners grow and fulfill that potential. General Education supports individuals in the quest to become whole, complete persons by encouraging development in areas such as thought, communication, values, creativity, feeling, adaptability and awareness. General Education provides foundation skills necessary for successful living in the ever-changing present and future global environment.

In addition to encouraging uniqueness and personal development, General Education provides the commonalities which enable us to collaborate and achieve community. Indeed, as we face the challenges inherent in human existence, General Education is a key to solving the problems of survival for individuals, communities, nations and the species.

## A Definition

General Education is the lifelong learning endeavor to become a well-rounded person who appreciates and contributes to the human community. General Education is the process of challenging oneself, stretching oneself to fulfill more and more of one's unlimited human potential. General Education is the foundation of any education; it is, as Einstein said, "what remains when you forget everything you learned." General Education is the heart and soul of any educational experience at Sinclair Community College.

## Competencies Across the Curriculum

Students and faculty across all programs nurture the development of :

- Communication
- Thinking
- Values/Citizenship/Community


## Core Courses in Every Program

Each degree seeking student must complete a core of approximately 20 quarter hours of courses in the areas of communication, English, social science, humanities, mathematics and computer literacy. In addition to providing educational breadth, these courses support the development of the across-the-curriculum competencies listed above.

The curriculum plan for each degree program in this catalog incorporates a series of courses which introduces and reinforces the competencies across the curriculum. The minimum required courses include:

- At least two courses of written communication (selected from one of the following sequences: ENG 111, 112, 113; ENG 131, 132; ENG 121, 122).
- One course of oral communication (COM courses).
- One course of mathematics (MAT 100 level or higher OR demonstrated proficiency via examination).
- One course of social science (PSY, SOC, PLS, HIS, GEO, ECO, SWK, or HUM 115).
- A computer theory/application course. This may be a course within the program of study, a module within a course in the program of study, OR a BIS or CIS course.
- One course of humanities from any on the following lists: Students with limited knowledge of the humanities can select one of the following courses:
- HUM 130
Humanity \& the Challenge of Technology
- HUM 131 The Search for Utopia
- HUM/EGR 132 Connecting Technology \& Our Lives

Students who have an understanding of, and an appreciation for, the humanities and wish to study one aspect of the humanities can select one of the following courses:

- ART 101

Art Appreciation: Introduction to Art

- ART 102 Art Appreciation: Art Media
- ART 125 African Art
- ART 235
- DAN 155
- DAN 157
- GEO 102
- HIS 105
- HIS 111, 112, 113
- HUM 125
- HUM 140
- HUM 205
- HUM 245
- HUM 255
- MUS 115
- PHI 205
- REL 111
- REL 112
- REL 135
- THE 105

History of Photography
Dance History
Dance Appreciation
Introduction to Geography II
African-American History
Western Civilization I, II, III
The Human Image
Appalachian Folkways
Cultures of Ancient Greece \& Rome
The Vietnam War:
Narratives \& Issues
People \& Religion
Music Appreciation
Introduction to Philosophy
Eastern Religions
Western Religions
American Religious Movements
Introduction to Theatre

Students with a fairly substantial background in a discipline can select a course from the following which are designed for majors in the area:

- ART 231
- ART 232
- ART 233
- LIT 201, 202, 203
- LIT 211, 212
- LIT 227
- LIT 230
- MUS 131, 132, 133

Art of the Ancient World
Art of the Medieval \&
Renaissance Worlds
Art of the Modern World
Survey of English Literature I, II, III
Survey of American Literature I, II
Introduction to Shakespeare
Great Books of the Western World
Music Styles I, II, III
History of Theatre I, II, III

- THE 201, 202, 203


Business Technologies Dean Frieda R. Bennett has been a business faculty member since 1975. Dr. Bennett has served as assistant to the president, acting Business dean, and has participated in such programs as LEADERS, Kellogg Fellows, and evaluator for the Association of College Business Schools and Programs.

## Additional Initiatives

There are other components of General Education which are important for students, faculty and administrators. Therefore, the college will continue to encourage initiatives at personal, departmental and college-wide levels which focus on development of other components of General Education. Examples of additional initiatives include:

- International Education
- Diversity Projects
- Art Galleries
- Speakers Series
- Physical Education Programs
- Model United Nations
- Student Writing and Art Competitions
- Learning Resources Center Information Literacy Project
- New literature courses such as Great Books of the Western World, Banned Books, African-American Literature, Appalachian Literature, Mothers \& Daughters

By encouraging a myriad of activities in addition to the special focus on communcation, thinking, and values/ citizenship/community, the vision for a diverse community of lifelong learners at Sinclair will be achieved.

## Degrees

A.A. - Associate of Arts
A.A.S. - Associate of Applied Science
A.S. - Associate of Science
A.T.S. - Associate of Technical Study
A.I.S. - Associate of Individualized Study

## Career Programs (A.A.S.)

Accounting
Architectural Technology
Automotive Technology
Aviation Technology
Option: Professional Pilot \& Airway Science
Biotechnology
Business Information Systems
Options: Accounting Office Legal Office Medical Office
Business Management
Civil Engineering Technology Option: Construction Management
Computer Information Systems
Concentration: Network Engineer
Network Manager
Software Development
User Support
Web Development
Corrections
Options: Community Based
Institutional
Dental Hygiene Technology
Dietetics \& Nutritional Management Technology
Disabilities Intervention Services
Early Childhood Education
Electromechanical Engineering Technology w/Robotics
Electronics \& Computer Engineering Technology Option: Telecommunications
Environmental Engineering Technology
Financial Management
Fire Science Technology
Option: Fire Administration
Health Information Management
Hospitality Management Option: Culinary Arts
Industrial Design \& Graphic Technology
Industrial Engineering Technology
Option: Manufacturing Engineering
Technology
Plastics \& Composites Engineering Technology
Labor Studies
Law Enforcement
Options: Police Science
Industrial/Retail Security
Legal Assisting
Logistics Management
Manual Communication
Marketing Management
Mechanical Engineering Technology
Option: Heating \& Air Conditioning
Medical Assistant Technology
Mental Health Technology
Mid-Management Retailing
Nursing
Occupational Therapy Assistant
Personal Computer Applications
Physical Therapist Assistant
Printing Technologies
Procurement \& Materials Management
Options: Production \& Inventory Control Transportation

Quality Engineering Technology
Options: Packaging Quality Assurance
Radiologic Technology
Real Estate/Property Management
Respiratory Care
Safety Engineering Technology
Surgical Technology
Tooling \& Machining Technology
Options: Machining
Mechanical
Tooling \& Manufacturing
Travel \& Tourism
Visual Communications Option: Interior Design

## Certificate Programs

Automotive Technology
Aviation Maintenance
Business Management
Church Music
Disabilities Intervention Services
Early Childhood Education
Electrical \& Electronics Repair Technology
Emergency Medical Services
Fire Administration
Fire Science Technology
Food Service Management
Gerontology
Human Services
Infant/Toddler Education
Information Processing
Labor Studies
Manual Communication
Medical Office Specialist
Medical Transcription
Personal Computers for Business
Plastics \& Composites Engineering Technology
Procurement \& Materials Management
Quality Control Technology
Safety Risk Management
Surveying
Tool \& Die Technology
Tooling \& Machining (Project STEP II)
Urban Studies

## Short Term Certificates

3D CAD Software
Advanced Constructor Certificate
Advanced Substance Abuse
Allied Health Management
Arts Administration
Automotive High Performance
Basic Drawing
Call Center
Ceramics/Sculpture
Construction Supervisor
Constructor Certificate
Corrections
Dance
Desktop Publishing
Dietary Management
Digital Prepress
Electrical Construction
EMT-Basic Certificate
EMT-Paramedic Certificate
Exercise Specialist
Family Advocate
Fast Track Programmer Analyst
Firefighter Technician
Help Desk
JAVA Enterprise
Light Commercial HVAC Service

Long Term Care
Manufacturing Management
Mechanical Maintenance
Medical Office Coding Specialist
Mental Health Intervention Services
Multi-Skilling Health Care
Multimedia
Offset Printing
Pharmacy Technician
Photographic Technology
Professional Communication
Rescue Technician
Social Service
Software Applications for the Professional
Substance Abuse
Web Authoring
Web Programming

## Individualized Degrees

Associate of Technical Studies
Associate of Individualized Study

## University Parallel Programs <br> (A.A. \& A.S.)

Business Administration
Art
Communication Arts
Dance
Engineering Science
Liberal Arts \& Sciences
Emphases: African-American Studies
Biology
Chemistry
Creative Writing
Elementary Education
English
Environmental Science
Geography
Geology
History
Mathematics
Modern Languages
Philosophy
Physics
Political Science
Psychology
Secondary Education
Social Work
Sociology
Physical Education
Public Services
Options: Gerontology
Human Services
Public Administration
Music Education
Music Performance
Theatre Performance
Theatre Technical

## Specialized Courses <br> Clinical Phlebotomy

Electrocardiography
Electrocardiography for the Health Care Provider
First Responder
General X-ray Machine Operator
Health Unit Coordinator
Home Health Aide
Nurse Aide Training
Patient Care Assistant
Pediatric Patient Care Assistant
Therapeutic Recreation
Venipuncture for the Health Care Provider


Colleen Whittington, chairperson and associate professor of Physical Therapist Assistant, and coordinator of Medical Message Therapy, was honored in 2002 by the National Institute for Staff and Organizational Development (N.I.S.O.D.) for teaching excellence.

Dr. David L. Collins, Dean
(937) 512-2919, Room 6111

Patricia Jayson
Academic Counselor
(937) 512-3029, Room 6120

Judy Strain
Academic Counselor
(937) 512-3029, Room 6120

Kimberly Thomas
Academic Counselor
(937) 512-3029, Room 6120

Pat Willis
Academic Counselor (937) 512-3029, Room 6120

Dental Hygiene
Pamela Edwards, Chairperson (937) 512-2779, Room 4332

Dietetics \& Nutritional Management
Dr. Betty Dykes, Chairperson (937) 512-2756, Room 13210

Emergency Medical Services Chuck Sowerbrower, Chairperson (937) 512-5338, Room 1031

Health Information Management
Janette Kelly, Chairperson (937) 512-2973, Room 2122

Medical Assistant Technology
Jennifer Barr, Chairperson (937) 512-2973, Room 2122

Mental Health Technology
Paul Van Marter, Chairperson
(937) 512-2845, Room 9217

Nursing
Dr. Gloria Goldman, Chairperson (937) 512-2848, Room 3331

Occupational Therapy Assistant Kay Ashworth, Chairperson (937) 512-5177, Room 1031

## Academic Counseling Office Hours:

Walk-in counseling is available daily Monday-Thursday, 8:30 a.m. - 7:00 p.m.; Friday, 8:30 a.m. - 5:00 p.m.
Note:Since the counseling hours may vary each quarter, a student or interested applicant should call (937) 512-3029 to ensure that a counselor is available.

## Grade Report Process Changed <br> In an effort to provide more convenient

 and secureaccess to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the web at http://www.sinclair.edu/departments/rsr/home.htm. Access to grades has been maintained through the InTouch information kiosks. Check the quarterly class bulletin for details.

Physical Therapist Assistant Integrative Medical Massage Therapy Colleen Whittington, Chairperson (937) 512-5355, Room 3340

Radiologic Technology
Denise Moore, Chairperson
(937) 512-2842, Room 3340

Respiratory Care
Dr. Cynthia Beckett, Chairperson (937) 512-2849, Room 3340

Surgical Technology
Susan Willin-Mulay, Chairperson (937) 512-5355, Room 3340

## Planning the Program

Most programs in the Allied Health Technologies division are seven quarters in length and commence fall quarter. However, students may begin any quarter to take the general education and science support courses that relate to their program. Only after formal written acceptance into an Allied Health program can the technical courses associated with that programbegin. Once the technical course series is started, each course thereafter, until completion of the program, must be completed in sequence.

Enrollment in Allied Health programs is limited, and applicants must meet specific admission requirements prior to acceptance. These requirements are outlined by the academic counselors in the Allied Health office.

Allied Health program admission packets are available in the office of Admissions, Room 10112. A complete physical and dental examination is required after acceptance and prior to entry into most programs in the Allied Health division.

A student is required to complete the coursework listed under one of the following headings to earn a degree or a certificate. Some courses have prerequisites; others must be taken in special sequences. It is recommended that the student see an Allied Health counselor to plan a course of study, Room 6120, (937) 512-3029.

The Allied Health student is expected to make satisfactory progress in acquiring knowledge and skills. The student must earn at least a grade of "C" (2.0) in all required courses to continue in an Allied Health program.

# University Parallel Transfer Degree Programs 

The student planning to pursue a baccalaureate degree after receipt of the associate degree in one of the Allied Health programs at Sinclair, should contact the transfer institution well in advance to determine what courses will be accepted for transfer. The student should work closely with his or her Sinclair Community College division counselor or faculty advisor to select electives and other courses that will be accepted by the four-year school.

Similar action should be taken by an Emergency Medical Services student planning to transfer to the associate degree program in Emergency Medical Technology at Clark State Community College following completion of the initial year of this program at Sinclair.

As a general rule, Liberal Arts \& Sciences courses taken as part of an Allied Health career program will transfer to a baccalaureate program. Technical courses may also transfer depending on the particular major and the institution to which the student plans to transfer.

## Articulation Agreements

The division of Allied Health Technologies has a number of transfer agreements which have been developed to assist students in transferring.

Andrews University
Capital University
Clark State Community College
College of Mt. St. Joseph on the Ohio
Edison State Community College
Miami University
Ohio State University
Raymond Walters College
University of Cincinnati
Wright State University
For more information, contact the Allied Health counselor's office, Room 6120, (937) 512-3029.

## Career Degree Programs

The Allied Health career programs prepare students for employment in dental hygiene, dietetic technology, emergency medical services, health information management, medical assistant technology, mental health technology, nursing, occupational therapy assistant, physical therapist assistant, radiologic technology, respiratory care, or surgical technology. Graduates earn the Associate of Applied Science degree. Programs prepare graduates for licensure, registry or other credentialing required by each profession.

Students interested in pursuing a degree program in Allied Health must follow these steps:

- Submit a completed application of admission to

Sinclair, unless the students have previously applied.

- Have high school transcripts (or G.E.D.) sent to the limited enrollment coordinator in Room 6120.
- Have all previously attended colleges/universities send transcripts to the Registration \& Student Records office, Room 10231.
- New students must take C.O.M.P.A.S.S. placement testing in Room 10455 and attend a group advising session with an Allied Health counselor. Call (937) 5122210 to schedule. However, transfer and former Sinclair students with credits in college level English and math should come to the Allied Health counseling office in Room 6120 with copies of transcripts.
- Obtain the Allied Health admission packet from the office of Admissions (Building 10, Room 10112). Submit the application form by mail or in person to Building 6, Room 6120. Students will receive information specific to the program they indicated on the application.
- Complete all required courses and meet the grade point average requirement for the intended program. An Allied Health counselor will provide this information in the advising session. Call (937) 512-3029 for more information.
Application dates for Allied Health career programs vary due to limited enrollment in some programs. Completed applications are accepted on an ongoing basis until program openings are full. Those students meeting all of the specific admission requirements will be admitted according to department policy. Mental Health, Nursing, and Radiology programs have multiple start dates, while other programs generally start in the fall quarter; however, students may start prerequisite course work (as needed) any quarter. Please call the Allied Health counseling office at (937) 512-3029 for more information about the application process.

A grade of " C " or better must be earned in all required courses, and an overall grade point average of 2.0 is required for continuance in all Allied Health programs.

## Dental Hygiene Technology <br> (109 Total Credit Hours)

Working with the supervision of a dentist, dental hygienists scale, polish teeth, chart abnormalities, take radiographs, apply preventive agents, impart dental health information and take health histories.

This program, accredited by the Commission on Dental Accreditation, is designed to be completed in seven (7) consecutive quarters on a full-time basis. The general education courses and selected dental hygiene courses may be taken prior to admission to the program. A grade of 2.0 or higher is required in all courses. The student must successfully complete the application requirements as outlined in the Dental Hygiene admission packet. Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

The graduate is eligible to take the Dental Hygiene National Board, the North East Regional Board or similar state boards, and to apply for state licensing.

Admission Requirements:

| ALH | 140 | Basic Life Support |  | 1 |
| :---: | :---: | :---: | :---: | :---: |
| BIO | 107 | Human Biology |  | 5 |
|  |  | or |  |  |
| 141,142,143 |  | Anatomy \& Physiology |  | 12 |
| SOC | 111 | General Sociology I |  | 3 |
|  |  |  | TOTAL | 9 or 16 |
|  |  |  |  | Credit |
| Course \& Title |  |  |  | Hours |

## FIRST QUARTER

| ALH | 104 | Allied Health Informatics | 2 |
| :--- | :--- | :--- | :--- |
| DEH | 103 | Head \& Neck Anatomy | 4 |
| DEH | 105 | Introduction to Dental Hygiene | 2 |
| DEH | 114 | Exposure Control in Dentistry | 1 |
| CHE | 122 | Bio-Chemistry | 4 |
| ENG | 111 | English Composition I | 3 |

## SECOND QUARTER

DEH 111 Pre-Clinical Dental Hygiene I 4
DEH 155 Oral Pathology 4
DEH 157 Research Methodology 2
BIO 205 Microbiology
ENG 112 English Composition II TOTAL $\quad \frac{3}{17}$

## THIRD QUARTER

| DEH | 112 | Pre-Clinical Dental Hygiene II | 4 |
| :--- | :--- | :--- | ---: |
| DEH | 135 | Dental Radiology | 4 |
| DEH | 156 | Dental Hygiene Research Project | 1 |
| DEH | 220 | Medical Emergencies in the Dental Office | 2 |
| DEH | 106 | Nutrition \& Oral Health | 3 |
| ALH | 220 | Pathophysiology | $\frac{4}{4}$ |

## FOURTH QUARTER

DEH 113 Clinical Dental Hygiene I 5
DEH 215 Periodontics I
MAT 101 Elementary Algebra
PSY 119 General Psychology

$$
\begin{aligned}
&(\text { or PSY } 121 \& \text { PSY } 122= 6 \text { cr. hrs.) } \\
& \text { TOTAL }
\end{aligned} \quad \frac{5}{16}
$$

## FIFTH QUARTER

| DEH | $125^{*}$ | Dental Materials | 3 |
| :--- | :--- | :--- | ---: |
| DEH | 211 | Clinical Dental Hygiene II | 7 |
| DEH | 210 | Drug Therapy in Dentistry | 2 |
| DEH | 235 | Community Dental Health I | 3 |
|  |  |  |  |

## SIXTH QUARTER

| DEH | 212 | Clinical Dental Hygiene III | 7 |
| :--- | :--- | :--- | ---: |
| DEH | 250 | Periodontics II | 2 |
| DEH | 253 | Pain Control in Dentistry |  |
| COM | 211 | Effective Speaking | 1 |
|  |  | TOTAL | 13 |
| SEVENTH QUARTER | 3 |  |  |
| DEH | 213 | Clinical Dental Hygiene IV |  |
| DEH | 236 | Community Dental Health II | 7 |
| DEH | 255 | Dental Hygiene Practice | 2 |
| HUM |  | Humanities Elective* | 2 |
|  |  |  | 3 |

[^0]
## Dietetics \& Nutritional Management Technology <br> (106 Total Credit Hours)

Graduates of the dietetic program are trained food and nutrition professionals who function as members of the food service and nutrition care teams under the supervision of a registered dietitian. They promote health by providing personalized services and referral to ensure proper nutrition.

The Dietetics \& Nutritional Management Technology program is fully approved by the American Dietetic Association, Commission on Accreditation for Dietetic Education (C.A.D.E.) a specialized accrediting body recognized by the Council of Postsecondary Accreditation and the United States Department of Education. It is also approved by the Dietary Managers Association. Completion of the DIT program will enable the graduates to become registered technician members of the American Dietetic Association (A.D.A.) upon successful completion of a national examination.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

| , |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: |
| Course \& Title |  |  |  |
| FIRST QUARTER |  |  |  |
| DIT | 109 | Introduction to Dietetics | 2 |
| DIT | 112 | Medical Terminology | 2 |
| ALH | 103 | Introduction to Health Care Delivery | 3 |
| MAT | 101 | Elementary Algebra | 4 |
| CHE | 120 | Introduction to Chemistry | 4 |
|  |  | TOTAL | 15 |
| SECOND QUARTER |  |  |  |
| DIT | 129 | Human Nutrition | 5 |
| DIT | 137 | Food Sanitation \& Safety | 3 |
| CHE | 122 | Introduction to Biochemistry | 4 |
| BIS | 119 | Personal Computer Applications: Microsoft Works | 3 |
|  |  | TOTAL | 15 |
| THIRD QUARTER |  |  |  |
| DIT | 135 | Nutrition in the Life Cycle | 3 |
| DIT | 224 | Community Nutrition | 5 |
| DIT | 205 | Food \& Meal Management | 3 |
| ENG | 111 | English Composition I | 3 |
| DIT | 206 | Lab for DIT 205 | 2 |
|  |  | TOTAL | 16 |
| FOURTH QUARTER |  |  |  |
| PSY | 119 | General Psychology | 5 |
| COM | 206 | Interpersonal Communication | 3 |
| ENG | 112 | English Composition II | 3 |
|  |  | TOTAL | 11 |
| FIFTH QUARTER |  |  |  |
| DIT | 221 | Medical Nutrition Therapy I | 3 |
| DIT | 226 | Dietetics Directed Practice I | 4 |
| DIT | 225 | Education Methods \& Materials | 4 |
| DIT | 216 | Food Preparation \& Dietary Service | 6 |
|  |  | TOTAL | 17 |
| SIXTH QUARTER |  |  |  |
| DIT | 222 | Medical Nutrition Therapy II | 4 |
| DIT | 227 | Dietetics Directed Practice II | 4 |
| HUM |  | Humanities Elective* | 3 |
| SOC | 120 | General Sociology | 5 |
|  |  | TOTAL | 16 |

## SEVENTH QUARTER

| DIT | 223 | Medical Nutrition Therapy III | 4 |
| :--- | :--- | :--- | ---: |
| DIT | 228 | Dietetics Directed Practice III | 4 |
| DIT | 236 | Dietary Organization \& Management | 6 |
| DIT | 255 | Dietetics Seminar | $\frac{2}{16}$ |

Note: DIT 236 requirement may be fulfilled by DIT 118

* See page 52.


## Health Information Management

## (108 Total Credit Hours)

Health information specialists organize, analyze, evaluate, code, store, retrieve, control, and present health care data. Accredited by the Committee on Allied Health Education and Accreditation (C.A.H.E.A.) in cooperation with the American Health Information Management association's Council on Accreditation. This daytime program is designed to be completed in seven (7) consecutive quarters on a full-time basis. Many students elect to attend on a part-time basis, extending the length of study to three or four years. The curriculum includes three directed practice experiences at area health care agencies. Students areexpected to provide transportation to these sites as well as any other associated expenses. A complete physical exam and specific immunizations are required at the student's expense, prior to enrolling in directed practice. Students must complete the application requirements outlined in the HIM admissions packet, available from Admissions, Room 10112.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

## Prerequisites



FOURTH QUARTER

| MAT | 106 | Allied Health Mathematics or |
| :---: | :---: | :---: |
| COM | 101 | Elementary Algebra |
|  | 206 | Interpersonal Communication or |
|  | 211 | Effective Speaking I |
| ENG | 112 | English Composition II or |
|  | 132 | Business Communications II |
| PSY | 121 | General Psychology I or |
| SOC | 111 | General Sociology I |
| BIS | M51 | Introduction to Powerpoint |
|  |  | TOTAL |
| FIFTH QUARTER |  |  |
| HIM | 236 | Ambulatory Coding for Hospitals |
| HIM | 250 | Supervised Professional Practice I |
| HIM | 244 | Health Care Quality Improvement |
| HIM | 245 | Health Information Resource Management |
| HUM |  | Humanities Elective* |
|  | SIXTH QUARTER |  |  |
|  |  |  |  |
| HIM | 231 | Inpatient ICD-9-CM Coding |
| HIM | 251 | Supervised Professional Practice II |
| HIM | 225 | Clinical Abstracting |
| HIM | 235 | Health Record Statistics |
|  |  | TOTAL |
| SEVENTH QUARTER |  |  |
| HIM | 218 | Cancer Registry |
| HIM | 278 | HIM Capstone |
| HIM | 204 | Health Informatics |
| HIM | 252 | Supervised Professional Practice |
|  |  | General Education Elective |

* See page 52.


## Integrative Medical Massage Therapy

## ( 106 Total Credit Hours)

The message therapy program is a partnership between Sinclair and Self-Health Institute (S.H.I.) of Lebanon, Ohio. Completion of the curriculum will lead to a diploma issued by S.H.I. which is recognized and certified by the State of Ohio Medical Board. An associate of applied science degree is issued by Sinclair with the successful completion of the seventh quarter of course work. The student is then eligible to take the state licensing examination. The program adheres to the competencies and conduct expectations of the American Massage Therapy Association and the State of Ohio Medical Board's Code of Ethics, and Standards of Practice. One class is admitted each fall quarter. Information is available through the Allied Health counselors in Room 6120, (937) 512-3029 or the IMT program at (937) 512-5355.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

## Prerequisites:

BIO 141 Anatomy \& Physiology I 4 cr. hrs.

BIO 142 Anatomy \& Physiology II 4 cr. hrs.
2.5 GPA


| FIFTH QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| MAS | 106 | Medical Office Emergency Procedures | 3 |
| MAS | 201 | Family Practice Clinical Assisting Procedures | 3 |
| MAS | 202 | Insurance \& Patient Records | 3 |
| MAS | 203 | Medical Assisting Directed Practice I | 2 |
| HIM | 260 | ICD-9-CM Medical Office Coding | 3 |
| HIM | 261 | CPT Medical Office Coding TOTAL | $\frac{3}{17}$ |
| SIXTH QUARTER |  |  |  |
| MAS | 204 | Medical Assisting Directed Practice II | 3 |
| MAS | 206 | Specialty Clinical Assisting Procedures | 3 |
| MAS | 207 | Medical Laboratory Procedures | 3 |
| ALH | 130 | Electrocardiography for the Health Care Provider |  |
| HUM |  | Humanities Elective* | 3 |
|  |  | TOTAL | 13 |
| SEVENTH QUARTER |  |  |  |
| MAS | 205 | Medical Assisting Directed Practice III | 5 |
| MAS | 208 | Medical Assisting Seminar | 2 |
| BIS | 220 | Computer Applications for the Medical Office | 4 |
| RAT | 104 | Radiographic Principles for General Machine Operator | + |
|  |  | TOTAL | 15 |

* See page 52.


## Mental Health Technology

## (103 Total Credit Hours)

The mental health technology program prepares entry level human service workers for employment working on a team with supervision. Duties may include client interviewing, crisis intervention and advocacy, activity therapy, group leadership, and case management.

Graduates of this program work directly with a diverse group of clients in a wide variety of human service agencies. The course of studies can be completed on a full-time ( 7 quarters) or part-time basis with day and evening options available. The practicum portion of the curriculum provides over 500 hours of supervised clinical experience in human service agencies. Graduates are eligible for registration by the Ohio Counselor and Social Worker Board. The program is approved by the Council for Standards in Human Service Education. An informational interview and a G.P.A. of 2.0 is required for admission to the program.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

| Course \& Title |  |  | Credit |
| :---: | :---: | :---: | :---: |
|  |  |  | Hours |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I | 3 |
| PSY | 121 | General Psychology I | 3 |
| BIO | 107 | Human Biology | 5 |
| MHT | 101 | Introduction to Mental Health Work | 3 |
|  |  | TOTAL | 14 |
| SECOND QUARTER |  |  |  |
| ALH | 103 | Introduction to Heath Care Delivery | 3 |
| ENG | 112 | English Composition II | 3 |
| PSY | 122 | General Psychology II | 3 |
| MAT | 105 | Business Mathematics | 4 |
| SOC | 111 | General Sociology I | 3 |
|  |  | TOTAL | 16 |

## THIRD QUARTER

| ALH | 104 | Allied Health Informatics |  |
| :---: | :---: | :---: | :---: |
| PSY | 160 | African-American Psychology |  |
| PSY | 217 | Abnormal Psychology |  |
| MHT | 115 | Social Casework |  |
| MHT | 126 | Introduction to Addictive Illnesses |  |
|  |  | TOTAL | 15 |
| FOURTH QUARTER |  |  |  |
| MHT | 201 | Interviewing \& Assessment |  |
| PSY | 208 | Life Span Development |  |
| COM | 206 | Interpersonal Communication |  |
| HUM |  | Humanities Elective* |  |
| TOTAL |  |  | 14 |
| FIFTH QUARTER |  |  |  |
| MHT | 211 | Group Dynamics I |  |
| MHT | 221 | Activity Therapy |  |
| MHT | 205 | Psychosocial Interventions |  |
| MHT | 202 | Practicum in Mental Health I |  |
|  |  | TOTAL | 14 |
| SIXTH QUARTER |  |  |  |
| MHT | 212 | Group Dynamics II |  |
| MHT |  | MHT Elective (see MHT advisor) |  |
| MHT | 245 | Mental Health \& the Family |  |
| MHT | 203 | Practicum in Mental Health II | 5 |
|  |  | TOTAL | 15 |
| SEVENTH QUARTER |  |  |  |
| MHT | 213 | Group Dynamics III |  |
| SOC | 205 | Social Problems |  |
|  |  | Career-related Elective |  |
| MHT | 204 | Practicum in Mental Health III | 5 |
|  |  | TOTAL | 15 |

* See page 52.


## Nursing

## (109 Total Credit Hours)

The nursing program provides students with the opportunity to become registered nurses. The curriculum is divided among non-nursing and nursing courses, where students participate in classroom activities and hospital experiences caring for people of all ages and health needs.

The Associate Degree Nursing (A.D.N.) program is accredited by the National League for Nursing and approved by the State of Ohio Board of Nursing. To enroll in Nursing classes, an individual must be accepted into the Nursing program. The eight-quarter curriculum may be taken on a part-time basis, but Nursing courses must be taken in sequence. General education courses may be taken before admission to the Nursing program, prior to the quarter required, or within the quarter required. A grade of " $C$ " is required in all Nursing courses and the required general education courses. An overall grade point average of at least 2.0 is required to continue in the program. A cumulative grade point average of at least " $C$ " (2.0) is required for graduation. The graduate is eligible to take the National Licensing Examination to become a Registered Nurse (R.N.).

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

## Admission Requirements:

- Successful completion of all DEV courses or appropriate score on C.O.M.P.A.S.S. test
- High school chemistry (within previous five years with grade of "C" or better or college equivalent)
- Nursing pre-admission exam
- Certified Nurse Assistant status

Note: C.P.R. certification is required prior to NUR 122 and must remain current throughout the program.


* See page 52.


## Continuing Education Courses

Continuing Education Nursing specialty courses are available to registered nurses and nursing students who have completed NSG 220. Continuing Education courses reinforce previous learning, increase knowledge and develop technical skills in nursing specialty areas. Non-specialty courses are available to all interested health personnel. For details, contact the office of Continuing Education in Nursing, Room 16113, (937) 512-2563.

## Advanced Placement for L.P.N.'s

Sinclair offers an advanced placement into the nursing program for qualified L.P.N.'s. Licensed Practical Nurses may substitute BIO 211 for BIO 141, 142, and 143 and may receive advanced placement credit for NSG 120, 121, 122, and 123 upon successful completion of NSG 130. For more information, contact the Nursing office at (937) 512-2848.

## Occupational Therapy Assistant

## (110 Total Credit Hours)

Occupational therapy assistants, under the supervision of occupational therapists, help people prevent, lessen, or overcome physical and mental disabilities so that they are able to function independently.

This program includes extensive clinical training which must be completed within 18 months of completion of the academic coursework. It is accredited by the Accreditation Council for Occupational Therapy Education (A.C.O.T.E.) of the American Occupational Therapy Association (A.O.T.A.), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. A.O.T.A.'s number is (301) 652-2682. Occupational therapy assistants provide services, under supervision of an occupational therapist, to individuals whose abilities to cope with daily tasks are threatened or impaired by developmental deficits, aging, injury or illness. Graduates of the program will be eligible to sit for the national certification examination administered by the National Board for Certification of Occupational Therapy (N.B.C.O.T.). After successful completion of this examination, the individual will be a Certified Occupational Therapy Assistant (C.O.T.A.) and be eligible for licensure in the State of Ohio.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.

## Prerequisites:

| ALH | 103 | Introduction to Health Care Systems | 3 |
| :--- | :--- | :--- | ---: |
| BIO | 107 | Human Biology |  |
| OTA | 101 | Introduction to OTA |  |
|  |  |  | 3 |
|  |  |  | TOTAL |



## FOURTH QUARTER

| $\overline{\text { BIS }}$ | - |
| :--- | :--- |
| ENG | -112 |
| PSY | 122 |
| SOC | 111 | Program Elective

BIS Electives
ENG $\overline{112}$ English Composition II

SOC 111
General Psychology II
Sociology I

## FIFTH QUARTER

| ALH | 104 | Health Informatics | 2 |  |
| :--- | :--- | :--- | ---: | ---: |
| SOC | 215 | American Ethnic \& Racial Groups | 4 |  |
| OTA | 231 | Treatment Issues I | TOTAL | $\mathbf{9}$ |
|  |  |  | 15 |  |

SIXTH QUARTER

| HUM |  | Humanities Elective* |  | 3 |
| :---: | :---: | :---: | :---: | :---: |
| MAT | 106 | Allied Health Mathe |  | 4 |
| OTA | 232 | Treatment Issues II |  | 9 |
|  |  |  | TOTAL | 16 |
| SEVE | NTH | UARTER |  |  |
| OTA | 220 | Clinical Affiliation I |  | 3 |
| OTA | 233 | Clinical Issues I |  | 1 |
|  |  |  | TOTAL | 4 |
| EIGH | TH Q | ARTER |  |  |
| OTA | 221 | Clinical Affiliation II |  | 3 |
| OTA | 234 | Clinical Issues II |  | 1 |
|  |  |  | TOTAL | 4 |

* See page 52.


## Physical Therapist Assistant <br> (108 Total Credit Hours)

Physical therapist assistants, under the supervision of physical therapists, implement treatment programs for patients of all ages who suffer from disabilities and limitations due to illness, injury, or other causes.

Accredited by the American Physical Therapy Association, this program admits students for the fall quarter each year. PTA 106 needs to be taken prior to admission and is an excellent way for any student trying to determine their suitability for this profession. PTA 106 is offered each quarter, except summer.

The program includes the clinical experience beginning in the fifth quarter. Upon completion of the program, a graduate is eligible to take the state licensing examination. Information regarding admission is available from the Allied Health counselor in Room 6120.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.
Admission Requirements:

| BIO | 141 | Anatomy \& Physiology I | 4 |
| :--- | :--- | :--- | ---: |
| BIO | 142 | Anatomy \& Physiology II | 4 |
| PTA | 106 | Introduction to Physical Therapy | $-\frac{2}{10}$ |
|  |  |  | TOTAL |

FIRST QUARTER

| PTA | 110 | Fundamentals of PTA Practice | 3 |
| :--- | :--- | :--- | ---: |
| PTA | 116 | Movement Science I | 5 |
| ALH | 103 | Introduction to Health Care Delivery | 3 |
| BIO | 143 | Anatomy \& Physiology | 4 |
|  |  |  | 4 |

TOTAL

SECOND QUARTER

| PTA | 118 | Movement Science II | 5 |
| :--- | :--- | :--- | ---: |
| PTA | 120 | Pathology \& PT Clinical Practice | 3 |
| PSY | 119 | General Psychology | 5 |
| MAT | 101 | Elementary Algebra (or higher) | $\frac{4}{7}$ |
|  |  |  | TOTAL |

## THIRD QUARTER

PTA $124 \quad$ Clinical Procedures I 5
PTA 130 Therapeutic Exercise I 4
PTA 134 Tests \& Measures 3
PHY 100 Introduction to Physics 4
142 College Physics
TOTAL
16
FOURTH QUARTER
PTA 221 Clinical Procedure II 2
PTA 223 Therapeutic Exercise II 4
ENG 111 English Composition I 3
PSY 208 Life Span Human Development
TOTAL

## FIFTH QUARTER

PTA 211 PTA Clinical Practicum I 3
PTA 226 Clinical Procedures III 5
PTA 230 Neuroscience for PTA 2
ENG 112 English Composition II
TOTAL
13

## SIXTH QUARTER

| PTA | 212 | PTA Clinical Practicum II | 3 |
| :---: | :---: | :---: | :---: |
| PTA | 233 | Rehabilitation Skills | 5 |
| COM | 206 | Interpersonal Communication | 3 |
|  |  | TOTAL | 11 |
| SEVENTH QUARTER |  |  |  |
| PTA | 213 | PTA Clinical Practicum III | 3 |
| PTA | 235 | Practice Management | 3 |
| ALH | 104 | Allied Health Informatics | 2 |
| HUM |  | Humanities Elective* | 3 |
|  |  | TOTAL | 11 |

* See page 52.


## Radiologic Technology

## (110 Total Credit Hours)

Specializing in medical imaging, radiographers perform radiographic examinations that aid the physician in the diagnosis and treatment of injury and disease. Graduates will be eligible to take the national examination offered by the American Registry of Radiologic Technologists. Upon successful completion of the exam, it simultaneously satisfies the Ohio licensure requirements.

Accredited by the Joint Review Committee on Education in Radiologic Technology, this eight-quarter program offers two starting dates each year; one in the fall and one in the winter.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.
Admission Requirements:
PHY 100 Introduction to Physics or high schoo
4
physics within the past five years
Admission Recommendation:
BIO 107 Human Biology


## Surgical Technology

## ( 108 Total Credit Hours)

Surgical technologists are members of the surgical team who work closely with the surgeon, anesthesiologist, and others to ensure that the patient is ready for surgery, the operating room is safe and that sterile techniques are maintained.

Surgical Technology is a seven-quarter associate degree program accredited by the Commission on Accreditation of Allied Health Education Programs. To enroll in Surgical Technology (SUT) courses, a student must be accepted into the program. The curriculum may be taken on a part-time basis, but Surgical Technology classes must be taken in sequence. A grade of "C" (2.0) must be earned in all required courses, and an overall grade point average of at least 2.0 is necessary for continuance in the program and graduation. The graduate is eligible to take the National Certification Examination for Surgical Technologists. Professional C.P.R. certification is required prior to SUT 111 and must remain current throughout the program.

Allied Health admission packets may be obtained from the office of Admissions (Building 10, Room 10112). Students must submit the Allied Health application form by mail, or in person to Building 6, Room 6120.
Admission requirement: High school chemistry, CHE 120, or an equivalent course, with a grade of " C " or better within the last 5 years or BIO 107 with a grade of "C" or better. Credit
Course \& Title Hours
FIRST QUARTER

| BIO | 161 | Surgical Anatomy \& Physiology I | 5 |
| :--- | :--- | :--- | :--- |
| COM | 206 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I | 3 |
| ALH | 103 | Introduction to Health Care Delivery | 3 |
| HIM | 121 | Basic Medical Terminology | 3 |

## SECOND QUARTER

| BIO | 162 | Surgical Anatomy \& Physiology II | 5 |
| :--- | :--- | :--- | ---: |
| PSY | 119 | General Psychology | 5 |
| SUT | 111 | Surgical Technology Fundamentals | 6 |
|  |  |  | TOTAL |

## THIRD QUARTER

| ALH | 104 | Allied Health Informatics | 2 |
| :--- | :--- | :--- | ---: |
| BIO | 205 | Microbiology | 4 |
| SUT | 112 | Surgical Process | 10 |
|  |  |  | -16 |

## FOURTH QUARTER

| ALH | 201 | Survey of Drug Therapy |  | 2 |
| :---: | :---: | :---: | :---: | :---: |
| MAT | 106 | Allied Health Mathematics |  | 4 |
| SUT | 211 | Surgical Procedures I |  | 10 |
|  |  |  | TOTAL | 16 |
| FIFTH QUARTER |  |  |  |  |
| ALH | 220 | Pathophysiology |  | 4 |
| ENG | 112 | English Composition II |  | 3 |
| SUT | 212 | Surgical Procedures II | TOTAL | 10 |
|  |  |  |  | 17 |
| SIXTH QUARTER |  |  |  |  |
| SUT | 213 | Surgical Procedures III |  | 11 |
| ALH |  | Portfolio Elective | TOTAL | 2 |
|  |  |  |  | 13 |
| SEVENTH QUARTER |  |  |  |  |
| SUT | 220 | Surgical Technology Role Transition |  | 10 |
| HUM |  | Humanities Elective* |  | 3 |
|  |  |  | TOTAL | 13 |

[^1]
# Certificate Programs <br> Medical Transcription <br> <br> (47 Total Credit Hours) 

 <br> <br> (47 Total Credit Hours)}

This program can be completed in four (4) quarters on a full-time basis. The student is required to make an appointment with an Allied Health counselor prior to initiating this program. Prior to enrolling in the program the student must take the Sinclair placement test. The student must make up any deficiencies indicated by these tests. A student must also provide documentation of the ability to keyboard a minimum of 45 words per minute prior to enrolling in HIM 132, and a minimum of 60 words per minute prior to enrolling in HIM 202. Keyboarding test appointments may be set up by calling the HIM secretary at (937) 512-2973. The HIM courses must be taken in sequence and require attendance during the day. The student is required to earn at least a " C " in all HIM courses and the required general education courses and maintain an overall grade point average of at least 2.0.


## Short Term Certificates

## Allied Health Management

## (13 Total Credit Hours)

This certificate develops the skills needed for individuals currently employed or aspiring to be first-line health care supervisors. Basic skill development includes concepts in leadership, organizational structure, quality improvement, human resources, supervision and management, motivational principles and teamwork.

| Course \& Title |  |  | Credit <br> Hours |
| :--- | :---: | :---: | ---: |
| ALH | 121 | Allied Health Management | 3 |
| MAN | 230 | Motivational Concepts \& Applications | 1 |
| MAN | 231 | Leadership in Work Groups | 1 |
| MAN | 232 | The Organizational System | 1 |
| MAN | 237 | Human Resource Management | 3 |
| ALH | 230 | Introduction to Quality Management in |  |
|  |  | Health Care |  |
| ALH | 278 | Supervisory Applications in Health Care | 1 |
|  |  |  | 3 |
|  |  | TOTAL | 13 |

## Dietary Management <br> (18 Total Credit Hours)

Approved by the Dietary Managers Association, this certificate program may be applied to the associate degree in dietetics technology. Field experiences are under the direct supervision of a registered dietitian preceptor with at least two years post-registration competency. Students who complete this program are qualified to be the food service directors/supervisors in health care delivery systems. An application for admission may be obtained from the Dietetics \& Nutritional Management department, Room 13420 or the Allied Health counselors, Room 6120.

## Course \& Title

$$
\begin{array}{r}
\text { Credit } \\
\text { Hours } \\
6 \\
6
\end{array}
$$

DIT 110 Contemporary Nutrition
DIT 216 Food Preparation \& Dietary Service \& Clinical Experience
DIT 118 Dietary Food Service Supervision

## EMT-Basic Certification

## (8 Total Credit Hours)

Accredited by the Ohio Department of Public Safety, Division of Emergency Medical Services, this two-quarter sequence of courses provides classroom, laboratory, in-hospital, and field clinical experience. A physical examination and specific immunizations are required at the student's expense prior to clinical practicums. The student is required to earn at least a 78\% in EMS 115 and EMS 116. Following successful completion of EMS 115 and EMS 116, the student is eligible to sit for the Ohio certifying examination for Emergency Medical Technician-Basic. Day and evening classes are available to accommodate work schedules. Admission packets are available from the office of Admissions, Room 10112, or the EMS office, Room 1031.

Course \& Title
Hours
FIRST QUARTER
EMS 115 EMT-Basic Theory \& Practice I 5
EMS 116 EMT-Basic Theory \& Practice II 3

## EMT- Paramedic Certification

## (39 Total Credit Hours)

Accredited by the Ohio Department of Public Safety, Division of Emergency Medical Services, this five-quarter sequence of courses provides classroom, laboratory, in-hospital, and field clinical experience. A physical examination and specific immunizations are required at the student's expense prior to clinical practicums. The student is required to earn at least a $78 \%$ in paramedic course series. Following successful completion of EMS 135, EMS 136, EMS 137, EMS 138, and EMS 139, the student is eligible to sit for the Ohio certifying examination for Emergency Medical Technician-Paramedic. Day and evening classes are available to accommodate work schedules. Admission packets are available from the office of Admissions, Room 10112, or the EMS office, Room 1031.

## Credit

Course \& Title Hours

FIRST QUARTER
EMS 135 Paramedic I: Introduction to A.L.S. Care 8
EMS 136 Paramedic II: Cardiovascular/ Respiratory Emergencies 8
EMS 137 Paramedic III: Pediatric \& Trauma Emergencies
EMS 138 Paramedic IV: The Medical Patient 8
EMS 139 Paramedic V: Integration

## Emergency Medical Services Degree Options

- Associate of Technical Study

Students complete degree at Sinclair by combining Paramedic Certification with one or more other technical areas in an individually designed degree program (i.e., fire science, business administration). See page 132 for more details on degree planning.

- Associate of Applied Science, Emergency Medical Technology (One-Plus-One)
Students complete first year of degree at Sinclair and transfer to Clark State Community College for the final year. First year curriculum follows:

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I | 3 |
| EMS | 101 | Paramedic Theory \& Practice I* | 8 |
| BIO | 121 | Anatomy \& Physiology I | 5 |
| TOTAL |  |  | 16 |
| SECOND QUARTER |  |  |  |
| ENG | 112 | English Composition II | 3 |
| EMS | 102 | Paramedic Theory \& Practice II* | 8 |
| BIO | 122 | Anatomy \& Physiology II | 5 |
|  |  | TOTAL | 16 |
| THIRD QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
| EMS | 103 | Paramedic Theory \& Practice III* | 8 |
|  |  | TOTAL | 11 |
| FOURTH QUARTER |  |  |  |
| PSY | 121 | General Psychology I | 3 |
| EMS | 104 | Paramedic Theory and Practice IV* | 8 |
|  |  | TOTAL | 11 |

[^2]
## Long Term Care Certification

## (9 Total Credit Hours)

Meets requirements for the 90-hour training program as put forth by the National Association of Activity Professionals and the National Certification Council for Activity Professionals.

## Course \& Title <br> FIRST QUARTER

ALH 125 Therapeutic Recreation 3
SECOND QUARTER
ALH 135 Administration of Activities Programming 3 THIRD QUARTER
ALH 155 Issues in Activity Programming $\qquad$

## Medical Office Coding Specialist <br> <br> (29 Total Credit Hours)

 <br> <br> (29 Total Credit Hours)}This certificate provides students with a core set of medical office skills in coding and reimbursement to: read and interpret medical documentation (diagnoses, conditions, services and procedures); apply coding systems and regulatory rules in completing billing forms; apply reimbursement methodologies and claims; demonstrate personal behaviors, attitudes, and values consistent with a health care professional; demonstrate critical thinking and problem solving; and demonstrate informational literacy.

Credit

## Course \& Title <br> FIRST QUARTER

Hours

| ALH | 103 | Introduction to Health Care Delivery | 3 |
| :--- | :--- | :--- | ---: |
| BIO | 107 | Human Biology |  |
|  |  |  | 5 |
|  |  | TOTAL | 8 |

## SECOND QUARTER

| ALH | 104 | Allied Health Informatics | 2 |
| :--- | :--- | :--- | :--- |
| HIM | 121 | Basic Medical Terminology | 3 |
|  |  |  | TOTAL |

## THIRD QUARTER

HIM 122 Specialized Medical Terminology 3

HIM 260 ICD-9-CM Medical Office Coding 3
HIM 261 CPT Medical Office Coding 3
MAS 202 Insurance \& Patient Records $\quad \frac{3}{12}$

## FOURTH QUARTER

HIM 262 Advanced Medical Office Coding 4

## Multi-Skilling Health Care

## (44 Total Credit Hours)

The Multi-Skilling Health Care certificate offers a flexible, innovative curriculum designed to meet the needs of a changing health care marketplace. In this program, the student will complete all of the core courses and select classes from two clusters. Completion of placement testing in math, reading and writing is required prior to beginning this program, and developmental courses may be required based on test scores.


## THIRD QUARTER

ENG 111 English Composition I or
131 Business Communications I
COM 206 Interpersonal Communication
Clusters
TOTAL
$\frac{1-8}{7-14}$

## CLUSTERS

## Diagnostic Procedures

ALH 111 Clinical Phlebotomy 3
ALH 107 Principles of EKG 3
RAT 104 Radiological Principles for GMO 4
Patient Care
ALH $120 \quad$ Nurse Aide Training 6

ALH 131 Patient Care Assistant
or
133 Pediatric Patient Care Assistant
6
Health Unit Coordinator
MAS $120 \quad$ Health Unit Coordinator I 4
MAS 121 Health Unit Coordinator II 3
HIM 122 Specialized Medical Terminology 3
$\begin{array}{lll}\text { BIS } & 101 & \text { Personal Computer Keyboarding } \\ & & \text { TOTAL } \\ 22-24\end{array}$

## Pharmacy Technician <br> (44 Total Credit Hours)

This program prepares individuals to perform the technical and specialized skills of a pharmacy technician within retail and mail order settings, hospital pharmacies, nursing homes and home health care sites. The program is designed to develop knowledge and understanding of basic pharmacology, maintenance of patient records, drug-product preparation and distribution, and recordkeeping. A portion of this program will involve on-site internships at participating pharmacies. Upon completion of the program students may take the Pharmacy Tech Board Examination I.


## Substance Abuse/ Advanced Substance Abuse

## (15 or 24 Total Credit Hours)

The Substance Abuse certificate courses provide technical training in the expanding field if chemical addiction. Courses are valuable resources, not only for professionals seeking continuing education, but also for students interested in obtaining State Certification by the Ohio Credentialing Board (O.C.B.). Courses are non-restricted and may be taken in any order.
Basic Certificate of Completion: (15 Credit Hours)
Any 5 courses listed below
Advanced Certificate of Completion: (24 Credit Hours) Any 8 courses listed below

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| MHT | 126 | Introduction to Addictive Illnesses | 3 |
| MHT | 128 | Family Dynamics of Addiction | 3 |
| MHT | 130 | Treatment Techniques: Addiction | 3 |
| MHT | 132 | Assessment of Chemical Dependency | 3 |
| MHT | 134 | CD Treatment in Correctional Settings | 3 |
| MHT | 135 | A\&D Treatment for African-Americans | - 3 |
| MHT | 136 | Ethical Issues in CD Treatment \& Prevention | 3 |
| MHT | 137 | Adolescent Substance Abuse | 3 |
| MHT | 138 | Dual Diagnosis: Substance Abuse \& Mental Illness | 3 |
| MHT | 139 | Substance Abuse Prevention | 3 |
| MHT | 210 | Chemical Dependency Counselor | 3 |
| Note: <br> Addic <br> learni <br> ment | Stude <br> g sho <br> (937) | interested in pursuing a baccalaureate ies from the University of Cincinnati via d contact the Mental Health Technology 12-2845. | degree in distance depart- |

## Specialized Courses <br> Clinical Phlebotomy

## (3 Total Credit Hours)

This course is intended to provide expanded competencies and proficiencies to practicing professionals, students enrolled in health science programs, and entry level skills to accommodate special situation individuals. The students will be required to complete 25 hours of non-paid clinicals during the course. Clinicals for this course are held during the day. Class held in the evenings. Students who complete this course will receive a certificate of completion.

## Course \& Title

Hours
ALH 111 Clinical Phlebotomy
3

## Electrocardiography

(3 Total Credit Hours)
This course is intended to provide expanded skills among health care professionals as well as current ALH students to increase marketability for employment. Classes held in the evening with clinicals during the day. Students who complete this course will receive a certificate of completion.

Credit
Course \& Title
Hours
ALH 107 Principles of Electrocardiography

## Nurse Aide Training

## ( 6 Total Credit Hours)

Prerequisite: DEV 065, 075, 085 or equivalents.
The Nurse Aide Training (NAT) program prepares the student to become a nurse aide in Ohio's long term care facilities. The program is balanced between classroom and clinical skills training and provides a meaningful, practical skill development opportunity. At the conclusion of the NAT program, the nurse aide will receive a certificate and be eligible to take the required written and skills state certification test.

|  |  | Credit |
| :--- | ---: | ---: |
| Course \& | Title | Hours |
| ALH | 120 | Nurse Aide Training |

## Therapeutic Recreation

## (3 Total Credit Hours)

Option 1 is designed to meet the standards set by the Ohio Department of Health for extended care facilities.

Credit
Course \& Title
Hours
ALH 125 Therapeutic Recreation

The Sinclair experience is not just books and study. There are any number of clubs, organizations, sports and special activities in which to become involved. Many of these experiences are another way of learning and become useful after graduation.


N.I.S.O.D. is the community college, university and college consortium for professional development of faculty, administrators, and staff for continued improvement of teaching and learning. Business Management Professor Dr. Ned D. Young received the N.I.S.O.D. award in 2002, SOCHE teaching award and volunteer of the year award from Dayton Visual Arts Center.

## Dr. Frieda R. Bennett, Dean

 (937) 512-2917, Room 6110
## Sharyn Morgan

Academic Counselor
(937) 512-3054, 6131B

Meredith A. Rainey
Academic Counselor (937) 512-3054, Room 6131A

## Gordon Robinson

Professor, Academic Counselor (937) 512-3054, Room 6131C

## Accounting

Marybeth Govan, Chairperson (937) 512-2616, Room 5141C

Business Information Systems Chairperson
(937) 512-2892, Room 5143A

Computer Information Systems Charlotte Wharton, Chairperson (937) 512-2892, Room 5143B

Economics/Financial Management/ Real Estate/Entrepreneurship Jeff Vance, Chairperson
(937) 512-3796, Room 5142A

Hospitality Management/
Travel \& Tourism
Steve Cornelius, Chairperson (937) 512-5197, Room 13420B


## Academic Counseling Office Hours:

Monday - Thursday, 8:00 a.m. - 7:00 p.m.
Friday, 8:00 a.m. - 5:00 p.m
Walk-in counseling is available throughout each quarter.
Note: Please call to make an appointment to ensure that a counselor is available. These hours may vary each quarter.

## Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.

Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the web at http://www.sinclair.edu/ departments/rsr/home.htm. Access to grades has been maintained through the InTouchinformationkiosks. Check the quarterly class bulletin for details.

## Labor Studies

(937) 512-2917, Room 6110

Law/Legal Assisting
Chairperson
(937) 512-2616, Room 5141B

Management/Marketing/Purchasing/ Transportation
Daniel R. Ricica, Chairperson
(937) 512-3796, Room 5142B

## Planning the Program

The student is required to complete the coursework below for a particular business program to earn the associate of science or associate of applied science degree. Some courses have prerequisites. Others must be taken in special sequences. In any case, the student should plan a program of study with an academic counselor, Room 6131, (937) 512-3054.

A student choosing careers in business may select a University Parallel or Career Program. The Business Administration(University Parallel) program is for a student who intends to transfer to a four-year college or university. A graduate will usually receive junior status at the four-year school. Specific transfer curriculums may be obtained from academic counselors.

The Business Technologies career programs, unlike the university parallel degree programs, prepare the student for successful employment in several areas: accounting, general business management, procurement \& materials, computer information systems, hospitality management, labor studies, marketing, financial management, business information systems, legal assisting, real estate, and travel and tourism.

# University Parallel Transfer Degree Programs 

The University Parallel or Transfer programs are designed for the student who wants to pursue a baccalaureate degree at a four-year institution in a business discipline. The purpose of the transfer degree program is to provide the basic core of business and general education requirements for the first two years of a four-year program. The primary objective of these programs is to provide for transfer to a fouryear institution rather than preparation for a job.

A University Parallel program is an associate of science degree program designed to provide the student with junior status upon transfer. Individual transfer programs have been coordinated under the Sinclair Guarantee with colleges noted below for the student's benefit. If a student wishes to transfer to an institution other than those listed, a basic Business Administration University Parallel program has been provided, but it is suggested that the student contact the school to which he or she plans to transfer and check the transferability of credits.

It must be pointed out that each four-year institution reserves the right to determine how courses are transferred into that institution. If a student wishes a complete transfer of courses, only those business courses identified in that particular institution's transfer program should be taken.

The student is encouraged to speak with a Business division academic counselor regarding transferability of courses. Minimum grade point averages, mathematics, and humanities requirements are some of the uncertainties that a transfer student faces because degree requirements are not standardized among four-year institutions. The academic counselors in the Business Technologies division can assist a student with these problems by helping plan his or her educational program. The academic counselors are located in Room 6131, and can be reached at (937) 512-3054. While counselors and faculty are available to assist a student at Sinclair, the student is ultimately responsible for his or her program and academic progress.

The Business Administration associate degree program prepares a student to transfer into nearly any of the business programs (such as, marketing, management, economics, accounting) at the receiving university.

Transfer programs emphasizing special options in Business Administration, including Computer Science, Computer and Management Information Systems, have also been developed. Academic counselors can provide information on these programs. A student will normally receive junior status upon transfer with a parallel program.

All associate degree programs in Business Technologies are fully accredited by the Association of Collegiate Business Schools and Programs.

## Articulation Agreements

Business Administration:

Antioch University
Capital University
Central State University
College of Mt. St. Joseph on the Ohio
DeVry Institute of Technology
Embry-Riddle Aeronautical University
GMI Engineering \& Management Institute
Indiana University East
Kettering University
Ohio State University
University of Cincinnati
University of Dayton
University of Toledo
Urbana University
Wright State University
Business Administration with Special Emphases:
Computer Science Wright State University
Management Information Wright State University Systems
Systems Analysis Miami University

## Career Degree Agreements

NOTE: Be sure to see an academic counselor to determine which career degrees/career courses transfer to which institutions.
Antioch University/McGregor School
Capital University
DeVry Institute of Technology

## Associate of Science Business Administration

## (98 Total Credit Hours)

The completion of this degree is designed to provide students with junior status as they pursue a baccalaureate degree rather than immediate preparation for a job. This is a model only. Transfer requirements may differ with each transfer institution. Each four-year institution reserves the right to determine how courses are transferred to their institution. Individual transfer (articulation) agreements with specific colleges and universities have been developed for the student's benefit and are listed here. For students who want to transfer to institutions other than those listed, a basic Business Administration university parallel degree program is provided. Students should contact the school to which they plan to transfer and check the transferability of credits. While counselors and faculty are available to assist the students at Sinclair, students are ultimately responsible for their program and academic progress. The Business Technologies academic counselors are in Room 6131, or call (937) 512-3054.


* See counselor.


## Career Degree <br> Programs

The two-year degree programs in the Business Technologies division have been developed to help a student secure a job, advance in the current job, and learn new knowledge and skills which will benefit him or her. The major purpose of these degree programs is to provide the job skills needed to secure employment. These programs are not designed to transfer to four-year institutions.

Career programs permit a student to begin taking courses immediately in the business area of his or her choice. Modern laboratories are provided so that a student can apply classroom theories in a simulated business environment. Each career program offers internship opportunities which are designed to provide practical, on-the-job experiences while the student completes the required course work.

The academic counselors in the Business Technologies division are available to assist a student in making academic and career decisions. The academic counselors are located in Room 6131 and can be reached at (937) 512-3054.

All associate degree programs in Business Technologies are fully accredited by the Association of Collegiate Business Schools and Programs.

## Accounting

## (102 Total Credit Hours)

Accountants prepare, analyze, and verify financial reports, and monitor information systems that furnish this information to managers. Managers such as business executives, bankers, government leaders, and investors all rely on financial statements and other reports prepared by accountants to summarize and interpret the multitude of financial transactions that occur in every business. An accountant must have the ability to develop and present understandable and reliable analyses of business operations which can be used in making business decisions. Students study the responsibilities of an accountant, giving insight into a business organization. Employment opportunities exist in private business and industry, government, and independent accounting firms. Positions available to graduates include accountant, cost accountant, payroll accountant, auditor, tax accountant, and financial analyst. Students who complete the accounting program can qualify to sit for the C.P.A. exam in Ohio. They will need to complete a few additional courses and a qualifying exam (or exams) that are determined by the Ohio Board of Accountancy.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I or |  |
|  | 131 | Business Communications I | 3 |
| MAT | 116 | College Algebra or |  |
|  | 121 | Mathematics for Business Analysis | 5 |
| ACC | 111 | Principles of Accounting I | 3 |
| BIS | 160 | Introduction to Word, PowerPoint \& Excel | 3 |
| MAN | 105 | Introduction to Business | 3 |
|  |  | TOTAL | 17 |

## SECOND QUARTER

| ENG | 112 | English Composition II <br>  <br>  <br>  <br> or |  |
| :--- | :--- | :--- | ---: |
| MAT | 132 | Business Communications II | 3 |
| ACC | 112 | Statistics I | 4 |
| MAN | 205 | Principles of Accounting II | 3 |
| ECO | 201 | Principles of Management | 3 |
|  |  |  | $\frac{3}{16}$ |

## THIRD QUARTER

| ACC | 113 | Principles of Accounting III | 3 |
| :---: | :---: | :---: | :---: |
| ACC | 115 | Personal Computer Applications in Accounting | 3 |
| COM | 211 | Effective Speaking I or |  |
|  | 225 | Small Group Communication | 3 |
| ECO | 202 | Principles of Economics II | 3 |
| HUM |  | Humanities Elective* | 3 |
| MAN | 255 | Business Systems \& Procedures | 3 |
|  |  | TOTAL | 18 |

FOURTH QUARTER

| ACC | 201 | Intermediate Accounting I | 3 |
| :--- | :--- | :--- | ---: |
| ACC | 211 | Cost Accounting I | 3 |
| ACC | 221 | Federal Taxes I | 3 |
| LAW | 101 | Business Law I | 3 |
| ECO | 203 | $\begin{array}{l}\text { Principles of Economics III } \\ \text { ACC }\end{array}$ | 270 |
|  |  | $\begin{array}{l}\text { Accounting Internship } \\ \text { or }\end{array}$ | 3 |
| - | Business Administration Elective |  |  |
| FIFTH QUARTER | TOTAL | -3 |  |
|  |  |  |  |

品

| ACC | 202 | Intermediate Accounting II | 3 |
| :---: | :---: | :---: | :---: |
| ACC | 212 | Cost Accounting II | 3 |
| ACC | 222 | Federal Taxes II | 3 |
| ACC | 240 | Microcomputer Accounting Systems | 3 |
| LAW | 102 | Business Law II | 3 |
| ACC | 270 | Accounting Internship or |  |
|  |  | Business Administration Elective | 38 |
|  |  |  |  |
| SIXTH QUARTER |  |  |  |
| ACC | 203 | Intermediate Accounting III | 3 |
| ACC | 235 | Auditing Theory \& Practice | 3 |
| FIN | 215 | Corporation Finance | 3 |
| MRK | 201 | Marketing I | 3 |
| ACC | 270 | Accounting Internship or | 3 |
|  |  | Business Administration Elective | 3 |
|  |  | TOTAL | 15 |

* See page 52.


## Business Information Systems

## (100 Total Credit Hours)

Current and future industry /business needs require information technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Support staff members, as well as all information technology workers, are required to work in teams, actively participate as customer service agents, and use new technologies to maximize business productivity. Employment opportunities continue to grow in all businesses, governmental agencies, and industries both large and small.

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| BIS | 101 | Personal Computer Keyboarding | 2 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M70 | Introduction to the Internet | 1 |
| BIS | M71 | Intermediate Internet | 1 |
| MAN | 205 | Principles of Management | 3 |
| COM | 206 | Interpersonal Communication |  |
|  | 285 | or |  |
| Musiness \& Professional Communication | 3 |  |  |
| MAT | 105 | Business Mathematics | 4 |
| BIS | 105 | Introduction to Computers | 3 |
|  |  | TOTAL |  |
|  |  |  | 18 |

## SECOND QUARTER

| ENG | 131 | Business Communications I <br> or <br> English Composition I |  |
| :--- | :--- | :--- | ---: |
|  | 111 | 3 |  |
| ECO | 105 | General Economics <br> or |  |
|  | 201 | Principles of Economics I | 3 |
| LAW | 101 | Business Law I | 3 |
| BIS | 102 | Document Formatting | 2 |
| BIS | M62 | Intermediate Word |  |
| BIS | M41 | Introduction to Excel | 1 |
| BIS | M42 | Intermediate Excel | 1 |
| MAN | - | Management Elective | 1 |
| MRK |  | or Marketing Elective |  |
|  |  |  | TOTAL |

## THIRD QUARTER

| ENG | 132 | Business Communications II <br> or |  |
| :--- | :--- | :--- | ---: |
|  | 112 | English Composition II |  |
| ACC | 111 | Principles of Accounting I | 3 |
| BIS | M51 | Introduction to PowerPoint | 3 |
| BIS | M52 | Intermediate PowerPoint | 1 |
| BIS | 114 | Filing Applications | 1 |
| BIS | M63 | Advanced Word | 2 |
| BIS | M64 | Expert Word | 1 |
| BIS | M21 | Introduction to Desktop Publishing | 1 |
| BIS | M22 | Intermediate Desktop Publishing | 1 |
|  | - | General Education Elective* | 1 |
|  |  | TOTAL |  |

## FOURTH QUARTER

$\begin{array}{llll}\text { BIS } & 115 & \text { Workplace Technology } & 2\end{array}$
BIS M31 Introduction to Access 1
BIS M32 Intermediate Access 1
BIS M53 Advanced PowerPoint 1
BIS $103 \quad \begin{gathered}\text { Advanced Document Formatting/ } \\ \text { Skillbuilding }\end{gathered}$
MAN 245 Office Management 3
CIS 130 Introduction to Web Development 3
HUM _ Humanities Elective* ${ }^{*} \quad$ TOTAL $\frac{3}{18}$

## FIFTH QUARTER

BIS 215 Office Applications Practicum/Seminar 4
BIS 201 Customer Service 3
BIS M43 Advanced Excel 1
BIS M44 Expert Excel 1
BIS M33 Advanced Access 1
BIS M34 Expert Access 1
BIS 207 Telecommunications 2
$\begin{array}{lll}\text { CIS } & 162 \quad \text { MS Office Installation \& Troubleshooting } \\ & \begin{array}{r}3 \\ 16\end{array}\end{array}$

## SIXTH QUARTER

| BIS | M11 | Pretranscription Skills | 1 |
| :--- | :--- | :--- | ---: |
| BIS | 135 | Machine Transcription | 3 |
| BIS | 172 | Integrated Solutions | 2 |
| BIS | 202 | Online Customer Service | 3 |
| BIS | 117 | Electronic Files Management | 2 |
| BIS | 270 | Office Technology Applications Internship | $\frac{3}{14}$ |
|  |  |  | TOTAL |

* See page 52.


## Business Information Systems Accounting Office Option

## (104 Total Credit Hours)

Current and future industry/business needs require information technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Accounting office support staff members, as well as all information technology workers, are required to work in teams, actively participate as customer service agents, and use new technologies to maximize accounting office productivity. Employment opportunities include account secretaries in accounting departments in private businesses and industries, educational institutions, and other governmental agencies.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| BIS | 101 | Personal Computer Keyboarding | 2 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M70 | Introduction to the Internet | 1 |
| BIS | M71 | Intermediate Internet | 1 |
| MAN | 205 | Principles of Management | 3 |
| COM | 206 | Interpersonal Communication or |  |
|  | 285 | Business \& Professional Communication | 3 |
| MAT | 105 | Business Mathematics | 4 |
| LAW | 101 | Business Law I | 3 |
|  |  | TOTAL | 18 |
| SECOND QUARTER |  |  |  |
| ENG | 131 | Business Communications I or |  |
|  | 111 | English Composition I | 3 |
| ECO | 105 | General Economics or |  |
|  | 201 | Principles of Economics I | 3 |
| ACC | 111 | Principles of Accounting I | 3 |
| BIS | 102 | Document Formatting | 2 |
| BIS | M62 | Intermediate Word | 1 |
| BIS | M41 | Introduction to Excel | 1 |
| BIS | M42 | Intermediate Excel | 1 |
| MAN |  | Management Elective | 3 |
|  |  | or <br> Marketing Elective |  |
| MRK |  | TOTAL | 17 |
| THIRD QUARTER |  |  |  |
| ENG | 132 | Business Communications II or |  |
|  | 112 | English Composition II | 3 |
| ACC | 112 | Principles of Accounting II | 3 |
| BIS | M51 | Introduction to PowerPoint | 1 |
| BIS | M52 | Intermediate PowerPoint | 1 |
| CIS | 130 | Introduction to Web Development | 3 |
| BIS | 114 | Filing Applications | 2 |
| BIS | M63 | Advanced Word | 1 |
| BIS | M64 | Expert Word | 1 |
|  |  | Business Elective | 3 |
|  |  | TOTAL | 18 |
| FOURTH QUARTER |  |  |  |
| BIS | 115 | Workplace Technology | 2 |
| BIS | M31 | Introduction to Access | 1 |
| BIS | M32 | Intermediate Access | 1 |
| ACC | 113 | Principles of Accounting III | 3 |
| BIS | 103 | Advanced Document Formatting/ Skillbuilding | 4 |
| MAN HUM | 245 | Office Management | 3 |
|  |  | Humanities Elective* | 3 |
|  |  | TOTAL | 17 |

FIFTH QUARTER


* See page 52.


## Business Information Systems Legal Office Option <br> (103 Total Credit Hours)

Currentand futureindustry/businessneedsrequireinformation technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Legal office support staff members, as well as all information technology workers, are required to work in teams, actively participate as customer service agents, and use new technologies to maximize legal office productivity. Employment opportunities include legal secretaries, executive secretaries, and legal clerks in law firms, legal offices, and legal departments within corporations.

| Crese |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: |
| Course \& Title |  |  |  |
| FIRST QUARTER |  |  |  |
| BIS | 101 | Personal Computer Keyboarding | 2 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M70 | Introduction to the Internet | 1 |
| BIS | M71 | Intermediate Internet | 1 |
| MAN | 205 | Principles of Management | 3 |
| COM | 206 | Interpersonal Communication or |  |
|  | 285 | Business \& Professional Communication | n 3 |
| MAT | 105 | Business Mathematics | 4 |
| ECO | 105 | General Economics |  |
|  |  | or |  |
|  | 201 | Principles of Economics I | 3 |

## SECOND QUARTER

ENG 131 Business Communications I
111 English Composition I 3
BIS 143 Introduction to Legal Terminology 2
LAW 101 Business Law I 3
BIS 102 Document Formatting 2
BIS M62 Intermediate Word 1
BIS M41 Introduction to Excel 1
BIS M42 Intermediate Excel
MAN _ Management Elective
MRK _ Marketing Elective $\quad$ TOTAL $\frac{3}{16}$

| THIRD QUARTER |  |  |
| :--- | :--- | :--- |
| ENG | 132 | Business Communications II <br> or |
|  | 112 | English Composition II <br> ACC |
| 111 | Principles of Accounting I |  |
| BIS | M51 | Introduction to PowerPoint |
| BIS | M52 | Intermediate PowerPoint |
| LAP | $105^{* *}$ | Paralegal Principles |
| BIS | M63 | Advanced Word |
| BIS | M64 | Expert Word |
| CIS | 130 | Introduction to Web Development |



THIRD QUARTER

| ENG | 132 | Business Communications II <br> or |  |
| :--- | :--- | :--- | ---: |
|  | 112 | English Composition II | 3 |
| LAW | 101 | Business Law I | 3 |
| ACC | 111 | Principles of Accounting I | 3 |
| BIS | M51 | Introduction to PowerPoint | 1 |
| BIS | M52 | Intermediate PowerPoint | 1 |
| BIS | 114 | Filing Applications | 2 |
| BIS | M63 | Advanced Word | 1 |
| BIS | M64 | Expert Word | 1 |
| BIS | 138 | Advanced Medical Terminology | 4 |
|  |  | TOTAL |  |
|  |  | 19 |  |

FOURTH QUARTER

## Business Information Systems Medical Office Option <br> (106 Total Credit Hours)

Currentand futureindustry/business needsrequireinformation technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Medical office support staff members, as well as all information workers, are required to work in teams, actively participate in patient customer service, and use new technologies to maximize medical office productivity. Employment opportunities include medical office receptionists, secretaries, billing/insurance clerks, transcriptionists, and medical office administrators in physicians' offices, urgent care centers, managed care organizations, research facilities, laboratories, nursing homes, and hospitals.

## Business Management

## (99 Total Credit Hours)

Management professionals work with people and other resources to accomplish an organization's goals. They assume a broad range of responsibilities and roles, from firstline supervision to mid-level coordination of organizational planning and operations with strategic planning executives. Managers excel in abstract logic and reasoning, computational expertise, communication, interpersonal activities and teamwork.

This program emphasizes preparation for a wide variety of management related positions. It is designed to provide a balance in technical business education along with general education courses while providing a considerable choice of electives and alternatives. Opportunities for managers include supervision, office managers, management trainees, assistant managers and owners within a variety of settings, including small and medium-size businesses, corporations, industries, non-profit organization, and governmental agencies.


FIFTH QUARTER

| MAN | 255 | Business Systems \& Procedures <br> MAN |  |
| :--- | :--- | :--- | ---: |
| MAN | 295 | Management Elective** | 3 |
| Management Seminar | 3 |  |  |
| LAW | 101 | Business Law I | 3 |
| MAN | 110 | Introduction to International Business | 3 |
|  | - | General Education Elective* | 3 |
| $\square$ |  | TOTAL |  |

## SIXTH QUARTER

MAN 270 Management Internship or
$\square \quad$ Business Electives $\quad 9$

MAN 278 Management Capstone 3
_-_ - Business Elective $\quad$ General Education Elective* $\quad 3$

* See page 52.
** Must not include MAN 270.


## Computer Information Systems (100-101 Total Credit Hours)

The rapid spread of computers and computer-based technologies over the past two decades has generated a need for skilled, highly trained workers in programming positions. Students in the Computer Information Systems program are provided technical skills for entry level information systems positions. Students are prepared in the areas of flowcharting and documenting structured programs, network administration, microcomputer and network operating systems, and business applications using computer languages such as COBOL, Visual Basic, C, and C++. Students learn to use commercially available network and application software on local area networks and microcomputers. Employment opportunities in this expanding field include entry level positions such as programmers, computer operator trainees, personal computer network administrators, job data control specialists and information center specialists.

## Prerequisites

| BIS | 105 | Introduction to Computers | 3 |
| :--- | :--- | :--- | ---: |
| EBE | 170 | Introduction to Co-op/Education | 3 |
| MAT | 101 | Elementary Algebra | 4 |
|  |  |  | TOTAL |



## SECOND QUARTER

| CIS | 111 | Introduction to Computer Programming | 3 |
| :--- | :--- | :--- | :--- |
| CIS | 225 | Systems Software Troubleshooting | 3 |
| COM | 206 | Interpersonal Communication | 3 |
| ENG | 112 | English Composition II |  |
|  |  | or | 3 |
| MAT | 122 | Business Communications II | 4 |

TOTAL $\quad \begin{aligned} & 16\end{aligned}$

## THIRD QUARTER

| ACC | 111 | Principles of Accounting I | 3 |
| :---: | :---: | :---: | :---: |
| CIS | 265 | Database Management | 3 |
|  |  | or |  |
|  | 266 | Client Server Database | 4 |
| CIS |  | CIS Concentration * | 3 |
| CIS | 230 | Computer Networks* | 3 |
| COM | 225 | Small Group Communication | 3 |
| HUM |  | Humanities Elective | 3 |

## FOURTH QUARTER

| CIS |  | CIS Concentration | 3 |
| :---: | :---: | :---: | :---: |
| CIS | 210 | Systems Analysis \& Design | 3 |
| CIS |  | CIS Concentration | 3 |
| CIS |  | CIS Concentration | 3 |
| LAW | 101 | Business Law I | 3 |
| MAN | 205 | Principles of Management | 3 |
|  |  | TOTAL | 18 |
| FIFTH | QUA | RTER |  |
|  |  | Internet Elective ** | 3 |
| CIS | 270 | CIS Internship or |  |
|  |  | Business/CIS Elective | 3 |
| CIS |  | CIS Concentration | 3 |
| CIS |  | CIS Concentration | 3 |
| ECO | 201 | Principles of Economics I | 3 |

## SIXTH QUARTER

| CIS | 270 | CIS Internship |  |  |
| :--- | :--- | :--- | :--- | ---: |
|  |  | or |  |  |
| CIS | - | Business/CIS Elective |  | 3 |
| CIS | CIS Concentration |  | 3 |  |
| MRK | 201 | CIS Capstone | 4 |  |
| CIS | - | CIS Concentration |  | 3 |
|  |  |  | TOTAL | -3 |

* Students electing the Network Engineer Concentration must complete CIS 241 in place of CIS 230 and one CIS concentration course.

```
** Internet Elective
Choose 3 credit hours
BIS M70 Introduction to Internet 1
BIS M71 Intermediate Internet
CIS 129 HTML/JavaScript3
            or
    136 Introduction to HTML
        and
    137 Introduction to JavaScript
CIS 130 Introduction to Web Development 3
CIS 134 Macromedia Flash
VIS 117 Web Page Design
3
VIS 147 Digital Imaging
3
VIS 147 Digital Imaging 3
Areas of Concentration
Students must develop an area of concentration by selecting
24 credit hours from one of the following:
```

Web Development
Choose 24 credit hours:
CIS 129 HTML/JavaScript 3
or
136 Introduction to HTML and
137 Introduction to JavaScript 4
CIS 130 Introduction to Web Development 3
CIS 131 Intermediate Web Development 3
CIS 134 Macromedia Flash 3
CIS 138 Advanced Macromedia Flash 3
CIS 141 Active Server Pages 3
CIS 143 Cold Fusion 3
CIS 144 PERL/CGI 3
CIS 147 Visual Basic I 3
CIS 148 Visual Basic II 3
CIS 223 XML 3
CIS 224 Web Server Administration \& Security 4
CIS 229 Advanced JavaScript 3
CIS 233 C++ Programming I 3
CIS 234 C++ Programming II 3
CIS 280 JavaI 4
CIS 281 Java II 4
CIS 284 Client/Server Web Tools 3
CIS 285 Web Application Development with Java 4
VIS 117 Web Page Design 3
VIS 146 Digital Illustration 3
VIS 147 Digital Imaging 3
VIS 115 Digital Graphics I 3
VIS 116 Digital Graphics II 3
VIS 265 3D Digital Graphics 3
User Support
Required courses
BIS 201 Customer Service
or
202 Online Customer Service 3
CIS 164 Introduction to User Support 3
CIS 166 User Support Tools 3
CIS 238 PC Installation Management 3
COM287 Effective Listening 3
CIS 162 MS Office Troubleshooting \& Problem Solving 3
CIS 264 A+Certification 3
PSY 126 Stress Management
Software Development
BIS M81*Microsoft Project 1
CIS 112* Object-oriented Concepts 3 or
CIS 113* Object-oriented Design
*Required
The student must select two of the following threads, one of which must be an Object-oriented thread. In addition, the student must select a sufficient number of courses from the "Programming Electives" list to total 24 credit hours for this concentration area.

| (Object-oriented) Visual Basic Thread |  |
| :--- | :--- |
| CIS 147 Visual Basic Programming I | 3 |
| CIS 148 Visual Basic Programming II | 3 |
| (Object-oriented) Java Thread |  |
| CIS 280 Java I | 4 |
| CIS 281 Java II | 4 |
| (Object-oriented) C++ Thread |  |
| CIS 233 C++ Programming I | 3 |
| CIS 234 C++ Programming II | 3 |

CIS 147 Visual Basic Programming I
CIS 148 Visual Basic Programming II
CIS 280 Java I

CIS 234 C++ Programming II

## Cobol Thread

CIS 221 Cobol I
CIS 222 Cobol II
Web Programming Thread

| CIS | 284 | Client/Server Web Tools |
| :--- | :--- | :--- |
|  | or |  |
| CIS | 285 | Web Application Development with Java |
| CIS |  | XML |
|  | 144 | or |
|  | 143 | Perl/CGI |

Programming Options Elective
CIS 237 Data Structures in Java
CIS 236 Visual C++ Programming
CIS 284 Web Client/Server Tools
CIS 285 Web Application Development with Java
Network Manager
Choose 24 credit hours:
CIS 271 MCSE 2000 Professional 4
CIS 272 MCSE 2000 Server
CIS 273 MCSE 2000 Infrastructure
CIS 274 MCSE 2000 Directory Services Administration
CIS 275 MCSE 2000 Designing Directory Services
CIS 276 MCSE Internet Explorer 5.0
CIS 260 MCSE Exchange 5.5

## Network Engineer

Required courses
CIS 241 Cisco Networking Fundamentals 7
CIS 242 Cisco Router Fundamentals
CIS 243 Cisco Routing in LANs
CIS 244 Cisco Routing in WANs

## Financial Management

## (97-98 Total Credit Hours)

This program is designed to prepare students for careers in all aspects of financial institutions. It is designed to meet the human resourceneeds of commercialbanks, savings and loans, credit unions and other financial institutions. Students in the Financial Management program develop skills in coordinating multipleactivities and decisionmaking.Student'scritical thinking skills are enhanced through knowledge gained from financial and monetary policy activities. Emphasis is on operations, credit analysis, financial statement review and globaleconomic perspectives as they relate to present-day financial institutions. Students are introduced to many aspects of lending practices, regulatory issues and the impact of technology on financial institutions. Employment opportunities for tellers, credit analysts,branchmanagers and othersupervisory positionsinclude banks, savings and loans, credit unions and other financial institutions.

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I |  |
| ACC | 111 | Principles of Accounting I | 3 |
| BIS | M61 | Introduction to Word | 3 |
| BIS | M41 | Introduction to Excel | 1 |
| BIS | M31 | Introduction to Access | 1 |
| FIN | 105 | Introduction to Financial Institutions | 1 |
| ECO | 201 | Principles of Economics I | 3 |
|  |  |  | TOTAL |
|  |  |  | 3 |

## SECOND QUARTER

| ENG | 112 | English Composition II | 3 |
| :--- | :--- | :--- | ---: |
| ACC | 112 | Principles of Accounting II | 3 |
| BIS | M62 | Intermediate Word | 1 |
| BIS | M42 | Intermediate Excel | 1 |
| BIS | M32 | Intermediate Access | 1 |
| MAT | 105 | Business Mathematics | 5 |
|  |  | or |  |
| ECO | 116 | College Algebra |  |
|  | 202 | Principles of Economics II |  |
|  |  | TOTAL | $\frac{3}{16-17}$ |

## THIRD QUARTER

ACC 113 Principles of Accounting III 3
PSY 121 General Psychology I 3
ECO 203 Principles of Economics III 3
FIN 255 Money \& Capital Markets 3
FIN 245 Personal Finance 3
LAW 101 Business Law I TOTAL $\frac{3}{18}$

## FOURTH QUARTER

| PSY | 122 | General Psychology II | 3 |
| :--- | :--- | :--- | ---: |
| MAN | 205 | Principles of Management | 3 |
| FIN | 200 | Consumer Credit | 3 |
| COM | 225 | Small Group Communication |  |
|  |  | or |  |
| MRK | 206 | Interpersonal Communication | 3 |
|  | 201 | Marketing I | $\frac{3}{15}$ |

## FIFTH QUARTER

MAN 225 Human Relationships \& Organizational
LAW 102 Business Law II or

103 Consumer Law 3
FIN 246 Principles of Investment 3
MRK 202 Marketing II 3

|  | Business Electives | 3 |
| :--- | :--- | ---: |
| $\overline{\text { FIN }} \quad-\quad$ Finance Electives | 3 |  |

## SIXTH QUARTER

FIN 215 Corporate Finance 3
FIN 270 Internship 3

FIN _ Finance Electives 3
Business Electives
TOTAL
15

* See page 52.


## Hospitality Management

## (95 Total Credit Hours)

There is a need for entry level management personnel in restaurants, hotels, motels, convention centers, private clubs and catering businesses. Efficient and profitable operation of these businesses require managers to recruit, train and supervise an adequate number of employees. This program prepares students in supervisory skills, accounting, human relation skills, and understanding the skills needed in the management for a lodging or restaurant operation. Employment opportunities for lodging, restaurant, private club entry level managers, liquor establishment managers, and caterer's assistants are available to students in the hospitality management industry. This program is accredited by the American Culinary Federation Accrediting Commission and the Commission on Accreditation of Hospitality Management Programs.

## Course \& Title FIRST QUARTER

| HMT | 107 | Sanitation \& Safety | 3 |
| :--- | :--- | :--- | ---: |
| HMT | 105 | Survey of the Food Industry | 3 |
| MAT | 105 | Business Mathematics | 4 |
| HUM | BSY | Humanities Elective* | 3 |
| PS5 | Survey of Psychology <br> or |  |  |
|  | 121 | General Psychology I | TOTAL |

## SECOND QUARTER

HMT $112 \quad$ Basic Food Preparation 2

HMT 113 Lab for HMT 112
COM 206 Interpersonal Communication 3
ENG 111 English Composition I or
131 Business Communications I 3
ACC 111 Principles of Accounting I 3
LAW 101 Business Law TOTAL $\begin{array}{r}3 \\ 17\end{array}$
THIRD QUARTER
HMT 114 Advanced Food Preparation 2
HMT 115 Lab for HMT 114
ACC 112 Principles of Accounting II 3
ENG 112 English Composition II
or
132 Business Communications II 3
MAN 205 Principles of Management 3
_- General Education Elective TOTAL $\quad \frac{3}{17}$
FOURTH QUARTER
ECO 105 General Economics
or
201 Principles of Economics I 3
HMT 215 Food \& Labor Cost Controls 3
HMT 201 Food Service Equipment \& Design Maint. 3
HMT 291 Food Service Internship I
BIS 119 Personal Computer Applications: Microsoft Works
or
160 Introduction to Word, PowerPoint \& Excel 3
M61 Introduction to Word 1
M51 Introduction to PowerPoint 1
M41 Introduction to Excel
TOTAL

## FIFTH QUARTER



## SIXTH QUARTER

HMT 226 Purchasing for the Hospitality Industry 3
HMT 227 Marketing in the Hospitality Industry 3
HMT 293 Food Service Internship III 3
HMT 295 Food Service Seminar
HMT
Hospitality Management Elective
TOTAL

* See page 52.

Hours

Credit132 Business Communications

| Business Communications II | 3 |
| :--- | ---: |
| General Education Elective | 3 |
|  | 17 |

## FOURTH QUARTER

HMT 206 Garde Manger ..... 5

- 236 Lab for HMT 206
HMT 291 Food Service Internship I ..... 3
MAN 205 Principles of Management ..... 3ECO 105 General Economics I
or
201 Principles of EconomicsTOTAL$\frac{3}{17}$


## Hospitality Management Culinary Arts Option <br> (101 Total Credit Hours)

The serving of good food is important to the reputation of any restaurant. Chefs, cooks, and other restaurant workers are responsible for the reputation of a restaurant. Chefs and cooks are responsible for preparing meals that are pleasing to the taste and the eye. Many chefs have earned a reputation for both themselves, and the establishments where they work due to their skillful preparation of traditional dishes and the creation of new ones. Through this specialized program, students develop extensive skills and knowledge of food preparation and presentation. Students also gain a total understanding of the duties and responsibilities of a chef and other culinary personnel. Employment opportunities for chefs, cooks, bakers, pastry chefs, production personnel, and caterers are available in this rapidly growing field at fine restaurants, clubs and hotels. The program is accredited by the American Culinary Federation Accrediting Commission.
Course \& Title
FIRST QUARTER

| HMT | 107 | Sanitation \& Safety |
| :---: | :---: | :---: |
| HMT | 105 | Survey of Food Industry |
| MAT | 105 | Business Mathematics |
| HUM |  | Humanities Elective* |
| BIS | 160 | Introduction to Word, PowerPoint \& Excel TOTAL |

## SECOND QUARTER

HMT 112 Basic Food Preparation ..... 2
HMT 113 Lab for HMT 112 ..... 3
HMT 108 Introduction to Foods \& Nutrition ..... 3
HMT 110 Menu Planning \& Dining Services ..... 3
English Composition Ior
131 Business Communications I ..... 3
COM 211 Interpersonal Communication
TOTAL ..... 17
THIRD QUARTER
HMT 114 Advanced Food Preparation ..... 2
HMT 115 Lab for HMT 114 ..... 3
HMT 201 Food Service Equipment \& Design Maint. ..... 3
HMT 226 Purchasing for the Hospitality Industry ..... 3
ENG 112 English Composition II

Credit
Hours
3
3
4
$\qquad$ 3 16
,

| FIFTH QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| HMT | 208 | Pastry \& Confectionery | 5 |
| HMT | 238 | Lab for HMT 208 |  |
| HMT | 225 | Organization \& Administration of Food Service | 3 |
| HMT | 292 | Food Service Internship II** | 3 |
| MRK | 201 | Marketing I | 3 |
| ACC | 112 | Principles of Accounting II | 3 |
|  |  | TOTAL | 17 |
| SIXTH QUARTER |  |  |  |
| HMT | 209 | Professional Cooking | 5 |
| HMT | 239 | Lab for HMT 209 |  |
| HMT | 215 | Food \& Labor Cost Control | 3 |
| HMT | 293 | Food Service Internship III | 3 |
| HMT | 227 | Marketing in the Hospitality Industry | 3 |
| PSY | 105 | Survey of Psychology or |  |
|  | 121 | General Psychology I | 3 |
|  |  | TOTAL | 17 |

* See page 52.


## Labor Studies

## (99 Total Credit Hours)

The increasing complexity and changing scope or industrial organizations today requires the personnelinvolved inunionmanagement interactions to have high levels of skill and training. Students need a high level of understanding from a wide variety of fields including economics, politics, behavioral sciences and quantitative areas such as accounting and finance. Employment opportunities within a labor organization include chief stewards, local or district business agents. Management positions within the corporation include firstline supervisors, personnel technicians, company chief negotiators, and personnel policy writing technicians.


## FIFTH QUARTER



* See page 52.


## Legal Assisting

## (99-100 Total Credit Hours)

The Legal Assisting program curriculum is designed to permit students to gain knowledge and skills in several areas of law and in-depth knowledge and skills in a particular area of law. Students must be accepted into the Legal Assisting program before beginning LAP courses. Requirements for acceptance are outlined in a program packetavailablein the Legal Assisting office, Room 5141. The goals of the programinclude:providing opportunity for students to acquire skills which enable them to work under the supervision of an attorney; assisting the attorney in the delivery of legal service; developing and maintaining a curriculum whichenhancesopportunitiesforemploymentofthegraduates by a wide range of employers; providing an educational program emphasizing understanding and reasoning including general education, theory and practical courses; and supporting the general principles of ethical legal practice, professional responsibility, and prohibitions against unauthorized practice of law by a layperson. Paralegal Principles (LAP 105) is required of every student before enrolling in other Legal Assisting courses. Students are required to complete two quarters of internships.

|  |  | Credit |
| :--- | :--- | :--- | ---: |
| Course \& Title | Hours |  |
| FIRST QUARTER |  |  |

## FOURTH QUARTER

| LAP | 201 | Business Organization I |  | 3 |
| :--- | :--- | :--- | :--- | ---: |
| LAP | 211 | Probate Law I | 3 |  |
| LAP | 220 | Law Office Ethics |  | 3 |
| HUM |  | Elective* | 3 |  |
| MAT | 105 | Business Mathematics <br> or |  | 4 |
|  | 116 | College Algebra |  |  |
|  |  |  | TOTAL | $\overline{16-17}$ |

## FIFTH QUARTER

ECO $201 \quad$ Principles of Economics I 3

LAP 205 Criminal Law \& Procedure 3
LAP 131 Real Estate Transactions I 3
LAP 291 Internship I 2
LAP Electives (see advisor's list)
TOTAL
17

## SIXTH QUARTER

LAP Electives (see advisor's list) 6
LAP 215 Family Law 3
LAP 292 Internship II 2
PSY 121 General Psychology I 3
Sng
SOC 111 General Sociology
Elective (Career Related, see advisor's list) $\quad 3$

* See page 52.
** Other BIS courses may be substituted to equal three (3) credit hours.


## Logistics Management <br> (99 Total Credit Hours)

A logistics professional's role in today's ever-changing and increasingly complex organization is both varied and vital. The well-trained and skilled logistician may be called upon to direct and coordinate a variety of activities including the purchase and acquisition of materials, distribution from sources, conversion processes, and transportation of products to the market place. This program helps students learn the common logistics issues and activities in business and government, including customer service and policies, transportation, inventory management, and the interrelationships of product quality, service and reliability. Employment opportunities within the various organizations and governmental agencies include distribution analyses, logisticians, storage managers, and first-line supervisors in warehousing and distribution.

## Course \& Title <br> FIRST QUARTER

Credit
Hours
ENG $111 \begin{aligned} & \text { English Composition I } \\ & \text { or }\end{aligned}$
131 Business Communications I
3
$\begin{array}{lll}\text { MAT } & 121 & \begin{array}{l}\text { Mathematics for Business Analysis } \\ \text { or }\end{array}\end{array}$
116 College Algebra I
ACC 111 Principles of Accounting I 3
ECO 201 Principles of Economics I 3
BIS 160 Introduction to Word, PowerPoint \& Excel $-\frac{3}{17}$

## SECOND QUARTER

ENG 112 English Composition II or
132 Business Communications II
MAT 122 Statistics
4
ACC 112 Principles of Accounting II
ECO 202 Principles of Economics II Principles of Management

TOTAL

THIRD QUARTER

| ENG | 113 | English Composition III <br> or |  |
| :--- | :--- | :--- | ---: |
|  |  | General Education Elective* | 3 |
| ACC | $\overline{113}$ | Principles of Accounting III | 3 |
| TRA | 120 | Transportation Logistics | 3 |
| PUR | 201 | Purchasing Principles | 3 |
| MAN | 251 | Logistics Management $\quad$ TOTAL | -15 |

## FOURTH QUARTER

MRK 201 Marketing I 3
LAW 101 Business Law I 3

MAN 270 Management Internship or


## FIFTH QUARTER

COM 211 Effective Speaking I 3
LAW 102 Business Law II 3
MAN 216 Managing Operations 3
MAN 225 Human Relations \& Organizational Behavior 3
MRK 202 Marketing II
$\begin{array}{ll}\text { TRA } 230 & \text { Transportation Regulations } \\ & \quad \frac{3}{18}\end{array}$

## SIXTH QUARTER

| PUR |  |  | Purchasing Elective (Recommend PUR 220) | 3 |
| :--- | :--- | :--- | :--- | ---: |
| HUM | - |  | 3 |  |
| Humanities Elective* | 3 |  |  |  |
| MAN | 255 |  | Business Systems \& Procedures | 3 |
| PUR | 215 |  | Inventory \& Production Control | 3 |
| MAN | 260 |  | Management Science I | 3 |
| MAN | 278 |  | Management Capstone | 3 |
|  |  |  |  | TOTAL |

* See page 52.


## Marketing Management (96 Total Credit Hours)

Marketing Management graduates play a vital role in any organization that needs products and services effectively and profitably distributed. Organizational functions of these graduates range from direct sales and customer services to management and coordination of personnel, sales territories, and promotional activities. Graduates may be involved in aspects of product development, advertising, promotion, marketing strategies, pricing, and research. Skills gained include excellent interpersonal and written communication, organizational ability, attention to detail, computational expertise, particularly in the areas of accounting and statistics, and understanding of human behavioral patterns. Employment opportunities include sales representatives, marketing research technicians, industrial marketing managers, and representatives in advertising agencies, media organizations, retailers, and service or industrial corporations.


| SECOND QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| ACC | 112 | Principles of Accounting II | 3 |
| ENG | 112 | English Composition II or |  |
|  | 132 | Business Communications II | 3 |
| MRK | 201 | Marketing I | 3 |
| MAT | 122 | Statistics I | 4 |
| MAN | 205 | Principles of Management | 3 |
|  |  | TOTAL | 16 |
| THIRD QUARTER |  |  |  |
| ACC | 113 | Principles of Accounting III | 3 |
| MRK | 202 | Marketing II | 3 |
| MRK | 225 | Sales Fundamentals | 3 |
| PSY/SOC |  | Elective | 3 |
| COM | 211 | Effective Speaking I | 3 |
| BIS | 105 | Introduction to Computers | 3 |
|  |  | TOTAL | 18 |
| FOURTH QUARTER |  |  |  |
| ECO | 201 | Principles of Economics I | 3 |
| MRK | 215 | Principles of Advertising | 3 |
| MRK | 245 | Principles of Retailing | 3 |
| MRK |  | Elective | 3 |
| BUO | 105 | Business Ownership Orientation | 3 |
|  |  | TOTAL | 15 |
| FIFTH QUARTER |  |  |  |
| ECO | 202 | Principles of Economics II | 3 |
| MRK | 235 | Marketing Research | 3 |
| MRK |  | Elective | 3 |
| PLS | 104 | Urban Government | 3 |
| PSY/SOC |  | Elective | 3 |
| MRK | 270 | Marketing Internship** or |  |
|  |  | Business Elective | 3 |
|  |  | TOTAL | 18 |
| SIXTH QUARTER |  |  |  |
| MRK | 270 | Marketing Internship** |  |
|  |  | or |  |
|  |  | Business Elective | 3 |
| MRK |  | Elective | 3 |
| MRK | 295 | Marketing Seminar | 3 |
| HUM |  | Humanities Elective* | 3 |
| ECO | 203 | Principles of Economics III | 3 |
|  |  | TOTAL | 15 |
| * See p | page |  |  |

Mid-Management Retailing

## (97 Total Credit Hours)

Thecurrentrapid and extensive growthin retail organizations promises excellent employment opportunities for graduates in retail management and merchandising. The degreeenables students to learn retail organizational principles and procedures, as well as providing invaluable actual work experience in the field. Successful retail management personnel need widely varied expertise including an understanding of retailing functions and strategies, skills in organization and problem solving, attention to detail, conceptualization, and interpersonal communication. Employment opportunities are available for buyers, merchandise managers, purchasing department managers, and customer relations.

| Course \& Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| FIRST QUARTER |  |  |
| ACC | 111 | Principles of Accounting I |
| MAN | 105 | Introduction to Business |
| MAT | 105 | Business Mathematics | continued next column

SECOND QUARTER

| ACC | 112 | Principles of Accounting II | 3 |
| :--- | :--- | :--- | ---: |
| ECO | 105 | General Economics |  |
|  |  | or |  |
|  | 201 | Principles of Economics I | 3 |
| ENG | 131 | Business Communications I | 3 |
| LAW | 101 | Business Law I | 3 |
| MRK | 201 | Marketing I | 3 |
|  |  |  | TOTAL |

## THIRD QUARTER

ACC 113 Principles of Accounting III 3
ENG 132 Business Communications II 3
MRK 202 Marketing II 3
MRK 245 Principles of Retailing 3
HUM - Humanities Elective* 3
MRK 215 Advertising $\quad$ TOTAL $\frac{3}{18}$

## FOURTH QUARTER

MAN 205 Principles of Management 3
MRK 270 Marketing Internship 4
MRK 236 Consumer Behavior 3
COM $\quad$ Communication Arts Elective 3
TOTAL $\quad \frac{3}{16}$

## FIFTH QUARTER

| ECO | 225 | Consumer \& Commercial Credit | 3 |
| :--- | :--- | :--- | ---: |
| MRK | 270 | Marketing Internship | 4 |
| PSY | 105 | Introduction to Psychology | 3 |
| PLS | 104 | Urban Government | 3 |
| MRK | 247 | Retail Buying \& Merchandising | 3 |
|  |  | TOTAL |  |

## SIXTH QUARTER

| MRK | 246 | Fashion Merchandising |  |
| :--- | :--- | :--- | ---: |
| MAN | 225 | Human Relations \& Organizational <br>  <br>  <br> Behavior | 3 |
| MRK | 270 | Marketing Internship | 3 |
| MRK | 295 | Marketing Seminar | 4 |
| BIS | 105 | Introduction to Computers | 3 |
|  | TOTAL |  |  |

* See page 52.


## Personal Computer Applications (103 Total Credit Hours)

Current and future industry/business needs require information technology support staff competent in a number of software programs and capable of integrating applications to be more productive. This program combines Business Information Systems (BIS) courses with Computer Information Systems (CIS) courses to develop students' skills in computer application software, troubleshooting software, and operating systems. Employment opportunities include paraprofessional positions in information technology, online customer service, and personal computer software application troubleshooting. Credit
Course \& Title
Hours
FIRST QUARTER

| BIS | 101 | Personal Computer Keyboarding | 2 |  |  |  |
| :--- | :--- | :--- | ---: | :---: | :---: | :---: |
| BIS | M61 | Introduction to Word | 1 |  |  |  |
| BIS | M70 | Introduction to the Internet | 1 |  |  |  |
| BIS | M71 | Intermediate Internet | 1 |  |  |  |
| MAN | 205 | Principles of Management | 3 |  |  |  |
| COM | 206 | Interpersonal Communication |  |  |  |  |
|  |  | or |  |  |  |  |
| MAT | 285 | Business \& Professional Communications | 3 |  |  |  |
| BIS | 105 | Business Mathematics <br>  | Introduction to Computers |  |  | 4 |
|  | TOTAL |  |  |  |  |  |



[^3]
## Procurement \& Materials Management

## (102 Total Credit Hours)

Specialists in this field smooth the flow of goods and services into and through a company by purchasing and ensuring timely delivery of quality goods at a reasonable value (price plus other costs). Career individuals make a large impact on the profitability of their firm which often involves the success or failure of the firm. Students are educated in purchasing procedures and techniques used in large and small business/industry, and government organizations. This program teaches modern techniques such as just-in-time (JIT), ISO 9000, supply management, among others. Employment opportunities for buyers and purchasing agents are available in companies of all size, and in governmental agencies.


SECOND QUARTER

| ACC | 111 | Principles of Accounting I | 3 |
| :--- | :--- | :--- | ---: |
| ECO | 202 | Principles of Economics II | 3 |
| ENG | 112 | English Composition II |  |
|  | 132 | or |  |
| Masiness Communications II | 3 |  |  |
| MAT | 122 | Statistics I | 4 |
| PUR | 202 | Advanced Purchasing | TOTAL |
|  |  |  | 3 |

THIRD QUARTER

| ACC | 112 | Principles of Accounting II <br> English Composition III | 3 |
| :--- | :--- | :--- | ---: |
|  | 113 | or |  |
| $\overline{\text { or }}$ |  | General Education Elective* | 3 |
| $\overline{\text { LAW }}$ | 101 | Business Law I | 3 |
| MAN | 205 | Principles of Management | 3 |
| PUR | 220 | Supplier Relationships | 3 |
| PUR | 225 | Negotiation Techniques | TOTAL |
|  |  |  | $\frac{3}{18}$ |

## FOURTH QUARTER

ACC 113 Principles of Accounting III 3
COM 211 Effective Speaking I 3
LAW 102 Business Law II 3
$\begin{array}{lll}\text { MRK } 201 & \text { Marketing I } & 3\end{array}$
PUR 215 Inventory \& Production Control 3
HUM _ Humanities Elective* ${ }^{*} \quad$ TOTAL $\quad \frac{3}{18}$

## FIFTH QUARTER

| MAN | 216 | Managing Operations | 3 |  |
| :--- | :--- | :--- | :--- | ---: |
| MRK | 202 | Marketing II | 3 |  |
| MAN | 225 | Human Relations \& Organizational |  |  |
|  | Behavior |  |  |  |
| PUR | 295 | Purchasing Problems |  |  |
| TRA | 120 | Transportation Logistics | 3 |  |
|  |  |  | TOTAL | $\frac{3}{15}$ |

## SIXTH QUARTER

| PUR | 270 | Purchasing Internship or |
| :---: | :---: | :---: |
|  |  | Business Electives (see advisor's list) |
|  |  | Business Elective |
| IET |  | Industrial Engineering Technology Elective |
|  |  | General Education Elective* |
| MAN | 260 | Management Science I |
| MAN | 278 | Management Capstone |
|  |  | TOTAL $\quad 18$ |

* See page 52.


## Procurement \& Materials Management <br> Production \& Inventory Control Option ( 101 Total Credit Hours)

Manufacturing firms and businesses controlling large inventories effectively require personnel who can visualize company operations as a smooth flow of connected activities. These professionals ensure the on-time delivery performance of their company which today is vital in supplier performance. Students develop skills in maintaining and increasing productivity, and materials control in an industrial setting. Employment opportunities in manufacturing include capacity planners, shop dispatchers, expediters, and first-line supervisors in inventory control for manufacturing.


FOURTH QUARTER

| ACC | 113 | Principles of Accounting III | 3 |
| :--- | :--- | :--- | ---: |
| IET | 115 | Survey of Production \& Inventory Control | 2 |
| MAN | 216 | Managing Operations | 3 |
| MRK | 201 | Marketing I | 3 |
| PUR | 215 | Inventory \& Production Control | 3 |
| - | - | General Education Elective* | 3 |
|  |  | TOTAL |  |

## FIFTH QUARTER

| IET | 236 | Material Requirements Planning |
| :---: | :---: | :---: |
| MAN | 225 | Human Relations \& Organizational Behavior |
| MRK | 202 | Marketing II |
| PUR | 295 | Purchasing Problems |
| COM | 211 | Effective Speaking I |

## SIXTH QUARTER

| IET | 237 | Capacity Planning \& Control | 3 |
| :--- | :--- | :--- | ---: |
| MAN | 260 | Management Science I | 3 |
| MAN | 278 | Management Capstone | 3 |
| PUR | 270 | Purchasing Internship |  |
|  |  | or |  |
| $\overline{\text { HUM }}$ | - | Business Electives |  |
|  |  | Humanities Elective* |  |
|  |  | TOTAL | $\frac{3}{18}$ |

* See page 52.


## Procurement \& Materials Management <br> Transportation Option <br> (102 Total Credit Hours)

This focuses on the movement of goods from business to business, and includes knowledge of basics in trucking, rail, water and air transportation. Specific attention is given to pricing of shipment movement, claims for loss or damages, regulations, and import/export,including containerization. Decisions in this are vital in every business for cash control and efficiency and contributestoadual careeropportunity in transportationorasan entry level personin purchasing. Employmentopportunities are as transportation negotiators in large firms with knowledge of tariffs,claimsand rates. Insmallerfirms, positions existforbuyers specializing in transportation of goods.


## SECOND QUARTER

ACC 112 Principles of Accounting II 3
LAW 101 Business Law I 3
MAT 121 Mathematics for Business Analysis or
116 College Algebra I 5
TRA 205 Principles of Transportation Pricing 3
ENG 112 English Composition II or
132 Business Communications II $\quad$ TOTAL $\quad \frac{3}{17}$

## THIRD QUARTER



* See page 52.


## Real Estate/Property <br> Management

## (98-99 Total Credit Hours)

Students acquire a variety of skillsin selling, renting and buying property. Courses are offered which are required by the Ohio Division of Real Estate for persons taking the real estate sales and brokers examinations. Other courses offered include commercial appraisal, property management, and real estate investing. Students learn to study property listings, interview prospective clients, show properties, discuss conditions of the sale or terms of the lease and negotiating loans on property. Employment opportunities for building consultants, residential leasing agents, sales representatives, brokers, appraisers, and apartment managers are available from real estate firms, developers, and property management companies.

| Course \& Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| FIRST QUARTER |  |  |
| ACC | 111 | Principles of Accounting I |
| ENG | 111 | English Composition I |
| MAN | 105 | Introduction to Business |
| RES | 121 | Real Estate Abstracting I |
| RES | 201 | Principles \& Practices |

## SECOND QUARTER

| ACC | 112 | Principles of Accounting II | 3 |
| :--- | :--- | :--- | ---: |
| ECO | 201 | Principles of Economics I | 3 |
| ENG | 112 | English Composition II | 3 |
| RES | 122 | Real Estate Abstracting II | 3 |
| RES | 202 | Real Estate Law | 4 |
| PLS | 101 | American Federal Government I | -3 |
|  |  | TOTAL |  |
|  |  |  | 19 |

continued next column

THIRD QUARTER

| ACC | 113 | Principles of Accounting III | 3 |
| :--- | :--- | :--- | ---: |
| ECO | 202 | Principles of Economics II | 3 |
| MAN | 205 | Principles of Management I | 3 |
| MAT | 105 | Business Mathematics <br>  <br>  <br>  <br> RES | or  <br> Rollege Algebra  <br>  203 |
|  | Real Estate Finance | $4-5$ |  |
|  |  | TOTAL | $\underline{15-16}$ |

## FOURTH QUARTER

| BIS | 160 | Introduction to Word, PowerPoint \& Excel | 3 |  |
| :--- | :--- | :--- | :--- | ---: |
| PSY | 121 | General Psychology I | 3 |  |
| MRK | 201 | Marketing I | 3 |  |
| RES | 204 | Real Estate Appraisal I |  | 2 |
| LAW | 101 | Business Law I |  | 3 |
|  |  |  | TOTAL | 14 |

## FIFTH QUARTER

| RES | 205 | Real Estate Appraisal II |  | 3 |
| :---: | :---: | :---: | :---: | :---: |
| RES | 210 | Real Estate Practice Seminar |  | 3 |
| RES | 221 | Property Management |  | 3 |
| RES | 270 | Real Estate Internship |  |  |
|  |  | Business Elective |  | 3 |
| MRK | 202 | Marketing II |  | 3 |
| SOC | 111 | General Sociology I |  | 3 |
|  |  |  | TOTAL | 18 |
| SIXTH QUARTER |  |  |  |  |
| ECO | 215 | Corporation Finance |  | 3 |
| COM | 211 | Effective Speaking I |  | 3 |
| RES | 215 | Real Estate Investing |  | 3 |
| RES | 278 | Real Estate Capstone |  | 1 |
| MAN | 225 | Human Relations \& Organizational Behavior |  | 3 |
| HUM |  | Humanities Elective* |  | 3 |
|  |  | TOTAL | 16 |

* See page 52.


## Travel \& Tourism

## ( 100 Total Credit Hours)

Travel \& Tourismstudents gainaknowledge of thebasic theory of travel and skills of travel professionals. Students complete practical exercises thatsimulate real work experience. Sinclair's airline computer classroom, features live airline reservation terminals. The internship program provides an opportunity to gain on-the-job experience before graduation. Some employment opportunities within the growing travel industry include travel agents, airline agents, flight attendants, car rental agents, hotel front desk or reservations, tour guides, cruise ships, e.travel and convention and visitor bureau managers.
Course \& Title

FIRST QUARTER
TNT 100 Introduction to Travel and Tourism 3
TNT 112 Domestic Air Travel 3
TNT 130 Destinations I 3
MAT 105 Business Mathematics or MAT $116 \quad 4$
BIS 160 Introduction to Word, PowerPoint \& Excel or
119 PC Applications-MS Works**
TOTAL

## SECOND QUARTER

| TNT | 104 | Tariff \& Ticketing North America | 3 |
| :--- | :--- | :--- | ---: |
| TNT | 108 | Accommodations, Cars, Tours \& Rail | 2 |
| TNT | 122 | Airline Computer I | 3 |
| ACC | 111 | Accounting 1 | 3 |
| ENG | 131 | Business Communications or English 111 | 3 |
| TNT | 131 | Destinations II | 3 |
|  |  |  | 17 |

## THIRD QUARTER

| TNT | 102 | Travel Sales \& Telephone Techniques | 1 |
| :--- | :--- | :--- | :--- |
| TNT | 114 | International Travel | 3 |
| TNT | 123 | Airline Computer II | 2 |
| ENG | 132 | Business Communications or English 112 | 3 |
| MRK | 201 | Marketing I | 3 |
| TNT | 109 | Cruises | 2 |
| COM | 287 | Effective Listening | 3 |

## FOURTH QUARTER

TNT 224 Advanced Computer I 2
TNT 250 Travel Sales Practicum 3
COM 206 Interpersonal Communication 3
MAN 105 Introduction to Business or MAN 2053
$\begin{array}{llll}\overline{\mathrm{PSY}} & \overline{105} & \text { Foreign Language Elective } & 3 \\ \text { Survey of Psychology or PSY 121 } & 3\end{array}$

$$
\text { TOTAL } \quad 17
$$

FIFTH QUARTER

| TNT | 106 | Employment Guidelines for the <br> Travel Industry | 1 |
| :--- | :--- | :--- | ---: |
| TNT | 201 | Tourism for the Travel Industry | 3 |
| TNT | 215 | Managing a Travel Agency | 3 |
| TNT | 225 | Advanced Computer II | 2 |
|  |  | Career Elective | 3 |
| TNT | 270 | Internship | 3 |
|  | - | Foreign Language Elective | 3 |
|  | TOTAL |  | -18 |

## SIXTH QUARTER

TNT 210 Management of Travel Sales Personnel 3
TNT 202 Marketing for the Travel Agency 3
TNT 278 Travel \& Tourism Capstone 3
HUM 115 International Environments Culture \& Business
General Education Elective TOTAL

* See page 52.
** Choose from BIS 160, 119, or M41, M51, M61, M70 to equal 3 credit hours
*** TNT 297, HMT 105, HMT 210, BUO 105, BUO 120, COM
211 or HIS 218


## Certificate Programs Business Management

## (50 Total Credit Hours)

With this program, students gain an understanding of business procedures to prepare them for a management position, or update the management skills of those currently employed in a managerial, administrative or office support role.


* See page 52.


## Food Service Management (52-54 Total Credit Hours)

The Food Service Management certificate program combines classroom instruction and laboratory experience in food preparation and service for the restaurant and lodging industry. The curriculum includes the National Restaurant Association ProManagement courses that lead to the ProManagement Certificate.

Credit
Course \& Title Hours
FIRST QUARTER
ACC 111 Principles of Accounting I 3
BIS 160 Introduction to Word, PowerPoint \& Excel 3
HMT 112 Basic Food Preparation 4
ENG 131 Business Communications I 3
MAN 105 Introduction to Business $\quad$ TOTAL $\frac{3}{16}$
TOTAL

## SECOND QUARTER

| ACC | 112 | Principles of Accounting II | 3 |
| :---: | :---: | :---: | :---: |
| HMT | 205 | Food Service Sanitation \& Safety | 3 |
| HMT | 114 | Advanced Food Preparation | 4 |
| MAN | 205 | Principles of Management | 3 |
| HMT |  | Hospitality Management Elective | 3 |
|  |  | TOTAL | 16 |
| THIRD QUARTER |  |  |  |
| HMT | 201 | Food Service Equipment \& Design Maintenance | 3 |
| HMT | 215 | Food \& Labor Cost Controls | 3 |
| HMT | 225 | Organization \& Administration of Food Service | 3 |
| HMT | 226 | Purchasing for the Hospitality Industry | 3 |
| HMT | 110 | Menu Planning \& Dining Service | 3 |
|  |  | Business Elective | 3 |

## Information Processing <br> (54 Total Credit Hours)

In this one-year certificate program, students receive specialized training necessary to work with personal computers and end-user software applications, such asMicrosoftWord, Excel, PowerPoint, Publisher, and Access. Also, students master the basics of customer service, workplace technology and electronic files management to provide administrative support in a variety of entry level office positions.

Credit

## Course \& Title

FIRST QUARTER

| ENG | 131 | Business Communications I <br> or |  |
| :--- | :--- | :--- | ---: |
|  | 111 | English Composition I | 3 |
| MAT | 105 | Business Mathematics | 4 |
| BIS | 101 | Personal Computer Keyboarding | 2 |
| BIS | 105 | Introduction to Computers | 3 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M62 | Intermediate Word | 1 |

SECOND QUARTER
TOTAL

| ENG | 132 | Business Communications II or |
| :---: | :---: | :---: |
|  | 112 | English Composition II |
| BIS | 102 | Document Formatting |
| COM | 206 | Interpersonal Communication |
| BIS | M70 | Introduction to the Internet |
| BIS | M71 | Intermediate Internet |
| BIS | 114 | Filing Applications |
| BIS | M63 | Advanced Word |
| BIS | M64 | Expert Word |
|  |  | TOTAL |
| THIR | QU | RTER |
| BIS | 103 | Advanced Document Formatting/ Skillbuilding |
|  | M41 | Introduction to Excel |
| BIS | M42 | Intermediate Excel |
| BIS | M21 | Introduction to Desktop Publishing |
| BIS | M22 | Intermediate Desktop Publishing |
| BIS | M51 | Introduction to PowerPoint |
| BIS | M52 | Intermediate PowerPoint |
| BIS | 201 | Customer Service |

M70 Introduction to the Internet

## FOURTH QUARTER

| BIS | 202 | Online Customer Service | 3 |
| :--- | :--- | :--- | ---: |
| BIS | 117 | Electronic Files Management | 2 |
| BIS | 115 | Workplace Technology | 2 |
| BIS | M11 | Pretranscription Skills | 1 |
| BIS | 135 | Machine Transcription | 3 |
| BIS | M31 | Introduction to Access | 1 |
| BIS | M32 | Intermediate Access | TOTAL |
|  |  |  | 13 |

## Labor Studies

## (49 Total Credit Hours)

Theoretical background is combined with realistic simulations of union management relations for careers such as union shop stewards, committee persons, elected officers, business representatives or international representatives.

Credit
Course \& Title Hours
FIRST QUARTER

| ENG | 131 | Business Communications I | 3 |
| :--- | :--- | :--- | ---: |
| LAS | 105 | Introduction to Organized Labor | 3 |
| MAN | 205 | Principles of Management | 3 |
| MAT | 105 | Business Mathematics | 4 |
| SOC | 111 | General Sociology I | 3 |
|  |  |  | TOTAL |

SECOND QUARTER

| ACC | 111 | Principles of Accounting I | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 132 | Business Communications II | 3 |
| LAS | 125 | Union Structure \& Administration | 3 |
| LAS | 215 | Labor Law | 3 |
| PLS | 101 | American Federal Government I | 3 |
| PSY | 121 | General Psychology I $\quad$ TOTAL | 18 |

THIRD QUARTER

| BIS | 105 | Introduction to Computers | 3 |
| :--- | :--- | :--- | ---: |
| ECO | 105 | General Economics | 3 |
| LAS | 135 | Union Leadership Skills | 3 |
| PSY | 122 | General Psychology II |  |
| HUM | - | Humanities Elective * | 3 |
|  |  |  | TOTAL |

* See page 52.


## Medical Office Specialist

## (57 Total Credit Hours)

In this one-year certificate program, students receive specialized training necessary to work with personal computers and end-user software applications in a medical office. Students master the basics of medical terminology, medical office procedures, medical transcription and medical billing to provide administrative support in a variety of medical office environments.

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| ENG | 131 | Business Communications I | 3 |
| MAT | 105 | Business Mathematics | 4 |
| BIS | 101 | Personal Computer Keyboarding | 2 |
| BIS | 136 | Introduction to Medical Terminology | 4 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M62 | Intermediate Word |  |
|  |  |  | 1 |

## SECOND QUARTER

BIS 102 Document Formatting 2
ENG 132 Business Communications II 3
MAN 205 Principles of Management 3
BIS 137 Intermediate Medical Terminology 4
BIS M41 Introduction to Excel TOTAL $\frac{1}{13}$

## THIRD QUARTER

BIS M63 Advanced Word 1
BIS M64 Expert Word
1
BIS 138
BIS 250 Medical Transcription Skills 2
BIS 251 Introduction to Medical Transcription $\quad \frac{4}{12}$

## FOURTH QUARTER

| HIM | 260 | ICD-9-CM Medical Office Coding | 3 |
| :--- | :--- | :--- | ---: |
| HIM | 261 | CPT Medical Office Coding | 3 |
| BIS | 201 | Customer Service | 3 |
| BIS | 116 | Medical Office Procedures | 4 |
| BIS | 252 | Advanced Medical Transcription | 4 |
|  |  | TOTAL |  |

## Personal Computers for Business

## (51 Total Credit Hours)

Students learn how to use personal computers for business administration, decision support, and financial applications. The personal computers certificate is intended for those with higher education and/or skills to update their knowledge with personal computer techniques.

## Credit

FIRST QUARTER

| BIS | M15 | Introduction to Windows | 1 |
| :--- | :--- | :--- | ---: |
| ACC | 111 | Principles of Accounting I | 3 |
| ENG | 131 | Business Communications I <br> or |  |
|  | 111 | English Composition I | 3 |
| BIS | 105 | Introduction to Computers | 3 |
| MAN | 105 | Introduction to Business | 3 |
| BIS | M61 | Introduction to Word | 1 |
| BIS | M62 | Intermediate Word | 1 |
| BIS | M70 | Introduction to Internet | 1 |
| BIS | M71 | Intermediate Internet | TOTAL |
|  |  |  | 17 |

## SECOND QUARTER

BIS M41 Introduction to Excel 1
BIS M42 Intermediate Excel 1
BIS $\quad$ M31 $\quad$ Introduction to Access 1
BIS M32 Intermediate Access
BIS M51 Introduction to PowerPoint 1
BIS M52 Intermediate PowerPoint 1
BIS M63 Advanced Word
ACC 115 Personal Computer Applications in Accounting

| BIS | 115 | Accounting <br> Workplace Technology |
| :--- | :--- | :--- |
| COM  <br> CIS 107$\quad$Communication Arts Elective <br> Introduction to Operating Systems |  |  |


| BIS | 115 | $\begin{array}{l}\text { Workplace Technology } \\ \text { Com } \\ \text { Communication Arts Elective } \\ \text { CIS }\end{array}$ |
| :--- | :--- | :--- |
| 107 | Introduction to Operating Systems |  |

## TOTAL

## THIRD QUARTER

BIS M33 Advanced Access 1
BIS M43 Advanced Excel 1
BIS M53 Advanced PowerPoint 1
BIS 172 Integrated Solutions
BIS 207 Telecommunications 2
CIS 130 Web Page Development
CIS 162 MS Office Troubleshooting
CIS _ CIS Elective
TOTAL

## Procurement \& Materials Management

## (48 Total Credit Hours)

Basic skills of a purchasing agent/buyer are covered, including control of inventory, production of goods, and business laws. This certificate program applies toward employment in entry level purchasing positions.


## Short Term Certificates

## Call Center

## (15 Total Credit Hours)

This certificate is designed for those seeking employment within a call center environment or those interested in improving their customer service skills and telephone techniques. Call centers have become quite sophisticated with effective measures for productivity. Students will learn how a call center operates and how the productivity measures are used. Students who complete this certificate can continue with a two-year associate degree in the BIS department and all courses will transfer.
BIS M15 Introduction to Windows 1
BIS 101 Personal Computer Keyboarding 2

BIS M41 Introduction to Excel 1
BIS $\quad$ M61 $\quad$ Introduction to Word 1
BIS M62 Intermediate Word 1
BIS 201 Customer Service 3
BIS 202 Online Customer Service 3
COM 206 Interpersonal Communication
TOTAL

## Fast Track <br> Programmer Analyst

## (28 Total Credit Hours)

This certificate is designed to provide an individual with state of the art programming skills. It is designed for experienced programmers or selected individuals wishing to make a career change into the Information Technology field. The certificate will focus on the latest programming languages, database theory, object oriented concepts and team building. Students have the option to concentrate on enterprise development or web development technologies.

Credit
Course \& Title
FIRST QUARTER

| CIS | 210 | Computer Systems Analysis | 3 |
| :--- | :--- | :--- | :--- |
| COM | 225 | Small Group Communication | 3 |
| CIS | 233 | Programming in "C" | 3 |
|  |  |  |  |
|  |  |  |  |
|  |  | TOTAL |  |

SECOND QUARTER
黾

| CIS | 234 | Object-oriented Programming in C++ | 3 |
| :--- | :--- | :--- | :--- |
| CIS | 112 | Object-oriented Concepts | 3 |
| CIS | 265 | Database Management Systems | 3 |
|  |  | TOTAL |  |

THIRD QUARTER - Enterprise Option
CIS $\quad 225 \quad$ Systems Software
CIS $280 \quad$ Java Programming I 4

CIS 236 Visual C++ TOTAL $\frac{3}{10}$
OR Web Development Option

| OR |
| :--- |
| CIS |
| CIS |
| CIS | 280

Introduction to Web Development
CIS $284 \quad$ Java Programming I

TOTAL
10

## Help Desk Analyst

## (43 Total Credit Hours)

The Help Desk Analyst certificate is designed to prepare students for entry level positions that provide technical support, assistance, hardware and software troubleshooting, system maintenance and training and documentation to computer users. This certificate includes general knowledge of computer hardware, operating systems, software and network operation, and specific skills in troubleshooting, problem solving and customer service. Common job titles include: User Support Specialist, Customer Support Representative, Software Trainer, PC Technician and Help Desk Technician/Analyst.


## SECOND QUARTER

| BIS | M31 | Introduction to Access |  |
| :---: | :---: | :---: | :---: |
| BIS | M32 | Intermediate Access |  |
| CIS | 162 | MS Office Troubleshooting \& Problem Solving |  |
| CIS | 164 | Introduction to User Support |  |
| COM | 287 | Effective Listening |  |
| MAN | 210 | Introduction to Project Management TOTAL | 14 |
| THIRD QUARTER |  |  |  |
| BIS | M70 | Introduction to Internet |  |
| BIS | M71 | Intermediate Internet |  |
| CIS | 264 | A+Certification |  |
| CIS | 230 | Computer Networks |  |
| CIS | 238 | PC Installation Management |  |
| BIS | 202 | Online Customer Service | 3 |

## Java Enterprise Development

## (23-29 Total Credit Hours)

The Java Enterprise certificate is designed for professional programmers who need to learn to develop applications in a Java Enterprise environment. This certificate focuses on designing and deploying enterprise application using Java related technologies.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| CIS | 112 | Object-oriented Concepts | 3 |
|  |  | or |  |
|  | 113 | Object-oriented Design | 4 |
| CIS | 266 | Client/Server Database | 4 |
|  |  | or |  |
|  | 265 | Database Management Systems | 3 |
|  |  | TOTAL | 6-8 |
| SECOND QUARTER |  |  |  |
| CIS | 283 | Advanced Java | 4 |
|  |  | or |  |
|  | 280 | Java I | 8 |
|  |  | and |  |
|  | 281 | Java II |  |
| CIS | 285 | Web Application Development with Java | 4 |
|  |  | TOTAL | 8-12 |
| THIRD QUARTER |  |  |  |
| CIS | 286 | Enterprise Java | 4 |
| CIS | 288 | Java Enterprise Development Final Project | 5 |
|  |  | TOTAL | 9 |

## Software Applications for the Professional

## (21 Total Credit Hours)

This certificate provides office workers, managers, professionals, and those interested in acquiring knowledge for personal use the opportunity to develop and refine their skills in a variety of current software common in today's work environments. Software applications included are word processing, spreadsheet, database, business presentations, desktop publishing, and Internet browser.

## Course \& Title <br> Credit

FIRST QUARTER

| BIS | M61 | Introduction to Word | 1 |
| :--- | :--- | :--- | ---: |
| BIS | M62 | Intermediate Word | 1 |
| BIS | M51 | Introduction to PowerPoint | 1 |
| BIS | M52 | Intermediate PowerPoint | 1 |
| BIS | M70 | Introduction to the Internet | 1 |
| BIS | M71 | Intermediate Internet | 1 |
| BIS | M41 | Introduction to Excel | 1 |
| BIS | M42 | Intermediate Excel | 1 |
| BIS | M31 | Introduction to Access |  |
| BIS | M32 | Intermediate Access | 1 |
|  |  |  | TOTAL |

## SECOND QUARTER

| BIS | M21 | Introduction to Desktop Publishing | 1 |
| :--- | :--- | :--- | ---: |
| BIS | M22 | Intermediate Desktop Publishing | 1 |
| BIS | M53 | Advanced PowerPoint | 1 |
| BIS | M63 | Advanced Word | 1 |
| BIS | M64 | Expert Word | 1 |
| BIS | M43 | Advanced Excel | 1 |
| BIS | M44 | Expert Excel | 1 |
| BIS | M33 | Advanced Access |  |
| BIS | M34 | Expert Access | 1 |
| BIS | 172 | Integrated Solutions |  |
|  |  |  | TOTAL |

## Web Authoring

## (36 Total Credit Hours)

This certificate uses web wizards and authoring tools such as FrontPage and Composer to develop web sites for individuals and small businesses with non-programming skills. Certificate focuses on authoring software such as FrontPage, Hypertext Markup Language, JavaScript, Vector Graphics, and Multimedia Scripting Languages.

| Course \& Title |  | Credit <br> Hours |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I |  |
| BIS | M70 | Introduction to Internet |  |
| BIS | M71 | Intermediate Internet |  |
| CIS | 129 | HTML/JavaScript | 1 |
| VIS | 117 | Web Page Design |  |
|  |  | TOTAL | -1 |
|  |  |  | 3 |


| SECOND QUARTER |  |  |  |
| :--- | :--- | :--- | ---: |
| BIS | 160 | Introduction to Word, PowerPoint \& Excel | 3 |
| CIS | 130 | Introduction to Web Development | 3 |
| VIS | 147 | Digital Imaging |  |
| VIS | 115 | Digital Graphics I | 3 |
|  |  |  | 3 |
|  |  |  |  |

## THIRD QUARTER

| CIS | 131 | Intermediate Web Development | 3 |  |
| :--- | :--- | :--- | :--- | ---: |
| VIS | 265 | 3D Digital Graphics I |  | 3 |
| MAT | 105 | Business Mathematics |  | 4 |
| ENG | 121 | Technical Composition I |  | 3 |
|  |  |  | TOTAL | 13 |

## Web Programming

## (31-35 Total Credit Hours)

The Web Programming certificate is designed to provide an individual with state-of-the-art web application development skills. It focuses on designing, writing and deploying web applications using the latest technologies. It is designed for experienced programmers to update their skills and for individuals wishing to make a career change into the Information Technology field. The certificate will focus on web application development in a client/server networked environ

## Course \& Title <br> Credit <br> Hours

FIRST QUARTER

| CIS | 129 | Introduction to HTML/JavaScript <br> or | $3-4$ |  |
| :--- | :--- | :--- | :--- | ---: |
|  | 136 | HTML <br> and |  |  |
| CIS | 137 | JavaScript <br> CIS | 265 | Introduction to Web Development <br> Database Management Systems <br> or |
|  | 266 | Client/Server Database | $3-4$ |  |
|  |  | TOTAL | $\overline{9-11}$ |  |

SECOND QUARTER - Visual Basic Track
CIS 131 Intermediate Web Development 3

CIS 147 Visual Basic

| CIS 284 Client/Server Web Tools |  |  |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |


| OR - Java Track |  |  |  |
| :--- | :--- | :--- | ---: |
| CIS | 131 | Intermediate Web Development | 3 |
| CIS | 280 | Java I | 4 |
| CIS | 285 | Web Application Development with Java | 4 |
|  |  |  | TOTAL |

## THIRD QUARTER

CIS $224 \quad$ Web Server Administrator \& Security $\quad 4$
CIS 223 XML 3

CIS 143 Cold Fusion 3
CIS 144 Perl/CGI TOTAL $\frac{3}{13}$

## Business Technologies

Software Used in Specific Courses

Internet
BIS M70
BIS M71
Microsoft Word
BIS 101 BIS M61
BIS 102 BIS M62
BIS 103 BIS M63 BIS M64

Microsoft Access
BIS M31 BIS M33
BIS M32 BIS M34
Microsoft Excel
BIS M41 BIS M43
BIS M42 BIS M44
Microsoft PowerPoint
BIS M51 BIS M52
BIS M53
Microsoft Publisher
BIS M21 BIS M22
Microsoft Project
BIS M81 BIS M82
Microsoft Works
BIS 119 BIS 120
Corel WordPerfect
BIS 223

Microsoft Word, PowerPoint, \& Excel BIS 160
BIS 161
BIS 162
Microsoft Word, PowerPoint, Excel \& Access
BIS 172

## CIS Software Used in Specific Courses

Windows / DOS /Unix
CIS 107 CIS 225
Windows 2000 Professional CIS 108

Active Perl
CIS 144
Active Server Pages
CIS 141
Cold Fusion
CIS 143
Internet Explorer Admin Kit
CIS 276
JDK
CIS 280 CIS 281
Macromedia Dreamweaver
CIS $130 \quad$ CIS 131
Macromedia Flash
CIS 134 CIS 138
MCSE Program
Windows 2000
COBOL
CIS 222

Microsoft Access CIS 265

Microsoft Office CIS 162

Oracle
CIS 266 CIS 268
Rational Rose or
Rational XDE
CIS 112 CIS 113
Visual Age for Java CIS 283 CIS 288
Visual Basic
CIS 111
CIS 147 CIS 148
Visual C++ or C\#
CIS 233 CIS 234 CIS 236
Visual InterDev 6.0 CIS 284
WebSphere Studio CIS 285

Desmond Bowen jumped into the Sinclair college life, working on the executive board of the Student Government Association, discovering new talents in addition to those learned in his academic studies in Education.



Dr. Bonnie Johnson is another example of continuing excellence. From administrator to technical support, former dean, Dr. Johnson returned from retirement to work with the web course development team.

1-888-226-2457 (toll-free) (937) 512-2891 (FAX number)

Peggy Falkenstein, Dean
(937) 512-2990, Room 14318

Don Smith
Manager, Distance Learning
Technical Support Services
(937) 512-2379, Room 14324

Dr. Bonnie Johnson
Web Course Design Assistant
(937) 512-3113, Room 14223

Sherry McAndrew
Web Course Facilitator
(937) 512-4222, Room 14223

Brenda Boyd
Assistant Web Course Facilitator (937) 512-2021, Room 14223

## Suzanne Gord

Assistant Web Course Facilitator (937) 512-2059, Room 14223

## Linda PaHud

Coordinator, Distance Learning Services
(937) 512-2694, Room 14321

## Sandee Arehart

Distance Services Coordinator
(937) 512-2041, Room 14321

## Dodie Munn

Academic Counselor
(937) 512-3155, Room 14321

## Robert Rice

Coordinator of Education Programs (PCI/MEPRC)
(937) 512-3093, Room 14324

www.sinclair.edu

## Academic Counseling:

Monday-Thursday, 8:00 a.m.-2:00 p.m. EST; Friday, 8:00 a.m. - 12:00 noon EST. These hours may vary during summer.

## Distance Learning

http://www.sinclair.edu/distance Through its Distance Learning program, Sinclair Community College offers convenient alternatives to students who want to earn college credit but who cannot come to the Dayton, Ohio, campus to attend traditional on-campus classes. Taking courses in a distance learning format is a viable option for students who may have scheduling conflicts, work or family commitments; those who are homebound or live a distance from campus; or those who would rather study independently.

Students register for any Distance Learning course in the same manner they register for other Sinclair courses: telephone, online, mail-in, or inperson registration. The cost for Distance Learning courses is the same as for other for credit courses. Moreover, since these are independent study courses, Distance Learning accepts registration for most of its courses through the end of the first week of the quarter; however, a penalty for late registration will be assessed.

Distance Learning courses are equivalent to their classroom counterparts in credit hours, transferability to other institutions, and fulfilling many program degree requirements. Distance Learning courses encompass a broad range of disciplines across the college's curriculum.

The program offers more than 250 courses in the independent study formats and a full complement of courses at the neighborhood centers via interactive broadcast video.

## Articulation Agreements

Capella University Franklin University Governors State University UAW-Ford University Online University of Cincinnati University of Phoenix University of Toledo For more information, contact Linda PaHud, (937) 512-2694, linda.pahud@sinclair.edu.

[^4]
## Distance Learning Course Delivery Formats

The Distance Learning program offers multiple options for students - independent study, in-class sections at remote sites and via television. Independent study formats include: on-line (via the Internet), videocassette, audiocassette, CD-ROM, and printed materials. Most of these courses have been developed by Sinclair faculty.

Although Distance Learning independentstudy courses have no scheduled class meeting times, students must meet specific deadlines established by the instructor, and course requirements must be completed within the quarter of course enrollment. This requires motivation and determination. Students must budget their time appropriately, keep up with the course requirements and take responsibility for completing the course by the end of the quarter. Independent study courses typically take more time than traditional in-class courses. For example, a three-credithour course would require ten-fifteen hours of study time per week. Distance Learning can work for students who have the desire to succeed and who are able to work independently. Most examinations are conducted on campus, but if the distance from campus is more than 60 miles, arrangements can be made through the Distance Learning office to have examinations proctored at a distant site.

## Online Courses

http://www.sinclair.edu/distance
These courses are available on the World Wide Web. Using computers with modems and Internet access, students can retrieve information and assignments, send e-mail to the instructor and fellow students, participate in discussion forums, and link to other resources. A few online courses combine videocassette lectures with the Internet format, but most are offered completely over the Internet. Students without personal computers and modems may use the computers located in the Sinclair Teleports.

## Videocassette/Audiocassette/ CD-ROM/Print Based Courses

Instead of attending courses in a classroom on campus, students enrolled in these independent study courses can get course lectures in the form of videocassettes, audiocassettes, or print based copy. The CD-ROM is a tutorial format. All materials for any of these courses can be purchased from the Sinclair Tartan Campus Store.

## Televised Classes (Interactive)

By using audio, video, computers and other technologies, students are brought together from various sites in a live, interactive virtual classroom presentation that encourages active participation and exchange of information and ideas. The instructor teaches the course on campus at Sinclair from a state-of-the-art electronic classroom. The course is transmitted live to off-campus sites equipped with a special receiver antenna, a classroom monitor, and a telephone. Students in off-site locations can see and talk to the instructor and their fellow students in the campus class. They also take tests at the off-campus site.

These courses are ideal for students who have the desire to obtain college credit, but do not have the time to drive to Sinclair's downtown campus. Courses are delivered live to area high schools, Wright-Patterson Air Force Base, businesses, career centers, and other sites located throughout the Miami Valley and beyond.

## Neighborhood Center Classes

Students attend college for many reasons: to pursue a degree, to update their knowledge and enhance career advancement opportunities, or simply to take courses for personal enrichment. Sinclair's off-campus credit centers are a convenient alternative for busy students. Classes are taught by full- and part-time faculty at the following locations throughout the Miami Valley:

## Centerville High School

500 East Franklin Street
Centerville, OH
Dwight L. Barnes Community and Continuing Education Center
3700 Far Hills Avenue
Kettering, OH
Kettering Fairmont High School
3301 Shroyer Road
Kettering, OH
Miami Valley Career Technical Center
6800 Hoke Road
Clayton, OH
Miami Valley Research Park 1900 Founders Drive
Dayton, OH
Miamisburg High School
1860 Belvo Road
Miamisburg, OH
Montgomery County Job Center
1111 South Edwin C. Moses Boulevard
Dayton, OH
Northmont High School
4916 West National Road
Dayton, OH
Vandalia Butler High School
600 North Dixie Drive
Vandalia, OH
Wayne High School
5400 Chambersburg Road
Huber Heights, OH

## Wright-Patterson Air Force Base

(All classes are held in areas B and C)

## Dayton Correctional Institution and Montgomery Education \& Pre-release Center Programming

Distance Learning coordinates all course offerings and certificate programs offered at the Dayton Correctional Institute (D.C.I.) located at 4104 Germantown Pike and the Montgomery Education and Pre-releaseCenter(M.E.R.P.C.) at 1901 South Gettyburg Avenue. A satellite office is located at the prison facility to serve D.C.I. students.

## Textbooks by Mail

Students may purchase all the textbooks and related materials needed to take a course or complete a degree by contacting the Sinclair Tartan Campus Store [(937) 512-2665] or by their web site: tartanstore.sinclair.edu. All orders will be shipped directly to the student for a small fee at the address requested. Please allow 2-4 weeks for delivery.

## Liberal Arts \& Sciences

## Associate of Arts: Distance Learning

## (94 Total Credit Hours)

Following are the courses and delivery modes needed to complete the Associate of Arts degree. In order to assure transfer to any Ohio public institution, students must complete requirements of the Ohio Transfer Module (marked by " $\mathrm{TM}^{\prime \prime}$ ) as part of the Associate of Arts degree. The transfer module equals 54-60 credit hours. For more information see the Liberal Arts \& Sciences section on page 141 in the course catalog or talk with a Liberal Arts \& Sciences counselor in Room 6121 or call (937) 512-5134.

## Delivery Method Codes:

DL Distance Learning Courses available in various delivery formats
I Independent Study through College Without Walls Program
Note: Courses in the "Natural and Physical Sciences" section having required labs must be taken on campus.

|  | Credit | Delivery |
| :--- | :--- | ---: |
| Course No. | Hours | Mode |

1. English ( 9 credit hours - TM \& AA degree)

| ENG 111 TM | 3 | DL |
| :--- | :--- | :--- |
| ENG 112 TM | 3 | DL |
| ENG 113 TM | 3 | DL |

2. Speech ( 3 credit hours, choose one - AA degree only) COM 206 DL COM 211 DL COM 225 I
3. Computer Competency ( 3 credit hours, choose one AA degree only)

| CIS | 111 | 3 |
| :--- | :--- | ---: |
| BIS | 160 | 3 |
| CHE | 152 | 5 |
| MAT 220 | 4 | DL |
|  |  | I |

4. Mathematics (3-5 credit hours, choose one mathematics course to fulfill the Transfer Module)

| MAT 108 TM | 3 | I |
| :--- | :--- | :--- |
| MAT 116 TM | 5 | I |
| MAT 117 TM | 4 | I |
| MAT 122 TM | 4 | I |
| MAT 151 TM | 3 | I |
| MAT 201 TM | 5 | I |
| MAT 202 TM | 5 | I |
| MAT 203 TM | 5 | I |
| MAT 204 TM | 5 | I |
| MAT 215 TM | 5 | I |
| MAT 216 TM | 4 | I |
| MAT 218 TM | 5 |  |

5. Natural \& Physical Sciences (4-5 credit hours, courses must be taken as a sequence; $\mathbf{1 2}$ credit hours fulfill the Transfer Module)

| AST 111/117* (lab) TM | 4 | I |
| :---: | :---: | :---: |
| AST 112/118* (lab) TM | 4 | I |
| AST 113/119* (lab) TM | 4 | I |
| OR |  |  |
| BIO 111/117* (lab) TM | 4 | I |
| BIO 112/118* (lab) TM | 4 | I |
| BIO 113/119* (lab) TM | 4 | I |
| OR |  |  |
| BIO 225/226 TM | 4 | I |
| BIO 235/236 TM | 4 | I |
| BIO 240/246 TM | 4 | I |
| OR |  |  |
| CHE 141/147* (lab) TM | 4 | I |
| CHE 142/148* (lab) TM | 4 | I |
| CHE 143/149* (lab) TM | 4 | 1 |
| OR |  |  |
| CHE 151/157* (lab) TM | 5 | I |
| CHE 152/158* (lab) TM | 5 | I |
| CHE 153/159* (lab) TM | 5 | I |
| OR |  |  |
| CHE 201/207* (lab) TM | 5 | I |
| CHE 202/208* (lab) TM | 5 | I |
| CHE 203/209* (lab) TM | 5 | I |
| OR |  |  |
| GLG 141/147 (lab) TM | 4 | I |
| GLG 142/148 (lab) TM | 4 | I |
| GLG 143/149 (lab) TM | 4 | I |
| OR |  |  |
| PHY 100/110 (lab) TM | 4 | DL |
| PHY 104/119 (lab) TM | 4 | DL |
| AST 101/107 (lab) TM | 4 | DL |
| OR |  |  |
| PHY 141 (no lab) TM | 4 | I |
| PHY 142 (no lab) TM | 4 | I |
| PHY 143 (no lab) TM | 4 | I |
| OR |  |  |
| PHY 201/207 (lab) TM | 6 | I |
| PHY 202/208 (lab) TM | 6 | I |
| PHY 203/209 (lab) TM | 6 | I |

See the Liberal Arts \& Sciences section for additional science options.
6. Social \& Behavioral Science ( 15 credit hours) 9 credit hours to fulfill this list, plus additional 6 credit hours from either this list or the Elective List. (Choose courses from at least two areas listed below.)

| ECO 201 TM | 3 | DL |
| :--- | :--- | ---: |
| ECO 202 TM | 3 | DL |
| ECO 203 TM | 3 | DL |
| GEO 101 TM | 3 | I |
| GEO 102 TM | 3 | I |
| GEO 201 TM | 3 | I |
| GEO 202 TM | 3 | I |
| PLS 101 TM | 3 | I |
| PLS 102 TM | 3 | I |
| PLS 103 TM | 3 | I |
| PLS 104 TM | 3 | I |
| PLS 200 TM | 3 |  |


| Course No. | Credit Hours | Delivery Mode | Course No. | Credit Hours | Delivery Mode |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PLS 202 TM | 3 | I | REL 135 TM | 3 | I |
| PSY 119 TM | 5 | DL | THE 105 TM | 3 | DL |
| PSY 121 TM | 3 | DL | THE 201 TM | 3 | I |
| PSY 122 TM | 3 | DL | THE 202 TM | 3 | I |
| PSY 205 TM | 3 | DL | THE 203 TM | 3 | I |
| PSY 206 TM | 3 | DL |  |  |  |
| PSY 207 TM | 3 | DL |  |  |  |
| PSY 208 TM | 5 | DL | 8. Multicultural ( | urs) * |  |
| PSY 217 TM | 4 | DL | LIT 217 TM | 3 | I |
| PSY 225 TM | 4 | I | LIT 234 TM | 3 | I |
| SOC 111 TM | 3 | DL | PSY 225 TM | 4 | I |
| SOC 112 TM | 3 | DL | SOC 145 TM | 3 | DL |
| SOC 120 TM | 5 | I | SOC 215 TM | 4 | DL |
| SOC 145 TM | 3 | DL |  |  |  |

## 9. Electives

Additional hours to fulfill the 94 credit hours required. A copy of the Liberal Arts \& Sciences electives list may be obtained in the Liberal Arts \& Sciences area of the catalog or from the Liberal Arts \& Sciences academic counselors' office, Room 6121.
*Please check with the Liberal Arts \& Sciences academic counselors for additional information on this requirement.
Mathematics
MAT 132 (AA degree only), MAT 133, MAT 134, MAT 215, MAT 216, MAT 218, MAT 220
Natural \& Physical Sciences
BIO 104, BIO 121, BIO 122, BIO 141, BIO 142, BIO 143, BIO 151, BIO 152, BIO 205, CHE 120, CHE 121, CHE 122, GLG 145
Social \& Behavioral Sciences AFR 111, AFR 112, ECO 215, PSY 160, PSY 218, PSY 223, PSY 229, PSY 235, PSY 236, PSY 242, SOC 115, SOC 117, SOC 125, SOC 130, SOC 209, SOC 216, SOC 225, SOC 227, SOC 235

## Business Technologies <br> Associate of Science: Business Administration

## (98 Total Credit Hours)

Following are the courses and delivery modes needed to complete an Associate of Science degree in business administration. Please refer to the Business Technologies section in this bulletin for additional information about transferring to a four-year institution. Additional degree programs in the Business Technologies division may also be completed through a combination of distance learning courses and other independent study courses. For questions regarding academic programs, it is strongly recommended to contact an academic counselor in the Business Technologies division, Room 6131, (937) 512-3054.

| Course No. \& Title |  | Credit | Delivery |
| :---: | :---: | :---: | :---: |
|  |  | Hours | Mode |
| FIRST QUARTER |  |  |  |
| ACC 111 | Principles of Accounting I | 3 | DL |
| ENG 111 | English Composition I | 3 | DL |
| MAN 105 | Introduction to Business | 3 | DL |
| MAT 116 | College Algebra | 5 | I |
| PSY/SOC | Elective* | 3 | DL |
|  | TOTAL | 17 |  |
| SECOND QUARTER |  |  |  |
| ACC 112 | Principles of Accounting II | 3 | DL |
| ENG 112 | English Composition II | 3 | DL |
| MAT 218 | Calculus for Business \& Economics | 5 | I |
| PSY/SOC | Elective* | 3 | DL |
| HUM | Humanities Elective* | 3 | DL |
|  | TOTAL | 17 |  |
| THIRD QUARTER |  |  |  |
| ACC 113 | Principles of Accounting III | 3 | DL |
| ENG 113 | English Composition III | 3 | DL |
| BIS 160 | Introduction to Word, PowerPoint \& Excel | 3 | DL |
| PSY/SOC | Elective* | 3 | DL |
| HUM | Humanities Elective* | 3 | DL |
|  | TOTAL | 15 |  |
| FOURTH QUARTER |  |  |  |
| AST/PHY | Natural Science Sequence I* | 4 | DL |
| ECO 201 | Principles of Economics I | 3 | DL |
| COM 211 | Effective Speaking I | 3 | I |
| MAT 122 | Statistics I | 4 | I |
| HUM | Humanities Elective* | 3 | DL |
|  | TOTAL | 17 |  |
| FIFTH QUARTER |  |  |  |
| AST/PHY | Natural Science Sequence II* | 4 | DL |
| ECO 202 | Principles of Economics II | 3 | DL |
|  | General Education Electives* | * | DL |
|  | TOTAL | 16 |  |
| SIXTH QUARTER |  |  |  |
| AST/PHY | Natural Science Sequence III* | * 4 | DL |
| ECO 203 | Principles of Economics III | 3 | DL |
|  | General Education Elective* | 9 | DL/I |

* See a counselor for suggested electives.


## Software Applications for the Professional

## (21 Total Credit Hours)

This certificate provides office workers, managers, professionals, and those interested in acquiring knowledge for personal use the opportunity to develop and refine their skills in a variety of current software common in today's work environments. Software applications included are word processing, spreadsheet, database, business presentations, desktop publishing, and Internet browser.

Credit Delivery

## Course \& Title

 Hours Mode
## FIRST QUARTER

| BIS | M61 | Introduction to Word | 1 | DL |
| :--- | :--- | :--- | :--- | :--- |
| BIS | M62 | Intermediate Word | 1 | DL |
| BIS | M51 | Introduction to PowerPoint | 1 | DL |
| BIS | M52 | Intermediate PowerPoint | 1 | DL |
| BIS | M70 | Intro to the Internet | 1 | DL |
| BIS | M71 | Intermediate Internet | 1 | DL |
| BIS | M41 | Introduction to Excel | 1 | DL |
| BIS | M42 | Intermediate Excel | 1 | DL |
| BIS | M31 | Introduction to Access |  | 1 |
| BIS | M32 | Intermediate Access |  | DL |
|  |  |  | TOTAL | $\frac{1}{10}$ |
|  | DL |  |  |  |

## SECOND QUARTER

| BIS | M21 | Introduction to Desktop Publishing | 1 | DL |
| :--- | :--- | :--- | :--- | :--- |
| BIS | M22 | Intermediate Desktop Publishing1 |  |  |
| BIS | M53 | Advanced PowerPoint | 1 | DL |
| BIS | M63 | Advanced Word | 1 | DL |
| BIS | M64 | Expert Word | 1 | DL |
| BIS | M43 | Advanced Excel |  | 1 |
| BIS | M44 | Expert Excel | DL |  |
| BIS | M33 | Advanced Access |  | 1 |
| BIS | M34 | Expert Access | DL |  |
| BIS | 172 | Integrated Solutions |  | 1 |
|  | DL |  |  |  |
|  |  |  |  | 1 |
| DLTAL | $\frac{2}{11}$ | DL |  |  |

## Is Distance Learning for Me ?

Although Distance Learning delivery modes are a convenient and flexible way to take courses and complete a degree, this often is not necessarily suited to all students' learning styles or needs. Some students find it difficult to study independently and need the continued contact with the instructor and students, as found in the classroom. The Distance Learning division strongly recommends that students learn more about what is required in a distance learning mode, that they talk with a counselor and take the following short quiz to find out if Distance Learning courses fit their circumstances and learning style. Circle one answer and score as directed:

1. My need to take this course now is:
a. High - I need it immediately for degree, job, or other important reason.
b. Moderate-I could take it on campus later or substitute another course.
c. Low - It's a personal interest that could be postponed.
2. Feeling that $I$ am part of a class is:
a. Not particularly necessary to me.
b. Somewhat important to me.
c. Very important to me.
3. I would classify myself as someone who:
a. Often gets things done ahead of time.
b. Needs reminding to get things done on time.
c. Puts things off until the last minute.
4. Classroom discussion is:
a. Rarely helpful to me.
b. Sometimes helpful to me.
c. Almost always helpful to me.
5. When an instructor hands out direction for an assignment, I usually:
a. Figure out the instructions myself.
b. Try to follow the directions on my own, then ask for help as needed.
c. Have the instructions explained to me.
6. I need faculty comments on my assignments:
a. Within a few weeks, so I can review what I did.
b. Within a few days, or I forget what I did.
c. Right away, or I get very frustrated.
7. Considering my professional and personal schedule, the amount of time I have to work on a Distance Learning course is:
a. More than enough for a campus class or a Distance Learning course.
b. The same as for a class on campus.
c. Less than for a class on campus.
8. When I am asked to use VCRs, computers, voice mail, or other technologies new to me:
a. I look forward to learning new skills.
b.I feel apprehensive, but try anyway.
c. I put it off or try to avoid it.
9. As a reader, I would classify myself as:
a. Good - I usually understand the text without help.
b. Average - I sometimes need help to understand the text.
c. Slower than average.
10.If I have to go to campus to take exams or complete work: a. I can go to campus any time.
b.I may miss some lab assignments or exam deadlines if campus labs are not open evenings and weekends.
c. I will have difficulty getting to the campus, even in the evenings and on weekends.

## Scoring

Add 3 points for each "a" circled, 2 points for each " $b$ ", and 1 point for each "c." If you scored 20 or over, a Distance Learning is a real possibility for you. If you scored between 15 and 20, Distance Learning courses may work for you, but you may need to make a few adjustments in your schedule and study habits to succeed. If you scored 14 or less, Distance Learning may not currently be the best alternative. Talk to your counselor.

## Tips for the Distance Learner

For those who decide to try a distance learning course, it is also recommended that students view a video tape entitled, "The Emerging Learner." This video tape contains a series of nine segments dealing with how to study, how to manage time, and how to get the most out of a distance learning course. This video tape can be obtained by stopping by the Distance Learning office, Building 14, Room 14318 or calling either (937) 512-2990 or toll free, 888-226-2457.

## How to Succeed in Distance Learning

Distance Learning offers a variety of course delivery formats that expand students' course options. Courses available on-line (via the World Wide Web), and through video tape, audio tape, print, or CD-ROM are convenient alternatives for Sinclair students. Most students succeed in Distance Learning courses, but there are some important considerations for students new to this mode of delivery. Please take a moment to review this comparison between traditional and Distance Learning courses.

| Traditional Courses | Distance Learning Courses |
| :---: | :---: |
| Content |  |
| Traditional courses have specific learning objectives that the student must master and synthesize to pass the course. | Courses have the same content as traditional courses. They differ only in the delivery format. |
| Time |  |
| Students who succeed in their courses spend at least two | Is convenient for students who like to work according to their |
| additional hours each week in | own pace and schedule, but the |
| study for each hour of in-classtime. This means a time | time commitment necessary to |
|  | succeed is the same or more as |
| commitment of at least nine | for traditional in-class courses. |
| hours per week of in-class and study time for the typical 3 |  |
| Structure |  |
| Regular class attendance keeps students on track with their course work. | Students must have the selfdiscipline to keep up with their work throughout the quarter. |
| Support |  |
| Traditional classes are inherently learning communities in | On-line courses have some le |
|  | of community activity, but |
| which students can benefit from peer support and in-class | video/audio/print/CD-ROM |
|  | formats do not. D.L. instructo |
| discussions. Students also have ready access to their instructors if they have questions. | cessible via e-mail |
|  | phone, but response time may |
|  | not be as immediate. |



Another 2002 N.I.S.O.D. award recipient for contributions to the discipline, is Albert C. Wahle, professor, chairperson, Architectural Technology, Civil Engineering Technology, Industrial Design E Graphic Technology.


## Academic Counseling:

Monday - Thursday, 8:00 a.m. - 7:00 p.m.; Friday, 8:00 a.m. - 5:00 p.m.
Note: Please call to make an appointment to ensure that a counselor is available.
These hours may vary each quarter.

## Dr. George Sehi, Dean

(937) 512-2918, Room 3133

Karen Blake
Academic Counselor
(937) 512-2282, Room 3142

Anna Ranard
Academic Counselor
(937) 512-2282, Room 3142

Deborah A. Shuler
Coordinator, Special Projects (937) 512-5342, Room 11243

Architectural Technology Civil Engineering Technology
Industrial Design \& Graphic Technology
Surveying
Albert Wahle, Chairperson
(937) 512-2183, Room 11426

Automotive Technology
Automotive Service Educational Program (A.S.E.P.)
Chrysler Dealer Apprenticeship Program (C.A.P.)
American Honda Certificate Program
Ford Maintenance \& Light Repair Certificate Stephen Ash, Chairperson (937) 512-3242, Room 20244

Aviation Technology/ Automation \& Control Technology
Steven Harper, Chairperson (937) 512-4134, Room 3134

Industrial Engineering Technology
Manufacturing Engineering Technology
Plastics \& Composites Engineering Technology
David Meyer, Chairperson
(937) 512-2311, Room 13210

Electronics \& Computer Engineering Technology
Electrical \& Electronics Repair Technology
Surinder Jain, Chairperson
(937) 512-2570, Room 3134

Engineering Science (University Parallel)
Mechanical Engineering Technology
Quality Engineering Technology Light \& Commercial HVAC Service
James Eller, Chairperson
(937) 512-2242, Room 3134

Fire Science Technology
Safety Engineering Technology
Environmental Engineering Technology
Dr. Nicholas Scambilis,
Chairperson
(937) 512-3242, Room 20244

Industrial Foremanship Technology
Industrial Manufacturing Technology
Tool \& Die Technology
Tooling \& Machining (Step II Project)
Gene Chambers, Chairperson
(937) 512-2570, Room 3134

## Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the grade telephone reporting system.

Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the web at http://www.sinclair.edu/departments/rsr/ home.htm. Access to grades has been maintained through the InTouch information kiosks. Check the quarterly class bulletin for details.

## Planning the Program

A student is required to complete the course work for a particularEngineeringTechnology programtoearn a degree. Some courses have prerequisites. Others must be taken in special sequences. Many require completion of a yearsequenceintechnical mathematics and technical physics. A student entering these programsfromhighschoolshould havecompleted at least one year of algebra. Advanced high school mathematics is advisable. The student who needs development in mathematics will be required to enroll in a DEV sequence depending on Skills Assessment results. The student should plan a course of study with an Engineering \& Industrial Technologies counselor, Room 3142, (937) 512-2282.

## Articulation Agreements

| Section I + Engineering Science University Parallel |  |
| :---: | :---: |
| University of Dayton | Chemical Engineering |
|  | Civil Engineering |
|  | Electrical Engineering |
| Kettering University | Engineering Science |
| Franciscan University | Engineering Science |
| Miami University | Manufacturing Engineering Engineering Management |
| Ohio Northern Univ. | Engineering Management Mechanical Engineering |
|  | Electrical Engineering |
|  | Civil Engineering |
| Wright State University | Biomedical Engineering |
|  | Computer Engineering |
|  | Electrical Engineering |
|  | Human Factors Engineering |
|  | Mechanical Engineering |
|  | Materials Science/Engineering |
|  | Engineering Physics |

Section II + Engineering \& Industrial Technologies
University of Cincinnati Architectural Technology
College of Applied Construction Management Science

University of Dayton

DeVry Institute of Tech.
Ferris State University
University of S. Colorado
Indiana State University
Miami Univ.-Middletown
Electronics \& Computer Engineering Technology
Mechanical Engineering Technology Open Learning Fire Science Tech.
Electronics \& Computer Engineering Technology
Industrial Engineering Technology
Manufacturing Engineering Tech.
Mechanical Engineering Technology Electronics Engineering Technology Automotive Technology
Automotive Technology
Automotive Technology
Electronics \& Computer Engineering

Technology
Mechanical Engineering Technology Electronics \& Computer Engineering Technology
Industrial Engineering Technology
Section III + Engineering \& Industrial Technologies
These programs are structured in a one-plus-one format in order for the student to receive an associate of applied science degree from Sinclair.
Edison Community Automotive Technology
College
Fire Science Technology
Fire Science Administration
Quality Engineering Technology
Quality Engineering Packaging Quality Assurance Technology
Safety Risk Management
Section IV + Engineering \& Industrial Technologies Listed below are local area institutions with whichSinclair has some form of articulation agreement or experience based educational transfer acceptance. These may be local high schools, career technology centers, or skilled trades training programs. Courses from these programs may be incorporated into Engineering \& Industrial Technologies programs, or they may be accepted as part of an Associate of Technical Studies. ATS or AIS Block Credit Skilled Trades Courses Dayton Area High Schools Career Technology Courses Miami Valley CTC
University of Toledo
Career Technology Courses Electronics \& Computer Engineering Technology, Mechanical Engineering Technology, Construction Management Note: See an academic counselor for specific program information which varies depending on which four-year institution.

# University Parallel Transfer Degree Programs 

The student choosing a career in Engineering Science may select a University Parallel program. The Engineering Science (University Parallel, Associate of Science degree) program is for the student who plans to transfer to a four-year college or university for a degree in Engineering Science. This program is designed to bring an entering student up to the level of a third year university student in Engineering Science. Course sequence is designed to transfer the basic requirements of most universities. The student is strongly advised to consult the particular school he or she will be entering as well as a Sinclair academic counselor, before signing up for different courses. The student who wishes to earn an associate degree in Engineering Science must complete the last thirty hours at Sinclair in order to meet residency requirements. Exceptions to this requirement must be approved in advance in writing by the dean of Engineering \& Industrial Technologies.
Note: University of Dayton/Sinclair Dual Admission Students planning a future in engineering technology should consider dual admission to Sinclair and the University of Dayton. Students who complete an associate degree in qualifying engineering \& industrial; technologies major at Sinclair will be assured admissions to a corresponding program at U.D. with junior level standing. Upon becoming active U.D. students, they will receive an annual onethird tuition scholarship. Also, student will have access to some University of Dayton and Sinclair facilities while attending both institutions. Call (937) 512-2282 for details.
U.T./Sinclair Distance Education program for the Electronics \& Computer Engineering Technology Program.

## Associate of Science <br> Engineering Science <br> ( 104 Total Credit Hours)



## THIRD QUARTER

| CHE | 151 | General Chemistry I |  |  |
| :--- | :--- | :--- | :--- | ---: |
| ENG | 113 | English Composition III | 5 |  |
| MAT | 203 | Calculus \& Analytic Geometry III | 3 |  |
| PHY | 203 | General Physics III | 5 |  |
|  |  |  | TOTAL | $\frac{6}{19}$ |
|  |  |  |  |  |

## FOURTH QUARTER



* See page 52.


## Career Degree Programs

Many of the Engineering \& Industrial Technologies career programs are transferable to colleges and universities toward the bachelor of applied science, bachelor of engineering technology or bachelor of technology programs. These programs also prepare a student for employment in architectural, automotive, civil construction, industrial design \& graphic technology, electronics, electromechanical, aviation, environmental engineering, fire science, industrial, manufacturing, mechanical, plastics and composites, quality engineering and safety/risk management and tooling and machining technologies. A graduate will receive an Associate of Applied Science degree from Sinclair. The student pursuing a degree that is accredited by a national accrediting association must meet the association's requirements for class attendance at Sinclair.

## Architectural Technology

## (102 Total Credit Hours)

Architectural Technology is designed to develop student skills for efficient application of the arts and sciences related to the building construction industry. Spacious laboratories contain the latest high tech equipment. Emphasis is on developing architectural drafting skills, both manual and computer-aided.

Credit
Course \& Title
FIRST QUARTER
ARC 101 Architectural Drafting 3
ARC 105 Construction Methods \& Materials 4
CCT 201
COM 206 Introduction to Surveying Interpersonal Communication 3

MAT 131 Technical Mathematics I
TOTAL
18

SECOND QUARTER

| ARC | 102 | Architectural Detail Drafting | 5 |
| :--- | :--- | :--- | ---: |
| CCT | 105 | Properties of Construction Materials | 3 |
| ENG | 121 | Technical Composition I | 3 |
| MAT | 132 | Technical Mathematics II | 5 |
| MET | 198 | P. C. Applications in Engineering <br> Technology |  |
|  |  | TOTAL | 18 |

## THIRD QUARTER

ARC 103 Architectural 3-D Drafting 3

ARC 107 Architectural Building Codes 3
ARC 116 Architectural History \& Preservation 3
ENG 122 Technical Composition II 3
PHY 131 Technical Physics I 4
DRT 198 Introduction to Computer Aided Drafting $\frac{2}{18}$

## FOURTH QUARTER

ARC 117 Architectural Restoration \& Rehabilitation 3
CCT 216 Construction Estimating 4
DRT 199 Computer Aided Drafting II 3
MET 203 Statics TOTAL $\frac{4}{14}$

## FIFTH QUARTER

ARC 211 Building Systems Drafting 5
ARC 240 Architectural Computer Aided Drafting I 4
MET 207 Strength of Materials 4
SOC _ Social Science Elective $\quad \frac{3}{16}$
SIXTH QUARTER

| ARC | 241 | Architectural Computer Aided Drafting II | 4 |
| :--- | :--- | :--- | :--- |
| ARC | 278 | Architectural Capstone | 4 |
| CCT | 206 | Structural Analysis II | 4 |
|  | - | Technical Elective |  |
| HUM | - | Humanities Elective* | 3 |
|  |  |  | TOTAL |

* See page 52.


## Automation \& Control Technology (109-111 Total Credit Hours)

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| EER | 126 | D.C. Circuits | 4 |
| EGR | 100 | Fundamental Mechanical Skills | 3 |
| EGR | 128 | Robotics in CIM systems |  |
| IET | 198 | Computer Programming Applications <br> in Engineering Technology | 4 |
| MAT | 131 | Technical Mathematics I | 2 |
|  |  | TOTAL | $\frac{5}{18}$ |

## SECOND QUARTER

EER 127 A.C. Circuits 4
EGR 252 KAREL Robot Programming 3
ENG 121 Technical Composition I 3
HUM _ Humanities Elective* or
EGR 132 Connecting Technology \& Our Lives 3
MAT 132 Technical Mathematics II $\quad \frac{5}{18}$

## THIRD QUARTER

EER 128 Discrete Electronics 4

EER 139 Electrical Machinery 4
EGR 220 Machine Vision 3
EGR 257 Handling Tool/Teach Pendant
Programming/TPP
ENG 122 Technical Composition II
TOTAL
continued next page


## Automotive Technology <br> (102-105 Total Credit Hours)

Fully accredited by the National Automotive Technicians Education Foundation, the Associate of Applied Science in Automotive Technology provides training for students aspiring to become automotive technicians. Training in automotive management is also presented in the comprehensive program. Graduates are finding excellent employment opportunities existing in dealerships, independent services facilities, machine shops and corporate service franchises. Some graduates may also find employment as sales representatives, parts managers, service managers and as automotive instructors.

Course \& Title \begin{tabular}{r}
Credit <br>
FIRST QUARTER

$\quad$

Hours
\end{tabular}

SECOND QUARTER

| AUT | 115 | Fuel \& Emission Systems | 7 |
| :--- | :--- | :--- | ---: |
| AUT | 108 | Engine Systems | 5 |
| COM | 206 | Interpersonal Communication | 3 |
|  | - | General Education Elective | 3 |
|  |  | TOTAL |  |

## THIRD QUARTER

| AUT | 142 | Manual Transmissions \& Drive Line | 5 |
| :--- | :--- | :--- | ---: |
| AUT | 146 | Heating \& Air Conditioning | 5 |
| INT | 111 | Tool \& Manufacturing Processes I | 3 |
| ENG | 121 | Technical Composition I | 3 |
| MET | 198 | PC Applications in Engineering Technology | 2 |
|  |  | $\quad$ TOTAL | 18 |

## FOURTH QUARTER

| AUT | 241 | Automatic Transmissions | 7 |
| :--- | :--- | :--- | ---: |
| AUT | 210 | Steering, Suspension \& Alignment | 5 |
| AUT | 111 | Automotive Management I | 3 |
| PSY | 229 | Work Group Dynamics | 3 |
|  |  | TOTAL |  |

FIFTH QUARTER

| AUT | 245 | Performance \& Driveability | $1-7$ |
| :--- | :--- | :--- | ---: |
| ECO | 201 | Principles of Economics I | 3 |
| ENG | 122 | Technical Composition II |  |
| SRM | 211 | Industrial Safety I | 3 |
|  |  |  | TOTAL |

## SIXTH QUARTER

| AUT | 215 | Automotive Service Operations | 10 |  |
| :--- | :--- | :--- | ---: | ---: |
| HUM | - | Humanities Elective |  | 3 |
| EGR | - | Engineering Elective |  | 3 |
|  |  |  | TOTAL | 16 |

* See page 52.
** AUT 102 is for General Motors A.S.E.P. and Chrysler C.A.P. students only.

The Automotive Technology program also supports the General Motors A.S.E.P. (Automotive Service Education Program), the Chrysler C.A.P. (Chrysler Dealer Apprenticeship Program) and the American Honda programs. These programs are two-year associate degree programs in which students alternate between college training and a paid dealership work experience. For further information about these programs contact the department chairperson.

## Aviation Technology*

## (91-95 Total Credit Hours)

This is the primary degree in the Aviation Technology program which leads to an Associate of Applied Science in Aviation Technology. The student, having completed this course work, would have the background, skills, and F.A.A. certificates to either continue on for a bachelor's degree in Aviation Science (or related field), or start a flying career as a pilot with some additional flying ratings.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| ENG | 121 | Technical Composition I | 3 |
| MET | 198 | P. C. Applications in Engineering Technology | 2 |
| MAT | 131 | Technical Mathematics I | 5 |
| AVT | 105 | Orientation to Aviation | 3 |
| AVT | 125 | Developments in Aviation | 3 |
|  |  | TOTAL | 16 |

## SECOND QUARTER

| AVT | 111 | Navigation Science I |  | 3 |
| :--- | :--- | :--- | :--- | ---: |
| AVT | 245 | Aviation Law | 3 |  |
| MAT | 132 | Technical Mathematics II |  | 5 |
| HUM |  | Humanities Elective* |  | 3 |
|  |  |  | TOTAL | 14 |

## THIRD QUARTER

| ENG | 122 | Technical Composition II | 3 |
| :--- | :--- | :--- | :--- |
| PHY | 131 | Technical Physics I | 4 |
| AVT | 238 | Aircraft Avionics | 3 |
| AVT | 119 | Meteorology | 3 |
| AVT | 270 | Aviation Internship |  |
|  |  |  | TOTAL |

## FOURTH QUARTER

| AVT |  |  | AVT Track I/II/III Elective |
| :--- | :--- | :--- | ---: |
| E/IT | - | Elective | $3-4$ |
| AVT | 248 |  | Aircraft Structures \& Systems |
| AVT | 201 |  | 3 |
| Aerospace Materials | 3 |  |  |
| AVT | 211 |  | 3 |
|  |  |  | Navigation Science II |
|  |  | TOTAL | $\frac{3}{15-16}$ |

## FIFTH QUARTER

| AVT |  | AVT Track I/II/III Elective | 3-4 |
| :---: | :---: | :---: | :---: |
| AVT | 242 | Aircraft Accident Investigation | 3 |
| AVT | 240 | Human Factors in Aviation | 3 |
| SOC |  | Social Science Elective | 3 |
| AVT | 206 | Aerodynamics | 3 |
|  | TOTAL |  | 15-16 |
| SIXTH QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
| AVT | 247 | Flight Control Systems | 3 |
| AVT |  | AVT Track I/II/III Elective | 3-4 |
| AVT | 205 | Aviation Management | 3 |
| AVT |  | AVT Track I/II/III Elective | 3-4 |
|  |  | TOTAL | 15-17 |

## AVT Track Technical Electives:

Track I Flight
AVT 110 Ground School Primary Flight
AVT 120 Primary Flight
AVT 160 Ground School Instrument
AVT 220 Instrument Flight Training

## Track II Maintenance

AVT 143 Aircraft Maintenance
AVT 202 Aircraft Pneumatics \& Hydraulics
AVT 228 Aircraft Engines
AVT 248 Aircraft Structures

## Track III Management

AVT 230 Airport Planning \& Management
EGR 206 Engineering Technology Economics
MAN 105 Introduction to Business
MRK 225 Sales Fundamentals
** See page 52.

## Aviation Technology

## Professional Pilot \& Airway Science

Option

## (104 Total Credit Hours)

This option under the primary program is designed for students who want to pursue a career as a professional pilot. The course and lab work are determined by the Federal Aviation Administration (F.A.A.). There are minimum flight hours, as well as practical test standards that students must pass.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| ENG | 121 | Technical Composition I | 3 |
| MET | 198 | P. C. Applications in Engineering Technology | 2 |
| MAT | 131 | Technical Mathematics I | 5 |
| AVT | 110 | Ground School/Primary Flight | 3 |
| AVT | 120/124 | Primary Flight | 4 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| AVT | 111 | Navigation Science I | 3 |
| MAT | 132 | Technical Mathematics II | 5 |
| AVT | 105 | Orientation to Aviation | 3 |
| HUM |  | Humanities Elective* | 3 |
| AVT | 160 | Ground School/Instrument | 4 |
|  |  | TOTAL | 18 |
| THIRD QUARTER |  |  |  |
| ENG | 122 | Technical Composition II | 3 |
| PHY | 131 | Technical Physics I | 4 |
| AVT | 220/224 | Instrument Flight Training | 4 |
| AVT | 238 | Aircraft Avionics | 3 |
| AVT | 119 | Meteorology | 3 |
|  |  | TOTAL | 17 |
| FOURTH QUARTER |  |  |  |
| AVT | 250 | Commercial Pilot Ground School | 3 |
| AVT | 253/263 | Commercial Flight | 5 |
| AVT | 248 | Aircraft Structures \& Systems |  |
| AVT | 201 | Aerospace Materials | 3 |
| AVT | 211 | Navigation Science II | 3 |
|  |  | TOTAL | 17 |
| FIFTH QUARTER |  |  |  |
| AVT | 255 | Multi-Engine Operations | 3 |
| AVT | 242 | Aircraft Accident Investigation | 3 |
| AVT | 256/266 | Multi-Engine Flight |  |
| AVT | 240 | Human Factors in Aviation | 3 |
| SOC |  | Social Science Elective | 3 |
| AVT | 206 | Aerodynamics | 3 |
|  |  | TOTAL | 18 |
| SIXTH QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
| AVT | 258 | Instructor Ground | 4 |
| AVT | 259/269 | Instructor Flight | 4 |
| AVT | 205 | Aviation Management | 3 |
| AVT | 270 | Aviation Internship | 3 |
|  |  | TOTAL | 17 |

## Civil Engineering Technology

## (103 Total Credit Hours)

Civil Engineering Technology is the study of placing structures on the earth's surface. The program concentrates on surveying skills and the understanding of structures through a strong emphasis on math and science skills. The program is specifically designed to articulate to four-year schools of engineering technology in programs such as architectural engineering technology or construction management.

|  | Credit |
| :--- | :--- |
| Course \& Title | Hours |
| FIRST QUARTER |  |


| DRT | 196 | Technical Graphics Communication | 3 |
| :--- | :--- | :--- | ---: |
| ARC | 105 | Construction Methods \& Materials | 4 |
| CCT | 201 | Introduction to Surveying | 3 |
| COM | 206 | Interpersonal Communication | 3 |
| MAT | 131 | Technical Mathematics I | TOTAL |
|  |  |  | 5 |

## SECOND QUARTER

| ARC | 101 | Architectural Drafting | 3 |
| :--- | :--- | :--- | ---: |
| CCT | 105 | Properties of Construction Materials | 3 |
| CCT | 226 | Heavy Highway Construction | 3 |
| MAT | 132 | Technical Mathematics II <br> MET <br> 198 | P. C. Applications in Engineering <br> Technology |
|  |  | $\quad$ TOTAL | 5 |
| 16 |  |  |  |

## THIRD QUARTER

| ARC | 116 | Architectural History \& Preservation |  | 3 |
| :---: | :---: | :---: | :---: | :---: |
| CCT | 202 | Construction Survey |  | 5 |
| DRT | 198 | Introduction to CAD | cepts | 2 |
| ENG | 121 | Technical Compositi |  | 3 |
| PHY | 131 | Technical Physics I | TOTAL | 4 |
|  |  |  |  | 17 |
| FOURTH QUARTER |  |  |  |  |
| CCT | 216 | Construction Estima |  | 4 |
| DRT | 199 | Advanced Compute | Drafting | 3 |
| ENG | 122 | Technical Compositi |  | 3 |
| MET | 203 | Statics |  | 4 |
| PHY | 132 | Technical Physics II |  | 4 |

FIFTH QUARTER

| CCT | 246 | Topographic Mapping | 4 |
| :--- | :--- | :--- | ---: |
| MET | 207 | Strength of Materials | 4 |
| MAT | 133 | Technical Mathematics III | 5 |
| SOC | - | Social Science Elective |  |
|  |  |  | TOTAL |

## SIXTH QUARTER

| CCT | 206 | Reinforced Concrete Design | 4 |
| :--- | :--- | :--- | ---: |
| CCT | 245 | Soil Mechanics | 4 |
| CCT | 270 | Civil Engineering Technology Internship | 3 |
| CCT | 278 | Civil Construction Capstone | 4 |
| HUM |  | Humanities Elective* | 3 |
|  |  |  | 18 |

[^5]
## Civil Engineering Technology Construction Management Option (105 Total Credit Hours)

This option in Civil Engineering Technology concentrates on developing technicians who can work in the construction process as drafters, surveyors, inspectors or management trainees with a curriculum that prepares an individual to progress to a management level in the exciting field of construction.


* See page 52.


## Electronics \& Computer Engineering Technology* ( 107 Total Credit Hours)

This program provides students with exciting opportunities to put engineering concepts into practice. The curriculum balances instruction in theory with hands-on laboratory applications. A strong background in basics and in-depth study of advanced topics gives students careers in diversified areas, such as digital systems, microcomputers, programmable logic controllers, and analog systems. The program is T.A.C./A.B.E.T. accredited and thereby assures quality education in modern state-of-the-art equipped laboratories and a highly qualified faculty. Those who wish to further their studies are well prepared for entry into the best four-year BSEET programs. Several articulation agreements exist between Sinclair's EET program and four-year colleges and universities.

| Course \& Title |  |  |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| EET | 114 | Basic Electronic Measure | ents | 3 |
| EET | 121 | Electronics Workshop |  | 3 |
| MET | 198 | P.C. Applications For En Technology | ineering | 2 |
| MAT | 131 | Technical Mathematics I |  | 5 |
| ENG | 121 | Technical Composition I |  | 3 |
| TOTAL |  |  |  | 16 |
| SECOND QUARTER |  |  |  |  |
| EET | 116 | Electronics Schematics \& | Layout | 3 |
| EET | 150 | Electrical Circuits \& Instr | ments I | 4 |
| MAT | 132 | Technical Mathematics II |  | 5 |
| ENG | 122 | Technical Composition II |  | 3 |
| SOC |  | Social Science Elective |  | 3 |
| TOTAL |  |  |  | 18 |
| THIRD QUARTER |  |  |  |  |
| EET | 155 | Electrical Circuits \& Instr | ments II | 4 |
| EET | 259 | Programming for Electro | ics Technology | 3 |
| MAT | 133 | Technical Mathematics III |  | 5 |
| $\begin{aligned} & \text { PHY } \\ & \text { HUM } \end{aligned}$ | 131 | Technical Physics I |  | 4 |
|  |  | Humanities Elective** |  | 3 |
|  |  |  | TOTAL | 19 |
| FOURTH QUARTER |  |  |  |  |
| EET | 201 | Electronics I |  | 4 |
| EET | 205 | Electrical Circuits \& Instr | ments III | 3 |
| EET | 231 | Digital Logic \& Circuits |  | 4 |
| PHY | 132 | Technical Physics II |  | 4 |
| COM | 206 | Interpersonal Communic | tion | 3 |
|  |  |  | TOTAL | 18 |
| FIFTH QUARTER |  |  |  |  |
| EET | 202 | Electronics II |  | 3 |
| EET | 207 | Linear Integrated Circuit |  | 4 |
| EET | 251 | Digital Systems I |  | 4 |
| EET | 261 | Microprocessor/Microco | troller Systems | 4 |
| EET |  | EET Elective ${ }^{* * *}$ |  | 3 |
|  |  |  | TOTAL | 18 |
| SIXTH QUARTER |  |  |  |  |
| EET | 252 | Digital Systems II |  | 4 |
| EET | 262 | Microprocessor Applicati |  | 4 |
| EET | 278 | Electronics Project |  | 4 |
| EET |  | EET Elective ${ }^{* * *}$ |  | 3 |
|  |  | General Education Elective |  | 3 |

[^6]** See page 52.
***Approved EET electives:

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| EET | 226 | Electronic Communication Systems I | 3 |
| EET | 227 | Electronic Communication Systems II | 3 |
| EET | 264 | P.C. Troubleshooting \& Repair | 3 |
| EET | 270 | EET Internship | $3-6$ |
| EET | 283 | Introduction to Lasers | 3 |
| EET | 284 | Optoelectronics | 3 |
| EET | 281 | Programmable Logic Controllers | 3 |

## Electronics \& Computer Engineering Technology* Telecommunications Option

## (104 Total Credit Hours)

This option offers the same basics as EET program and the first year of study is common to both the programs. Second year of study is devoted to special areas such as electronics communications, lasers, fiber optics and digital communication. A capstone course challenges students to apply knowledge to build a factory prototype project. There is a great scope for these graduates in today's world. The program assures high quality education in modern state-of-the-art equipped laboratories taught by qualified faculty

## Credit

## Course \& Title <br> Hours

FIRST QUARTER
EET 114 Basic Electronic Measurements 3
EET 121 Electronics Workshop I 3
*ENG 121 Technical Composition I 3
COM 206 Interpersonal Communication 3
MAT 131 Technical Mathematics I $\quad \frac{5}{17}$

## SECOND QUARTER

EET 150 Electrical Circuits \& Instruments I 4
EET 116 Electronics Schematics \& Layouts 3
ENG 122 Technical Composition II 3
MAT 132 Technical Mathematics II 5
SOC —— Social Science Elective TOTAL $\quad \frac{3}{18}$

## THIRD QUARTER

$\begin{array}{lll}\text { MET } & 198 & \begin{array}{c}\text { P.C. Applications for Engineering } \\ \text { Technology }\end{array}\end{array}$
EET 155 Electrical Circuits \& Instruments II 4
EET 259 Programming for Electronics Technology 3
MAT 133 Technical Mathematics III 5
PHY 131 Technical Physics I TOTAL $\quad \frac{4}{18}$

## FOURTH QUARTER

| EET | 201 | Electronics I | 4 |
| :--- | :--- | :--- | ---: |
| EET | 231 | Digital Logic \& Circuits | 4 |
| PHY | 132 | Technical Physics II | 4 |
| HUM | - | Humanities Elective | 3 |
| - | - | General Education Elective | 3 |
|  |  | TOTAL |  |

## FIFTH QUARTER

EET 207 Linear Integrated Circuits 4
EET 226 Communication Systems I 3
EET 251 Digital Systems I 4
EET 283 Introduction to Lasers 3
EET 284 Optoelectronics $\quad \frac{3}{17}$

## SIXTH QUARTER

| EET | 227 | Communication Systems II | 3 |
| :--- | :--- | :--- | ---: |
| EET | 261 | Microprocessors/Microcontrollers Systems | 4 |
| EET | 285 | Digital Communication | 3 |
| EET | 287 | Telecommunications Project | 6 |
|  |  |  | 16 |

* See page 52.


## Environmental Engineering <br> Technology

## (106-110 Total Credit Hours)

This program provides a full range of courses which prepares students for entry level positions in the field of environmental engineering technology. The curriculum provides background in environmental laws and regulations; site assessments; emergency response to situations involving hazardous chemicals/wastes; storage, treatment, transportation and disposal of hazardous wastes; sampling and analysis; and remediation. Skills and knowledge acquired will lead to possible employment in consulting, industrial and governmental organizations.

Credit
Course \& Title
Hours
FIRST QUARTER

| EVT | 120 | Environmental Sampling \& Analysis | 3 |
| :--- | :--- | :--- | ---: |
| EVT | 110 | Environmental Compliance | 3 |
| MAT | 131 | Technical Mathematics I | 5 |
| CHE | 131 | Technical Chemistry | 4 |
| ENG | 121 | Technical Composition I | 3 |
|  |  |  | -18 |

## SECOND QUARTER

| MET | $198 \quad$P.C. Applications in Engineering <br> Technology | 2 |
| :--- | :--- | :--- |

CHE 121 Introduction to Organic Chemistry 4
MAT 132 Technical Mathematics II 5
BIO 107 Human Biology 5
ENG 122 Technical Composition II $\quad 3$
TOTAL 19
THIRD QUARTER
MAT 133 Technical Mathematics III 5
EVT 200 Waste Management/Pollution Prevention 3
HUM 135 Environmental Ethics 3
CHE 134 Environmental Chemistry 4
COM 211 Effective Speaking TOTAL $-\frac{3}{18}$

## FOURTH QUARTER

MAT 122 Statistics 4
PHY 131 Technical Physics 4
SRM 151 OSHA 1910.120 Hazardous Waste Op. 5
— - Track Electives TOTAL $\frac{3-5}{16-18}$

## FIFTH QUARTER

EVT 106 Air Pollution 3
EVT 107 Water Management Technology 3
EVT 210 Environmental Site Assessment 4
EVT 260 Hazardous Waste Storage, Treat \& Disp. 3
Track Electives 3-5
TOTAL $\quad \overline{16-18}$

SIXTH QUARTER

| EVT | 240 | Groundwater/Fluid Mechanics | 4 |
| :--- | :--- | :--- | ---: |
| EVT | 278 | Capstone | 3 |
| EVT | 165 | Remediation | 3 |
| EVT | 180 | Solid Waste Management | 3 |
|  |  | or |  |
|  | 270 | Internship | 3 |
| - | Track Electives |  | $\frac{3-5}{17-19}$ |

Track Electives - Chemical
Fourth Quarter
CHE 201 Organic Chemistry I 5
Fifth Quarter
CHE 202 Organic Chemistry II 5
Sixth Quarter
CHE 203 Organic Chemistry III 5
Track Electives - Industrial Hygiene
Fourth Quarter
SRM 215 Industrial Hygiene 3
Fifth Quarter
SRM 217 Industrial Toxicology 3
Sixth Quarter
SRM 219 Industrial Hygiene Instrumentation 3
Track Electives - Hazardous Material Management
Fourth Quarter
EVT 215 Asbestos Management 3
Fifth Quarter
EVT 216 Lead Management 3
Sixth Quarter
EVT 217 Confined Space Management 2
SRM 152 OSHA 1910.120 Hazardous Waste 1
Operations \& Emergency Response Refresher

## Fire Science Technology

## (104 Total Credit Hours)

This program provides a full range of courses which address fire and safety issues. The program prepares students for careers in fire protection, inspection, arson investigation, emergency response, and fire administration. Courses include fire protection systems, fire investigation, fire codes, safety management, building construction, hazardous materials, and administrative issues. Real-world experience is gained through internship with a fire department. Students may also receive certification in FireScience Technology and Fire Administration.

Credit
Course \& Title Hours

FIRST QUARTER

| FST | 101 | Introduction to Fire Science | 4 |
| :--- | :--- | :--- | ---: |
| FST | 102 | Fire Protection Organization | 4 |
| MAT | 131 | Technical Mathematics I | 5 |
| ENG | 111 | English Composition I | 3 |
| EGR | 164 | Survey of Engineering Careers | 1 |
|  |  | TOTAL | 17 |

## SECOND QUARTER

FST 125 Fire Investigation Procedures 4
FST 116 Fire Protection Systems I 3
MAT 132 Technical Mathematics II 5
MET 198 P.C. Applications in Engineering Technology

2
FST 202 Building Construction $\quad \frac{4}{18}$
TOTAL
continued next page

THIRD QUARTER


## FIFTH QUARTER

| FST | 204 | Water Suppression Systems I | 4 |
| :--- | :--- | :--- | ---: |
| COM | 211 | Effective Speaking I | 3 |
| SRM | 230 | Occupational Safety \& Health | 4 |
| HUM |  | Humanities Elective*  <br> PLS  <br>   <br>   <br> American Government  | 3 |
|  |  | TOTAL | $\frac{3}{17}$ |


| SIXTH QUARTER |  |  |  |
| :--- | :---: | :--- | :---: |
| FST | 210 | Water Suppression Systems II |  |
| FST | 278 | Capstone |  |
| SRM | 151 | OSHA 1910.120 Hazardous |  |
|  |  | Waste Operations |  |
| FST | 218 | Fire Safety Plans Review |  |
| FST | 270 | Internship |  |

TOTAL

* See page 52.


## Fire Science Technology Fire Administration Option ( 106 Total Credit Hours)



FIFTH QUARTER

| FST | 254 | Fire Officer IV |  | 4 |
| :--- | :--- | :--- | :--- | ---: |
| PLS | 104 | Urban Government |  | 3 |
| FST | - | FST Electives |  | 8 |
|  |  |  | TOTAL | 15 |

SIXTH QUARTER

| PSY/ | - | Electives | 6 |
| :--- | :--- | :--- | ---: |
| SOC |  |  |  |
| HUM | - | Elective $^{*}$ |  |
| FST | - | FST Electives | TOTAL |
|  |  |  | -9 |

## FST ELECTIVES

Choose 26 credit hours from the following:
FST 102 Fire Protection Organization 4
FST 115 Fire Apparatus \& Equipment 3
FST 116 Protective Systems I 3
FST 120 Fire Safety Inspector 6
FST 125 Fire Investigation Procedures 4
FST 201 Fire Hydraulics 5
FST 202 Building Construction
4
FST 204 Water Suppression Systems I
FST 208 Incident Command System II 4
FST 209 Fire Safety Instructor
SRM 151 Hazardous Waste Operations 5

* See page 52.


## Industrial Design \& Graphic Technology*

## (101 Total Credit Hours)

This program is intended for graduating students to become employed as design technicians trained in advanced technology methods for computer-aided design and com-puter-aided manufacturing or to transfer to an approved four-year college to earn a bachelor's degree. At least 15 credit hours of the following course work must be taken at Sinclair.

Credit
Course \& Title
Hours
FIRST QUARTER

| DRT | 115 | Design Processes | 2 |
| :--- | :--- | :--- | ---: |
| DRT | 196 | Technical Graphics Communication | 3 |
| INT | 109 | Fund. Tool \& Manufacturing Processes | 4 |
| MAT | 131 | Technical Mathematics <br> MET <br> 198 | P.C. Application in Engineering <br> Technology |
|  |  | $\quad$ TOTAL | $\frac{2}{16}$ |

SECOND QUARTER
COM 206 Interpersonal Communication 3
$\begin{array}{ccc}\text { DRT } & 198 \quad \begin{array}{c}\text { Introduction to Computer Aided } \\ \text { Drafting Concepts }\end{array} & 2\end{array}$
DRT 217 Introduction to Geometric
Dimensioning \& Tolerancing 3
INT 113 Fundamentals of CNC
MAT 132 Tech Mathematics II
TOTAL
THIRD QUARTER
DRT 199 Advanced Computer Aided Drafting 3
DRT 234 Tool Design 4
INT 125 Word Class Manufacturing 3
ENG 121 Technical Composition I 3
PHY 131 Technical Physics I TOTAL $\frac{4}{17}$

## FOURTH QUARTER

| DRT | 200 | Engineering Technology Graphics | 5 |
| :--- | :--- | :--- | :--- |
| DRT | 245 | Software Integration for Design Analysis | 5 |
| ENG | 122 | Technical Composition II | 3 |
| MET | 203 | Statics | 4 |

FIFTH QUARTER
DRT 260 Rapid Prototyping Manufacturing 3
DRT 265 Unigraphics I 5

ENG 122 Technical Composition II 3
MET 207 Strength of Materials 4
SOC - Social Science Elective** TOTAL $\quad \frac{3}{18}$

## SIXTH QUARTER

| DRT | 278 | Design Graphics Capstone | 4 |
| :--- | :--- | :--- | :--- |
| MET | 230 | Elements of Machine Design | 3 |
| PHY | 132 | Technical Physics II | 4 |
| DRT | 270 | Industrial Design Internship | 3 |
| HUM |  | Humanities Elective** | 3 |

TOTAL

* Accredited by the National Association of Industrial Technology
** See page 52.
*** MET 198 should be taken the first half of the quarter and DRT 198 the second half; or
*** DRT 198 can be taken the first half of the quarter and DRT 199 the second half.


## Industrial Engineering Technology

## (108 Total Credit Hours)

This program allows graduates to help optimize a process for an employer. Though most IET graduates work in a manufacturing setting, many are now being employed in service organizations such as hospitals, communications companies, consulting firms, and facilities planning companies. Graduates aid in making a process as efficient as practical. This can include looking at the ergonomics (manmachine interface), plant layout, time study, and robotic workcell layouts (among others). Students will take part in lecture-lab structured courses; hands-on demonstration of course principles assures that the student will gain practical knowledge as well as fundamentals.

## Credit <br> Hours

## Course \& Title <br> FIRST QUARTER


continued next column

FOURTH QUARTER

| DRT | 198 | Introduction to Computer Aided Drafting Concepts |
| :---: | :---: | :---: |
| IET | 205 | Process Engineering |
| IET | 198 | Computer Applications in Engineering Technology |
| PSY | 229 | Work Group Dynamics |
| PHY | 132 | Technical Physics II |
| QET | 201 | Statistical Process Control |

## FIFTH QUARTER

EGR 252 KAREL Robot Programming 3
IET 207 Manufacturing Systems Analysis 3
EGR 115 Human Factors Engineering 3
ET Elective

3
EGR $\overline{206}$ Engineering Economics 3
$\begin{array}{llll}\text { IET } & 130 & \text { Just-In-Time Production Systems } & -\frac{3}{18}\end{array}$

## SIXTH QUARTER

|  |  | General Education Elective* | 3 |
| :--- | :--- | :--- | ---: |
| $\overline{\text { COM }}$ | 211 |  | Effective Speaking I |
| IET | 216 | Industrial Facilities Layout | 3 |
| IET | 202 | Computer Integrated Workcells | 4 |
| IET |  | Elective | 3 |
| EGR | 132 | Connecting Technology \& Our Lives | 3 |
|  |  | or |  |
| HUM | - | Elective* |  |
|  |  |  |  |
|  |  | TOTAL | $\frac{3}{19}$ |

* See page 52.


## IET Tech Prep Substitute Courses

IET Tech Prep students will make several course substitutions in their curriculum. Due to special preparation at the high school level, IET Tech Prep students WILL NOT TAKE DRT-106 (3 credits), DRT-198 (2 credits), IET-198 (2 credits), and MET-198 (2 credits). In place of these courses, they WILL TAKE the following series of courses: IET-161 (1 credit), IET-162 (1 credit), IET-163 (1 credit), IET-277 (3 credits) and IET-297 (3 credits of this course must be taken). The total number of credit hours in the IET curriculum will not change due to these substitutions.

## IET Track Electives

The student will select 6 credit Track Electives from one of the following tracks. All prerequisites must be followed. Changes, substitutions and student designed tracks can be made with department chair approval.

## Robotics Systems Track

| EER | 115 | Essentials of Electricity | 3 |
| :--- | :--- | :--- | :--- |
| EGR | 217 | Fluid Power Applications \& Control | 3 |
| EGR | 220 | Machine Vision | 3 |
| EGR | 256 | Automated Data Acquisition Systems | 3 |
| EGR | 261 | Engineering Problem Solving Using "C" | 4 |
| IET | 190 | IET Workshop | 3 |
| IET | 297 | Special Topics in IET | 3 |
|  |  |  |  |
| Industrial Processes Track |  |  |  |
| INT | 204 | CNC Lathe Programming |  |
| INT | 209 | CNC Wire EDM Programming | 3 |
| INT | 211 | Advanced CNC | 3 |
| INT | 212 | Computer Assisted CNC Programming | 3 |
| INT | 213 | CNC Applications | 3 |
| IET | 190 | IET Workshop | 3 |
| IET | 297 | Special Topics in IET | 3 |
|  |  |  | 3 |

Quality Technology Track
QET 111 Metrology I 3
QET 112 Metrology II 3
QET 202 Advanced SQC 3
QET 203 Design of Experiments
QET 221 Quality Assurance I
QET 222 Quality Assurance II
IET 190 IET Workshop
IET 297 Special Topics IET

## Drafting/Design Track

| DRT | 220 | Engineering Graphics I | 3 |
| :--- | :--- | :--- | :--- |
| DRT | 221 | Engineering Graphics II | 3 |
| DRT | 222 | Engineering Graphics III | 5 |
| IET | 190 | IET Workshop | 3 |
| IET | 297 | Special Topics in IET | 3 |

## Industrial Engineering Technology Plastics \& Composites Option <br> (99 Total Credit Hours)

With the ever increasing uses of plastics and composites, there exists a need for technicians who understand the unique properties and manufacturing procedures associated with non-metallic materials. From sporting equipment, bicycles, skis, boating equipment, to aircraft, automobiles and even spacecraft, there is a growing emphasis being placed on lightweight and strong materials. In a word: plastics. This program is designed to emphasize practical applications and manufacture of plastics rather than stressing polymer chemistry. Students will learn on the state-of-the-art plastics and composite machinery. Projections for employment in this field are excellent into the next century.

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| PLA | 106 | Introduction to Plastics Technology | 4 |
| MAT | 131 | Technical Mathematics I | 5 |
| IET | 101 | Work Methods Analysis \& Improvement | 3 |
| DRT | 196 | Technical Graphics Communication | 3 |
| QET | 101 | Survey of Total Quality Management | 3 |
|  |  | TOTAL | 17 |

## SECOND QUARTER

| PLA | 150 | Plastics Processing Equipment Fundamentals | 4 |
| :---: | :---: | :---: | :---: |
|  | 208 | Plastic Materials Process I | 4 |
| ENG | 121 | Technical Composition I | 3 |
| IET | 198 | Computer Programming Applications in Engineering Technology | 2 |
| CHE | 131 | Technical Chemistry I | 4 |
|  |  | TOTAL | 17 |
| THIR | QU | RTER |  |
| PLA | 220 | Extrusion (Process II) | 4 |
|  |  | or |  |
|  | 225 | Injection Molding (Process II) |  |
| DRT | 198 | Introduction to Computer Aided Drafting Concepts | 2 |
| IET | 205 | Process Engineering | 3 |
| QET | 201 | Statistical Process Control | 4 |
|  |  | TOTAL | 13 |

## FOURTH QUARTER

| ENG | 111 | English Composition I | 3 |  |  |  |
| :--- | :--- | :--- | ---: | :---: | :---: | :---: |
| IET | 110 | Integrated Manufacturing | 3 |  |  |  |
| IET | 125 | Introduction to Manufacturing Management 3 |  |  |  |  |
| MAT | 132 | Technical Mathematics II | 5 |  |  |  |
| IET | - | Plastics Elective | TOTAL |  |  | -17 |

FIFTH QUARTER

| IET | 115 | Survey of Production \& Inventory Control | 2 |
| :--- | :--- | :--- | :--- |
| IET | 206 | Value Engineering | 3 |
|  |  | or |  |
| EGR | 206 | Engineering Economics |  |
| SOC |  | Social Science Elective | 3 |
| HUM | - | Humanities Elective |  |
| ENG | 122 | Technical Composition II |  |
| IET | - | Plastics Elective | 3 |
|  |  |  | TOTAL |

## SIXTH QUARTER

$\begin{array}{lll}\text { IET } & 216 & \text { Industrial Facilities Layout }\end{array}$
HUM $\quad$ Humanities Elective* 3
IET 135 Manufacturing Costs Analysis 3
General Education Elective*
3
$\overline{\mathrm{COM}} \overline{211}$
TOTAL

* See page 52.


## Manufacturing Engineering Technology

Job skills in high-performance manufacturing companies have changed. Today's competitive economy requires employees with a broad base of analytical, interdisciplinary skills who can solve technical problems as part of a team. As important business decisions are pushed closer and closer to the factory floor, the manufacturing engineering technician must understand not only the various manufacturing processes, but how these processes relate to customer requirements, product design and vendor selection. With rapid changes in technology, the successful associate in a world class manufacturing company must have the ability to rapidly learn new technologies as they emerge.

Sinclair's Manufacturing Engineering Technology program provides students the opportunity to acquire these highly valued skills in an innovative, handson learning environment. The graphic
illustrates the structure of the program. The outside ring defines the key stakeholders. Next, the dark ring indicates the subject clusters, which point to the ring of program objectives. All of the rings are centered on the Manufacturing Engineering Technology program. The program features integrating manufacturing experiences, through which students actively participate in all aspects of a manufacturing enterprise. Armed with these skills, graduates can pursue rewarding, growth-oriented careers in such diverse industries as automotive, machining, plastics, and other high-value manufacturing sectors. Graduates will receive an Associate of Applied Science Degree in Industrial Engineering Technology, with a concentration in Manufacturing Engineering Technology.

This program is based on work supported by the National Science Foundation under Grant No. DUE-9454571, in cooperation with the Advanced Integrated Manufacturing (AIM) Center. This program has been endorsed by the local chapter of the Society of Manufacturing Engineers.


## Curriculum by Quarter



* See page 52.


## Subject Clusters

| Mathematics |  |  |
| :--- | :--- | :--- |
| MAT | 131 | Technical Mathematics I |
| MAT | 132 | Technical Mathematics II |
| MAT | 133 | Technical Mathematics III |
| Physical Science |  |  |
| CHE | 131 | Technical Chemistry I |
| PHY | 131 | Technical Physics I |


| Communication \& Teamwork |  |  |
| :---: | :---: | :---: |
| COM | 211 | Effective Speaking I |
|  |  | EGR 132 or Humanities Elective* |
| ENG | 111 | English Composition I |
| ENG | 121 | Technical Composition I |
| ENG | 122 | Technical Composition II |
|  |  | General Education Elective |
| $\overline{\text { PSY }}$ | 229 | Work Group Dynamics |
| Design for Manufacturing |  |  |
| DRT | 196 | Technical Graphics Communication |
| DRT | 198 | Introduction to CAD Concepts |
| MET | 203 | Statics |
| Quality Management |  |  |
| QET | 101 | Survey of Total Quality Management |
| QET | 201 | Statistical Process Control |

## Production \& Inventory Management

IET 101 Work Methods Analysis \& Improvement
IET 115 Survey of Production \& Inventory Control
IET 130 Just-In-Time Production Systems
IET 205 Process Engineering
Manufacturing Processes \& Materials
INT 109 Fund. of Tools \& Manufacturing Processes
MET 281 Certified Mfg. Technician Review
PLA 106 Introduction to Plastics Technology
QET 132 Metallurgy
Systems, Controls \& Automation
EET 119 Basic Electrical Circuits \& Controls
EGR 128 Robotics in CIM Systems
INT 113 Fundamentals of CNC

## Enterprise Integration

IET 125 World Class Manufacturing
IET 126 Supervision \& Work Teams
MET 198 P.C. Applications in Engineering Technology

## Capstone

IET 278 Manufacturing Capstone Experience

## Mechanical Engineering Technology*

## (101 Total Credit Hours)

Sinclair graduates in Mechanical Engineering Technology have a long history of successful employment with very competitive salaries in local industry. Students develop hands-on lab experience using modern equipment and problem solving skills based on common sense, practical experience and non-calculus based analytical skills. The program prepares students to work as engineering technicians in many different industries or continue their education and obtain a bachelor's degree in mechanical engineering technology. Since the program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, transfer to a four-year university is straightforward.


SIXTH QUARTER

| MET | 225 | Thermodynamics | 4 |
| :---: | :---: | :---: | :---: |
| MET | 232 | Machine Design II | 3 |
| PSY | 229 | Work Group Dynamics or | 3 |
| SOC |  | Social Science Elective |  |
| EGR/ | 132 | Connecting Technology \& Our Lives or | 3 |
| HUM |  | Humanities Elective** |  |
|  |  | Technical Elective | 2 |

* Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology.
** See page 52.


## Mechanical Engineering Technology* <br> Heating \& Air Conditioning Option ( 102 Total Credit Hours)

This option is designed for entry level students pursuing careers in this field or seasoned technicians needing upgrade training. The focus is on the basic operating principals of commercial HVAC systems allowing one to pursue a career in service, management or design. These principles are presented through lecture and laboratory exercises in a step-by-step fashion by addressing refrigeration, heating, distribution, filtration and control as individual subsystems. Upper level courses tie the subsystems together to discuss how they interact providing the commercial HVAC technician with a wealth of knowledge regarding proper system operation. Accreditation by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology allows graduates to pursue a bachelor's degree.

Credit
Course \& Title Hours
FIRST QUARTER
COM 206 Interpersonal Communication 3
211 Effective Speaking I
DRT 196 Technical Graphics Communication 3
ENG 121 Technical Composition I 3
MAT 131 Technical Mathematics I 5
MET 106 Introduction to HVAC TOTAL $\frac{3}{17}$

## SECOND QUARTER

DRT 198 Introduction to CAD Concepts 2
ENG 122 Technical Composition II 3
MAT 132 Technical Mathematics II 5
MET 115 Boilers in HVAC 3
MET 125 HVAC Distribution Systems 3
MET 198 P.C. Applications in Engineering Technology

TOTAL
$\frac{2}{18}$

## THIRD QUARTER

ARC 139 Mechanical Systems Blueprint Reading 2
ENG 113 English Composition III 3
MAT 133 Technical Mathematics III 5
MET 145 HVAC Loads \& Psychrometrics 3

PHY 131 Technical Physics I $\quad$| 4 |
| :--- |
| 17 |

TOTAL
17

## FOURTH QUARTER

CCT 216 Construction Estimating 4
DRT 199 Computer Aided Drafting II 3
EET 119 Basic Electrical Circuits \& Controls
MET 135 Modern Refrigeration Practice
MET 240 Advanced HVAC Applications
TOTAL
FIFTH QUARTER

| CHE | 131 | Technical Chemistry | 4 |
| :---: | :---: | :---: | :---: |
| MET | 228 | Equipment Measurement \& Control | 3 |
| MET | 224 | Industrial Ventilation | 3 |
| MET | 242 | Computer Applications in HVAC | 3 |
| PHY | 132 | Technical Physics II | 4 |
|  |  | TOTAL | 17 |
| SIXTH QUARTER |  |  |  |
| MET | 229 | Controls for HVAC Systems | 4 |
| MET | 244 | HVAC Applications Project | 3 |
| PSY | 229 | Work Group Dynamics or | 3 |
| SOC |  | Social Science Elective |  |
| EGR | 132 | Connecting Technology \& Our Lives or |  |
| HUM |  | Elective** | 3 |

* Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology.
** See page 52.


## Quality Engineering Technology (100 Total Credit Hours)

This program provides students with the knowledge and skills necessary tounderstand thecompetitive pressuresand customer demands of all producers of consumer and industrial products. It prepares students to apply the mathematics and basic laws of physics to the non-destructive testing of mechanical and electronic systems, develop quality improvement programs, employ reliability management techniques and apply systematic problem solving to the solution of technical problems. Itincludes planning,organizing,managing,measuringandanalyzingproduct quality within any company. Graduates are qualified to employstatistical processes tosolvequality problemswithinany manufacturing, industrial or service organization where improvement of quality performance is desired.

## Course \& Title

Credit Hours
FIRST QUARTER

| COM | 206 | Interpersonal Communication <br> or | 3 |
| :--- | :--- | :--- | ---: |
|  | 211 | Effective Speaking I <br> ENG | 121 |
| Technical Composition I |  |  |  |
| MAT | 131 | Technical Mathematics I <br> MET | 198 |
| Personal Computer Applications in |  |  |  |
| QET | 101 | Engineering Technology | 3 |
| QET | M30 | Introduction to TQM <br> Manufacturing Processing | 2 |
|  |  | MOTAL | 3 |
|  |  | 17 |  |

## SECOND QUARTER

| ENG | 122 | Technical Composition II | 3 |  |
| :--- | :--- | :--- | :--- | ---: |
| MAT | 132 | Technical Mathematics II |  | 5 |
| MET | 104 | Design Realization | 3 |  |
| QET | 111 | Metrology I | 3 |  |
| QET | 112 | Metrology II |  | TOTAL |
|  |  |  | 3 |  |

## THIRD QUARTER

| DRT | 196 | Technical Graphics Communication | 3 |
| :---: | :---: | :---: | :---: |
| ENG | 113 | English Composition III | 3 |
| QET | 105 | Introduction to Packaging | 3 |
| QET | 113 | Coordinate Measurement | 3 |
| QET | 131 | Introduction to Material Science or | 3 |
|  | 132 | Metallurgy |  |
| QET | 201 | Statistical Process Control | 3 |
|  |  | TOTAL | 18 |
| FOU | TH | JARTER |  |
| DRT | 198 | Introduction to CAD Concepts | 2 |
| QET | 120 | Process Metrology | 3 |
| QET | 134 | Packaging Materials \& Documentation | 2 |
| QET | 202 | Advanced Statistical Quality Control | 3 |
| QET | 211 | Reliability I | 3 |
| QET | 223 | Introduction to ISO 9000 | 3 |

## FIFTH QUARTER

PSY 229 Work Group Dynamics 3
$\begin{array}{lll}\text { SOC } & & \begin{array}{l}\text { Social Science Elective } \\ \text { Quality Assurance }\end{array}\end{array}$
QET

$\quad-\quad$ Electives (See list of approved courses)
TOTAL
SIXTH QUARTER
HUM 132 Technology in Our Lives 3
QET 295 Quality Control Seminar 3
QET - Electives (See list of approved courses) 8
SOC _ Social Science Elective
TOTAL
QET Electives (17 hours required)
QET 114 Advanced Coordinate Measurement 3
QET 123 Eddy Current Testing 2
QET 124 Industrial Radiography 3
QET 125 Ultrasonic Testing 3
QET 126 Liquid Penetrant \& Magnetic Particle Testing
QET 131 Survey of Metallurgy
QET 132 Metallurgy
QET 133 Non-Metallic Materials
QET 200 CMI/CQT Review 3
QET 203 Design of Experiments 3
QET 212 Reliability II 3
QET 224 ISO 9000 Documentation 3
QET 231 ISO Internal Auditor 3
QET 235 CQA Review Course
3
QET 245 CQM Review Course 3

## Quality Engineering Technology* Packaging Option (105 Total Credit Hours)

A study, from an engineering technology viewpoint, of product packaging and distribution. A consideration of technical, economic, environmental and human factors of the basic functions of packaging including containment, dispensing, protection, informing, transport, and marketing. Althoughstarting with use packaging, this program is geared to industrial packaging. Hands-on testing includes impact, tear resistance, shock and vibration using the latest state-of-the-art equipment.

The Packaging Option of the Quality Engineering program is the only T.A.C./A.B.E.T. accredited QET associate degree in the United States.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| COM | 211 | Effective Speaking I | 3 |
| ENG | 111 | English Composition I | 3 |
| MAT | 131 | Technical Mathematics I | 5 |
| MET | 198 | Personal Computer Applications in Engineering Technology | 2 |
| ILM | 102 | Quality Foundations | 2 |
| ILM | 103 | Teamwork | 1 |
| ILM | 104 | Basic Statistical Variation | 1 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| CHE | 131 | Technical Chemistry I | 4 |
| MAT | 132 | Technical Mathematics II | 5 |
| MET | 104 | Design Realization | 3 |
| QET | 111 | Metrology I | 3 |
| QET | 112 | Metrology II | 3 |
|  |  | TOTAL | 18 |
| THIRD QUARTER |  |  |  |
| DRT | 106 | Essentials of Machine Drawing | 3 |
| DRT | 198 | Introduction to CAD Concepts | 2 |
| MAT | 133 | Technical Mathematics III | 5 |
| QET | 133 | Non-Metallic Materials | 3 |
| QET | 201 | Statistical Process Control | 3 |
|  |  | TOTAL | 16 |
| FOURTH QUARTER |  |  |  |
| ENG | 121 | Technical Composition I | 3 |
| PHY | 131 | Technical Physics I | 4 |
| QET | 105 | Introduction to Packaging | 3 |
| QET | 120 | Process Metrology | 3 |
| QET | 134 | Packaging Materials | 2 |
| QET | 211 | Reliability I | 3 |
| TOTAL |  |  | 18 |
| FIFTH QUARTER |  |  |  |
| ENG | 122 | Technical Composition II | 3 |
| PHY | 132 | Technical Physics II | 4 |
| QET | 212 | Reliability II | 3 |
| QET | 221 | Quality Assurance | 3 |
| QET | 250 | Packaging Systems | 3 |
| QET | 252 | Packaging Development | 3 |
| TOTAL |  |  | 19 |
| SIXTH QUARTER |  |  |  |
| IET | 198 | Computer Program Applications in Engineering Technology | 2 |
| PSY | 229 | Work Group Dynamics | 3 |
| QET | 254 | Shock \& Vibration | 3 |
| EGR/ |  |  |  |
| HUMHUM | 132 | Connecting Technology \& Our Lives or | 3 |
|  |  | Humanities Elective** |  |
|  |  | Technical Elective | 3 |
|  |  | General Education Elective** | 3 |
|  |  | TOTAL | 17 |

* Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology.
** See page 52.


## Quality Engineering Technology* Quality Assurance Option

## (105 Total Credit Hours)

This option provides students an interdisciplinary approach to a variety of quality issues involving technical and service industries where quality in production and quality in customer service and satisfaction are important. This curriculum is modeled after the American Society for Quality
continued next column

Control requirements for the Certified Quality Engineering certification. Graduates of this program are recognized as professionals in the area of Quality Engineering Technology capable of assuming a variety of responsible positions within any organization. Graduates may continue their education at the baccalaureate level in areas of manufacturing engineering technology, industrial engineering technology, business and liberal arts and sciences. The Quality Assurance Option of the Quality Engineering Technology Program is the only T.A.C./A.B.E.T. accredited QET associate degree in the United States.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
|  | 211 | or Effective Speaking I |  |
| DRT | 196 | Technical Graphics Communication | 3 |
| ENG | 121 | Technical Composition I | 3 |
| MAT | 131 | Technical Mathematics I | 5 |
| QET | 101 | Introduction to TQM | 3 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| ENG | 122 | Technical Composition II | 3 |
| MAT | 132 | Technical Mathematics II | 5 |
| MET | 104 | Design Realization | 3 |
| QET | 111 | Metrology I | 3 |
| QET | 112 | Metrology II | 3 |
|  |  | TOTAL | 18 |
| THIRD QUARTER |  |  |  |
| ENG | 113 | English Composition III | 3 |
| MAT | 133 | Technical Mathematics III | 5 |
| MET | 198 | P.C. Applications in Engineering Technology | 2 |
| QET | 113 | Coordinate Measurement | 3 |
| QET | 132 | Metallurgy | 3 |
| QET | 201 | Statistical Process Control | 3 |
|  |  | TOTAL | 19 |
| FOURTH QUARTER |  |  |  |
| DRT | 198 | Introduction to CAD Concepts | 2 |
| PHY | 131 | Technical Physics I | 4 |
| QET | 105 | Introduction to Packaging | 3 |
| QET | 120 | Process Metrology | 3 |
| QET | 202 | Advanced Statistical Quality Control | 3 |
| QET | 211 | Reliability I | 3 |
|  |  | TOTAL | 18 |
| FIFTH QUARTER |  |  |  |
| CHE | 131 | Technical Chemistry I | 4 |
| PHY | 133 | Technical Physics III | 4 |
| QET | 203 | Design of Experiments | 3 |
| QET | 212 | Reliability II | 3 |
| QET | 221 | Quality Assurance | 3 |
|  |  | TOTAL | 17 |

## SIXTH QUARTER

| IET | 198 | Computer Program Applications <br> in Engineering Technology | 2 |
| :--- | :--- | :--- | :--- |

PSY 229 Work Group Dynamics
or
Social Science Elective
EGR 132 Connecting Technology \& Our Lives
HUM __ Humanities Elective**
$\overline{\text { QET }} \quad \overline{133} \quad \begin{aligned} & \text { Technical Elective } \\ & \text { Non-Metallic Materials }\end{aligned}$
QET 295 Quality Control Seminar
TOTAL
17

* Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology.
** See page 52.


## Safety Engineering Technology

## (103-106 Total Credit Hours)

This program provides a full range of courses which address safety and fire protection, industrial hygiene, waste management, industrial hygiene instrumentation, general standards for industry construction and industrial safety. Students acquire the skills and knowledge for safety technician positions in industrial and governmental organizations. Students may also receive certification in safety risk management.

| Course \& Title |  |  |
| :--- | :--- | :--- |
| FIRST QUARTER |  |  |
| SRM | 101 | Introduction to Safety Engineering <br> Technology |
| MAT | 131 | Technical Mathematics I |
| CHE | 131 | Technical Chemistry |
| ENG | 121 | Technical Composition I <br> EVT |
| 110 | Environmental Compliance <br> EGR | $-\quad$ Engineering Careers |

Credit Hours
FIRST QUARTER

TOTAL
SECOND QUARTER


FIFTH QUARTER

| MAT | 122 | Statistics <br> HUM | $\bar{l}$ |
| :--- | :--- | :--- | ---: |
| EVT | 260 | Storage, Transportation, \& Disposal <br> of Hazardous Wastes/Materials | 4 |
| SRM | 230 | General Standards for Industry | 3 |
| $\square$ | - | Technical Electives |  |

## SIXTH QUARTER

| SRM | 278 | SRM Capstone | 3 |
| :--- | :--- | :--- | ---: |
| PSY | - | Psychology Elective | 3 |
|  | - | Technical Electives | $\underline{9-10}$ |


| SRM | 211 | Industrial Safety I | 3 |
| :--- | :--- | :--- | :--- |
| SRM | 212 | Industrial Safety II | 3 |
| SRM | 221 | Safety Management I | 4 |
| SRM | 222 | Safety Management II | 4 |
| SRM | 231 | O.S.H.A. Construction Standards | 4 |
| SRM | 232 | Construction Worksite Safety | 3 |
| SRM |  | DOT Transportation Safety | 2 |
| FST | 101 | Introduction to Fire Science | 4 |
| FST | 103 | Fire Prevention Codes \& Ordinances | 4 |
| FST | 116 | Fire Protections Systems I | 3 |
| FST | 201 | Fire Hydraulics | 5 |
| FST | 204 | Water Suppression Systems I | 4 |
| EGR | 115 | Human Factors | 3 |
| QET | 101 | Survey of Total Quality Management | 3 |

## Tooling \& Machining Technology

## (107 Total Credit Hours)

Course work includes tool and manufacturing processes, computers in engineering technology, quality control, and CNC applications, to name a few. Facilities and equipment rank among the best in the nation with over four million dollars in conventional machining equipment and computer numerical control machines for laboratory use by the students. Employment opportunities are available as planners, methods specialists, technicians, and computer numerical control programmers.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| DRT | 196 | Technical Graphics Communication | 3 |
| ENG | 121 | Technical Composition I | 3 |
| IET | 101 | Work Methods Analysis \& Improvement | 3 |
| INT | 131 | Basic Moldmaking | 3 |
| IET | 198 | Computer Programming Applications in Engineering Technology | 2 |
| INT | 111 | Tool \& Manufacturing Processes I | 3 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| IET | 125 | World Class Manufacturing | 3 |
| DRT | 198 | Introduction to Computer Aided Drafting Concepts | 2 |
| ENG | 122 | Technical Composition II | 3 |
| INT | 132 | Advanced Moldmaking | 3 |
| INT | 112 | Tool \& Manufacturing Processes II | 3 |
| QET | 101 | Survey of Total Quality Management | 3 |
|  |  | TOTAL | 17 |

THIRD QUARTER

| DRT | 199 | Computer Aided Drafting II | 3 |
| :--- | :--- | :--- | ---: |
| INT | 165 | Advanced Tool \& Manufacturing Processes | 4 |
| MAT | 131 | Technical Mathematics I | 5 |
| IET | 126 | Supervision \& Work Team Leadership | 3 |
| INT | 113 | Fundamentals of CNC | 3 |
|  |  |  | 18 |

## FOURTH QUARTER

| QET | 111 | Metrology I | 3 |
| :--- | :--- | :--- | ---: |
| IET | 205 | Process Engineering | 3 |
| INT | 114 | Jig \& Fixture Design | 3 |
| INT | 211 | Advanced CNC | 3 |
| HUM/ |  |  |  |
| EGR 132 | Connecting Technology to Our Lives |  | 3 |
| INT 151 | Principles of Welding | TOTAL | 18 |

## FIFTH QUARTER

COM 211 Effective Speaking I 3
QET 112 Metrology II 3
INT 225 Tool Design 3
INT 204 CNC Lathe Programming 3
INT 212 Computer Assisted CNC Programming 3
ENG 111 English Composition I TOTAL $\frac{3}{18}$

## SIXTH QUARTER

QET 113 Coordinate Measurement 3
IET 213 CNC Applications 3
INT 209 CNC Wire EDM Programming 3
IET 216 Industrial Facilities Layout 4
SOC _ Social Science Elective 3
$\begin{aligned} \text { General Education Elective* } & \\ & \frac{3}{19}\end{aligned}$

* See page 52.


# Tooling \& Machining Technology Machining Technology Option <br> <br> (103-104 Total Credit Hours) 

 <br> <br> (103-104 Total Credit Hours)}

| Course \& Title |  |  |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| DRT | 196 | Technical Graphics Com | unication | 2 |
| INT | 109 | Fundamentals of Tool \& | Manuf. Proce | ses 4 |
| INT | 141 | Applied Shop Mathema |  | 3 |
| INT | 161 | Machine Operations Lab |  | 8 |
| QET | 100 | Tooling \& Machining M | rology | 2 |
|  |  |  | TOTAL | 19 |
| SECOND QUARTER |  |  |  |  |
| DRT | 198 | Introduction to CAD |  | 2 |
| INT | 113 | Fundamentals of CNC |  | 3 |
| INT | 142 | Applied Shop Mathema | s II | 3 |
| INT | 162 | Machine Operations Lab |  | 8 |
|  |  |  | TOTAL | 16 |
| THIRD QUARTER |  |  |  |  |
| DRT | 217 | Introduction to Geometr Dimensioning \& Toler |  | 3 |
| INT |  | Technical Elective |  | 3-4 |
| INT | 143 | Applied Shop Mathema | s III | 3 |
| INT | 163 | Machine Operations Lab |  | 8 |
|  |  |  | TOTAL | 17-18 |
| FOURTH QUARTER |  |  |  |  |
| ENG | 121 | Technical Communication |  | 3 |
| IET | 198 | Computer Programming in Engineering Techno | Applications <br> gy | 2 |
| INT | 114 | Jig \& Fixture Design |  | 3 |
| INT | 211 | Advanced CNC |  | 3 |
| MAT | 101 | Elementary Algebra |  | 5 |
|  |  |  | TOTAL | 16 |
| FIFTH QUARTER |  |  |  |  |
| ENG | 122 | Technical Communicati |  | 3 |
| IET | 205 | Process Engineering |  | 3 |
| INT | 212 | Computer Assisted CNC | Programmin | 3 |
| INT | 225 | Tool Design |  | 3 |
| MAT | 131 | Technical Mathematics I |  | 5 |
|  |  |  | TOTAL | 17 |
| SIXTH QUARTER |  |  |  |  |
| COM | 211 | Effective Speaking I |  | 3 |
| HUM |  | Humanities Elective* |  | 3 |
| IET | 206 | Value Engineering |  | 3 |
| INT |  | INT Elective |  | 3 |
| INT | 213 | CNC Applications |  | 3 |
| SOC |  | Social Science Elective |  | 3 |
|  |  |  | TOTAL | 18 |

[^7]
## Tooling \& Machining Technology Mechanical Option

## (105 Total Credit Hours)

This option is designed to place greater emphasis and understanding on the more theory-oriented areas of engineering technology. Courses include such areas as: work methods analysis, computer program applications in engineering, value engineering, process engineering, industrial facilities layout, and statistical process control. Several credit hours of industrial electives are offered to allow the student an opportunity to specialize in specific areas such as computer numerical control programming, and computer integrated workcells.
Course \& Title Hours

FIRST QUARTER

| IET | 101 | Work Methods Analysis \& Improvement | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 111 | English Composition I |  |
| IET | 125 | Introduction to Manufacturing | 3 |
|  | Management |  |  |
| DRT | 196 | Technical Graphics Communications | 3 |
| INT | 151 | Principles of Welding | 3 |
| QET | 131 | Introduction to Material Science | 3 |
|  |  | TOTAL |  |



FOURTH QUARTER

| IET | 206 | Value Engineering |  | 3 |
| :--- | :--- | :--- | :--- | ---: |
| EER | 115 | Essentials of Electricity |  | 3 |
| INT | - | Electives | 6 |  |
| SOC | - | Social Science Elective |  | 3 |
|  |  |  | TOTAL | 15 |

## FIFTH QUARTER

| EGR | 206 | Engineering Technology Economics | 3 |
| :---: | :---: | :---: | :---: |
| INT |  | Electives | 9 |
| COM | 211 | Effective Speaking I | 3 |
| HUM |  | Humanities Elective* | 3 |
| TOTAL |  |  | 18 |
| SIXTH QUARTER |  |  |  |
| IET | 216 | Industrial Facilities Layout | 4 |
| QET | 201 | Statistical Process Control General Education Elective* | 4 |
|  |  |  | 3 |
| INT |  | Electives | 7 |
|  |  | TOTAL | 18 |

* See page 52.


## Tooling \& Machining Technology Tooling \& Manufacturing Option (105-106 Total Credit Hours)

Graduates of the Project STEP II certificate program are candidates for completion of the two-year associate degree option in Tooling \& Manufacturing. More in-depth focus is given to enhancing communication and mathematical skills. A greater development of knowledge in industrial courses is also emphasized including such areas as tool design, computer numerical control, jig and fixture design, process engineering, and value engineering.

## Credit

Course \& Title Hours
FIRST QUARTER

| INT | 161 | Machine Operations Laboratory I | 8 |
| :---: | :---: | :---: | :---: |
| INT | 109 | Fundamentals of Tool \& Manufacturing Processes | 4 |
| DRT | 100 | Engineering Drawing Interpretation | 2 |
| INT | 141 | Applied Shop Mathematics I | 3 |
| QET | 100 | Tooling \& Machining Metrology | 2 |
|  |  | TOTAL | 19 |
| SECOND QUARTER |  |  |  |
| INT | 162 | Machine Operations Laboratory II | 8 |
| INT | 113 | Fundamentals of CNC | 3 |
| INT | 142 | Applied Shop Mathematics II | 3 |
| DRT | 106 | Essentials of Machine Drawing | 3 |
|  |  | TOTAL | 17 |
| THIRD QUARTER |  |  |  |
| INT | 163 | Machine Operations Laboratory III | 8 |
| INT | 143 | Applied Shop Mathematics III | 3 |
| DRT | 217 | Introduction to Geometric Tolerancing | 3 |
| INT |  | Technical Elective | 3-4 |
|  |  | TOTAL | 7-18 |

## FOURTH QUARTER

INT 114 Jig \& Fixture Design 3
INT 211 Advanced CNC 3
ENG 121 Technical Communications I
IET 198 Computer Programming Applications in Engineering Technology
MAT 131 Technical Mathematics I
TOTAL
FIFTH QUARTER

| INT | 212 | Computer Assisted Programming |  | 3 |
| :---: | :---: | :---: | :---: | :---: |
| IET | 205 | Process Engineering |  | 3 |
| ENG | 122 | Technical Communic |  | 3 |
|  |  | General Education Ele |  | 6 |
| INT | 225 | Tool Design | TOTAL | 3 |
|  |  |  |  | 18 |
| SIXTH QUARTER |  |  |  |  |
| INT | 213 | CNC Applications |  | 3 |
| IET | 206 | Value Engineering |  | 3 |
| COM | 211 | Effective Speaking I |  | 3 |
| HUM |  | Humanities Elective* |  | 3 |
| SOC |  | Social Science Elective |  | 3 |
| INT |  | INT Elective |  | 3 |

* See page 52.


# Certificate Programs Automotive Technology 

## (55 Total Credit Hours)

This program is designed for students whowant to becomean automotive technician without pursuing an associate degree. It will allow students to expand their knowledge of the automotive industry and secure employment with dealerships, independent services facilities, machine shops, and corporate services franchises.

|  |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| Course \& Title |  |  |  |
| FIRST QUARTER |  |  |  |
| AUT | 210 | Steering, Suspension, \& Alignment | 5 |
| AUT | 108 | Engine Systems | 5 |
| AUT | 125 | Electrical \& Electronic Systems | 7 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| AUT | 241 | Automatic Transmissions | 7 |
| AUT | 115 | Fuel \& Emission Systems | 7 |
| AUT | 165 | Brake Systems | 5 |
|  |  | TOTAL | 19 |
| THIRD QUARTER |  |  |  |
| AUT | 142 | Manual Transmissions \& Drive Line | 5 |
| AUT | 146 | Heating \& Air Conditioning |  |
| AUT | 245 | Engine Performance \& Driveability | 7 |
| MET | 198 | Personal Computer Applications in Engineering Technology | 2 |
|  |  | TOTAL | 19 |

## Aviation Maintenance (48 Total Credit Hours)

This program gives the student hours towards the FAA's Airframe \& Powerplant certificate. Taken in an FAA certified facility, the student will be exposed to state-of-the-art equipment and training. Because it is associated with engineering technology, the student will be exposed to the theory and principles of maintenance.

| Course \& Title |  | Credit <br> Hours |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| SOC |  | Social Science Elective |  |
| AVT | 105 | Orientation to Aviation |  |
| AVT | 228 | Aircraft Engines | 3 |
| AVT | 143 | Aircraft Maintenance |  |
| AVT | 261 | Airframe I | 3 |
|  |  |  | TOTAL |
|  |  |  | 3 |

## SECOND QUARTER

AVT 171 Aircraft Piston Powerplant Systems 4
AVT 268 Aircraft Powerplant Applications I 3
AVT 248 Aircraft Structures \& Systems 3
AVT 201 Aerospace Materials 3
AVT 262 Airframe II
TOTAL

## THIRD QUARTER

| AVT |  | Elective | 4 |
| :--- | :--- | :--- | ---: |
| AVT | 202 | Aircraft Pneumatics \& Hydraulics | 3 |
| AVT | 269 | Aircraft Powerplant Applications II | 1 |
| AVT | 149 | FAA Regulations \& Documentation | 4 |
| AVT | 263 | Airframe III | 1 |
| AVT | 174 | Aircraft Fuel \& Electrical Systems | $\frac{3}{16}$ |

## Electrical \& Electronics Repair Technology

## (53 Total Credit Hours)

This program prepares students for entry level electronics technicians. They will get the basics in computers, D.C. and A.C. circuits, analog, digital electronics and microprocessor areas with introduction to robotics with electronic CAD to assemble, troubleshoot and repair electronic circuits This certificate program transfers into the electromechanical associate degree program.

| Course \& Title |  |  | Credit |
| :---: | :---: | :---: | :---: |
|  |  |  | Hours |
| FIRST QUARTER |  |  |  |
| EER | 121 | Electronic Problem Solving |  |
| EER | 126 | D.C. Circuits |  |
| MET | 198 | P.C. Applications in Engineering Technology |  |
| EET | 116 | Electronics Schematics \& Layouts |  | TOTAL

## SECOND QUARTER

EER 123 High Reliability Soldering 3
EER 127 A.C. Circuits3
EER 128 Discrete Electronics ..... 4
EGR 128 Robotics in CIM Systems ..... 3
THIRD QUARTER
EER 124 Printed Wire Board Repair ..... 3
EER 136 Digital Electronics ..... 3
EER 138 Microprocessors Programming \& Applications ..... 3
EER 139 Electrical Machinery
TOTAL13
FOURTH QUARTER
EER 137 Linear Integrated Circuits ..... 3
EER 147 Industrial Wiring \& NEC ..... 4
EER 165 Electronic Diagnostics \& Repair ..... 3
EER 166 Industrial Machine Wiring \& Standards ..... $\stackrel{3}{13}$

## Fire Administration

## (51 Total Credit Hours)

This program provides courses which address fire administration, fire protection, building construction and hazardous materials. The certificate program prepares students for careers in fire protection, inspection, investigation and administration.


## THIRD QUARTER

| FST | 253 | Fire Officer Level III |  | 4 |
| :--- | :--- | :--- | :--- | ---: |
| ENG | 122 | Technical Composition II |  | 3 |
| FST | - | Technical Electives | TOTAL | 16 |

## TECHNICAL ELECTIVES

$\begin{array}{llll}\text { Choose } & 14 \text { credit hours from the following: } \\ \text { FST } & 102 R & \text { Fire Protection Organization }\end{array}$
FST 115 Fire Apparatus \& Equipment 3
FST 116R Protective Systems I 3
FST 120 Fire Safety Inspector 6
FST 125 Fire Investigation Procedures 4
FST 201 Fire Hydraulics 5
FST 202R Building Construction 4
FST 204 Water Suppression Systems I 4
FST 208 Incident Command System II 4
FST 209 Fire Safety Instructor 3
SRM 151 Hazardous Waste Operations 5

## Fire Science Technology

## ( 52 Total Credit Hours)

This program provides courses which address fire protection and safety issues. The certificate program prepares students for careers in fire protection systems, fire prevention, and occupational safety and health.

| Course \& Title | Credit |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |$\quad$| Hours |
| :--- |

## Plastics \& Composites Engineering Technology

## ( 51 Total Credit Hours)

With the ever-increasing uses of plastics and composites, there exists a need for technicians who understand the unique properties and manufacturing procedures associated with non-metallic materials. From sporting equipment, bicycles, skis, boating equipment, to aircraft, automobiles, and even spacecraft, there is a growing emphasis being placed on lightweight and strong materials. In a word: plastics. The program has been designed to emphasize practical applications and manufacture of plastics rather than stressing polymer chemistry. Students will learn on the state-of-the-art plastics and composite machinery.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| PLA | 106 | Introduction to Plastics Technology | 4 |
| MAT | 131 | Technical Mathematics I | 5 |
| IET | 101 | Work Methods Analysis \& Improvement | 3 |
| DRT | 100 | Engineering Drawing Interpretation | 2 |
| QET | 101 | Survey of Total Quality Management | 3 |
|  |  | TOTAL | 17 |
| SECOND QUARTER |  |  |  |
| PLA | 150 | Plastics Processing Equipment Fundamentals | 4 |
| PLA | 208 | Plastic Materials Process I | 4 |
| ENG | 121 | Technical Communications I | 3 |
| IET | 198 | Computer Programming Applications in Engineering Technology | 2 |
| CHE | 131 | Technical Chemistry 1 | 4 |
|  |  | TOTAL | 17 |
| THIRD QUARTER |  |  |  |
| PLA | 220 | Extrusion (Process I) |  |
|  |  | or |  |
|  | 225 | Injection Molding (Process II) | 4 |
| PLA | 210 | Plastic Materials Testing | 4 |
| DRT | 198 | Introduction to Computer Aided Drafting Concepts | 2 |
| IET | 205 | Process Engineering | 3 |
| QET | 201 | Statistical Process Control | 4 |
|  |  | TOTAL | 17 |

## Quality Control Technology

## (51 Total Credit Hours)

Students are prepared to apply the mathematics and basic laws of physics to the non-destructive testing and quality inspection of mechanical and electronic systems. It is geared both to students who desire an entry level position in the area of mechanical inspection or to skilled workers desiring upgrade training.

## Course \& Title <br> FIRST QUARTER

| INT | 109 |  <br> Manufacturing Process |  |
| :--- | :--- | :--- | ---: |
| INT | 141 | Applied Shop Mathematics I | 4 |
| QET | 101 | Introduction to TQM |  |
| QET | 120 | Process Metrology | 3 |
| QET | 131 | Survey of Metallurgy | 3 |
|  |  |  | 3 |

## SECOND QUARTER

| DRT | 196 | Technical Graphics Communications | 3 |
| :--- | :--- | :--- | ---: |
| INT | 142 | Applied Shop Mathematics II | 3 |
| QET | 111 | Metrology I | 3 |
| QET | 112 | Metrology II | 3 |
| QET | 124 | Industrial Radiography |  |
| QET | 125 | Ultrasonic Testing | 3 |
|  |  |  | TOTAL |

## THIRD QUARTER

| DRT | 217 | Introduction to Geometric Tolerancing | 3 |
| :--- | :--- | :--- | ---: |
| INT | 143 | Applied Shop Mathematics III | 3 |
| QET | 113 | Coordinate Measurement | 3 |
| QET | 123 | Eddy Current Testing | 2 |
| QET | 126 | Liquid Penetrant \& Magnetic Particle Test. | 3 |
| QET | 201 | Statistical Processing Control | 3 |
|  |  | $\quad$ TOTAL | 17 |

## Safety Risk Management

## (56 Total Credit Hours)

This program provides courses which address industrial safety, occupational safety and health, and industrial hygiene. The program prepares students for careers in safety management and industrial hygiene.


## Surveying

## (51 Total Credit Hours)

This four-quarter certificate concentrates on developing the skills needed to become employed as technicians for surveying or civil engineering firms.

Credit
Course \& Title Hours
FIRST QUARTER
ARC 105 Construction Methods \& Materials 4
ARC 101 Architectural Drafting 3
CCT 201 Introduction to Surveying 3
MET 198 Personal Computer Applications in Engineering Technology

TOTAL

## SECOND QUARTER

ARC 102 Architectural Detail Drafting 3
CCT 226 Heavy Highway Construction 3
DRT 198 Introduction to Computer Aided Drafting 2
$\begin{array}{lll}\text { MAT } 131 & \text { Technical Mathematics I } & \\ \text { TOTAL } & \frac{5}{13}\end{array}$
THIRD QUARTER
CCT 202 Construction Surveying 5

DRT 199 Computer Aided Drafting II 3

- General Education Elective* 3
-     - Technical Elective

TOTAL
FOURTH QUARTER
CCT 246 Topographic Drawing \& Mapping 4
CCT 203 Advanced Applications of Surveying 4
$\begin{array}{lll}\text { CCT } & 235 & \text { Legal Principles for Surveyors } \\ \text { TOTAL } & \frac{4}{12}\end{array}$

* See page 52.


## Tool \& Die Technology

## (53 Total Credit Hours)

This program is designed to enhance the skills of students who are pursuing a career in the tool and die industry. Courses in this three quarter program include mechanical drafting, industrial metrics conversion, tool and manufacturing processes, electrical and electronic workshop, principles of welding, metrology, jig and fixture design, and tool design. Students wishing to pursue an associate degree may be able to transfer many of the courses toward a degree in the Engineering \& Industrial Technologies division.


## SECOND QUARTER

| EER | I 15 | Essentials of Electricity | 3 |
| :--- | :--- | :--- | ---: |
| INT | 112 | Tool \& Manufacturing Processes II | 3 |
| INT | 142 | Applied Shop Mathematics II | 3 |
| INT | 151 | Principles of Welding | 3 |
| QET | 112 | Metrology II | 3 |
| DRT | 198 | Introduction to Computer |  |
|  |  | Aided Drafting | $\frac{2}{17}$ |

## THIRD QUARTER

| INT | 113 | Fundamentals of CNC | 3 |
| :--- | :--- | :--- | :--- |
| INT | 114 | Jig \& Fixture Design | 3 |
| INT | 165 | Advanced Tool \& Manufacturing Process | 4 |
| INT | 143 | Applied Shop Mathematics III | 3 |
| INT | 225 | Tool Design | 3 |
| DRT | 199 | Advanced Computer Aided Drafting | 3 |
|  |  | TOTAL | 19 |

## Tooling \& Machining <br> (Project STEP II)* <br> (53-54 Total Credit Hours)

A nine-month intensive training program offered by Sinclair Community College in cooperation with the Dayton Tooling \& Machining Association, Inc. The Tooling \& Machining certificate completion prepares a graduate for employment in the tool \& die industry as well as career advancement. To enroll for the three quarters of training beginning in September and finishing in June, a student must formally apply for admittance to the program through the Engineering \& Industrial Technologies division. The student who is accepted into the program will receive 25 30 hours of classroom and laboratory instruction per week as well as producing for personal use tools valued at approximately $\$ 1,500$. Classes are available evenings as well as weekends accommodate students who are unable to attend during the day.


* Program start date is each September (Fall Quarter)


## Short Term Certificates

## 3D CAD Software

## (20 Total Credit Hours)

This certificate offers students advanced training in threedimensional CAD software. This program will certify designers in the latest release of three design software applications that are widely used in area design firmsAutoDesk Inventor, Solidworks, and Unigraphics. Because software companies continue to refine their products and present new releases, this certificate will allow designers to upgrade their skills in the latest release of a company's product.

Credit
Hours

## Course \& Title <br> FIRST QUARTER

DRT 110 Design Process $\quad$ TOTAL $\frac{2}{2}$

## SECOND QUARTER



DRT ELECTIVE ONE (choose one)

| DRT | 200 | Engineering Technology Graphics | 5 |
| :--- | :--- | :--- | :--- |
| DRT | 247 | Solidworks Basics | 5 |
| DRT | 265 | Unigraphics Level I | 5 |

DRT ELECTIVES TWO (choose one)

| DRT | 205 | Advanced AutoDesk Parametric Design | 5 |  |
| :--- | :--- | :--- | :--- | :--- |
| DRT | 248 | Solidworks Advanced |  | 5 |
| DRT | 266 | Unigraphics Level II | 5 |  |
|  |  |  | continued next page |  |

## Advanced Construction Technician (43 Total Credit Hours)

| Course \& Title |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| CCT | 131 | Ironworker Level 1-A | 3.5 |
| CCT | 142 | Portland Cement Concrete Level 2-A | 3.5 |
| ARC | 101 | Architectural Drafting | 3 |
| CCT | 270 | Civil Engineering Technology Internship | 3 |
|  |  | TOTAL | 13 |
| SECOND QUARTER |  |  |  |
| CCT | 132 | Ironworker Level 1-B | 3.5 |
| CCT | 143 | Portland Cement Concrete Level 3-A | 3.5 |
| MET | 198 | P. C. Applications in Engineering Technology | 2 |
| CCT | 270 | Civil Engineering Technology Internship | 3 |
| THIRD QUARTER |  |  |  |
| CCT | 133 | Ironworker Level 2-A | 3.5 |
| CCT | 134 | Ironworker Level 2-B | 3.5 |
| DRT | 198 | Introduction to Computer Aided Drafting Concepts | 2 |
| CCT | 270 | Civil Engineering Technology Internship TOTAL | $\frac{3}{12}$ |
| FOURTH QUARTER |  |  |  |
| COM | 206 | Interpersonal Communications | 3 |
| SRM | 232 | Construction Worksite Safety | 3 |
|  |  | TOTAL | 6 |

## Automotive High Performance

## (28 Total Credit Hours)

This program provides in-depth, hands-on experience in various areas of high performance engines; an ideal choice to supplement a degree seeking student wishing to specialize in the engine area. Also designed to prepare students for the A.S.E. (Automotive Service Excellence) engine machinist series. Students completing the certificate may be employed in a high performance engine shop, general engine machine shop, or work on a race team. Courses are dedicated to specific areas of engine development. Engine blocks, cylinder head and valve train, assembly and dynamometer testing as well as fuel systems for performance engines are covered.

## Course \& Title <br> FIRST QUARTER <br> AUT $221 \begin{gathered}\text { High Performance Blocks } \\ \text { \& Rotating Assemblies }\end{gathered}$ \& Rotating Assemblies

7
## SECOND QUARTER

AUT 222 High Performance Cylinder Head \& Valve Train

## THIRD QUARTER

AUT 223 High Performance Engine Assembly \& Dyno Testing7

## FOURTH QUARTER

AUT 224 High Performance Fuel Induction7

## Construction Supervisor

## (43 Total Credit Hours)

This program is designed for experienced crafts people of the construction industry to improve their supervisory and leadership skills. Students will receive training to help them understand the building construction industry from a management perspective including an understanding of building materials and components, the financial aspects of building construction, and the management skills necessary to deal with the diverse population of the industry. Heavy emphasis will be place on safety requirements. Upon completing this program, crafts people will be qualified to move into management positions in the construction industry.

|  | Credit |
| :--- | :--- |
| Course \& Title | Hours |

FIRST QUARTER
ARC 138 Architectural Blueprint Reading 3
ARC 139 Mechanical Systems Blueprint Reading 2
CCT 105 Properties of Construction Materials 3
COM 206 Interpersonal Communication 3
MET 198 P. C. Applications in Engineering Technology

TOTAL $\qquad$

## SECOND QUARTER

ARC 107 Building Codes 3
CCT 216 Construction Estimating 4
CCT 240 Construction Law \& Specifications 3
CCT 256 Construction Management 3
QET 101 Survey of TQM TOTAL $\frac{3}{16}$

## THIRD QUARTER

| CCT | 102 | Basic Construction Surveying | 4 |
| :--- | :--- | :--- | ---: |
| CCT | 242 | Construction Management Personnel Issues | 3 |
| CCT | 258 | Project Management Techniques | 3 |
| SRM | 231 | OSHA Construction Standards | 4 |
|  |  | TOTAL | 14 |

Construction Technician (44.5 Total Credit Hours)

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| CCT | 118 | Core Construction Skill \& Safety | 1.5 |
| CCT | 121 | Carpentry Level 1A | 2.0 |
| CCT | 122 | Carpentry Level 1B | 3.5 |
| CCT |  | CCT Elective(s) | 2 |
| CCT | 270 | Civil Engineering Technology Internship TOTAL | $\frac{3}{12}$ |
| SECOND QUARTER |  |  |  |
| CCT | 141 | Portland Cement Concrete Level I | 3.5 |
| CCT | 125 | Carpentry Level 3-A | 3.5 |
| CCT |  | CCT Elective(s) | 2 |
| CCT | 270 | Civil Engineering Technology Internship | 3 |
|  |  | TOTAL | 12 |
| THIRD QUARTER |  |  |  |
| CCT | 126 | Carpentry Level 3-B | 3.5 |
| CCT | 127 | Carpentry Level 4-A | 3.5 |
|  |  | Technical Elective | 3 |
| $\overline{\mathrm{CCT}}$ | 270 | Civil Engineering Technology Internship | 3 |
|  |  | TOTAL | 13 |
| FOURTH QUARTER |  |  |  |
| CCT | 128 | Carpentry Level 4-B | 3.5 |
| SRM | 231 | OSHA Construction Standards | 4 |
|  |  | TOTAL | 7.5 |

## Electrical Construction <br> (12-32 Total Credit Hours)

This short-term certificate will fulfill the need of electrical construction industry for educated and trained electricians in the Dayton and Cincinnati area. There are four courses with variable credit to include retraining of currently employed electricians in the area.

| Course \& Title |  |  | Hours |
| :--- | :--- | :--- | ---: |
| EER | 181 | Electrical Construction - I | $3-8$ |
| EER | 182 | Electrical Construction - II | $3-8$ |
| EER | 183 | Electrical Construction - III | $3-8$ |
| EER | 184 | Electrical Construction - IV | $\underline{3-8}$ |
|  |  |  | TOTAL |

## Firefighter Technician

## (29 Total Credit Hours)

Training for full-time, part-time, and volunteer firefighters and fire safety inspectors to apply skills needed for public fire protection; apply emergency management skills needed for common incidents; develop expertise to handle hazardous materials; identify, evaluate, and abate life threatening hazards; understand the importance of teamwork and coordination; and apply fire suppression skills.

Course \& Title
Hours
FST $180 \quad$ Firefighter II 14

FST 120 Fire Safety Inspector 6
$\begin{array}{llll}\text { SRM } & 151 \quad \text { OSHA 1910.120 Hazardous } \\ \text { Waste Operations }\end{array}$
FST 206 Incident Command System $\quad \frac{4}{29}$

## Optional Courses

FST 181 Firefighter I 7

FST 191 Volunteer Firefighter 3
FST 192 Firefighter I Transition 4
FST 193 Firefighter II Transition 7
NOTE:
FST 191, 192 and 193 may be taken in lieu of FST 180.
FST 181 may be taken in lieu of FST 191 and FST 192.
FST 181 and FST 193 may be taken in lieu of FST 180.

## Light Commercial HVAC Service

## (41 Total Credit Hours)

This program is intended for entry level students or residential service technicians desiring careers as light commercial HVAC service technicians. This program is a hands-on troubleshooting and service program geared to the light commercial HVAC industry including convenience stores, restaurants, strip malls, and any other type of small business concern. Students learn the basics of heating, cooling, distribution, and the control of these systems. The hands-on component uses the type of equipment actually installed in the field.

| Course \& Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| FIRST QUARTER |  |  |
| COM | 206 | Interpersonal Communication |

## SECOND QUARTER

MET 111 Basics of Heating \& Heating Systems 3
MET 115 Gas Fired Appliances 3
MET 120 Fundamentals of HVAC Distribution Systems
MET $130 \quad$ Basics of Cooling \& Cooling
THIRD QUARTER
ARC 139 Mechanical Systems Blueprint Reading 2
EER 139 Electrical Machinery 4
MAT 150 Testing, Adjusting \& Balancing in HVAC 2
MET 157 Basic Light Commercial HVAC Troubleshooting 3
MET 158 Advanced Light Commercial HVAC Troubleshooting

TOTAL

## Manufacturing Management

## (23 Total Credit Hours)

The purpose is to assist individuals in their transition from a technical job (engineer, technician, production worker, etc.) to a managerial position (foreman, supervisor, manager, etc.) in the manufacturing industry. This certificate provides a manufacturing specific background in organizations, industrial supervision, improvement techniques, quality, safety, team work, and cost analysis. In addition, an elective provides the student an opportunity to customize the program according to their individual needs and interests.

Credit
Course \& Title
Hours

| IET | 101 | Work Methods Analysis \& Improvement | 3 |
| :--- | :--- | :--- | :--- |
| IET | 115 | Survey of Production \& Inventory Control | 2 |
| IET | 125 | World Class Manufacturing | 3 |
| IET | 126 | Supervision \& Work Team Leadership | 3 |
| IET | 135 | Manufacturing Cost Analysis | 3 |
| MAN | 105 | Introduction to Business | 3 |
| PSY | 229 | Work Group Dynamics | 3 |
| QET | 101 | Survey of Total Quality Management | 3 |

Students may select one of the following courses to use as a substitution for a course in the Manufacturing Management certificate

| COM | 211 | Effective Speaking 1 | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 121 | Technical Communications 1 | 3 |
| LAS | 105 | Introduction to Organized Labor in America 3 |  |
| MAN | 210 | Introduction to Project Management | 3 |
| PHI | 209 | Business Ethics | 3 |
| QET | 223 | ISO/QS 9000 Quality Systems | 3 |
| SRM | 211 | Industrial Safety I | 3 |
|  |  |  |  |
|  |  |  |  |

## Mechanical Maintenance

## (15 Total Credit Hours)

This program is intended for anyone involved in mechanical maintenance to improve their troubleshooting skills. This is a hands-on program that looks at how machines operate, proper methods of maintenance and rebuild, and a heavy concentration on power hydraulics, hydraulic circuits, the control of hydraulic circuits, and the proper techniques for troubleshooting and maintenance.

Course \& Title | Credit |
| :--- |
| FIRST QUARTER |

## Rescue Technician

## (33 Total Credit Hours)

Training for all emergency responders, urban search and rescue teams, fire, law enforcement, and emergency medical services to (1) understand the role of rescue technician; (2) demonstrate basics of victim care; (3) understand principles of applied physics related to removal of victims; (4) demonstrate safety and survival techniques; and (5) demonstrate correct, safe, and effective state-of-the-art rescue equipment. Students must be working in the field to qualify for this program.


Software Used in Specific Courses
AutoCAD 2000 for Windows
DRT 198, 199
INT 114, 225
AutoCAD 2000 for Windows with Mechanical Desktop DRT 200
AutoCAD 2000 for Windows with 3D Studio Max
DRT 223
AutoCAD 2000 for Windows with Architectural Desktop
ARC 240, 241
AutoCAD 2000 for Windows with Land Development
Desktop
CCT 246
$B^{2}$ Logic
EET 231, 251, 252
EER 136
Borland C++
EGR 261 \& EGR 262
Carrier HVAC Design Software
MET 242, 244
Electronics Workbench
EET 114, 150, 155, 201, 202, 205, 207
EER 126, 127, 128, 137
GW-BASIC
IET 198
MathCAD
MET 260
Microcontrollers (Motorola 68HC11)
EET 261, 262
MS-Office for Windows
MET 198
MS-Project
CCT 258
Norton Utilities
EET 264
QBASIC
EET 259
IET 198
Rapid Prototyping (Z Corp Machine)
DRT 260
Simulation (Industrial)
IET 207
Smart CAM
INT 113, 211, 212, 213
Solidworks
DRT 240, 250
Unigraphics
DRT 265, 266
Visual BASIC
IET 198
3D-Studio
DRT 223

Sinclair's diversity vision strives to create an inclusive environment in which all people are valued and supported. Sinclair recognizes similarities, understands and respects differences, and prepares graduates to live and work together in a global community.


Nursing major Kim Smith has found extra encouragement and help from professors throughout Sinclair.



As a community college leader, Dr. Mary Connolly, professor, Child \& Family Education, was honored with the 2002 N.I.S.O.D. award for teaching, learning and leadership excellence.

Dr. Helen Grove, Dean (937) 512-2760, Room 6141B

## Madelyn Buran

Academic Counselor (937) 512-2702 , Room 9301

Phyllis Salter
Academic Counselor
Developmental Studies
(937) 512-2701, Room 6222A

Criminal Justice
Gary Tucker, Chairperson
(937) 512-2876, Room 9315

Child \& Family Education
Karen Winston, Chairperson
(937) 512-2722, Room 9222

Developmental Studies
Dr. Betty Wallace, Chairperson (937) 512-2701, Room 6222B

Experience Based Education
Carolyn Mann, Chairperson (937) 512-2790, Room 6130

Physical Education
Dr. Patrick Hodges, Chairperson (937) 512-2860, Room 8023


## Extended Learning \& Human Services

Students seeking a degree or certificate within the Extended Learning \& Human Services division must:

- Attend New Student Orientation.
- Attend an appointment with an Extended Learning \& Human Services counselor. To schedule, call (937) 512-2702 or (937) 512-2701 or go to Room 9301 or Room 6222.
Be sure to identify yourself as a new student. The counselor will review your placement test results, explain beginning program requirements, and assist with selecting classes for the upcoming term.
The counselor will also give information on how to obtain assistance through faculty advising.


## Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.

Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the web at http://www.sinclair.edu/ departments/rsr/home.htm. Access to grades has been maintained through the InTouch information kiosks. Check the quarterly class bulletin for details.

## Planning the Program

The student is required to complete the following course work for a particular program to earn a degree. Some courses have prerequisites. Others must be taken in special sequences. The student should plan a course of studies with an academic counselor, (Associate of Individualized Study, Associate of Technical Study) faculty advisor.

Programs in Extended Learning \& Human Services include early childhood education, disabilities intervention services, law enforcement, community based corrections, manual communication, physical education, developmental studies, experience based education, and public services. A student intending to transfer to a four-year college or university should consult an academic counselor to plan a specific transfer program and generally graduates prior to transfer with an associate of arts degree. A graduate of a career program will receive the associate of applied science degree of applied science degree.

## Experience Based Education

The Experience Based Education (EBE) department provides opportunities for earning college credits in nontraditional ways in cooperation with all academic divisions of the college. Programs include:

- Academic Credit Assessment Information Center (ACAIC) provides specific information about nontraditional methods to earn credit for college courses; Room 6130.
- Associate of Individualized Study (AIS) is open to any student who is interested in designing an interdisciplinary degree program using the liberal arts or combining liberal arts with technical areas of study; Room 6130.
- Associate of Technical Study (ATS) is open to any student whose technical degree goals cannot be met through existing technical degree programs; Room 6130.
- College Without Walls (CWW) offers self-paced study within a flexible time frame; Room 6130.
- Cooperative Education/Internship is an opportunity to relate study programs to the world of work; Room 10311.
- Credit for Lifelong Learning (CLLP) allows students to earn college credit for significant learning experiences; Room 6130.
- PACE allows for accelerated learning and integrated scheduling of course requirements for the A.A. in Liberal Arts and the A.S. in Business Administration; Room 6130.
- Service-Learning is designed to create an opportunity to provide practical applications as well as critical reflection related to community and civic issues in society; Room 6130.


## Developmental Studies

The Developmental Studies (DEV) department provides an opportunity for students to develop and improve basic skills needed to succeed in college and on the job. Giving support to all academic majors, courses are offered in mathematics, reading, English, and science; Room 6222.

## University Parallel Transfer Degree Programs <br> Physical Education <br> (95 Total Credit Hours)

This program is designed for students seeking physical education careers. This curriculum will fulfill the freshman and sophomore educational requirements at most fouryear colleges or universities. At Sinclair, students will receive an associate of arts degree for transfer to a four-year institution for completion of the bachelor's degree in physical education or related field.

For example: a new $2+2$ articulation agreement between Sinclair and Wright State University (W.S.U.) in Physical Education is now available. Students interested in transferring to W.S.U. from Sinclair should contact Dr. Drew Pringle, W.S.U., (937) 775-3203. Sinclair Physical Education majors with questions about possible articulation to W.S.U. may contact the Physical Education department at (937) 512-2860.

| Course \& Title |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| FIRST QUARTER |  |  |
| ENG 111 | English Composition I | 3 |
| PED 235 | Introduction to Physical Education | 3 |
| PED 200 | First Aid \& Safety | 2 |
| PSY 121 | General Psychology I | 3 |
| PED | Elective ** | 3 |
|  | TOTAL | 14 |
| SECOND QUARTER |  |  |
| ENG 112 | English Composition II | 3 |
| PED 236 | Personal \& Community Health | 3 |
| PSY 122 | General Psychology II | 3 |
| COM 206 | Interpersonal Communication | 3 |
|  | General Education Elective* | 3 |
|  | TOTAL | 15 |
| THIRD QUARTER |  |  |
| ENG 113 | English Composition III | 3 |
| PED 237 | Organization \& Administration of Intramurals | 2 |
| PSY 242 | Educational Psychology ${ }^{* * * * *}$ | 4 |
| PED | Electives** (Coaching and Officiating) | 4 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 16 |
| FOURTH QUARTER |  |  |
| BIO 111 | General Biology I | 4 |
| HIS 101 | U.S. History I ${ }^{* * * *}$ | 3 |
| PED 199 | Computer Applications in Physical Education | 2 |
| PED 238 | Physical Education for Elementary School | 13 |
| PED 270 | Physical Education Internship *** | 2 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 17 |
| FIFTH QUARTER |  |  |
| BIO 112 | General Biology II | 4 |
| HIS 102 | U.S. History II | 3 |
| PED 239 | Athletic Injuries | 3 |
| COM 211 | Effective Speaking I | 3 |
| PED | Elective **(Activity Class) | 1 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 17 |
| SIXTH QUARTER |  |  |
| BIO 113 | General Biology III | 4 |
| HIS 103 | U.S. History III | 3 |
| PED | Electives ** (Activity Class) | 4 |
| MAT | Elective (see advisor) | 5 |
|  | TOTAL | 16 |

* See page 52 and check with counselor.
** A minimum of one coaching and one officiating class, plus eight activity classes must be taken.
${ }^{* * *}$ Can be taken any quarter during the second year.
****HIS 111, 112, and 113 may be substituted for HIS 101, 102, 103.
*****PSY 297 Psychology of Sports or any transfer Psychology
class may be substituted for PSY 242
NOTE: To complete the Ohio Transfer Module see assigned PED advisor.


## Public Services <br> Gerontology Option <br> (97-99 Total Credit Hours)

This program is designed with the needs of the elderly population in mind and to provide students with the knowledge and skills related to the biological, psychological and sociological aspects of aging. The focus is to prepare students to transfer to four-year institutions. Graduates may find opportunities to work as paraprofessionals such as activities directors, geriatric outreach workers, senior citizens coordinators, and advocates for senior rights. In addition, there is a growing need for trained personnel to work with the elderly in educational institutions, police and fire departments, banks, stores and other businesses.

## Credit

Course \& Title

## Hours

FIRST QUARTER

| BIS | 105 | Introduction to Computers | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 111 | English Composition I |  |
| GRN | 111 | Human Services with the Elderly I | 3 |
| PSY | 121 | General Psychology I | 3 |
| COM | 206 | Interpersonal Communication | 3 |
| SOC | 111 | General Sociology I | 3 |
|  |  |  | 3 |

## SECOND QUARTER

| ENG 112 | English Composition II |  |
| :--- | :--- | :--- |
| GRN | 112 | Human Services with the Elderly II |
| PSY 122 | General Psychology II |  |
| SWK 211 | Introduction to Social Work Practice |  |
| MAT |  | Elective* |

GRN 112 Human Services with the Elderly II 3
SWK 211 Introduction to Social Work Practice
MAT Elective*

THIRD QUARTER
ART 151 Art as Therapy I
ENG 113 English Composition II
GRN 115 Aging \& Health
ALH 125 Therapeutic Recreation
SOC 160 Social Patterns of Aging
__ _ Arts or Humanities Elective*
TOTAL

## FOURTH QUARTER

ART 152 Art as Therapy II 3
BIO 111 General Biology I
GRN 211 Field Practicum with the Elderly I 5
PSY 207 Psychology of Aging
TOTAL

## FIFTH QUARTER

BIO 112 General Biology II 4
GRN 135 Family Relations in Later Years 3
GRN 212 Field Practicum with the Elderly II 5
__ Arts or Humanities Elective* $\quad 3$
TOTAL

## SIXTH QUARTER

| BIO | 113 | General Biology III | 4 |
| :--- | :--- | :--- | ---: |
| $\overline{\text { PSY }}$ | 135 | Arts or Humanities Elective* | 6 |
| SOC |  | Living with Loss, Death \& Grief | 3 |
|  |  |  | 3 |
|  |  | Comparing Cultures |  |

* See page 52 and check with counselor.

NOTE: To complete the Ohio Transfer Module see an academic counselor.

## Public Services Human Services Option <br> (93-96 Total Credit Hours)

This option serves as a foundation for a four-year degree in an area such as social work. For students graduating with the associate of arts degree, career advancement may be enhanced and facilitated with this degree. In addition, graduates may find opportunities in paraprofessional jobs as diverse as group homes and halfway houses; family, child and youth service agencies; and programs connected with alcoholism, drug abuse or other dysfunctional family issues.

| Course \& Title |  | Credit |
| :---: | :---: | :---: |
|  |  | Hours |
| FIRST QUARTER |  |  |
| ENG 111 | English Composition I | 3 |
| COM 211 | Effective Speaking | 3 |
| PSY 121 | General Psychology I | 3 |
| BIS 105 | Introduction to Computers | 3 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 15 |
| SECOND QUARTER |  |  |
| ENG 112 | English Composition II | 3 |
| PSY 122 | General Psychology II | 3 |
| SOC 111 | General Sociology I | 3 |
| BIO 111 | General Biology I | 4 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 16 |
| THIRD QUARTER |  |  |
| ENG 113 | English Composition III | 3 |
| SOC 112 | General Sociology II | 3 |
| BIO 112 | General Biology II | 4 |
| PSY 218 | Counseling Principles | 4 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 17 |
| FOURTH QUARTER |  |  |
| SOC 145 | Comparing Cultures | 3 |
| BIO 113 | General Biology III | 4 |
| MAT | Elective | 3-5 |
| SWK 206 | Introduction to Social Welfare | 4 |
|  | Arts or Humanities Elective* | 3 |
|  | TOTAL | 17-19 |
| FIFTH QUARTER |  |  |
| SOC 205 | Social Problems | 4 |
| SWK 211 | Introduction to Social Work Practice | 3 |
|  | Arts or Humanities Elective* | 6 |
| $\overline{\mathrm{PSY} / \mathrm{SOC}}$ | Elective | 3 |
|  | TOTAL | 16 |
| SIXTH QUARTER |  |  |
| SWK 212 | Basic Helping Skills in Social Work Practice | 3 |
| HUM | Humanities Elective* | 3 |
| EBE 270 | Internship | 3 |
| PSY/SOC | Elective | 3-4 |
|  | TOTAL | 12-13 |

* See page 52 and check with counselor.

NOTE: To complete the Ohio Transfer Module see an academic counselor.

## Public Services

## Public Administration Option <br> (94-96 Total Credit Hours)

This program provides a foundation for transfer to similar programs at four-year colleges or universities. For students graduating with the associate of arts degree, job advancement has frequently become a planned, positive outcome in public services. Graduates may also find job opportunities at the paraprofessional level in welfare agencies, government organizations, and related programs.

## Course \& Title <br> FIRST QUARTER

| MAN | 105 | Introduction to Business | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 111 | English Composition I | 3 |
| SOC | 111 | General Sociology I | 3 |
| PLS | 101 | American Federal Government I | 3 |
|  |  |  | Arts or Humanities Elective* |

## SECOND QUARTER

PSY 121 General Psychology I
ENG 112 English Composition II
PLS 102 American Federal Government II
COM 211 Effective Speaking I
Credit
Hours

TOTAL

SOC 112 General Sociology II
TOTAL
THIRD QUARTER

| ENG | 113 | English Composition III | 3 |
| :--- | :--- | :--- | ---: |
| PLS | 103 | State Government | 3 |
| PSY | 122 | General Psychology II | 3 |
| MAT |  | Elective* | $3-5$ |
| PLS |  | Urban Government |  |
|  |  |  | TOTAL |

FOURTH QUARTER

| ACC | 111 | Principles of Accounting I | 3 |
| :--- | :--- | :--- | :--- |
| BIS | 105 | Introduction to Computers | 3 |
| MAN | 205 | Principles of Management | 3 |
| SOC | 145 | Comparing Cultures | 3 |
| BIO | 111 | General Biology I | 4 |
|  |  | TOTAL | 16 |

FIFTH QUARTER

|  |  | Internship <br> ACC |
| :--- | :--- | :--- |
| 112 | Principles of Accounting II <br> BIO | 112 |

ACC 112 Principles of Accounting II
$-\quad$ Arts or Humanities Elective*
TOTAL $\quad \begin{array}{r}6 \\ 16\end{array}$

- $\quad \begin{gathered}\text { Arts or Humanities Elective* } \\ \text { TOTAL }\end{gathered} \quad \frac{6}{16}$
_ - Arts or Humanities Elective* $\quad$ TOTAL $\quad \begin{array}{r}6 \\ 16\end{array}$
SIXTH QUARTER

| BIO | 113 | General Biology III | 4 |
| :--- | :--- | :--- | ---: |
| SOC | 205 | Social Problems | 4 |
|  |  | Arts or Humanities Electives* | 6 |
| $\overline{\text { PSY/SOC__ }}$ | Elective | 3 |  |
|  |  |  | TOTAL |

* See page 52 and check with counselor.

NOTE: To complete the Ohio Transfer Module see an academic counselor.

Career Degree Programs
Corrections

## Community Based Option

## (93 Total Credit Hours)

This program prepares students to work in areas relating to the diversion of potential offenders and the rehabilitation of convicted offenders in a community based setting. Students develop on-the-job counseling techniques, gain an understanding of the civil and constitutional rights of prisoners, and develop the knowledge to interpret the justice system.

| Course \& Title | Title | Credit Hours |
| :---: | :---: | :---: |
| FIRST QUARTER |  |  |
| ENG 111 | English Composition I | 3 |
| SOC 111 | General Sociology I | 3 |
| LEP 101 | Constitutional Law | 3 |
| COR 105 | Alternatives to Prison | 3 |
| COR 106 | Introduction to Corrections | 3 |
|  | TOTAL | 15 |
| SECOND QUARTER |  |  |
| ENG 112 | English Composition II | 3 |
| PSY 121 | General Psychology I | 3 |
| COR 101 | Corrections Ethics | 3 |
| COR 103 | Legal Issues in Correctional Institutions | 3 |
| MAT | Elective | 4 |
|  | TOTAL | 16 |
| THIRD QUARTER |  |  |
| ENG 113 | English Composition III or |  |
| 131 | Business Communications I | 3 |
| PSY 122 | General Psychology II | 3 |
| COR 104 | Written Communications in Corrections | 3 |
| SOC 226 | Criminology | 3 |
| COR 126 | Correctional Services in the Community TOTAL | $\frac{3}{15}$ |
| FOURTH QUARTER |  |  |
| SOC 205 | Social Problems | 4 |
| PHS/BIO | Elective | 3 |
| COR 205 | Law \& the Juvenile Offender | 3 |
| PSY 218 | Counseling Principles | 4 |
| COM 206 | Interpersonal Communication or |  |
| 211 | Effective Speaking I | 3 |
|  | TOTAL | 17 |

## FIFTH QUARTER

COR $270 \quad \begin{gathered}\text { Corrections Internship or a Career } \\ \text { Related Course }\end{gathered}$
PLS 103 State Government 3
MAN _ Elective 3
SOC 225 Juvenile Delinquency
SOC __ SOC Elective 3
COR 206 Institutional Procedures, Jails \& Detention $\begin{array}{r}\frac{3}{15} \\ \text { TOTAL }\end{array}$
SIXTH QUARTER
COR 270
Corrections Internship
295 Corrections Seminar
SOC 227 Probation \& Parole

PLS 104 Urban Government
COR 226 Contemporary Practices in Corrections
HUM $\qquad$ Humanities Elective*

TOTAL

| 3 |
| ---: |
| 3 |
| 3 |
| 15 |

* See page 52.


## Corrections

## Institutional Option

## ( 93 Total Credit Hours)

This program prepares students to work in areas relating to the diversion of potential offenders and the rehabilitation of convicted offenders in an institutional setting. Students develop on-the-job counseling techniques, gain an understanding of the civil and constitutional rights of prisoners, and develop the knowledge to interpret the justice system. Credit

## Course \& Title

 HoursFIRST QUARTER
COR 101 Correctional Ethics 3
COR 106 Introduction to Corrections 3
ENG 111 English Composition I
LEP 101 Constitutional Law
SOC 111 General Sociology I
TOTAL
SECOND QUARTER
COR 103 Legal Issues in Correctional Institutions
ENG 112 English Composition II
MAT _ Elective
COR 105 Alternatives to Prison
PSY 121 General Psychology I
TOTAL

| 3 |
| ---: |
| 16 |

THIRD QUARTER

| COR | 102 | Crisis Intervention | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 113 | English Composition III |  |
|  |  | or |  |
|  | 131 | Business Communications I | 3 |
| COR | 126 | Correctional Services in the Community | 3 |
| PSY | 122 | General Psychology II | 3 |
| SOC | 226 | Criminology | 3 |
|  |  | TOTAL | 15 |

FOURTH QUARTER
COM 206 Interpersonal Communication or
211 Effective Speaking
COR 104 Written Communications in Corrections
PSY 217 Abnormal Psychology
SOC 205 Social Problems \& Community Resources 4
PHS/BIO Elective

TOTAL
FIFTH QUARTER

| COR | 206 |  <br> Detention |  |
| :--- | :--- | :--- | ---: |
| COR | $270^{* *}$ | Corrections Internship <br> or | 3 |
|  |  | Career Related Course |  |
| $\overline{\text { MAN }}$ | - | Management Elective |  |
| PLS | 103 | State Government |  |
| SOC | 225 | Juvenile Delinquency <br> or |  |
| SOC |  | Elective | 3 |
|  |  |  | TOTAL |

## SIXTH QUARTER

COR 226 Contemporary Practices in Corrections 3
COR 270** Corrections Internship or
295 Corrections Seminar

PLS 104
SOC 227
Urban Government

SOC
$\qquad$ Social Science Elective Humanities Elective*
HUM 3
15

* See page 52.
** Department of Rehabilitation \& Corrections (DRC) endorsed students must complete two internships (COR 270) inside a DRC facility.


## Disabilities Intervention Services

## (99 Total Credit Hours)

This program provides the student with the knowledge and skills important to a paraprofessional currently working with, or planning to work with, persons with developmental disabilities. The program prepares individuals to work as members of a special education or rehabilitation team under the direction of a professional to provide quality programs for people with disabilities.


## SIXTH QUARTER

| DIS | 202 | Field Practicum II $^{* * *}$ |  |
| :--- | :--- | :--- | ---: |
| PSY/SOC | Elective | 3 |  |
| PED 200 | First Aid | 3 |  |
|  | - |  | 2 |
| General Elective* |  | 3 |  |
|  |  | TOTAL | 15 |

* See academic counselor.
** Depends upon student's area of emphasis.
*** Only for working students.


## Early Childhood Education*

## ( 105 Total Credit Hours)

This program provides the knowledge and skills important to an entry level teacher working with, or planning to work with, young children. It meets the Pre-kindergarten Associate Teacher Licensure standards established by the State of Ohio Department of Education. Graduates of this program are eligible to apply to the Ohio Department of Education for the Pre-kindergarten Associate Teacher Licensure. A two-plus-two transfer articulation is available to students planning on completing a four-year degree in Early Childhood Education from the University of Dayton and Central State University.
NOTE: Students interested in completing this degree program must have a full criminal background investigation completed before enrolling in second quarter courses.

Credit

## Course \& Title <br> FIRST QUARTER

| ECE | 101 | Introduction to ECE | 3 |
| :--- | :--- | :--- | :--- |
| ECE | 106 | Childhood Nutrition, Health, \& Safety | 3 |
| ECE | 120 | Observing Young Children | 3 |
| ECE | 117 | Language Experiences in ECE | 4 |
| ECE | 111 | Child Abuse Recognition \& Prevention | 1 |
| ENG | 111 | English Composition I | 3 |
|  |  |  | 17 |

## SECOND QUARTER

ECE 145 Guidance \& Discipline
ECE 129 Interaction with Children
MUS 121 Piano Class I
ECE 150 The Young Child
ENG 112 English Composition II
TOTAL
THIRD QUARTER
ECE 118 Math \& Science Experiences in ECE 3
ECE 119 Art \& Music in ECE
ECE 107 Movement Experiences in ECE
PSY 121 General Psychology I
SOC 111 General Sociology I
ENG 113 English Composition III
TOTAL
FOURTH QUARTER
ECE 160 Teaching Techniques in ECE
PSY 122 General Psychology II
$\overline{\mathrm{ECE}} / \overline{\mathrm{HAS}} /$
ITE/MAC
SOC $\overline{145}$ Comparing Cultures
Comparing Cultures
Effective Speaking I
or
206 Interpersonal Communication
TOTAL
continued next column

FIFTH QUARTER

| ECE | 182 | Student Teaching I ${ }^{* *}$ |  |
| :--- | :--- | :--- | ---: |
| HUM |  | Elective** | 3 |
| MAT | MAT 101 (or higher) |  | 4 |
| ECE | M12 | ECE First Aid | 1 |
| ECE | Elective |  | 3 |
|  |  |  | TOTAL |

## SIXTH QUARTER

ECE 281 ECE Student Teaching II** 7
ECE 215 Interaction with Families 3
PSY/SOC Elective 3
ECE 113 Communicable Diseases in ECE 1
ECE/DIS/ITE/
MAC/CFE ___ Elective
TOTAL
$\begin{array}{r}3 \\ \hline 17\end{array}$

* In order to be recommended for the Pre-Kindergarten Associate Teacher Certification, a student must meet certain criteria including a "C" or better in each ECE and DIS course.
** All students must receive a grade of "C" or better.
*** See page 52 .


## Law Enforcement Police Science Option (92-93 Total Credit Hours)

This program prepares students for careers as police officers. It is designed for students who are new to law enforcement, as well as for those who are already employed as police officers and want to add to their knowledge and perform well on civil service exams for promotions.

## Credit

Course \& Title Hours
FIRST QUARTER
ENG 111 English Composition I 3
COR 101 Corrections Ethics 3
LEP 105 Introduction to Law Enforcement \& Criminal Justice
or
COR 106 Introduction to Corrections 3
LEP 101 Constitutional Law 3
LEP 115 Police Operations TOTAL $\frac{3}{15}$
SECOND QUARTER
ENG 112 English Composition II 3
PSY 121 General Psychology I 3
PLS 104 Urban Government 3
LEP 102 Criminal Law 3
$\begin{array}{ll}\text { LEP } 125 & \text { Police Organization \& Administration } \\ & \text { TOTAL } \\ \end{array}$
THIRD QUARTER
ENG 113 English Composition III or
131 Business Communications I 3
PSY 122 General Psychology II 3
SOC 111 General Sociology I 3
LEP 104 Criminal Evidence \& Procedures 3
LEP 205 Criminal Investigation TOTAL $\quad \frac{3}{15}$

## FOURTH QUARTER

PLS 103 State Government 3
PHS/BIO_E_ Elective 3
SOC 205 Social Problems
LEP 215 Introduction to Forensic Science
LEP 225 Intergroup Relations for Police Officers $\quad 3$
TOTAL

FIFTH QUARTER

| BIS | 119 | P. C. Applications-Microsoft Works | 3 |
| :---: | :---: | :---: | :---: |
| MAN |  | Elective | 3 |
| COM | 211 | Effective Speaking I or |  |
|  | 206 | Interpersonal Communication | 3 |
| SOC | 225 | Juvenile Delinquency |  |
|  |  | or |  |
|  | 130 | Family Violence | 3 |
| LEP |  | Elective | 3 |
|  |  | TOTAL | 15 |
| SIXTH | H Q | ARTER |  |
| LEP |  | Elective | 3 |
| MAT |  | Elective (Math 100 Series) | 4 |
| LEP | 295 | Seminar in Law Enforcement \& Administration of Justice** | 3 |
| SOC | 215 | Cultural Diversity or | 4 |
|  | 226 | Criminology | 3 |
| HUM |  | Elective* | 3 |
|  |  | TOTAL | 16-17 |
| * See page 52. |  |  |  |
| **Depa | artme | tal permission. |  |

## Law Enforcement Industrial/Retail Security Option (95 Total Credit Hours)

This program prepares students for careers within the private security sector. It is designed for student who are new to Industrial/Retail security as well as students who have experience as practitioners. Students will learn the various security duties required in corporate industrial, retail and contract work sites.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I | 3 |
| FST | 101 | Introduction to Fire Science | 4 |
| PLS | 101 | American Federal Government I | 3 |
| LEP | 101 | Constitutional Law | 3 |
| LEP | 107 | Security Administration | 3 |
|  |  | TOTAL | 16 |
| SECOND QUARTER |  |  |  |
| ENG | 112 | English Composition II | 3 |
| PSY | 121 | General Psychology I | 3 |
| PLS | 102 | American Federal Government II | 3 |
| LEP | 102 | Criminal Law | 3 |
| LEP | 117 | Principles of Loss Prevention | 3 |
|  |  | TOTAL | 15 |
| THIRD QUARTER |  |  |  |
| ENG | 113 | English Composition III | 3 |
| PSY | 122 | General Psychology II | 3 |
| LEP | 104 | Criminal Evidence \& Procedures | 3 |
| FST | 125 | Fire Investigation Procedure | 4 |
| SOC | 111 | General Sociology I | 3 |
|  |  | TOTAL | 16 |
| FOURTH QUARTER |  |  |  |
| PLS | 103 | State Government | 3 |
| PHS/BIO |  | Elective | 3 |
| SRM | 211 | Industrial Safety I | 3 |
| LEP | 217 | Current Security Problems | 3 |
| SOC | 205 | Social Problems | 4 |
|  |  | TOTAL | 16 |

## FIFTH QUARTER

PLS 104 Urban Government 3
MAT
SRM 230 Oct
SRM 230 Occupational Safety \& Health
Effective Speaking
SOC 225 Juvenile Delinquency $\quad$ TOTAL $\frac{3}{17}$

## SIXTH QUARTER

LEP
LEP
LEP
295 $\begin{array}{ll}\text { Law Enforcement Elective } & 3 \\ \text { Management Elective } & 3\end{array}$
LEP 295 Seminar in Law Enforcement \&
Administration of Criminal Justice 3
SOC 226
HUM $\qquad$ Criminology
, Humanities Elective*

* See page 52.


## Manual Communication (Interpreting for the Deaf) (108 Total Credit Hours)

This program prepares students for entry level interpreting/transliterating positions in which deaf or hard-ofhearing persons and hearing persons need to communicate. It provides an opportunity for students to develop skills in American Sign Language and manually coded English. It also provides a basic understanding of deaf culture, interpreting ethics, and legislation having an impact on individuals with disabilities. This program is approved by the Ohio Department of Education to meet the standards for a five-year license as Interpreter for the Hearing Impaired. A transfer articulation is available to students planning on completing a four-year degree in Rehabilitation from Wright State University.

Course \& Title

Credit
FIRST QUARTER
MAC 101 Orientation to Deafness 3
MAC 131 Intermediate American Sign Language I 4
ENG 111 English Composition I
PSY 121 General Psychology I
COM 211 Effective Speaking I
TOTAL

## SECOND QUARTER

MAC 102 Interpreting for the Deaf I 3
MAC 116 Community Resources for the Deaf 3
MAC 132 Intermediate American Sign Language II 4
ENG 112 English Composition II 3
PSY 122 General Psychology II TOTAL $\begin{aligned} & \frac{3}{16}\end{aligned}$

## THIRD QUARTER

MAC 103 Interpreting for the Deaf II** 3
MAC 133 Intermediate American Sign Language III** 4
MAC 201 Sign-to-Voice Interpreting I ${ }^{* *} 4$
MAC 207 Role of the Interpreter**
ENG 116 Advanced Vocabulary Building $\quad 3$
FOURTH QUARTER
MAC __ Elective
TOTAL 17

MAT 105 Business Mathematics
DIS 206 Computer Literacy \& Assistive Technology 1
HUM $\qquad$ Elective*

FIFTH QUARTER
MAC 202 Sign-to-Voice Interpreting II 4
MAC 231 Advanced American Sign Language I 4
MAC 236 Transliterating
MAC 261 Practicum I**
PSY 117 Psychology of Deafness
TOTAL

## SIXTH QUARTER

MAC 203 Sign-to-Voice Interpreting III 4
MAC 211 Medical/Technical/Legal Interpreting 4
MAC 232 Advanced American Sign Language II 4
MAC 262 Practicum II
TOTAL

## SEVENTH QUARTER

MAC 204 Sign-to-Voice Interpreting IV 4
MAC 212 Specialized Interpreting 4
MAC 233 Advanced American Sign Language III 4
MAC 263 Practicum III**
TOTAL

* See academic counselor.
** All students must receive a grade of "C" or better.


## Associate of Individualized Study

 (93 Total Credit Hours)The Associate of Individualized Study (AIS) degree is open to any student who wishes to design an interdisciplinary degree program using liberal arts or combining liberal arts with technical areas of study. The studentmay focus specifically on education for individual development and enrichment or may design a curriculum which allows for employment or continuation into selected four-year degree programs. Students are assisted in the degree planning process by a faculty committee which represents the various areas of study incorporated into the degree. Interested students should contact the AIS coordinator in the Experience Based Education department, (937) 512-2962, or the EBE office, (937) 512-5101.

## Interdisciplinary Component

A minimum of 45 quarter hours from at least two distinct areas of study.

## Total Interdisciplinary =

 A minimum of 45 quarter hours
## General Education

English
English
Communication
Math
Social Science
Computer Literacy
Humanities

First of sequence Second of sequence Elective at 100 level or above Elective Elective Elective

Total General Education = A minimum of 20 quarter hours.

## Experience Based Education

EBE 130
Degree Planning Seminar 3 hours ATS/AIS Capstone 3 hours
$\begin{array}{cc}\text { EBE } 278 & \text { ATS/AIS Capstone } \\ \text { Total Experience Based Education = }\end{array}$

## Related Electives <br> Related Electives

A minimum of 21 hours.
A minimum of 93 total hours required to earn the AIS degree.

3 hours
3 hours
3 hours
3 hours
3 hours
3 hours
3 hours

$$
\text { A minimum of } 6 \text { quarter hours. }
$$

## Associate of Technical Study <br> (93 Total Credit Hours)

The Associate of Technical Study (ATS) degree is open to any student whose technical degree goals cannot be accomplished through enrollment in one of Sinclair's existing technical degree programs. The student may design a degree which combines two or more technical areas into a unique education plan. As an alternative, part of the student's degree requirements may incorporate credit awarded through articulation agreements with community education providers, or a combination of both. In all cases, faculty members assist the student in planning the most appropriate course of study for the individual. Interested students should contact the ATS coordinator in the Experience Based Education department, (937) 512-2962, or the EBE office, (937) 512-5101.

## Technical Education

A minimum of 45 quarter hours incorporating articulated credit or combining at least two distinct areas of study.

## Total Technical Education =

 A minimum of 45 quarter hours
## General Education

| English | First of sequence | 3 hours |
| :--- | :--- | ---: |
| English | Second of sequence | 3 hours |
| Communication | Elective | 3 hours |
| Humanities | Elective | 3 hours |
| Social Science | Elective | 3 hours |
| Mathematics | 100 level or above | 3 hours |
| Computer Literacy | Elective | $2-3$ hours |

Total General Education =
A minimum of 20 quarter hours

## Experience Based Education

| EBE 130 | Degree Planning Seminar | 3 hours |
| :--- | :--- | :--- |
| EBE 278 | ATS/AIS Capstone | 3 hours |

## Total Experience Based Education

A minimum of 6 quarter hours
Related Electives
A minimum of 21 hours
A minimum of 93 total hours required to earn the ATS degree.

## Certificate Programs Disabilities Intervention Services

## (47 Total Credit Hours)

This program is designed for the students who may already be employed in a disabilities setting and are seeking course work to satisfy state certification requirements, and/or are interested in acquiring technical expertise in the disabilities area with a Sinclair certificate. This certificate provides direct linkage to the associate of applied science degree.

## Credit

Course \& Title Hours

## FIRST QUARTER

| DIS | 105 | Introduction to Developmental Disabilities | 4 |  |
| :--- | :--- | :--- | :--- | ---: |
| DIS | 106 | Program Planning |  | 4 |
| ENG | 111 | English Composition I |  |  |
| PSY | 121 | General Psychology I |  | 3 |
| PED | 200 | First Aid | 3 |  |
|  |  |  | TOTAL | 2 |

## SECOND QUARTER

| DIS | 108 | Principles/Techniques of Behavior Management |
| :---: | :---: | :---: |
| DIS | 115 | Trends, Issues, \& Social Services, \& Developmental Disabilities |
| DIS | 130 | Principles of Production in Adult Services |
| DIS | 206 | Computer Literacy \& Assistive Technology I |
| DIS | 210 | Assistive Technology \& Developmental Disabilities |
| DIS | 109 | Independent Living Skills |

DIS 109 Independent Living Skills $\quad$ TOTAL $\quad \frac{3}{15}$

## THIRD QUARTER

DIS 207 Health Aspects of Developmental Disabilities 4
DIS 201 Field Practicum I 5
DIS 208 Communication Skills \& Developmental Disabilities 4
DIS 124 Residential Services \& Developmental Disabilities $\quad \begin{array}{r}3 \\ \hline 16\end{array}$

* Students entering this program need to complete the mathematics and English/reading placement test and, if indicated, must enroll in DEV (Developmental Studies) courses prior to taking ENG 111.


## Early Childhood Education

## (55 Total Credit Hours)

This program prepares individuals to work with young children in a variety of education settings. Those individuals completing this certificate will meet state of Ohio Child Day Care Center requirements for child care staff training. Credit

## Course \& Title

 Hours
## FIRST QUARTER

| ECE | 101 | Introduction to ECE | 3 |
| :--- | :--- | :--- | :--- |
| ECE | 106 | Childhood Nutrition, Health \& Safety | 3 |
| ECE | 120 | Observing Young Children | 3 |
| ECE | 117 | Language Experience in ECE | 4 |
| ENG | 111 | English Composition I | 3 |
| ECE | 111 | Child Abuse Recognition \& Prevention | 1 |
| ECE | 112 | Early Childhood Education First Aid | 1 |
|  |  | $\quad$ TOTAL | 18 | TOTAL

## SECOND QUARTER

ECE 145 Guidance \& Discipline 3
ECE 129 Interaction with Children 5
MUS 121 Piano Class I 3
ECE 150 The Young Child 4
PSY 121 General Psychology I - 3
TOTAL

## THIRD QUARTER

ECE $113 \begin{aligned} & \text { Communicable Diseases: Prevention } \\ & \text { \& Recognition }\end{aligned}$
ECE 160 Teaching Techniques in ECE 3
ECE 119 Art \& Music Experiences in ECE 4
ECE 182 Student Teaching I
ECE 107 Movement Experiences in ECE
ECE 118 Math \& Science Experiences in ECE
TOTAL

## Gerontology

## (47 Total Credit Hours)

This certificate adds value to a resume, provides opportunities for entry level jobs, and is an excellent springboard to continuing education. The gerontology option under the Public Services Associate of Arts degree is the program most often followed by students after completion of the Gerontology certificate.

| Course \& Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| FIRST QUARTER |  | 3 |
| COM 206 | Interpersonal Communication | 3 |
| ENG | 111 | English Composition I* |
| GRN | 111 | Human Services with the Elderly I |
| PSY | 121 | General Psychology I |
| SOC | 111 | General Sociology I $\quad$ TOTAL |
|  |  | 3 |
|  |  | 3 |

## SECOND QUARTER

ALH 125 Therapeutic Recreation 3
GRN 112 Human Services with the Elderly II 3
GRN 115 Aging \& Health 3
PED 200 First Aid \& Safety 2
PSY 122 General Psychology II
General Education Elective **
TOTAL

## Third Quarter

GRN 135 Family Relations in Later Years 3
GRN 211 Field Practicum with the Elderly I 5
PED 208 Cardiopulmonary Resuscitation 1
PSY 135 Living with Loss, Death \& Grief 3

PSY 207 - Psychology of Aging
TOTAL

* Placement test results may indicate need for developmental mathematics, reading and/or English. The student must complete DEV courses if indicated.
** See page 52.


## Human Services

## (45-46 Total Credit Hours)

This certificate adds value to a resume as well as provides a springboard to continuing education. The Human Services option under the associate of arts degree in Public Services is the program most often followed by the students after completion of the Urban Studies certificate.

Course \& Title Credit

FIRST QUARTER
COM 211 Effective Speaking 3
PSY 121 General Psychology I 3
SOC 111 General Sociology I
ENG 111 English Composition I***
__ General Education Elective*
TOTAL Hours

SECOND QUARTER
PSY 122 General Psychology II
SOC 205 Social Problems
SOC 145 Comparing Cultures
SOC 112 General Sociology II
ENG 112 English Composition II
TOTAL

## THIRD QUARTER



* See page 52.
** HIS 105 or SOC 145, may be substituted for SOC 215.
*** Placement test results may indicate need for developmental mathematics, reading, and/or English. The student must complete DEV courses if indicated.


## Infant/Toddler Education <br> (46 Total Credit Hours)

This program prepares individuals to work with infant and toddler children in a variety of education settings. Those individuals completing this certificate will meet state of Ohio Child Day Care Center requirements for child care staff training.

Course \& Title
Credit Hours
FIRST QUARTER
ECE 101 Introduction to Early Childhood $\begin{gathered}\text { Education }\end{gathered}$
ECE 104 Prenatal Life \& Birth 3
ECE $106 \begin{gathered}\text { Childhood Health Nutrition \& } \\ \text { Safety }\end{gathered}$
ECE 120 Observing Young Children 3
ECE 150 The Young Child 4
ECE 111 Child Abuse Recognition \& Prevention $\quad \frac{1}{17}$

## SECOND QUARTER

ECE 135 Group Care of Infants/Toddlers 3
ECE 155 Infant/Toddler Activities 3
ECE 117 Language Experiences in ECE 4
ECE 112 ECE First Aid 1
$\begin{array}{lll}\text { ECE } & 113 & \begin{array}{l}\text { Communicable Disease Prevention } \\ \text { \& Recognition }\end{array} \\ & \end{array}$
ENG 111 English Composition I TOTAL $\quad \frac{3}{15}$

THIRD QUARTER
ECE 156 Relating to Infants \& Toddlers 5
ECE/DIS/
COM/PSY/
SOC $\qquad$ Electives

TOTAL
$\begin{array}{r}9 \\ \hline 14\end{array}$
NOTE: Internship is a working experience involving infants and toddlers in a group setting. It must be approved as a valid learning experience by the instructor. Department criteria regarding internships must be met.

## Manual Communication (45 Total Credit Hours)

Students completing this certificate will obtain valuable and practical skill in American Sign Language. It can lead to a rewarding career opportunity communicating with the deaf and hard-of-hearing. Placement test results may indicate need for developmental mathematics, reading and/or English. The student needs to complete DEV courses if indicated.

## Credit

Course \& Title Hours

## FIRST QUARTER

ENG 111 English Composition I 3
MAC 101 Orientation to Deafness 3
MAC 131 Intermediate American Sign Language I 4
PSY 117 Psychology of Deafness 3

MAC __ Elective (MAC 111, 112, 113, or 190) $\quad$| 3 |
| :--- |

## SECOND QUARTER

ENG 112 English Composition II 3
MAC 116 Community Resources for the Deaf 3
MAC 132 Intermediate American Sign Language II 4
PSY 121 General Psychology I
TOTAL

## THIRD QUARTER

DIS 206 Computer Literacy \& Assistive Technology 1
MAC 133 Intermediate American Sign Language III 4
MAC 201 Sign-to-Voice Interpreting I 4
MAC $\quad$ Elective 4
PSY $\overline{122}$ General Psychology II
TOTAL
16

## Urban Studies

## (46-47 Total Credit Hours)

This certificate adds value to a resume and provides a springboard to continuing education. The public administration option under the Public Services associate of arts degree is the program most often followed by the student after completion of the Urban Studies certificate.


* See page 52 and check with counselor.
** Placement testing results may indicate need for developmental mathematics, reading and/or English.


## Short Term Certificates Corrections

## (44 Total Credit Hours)

This certificate is designed to provide the student with the basics necessary for entry level employment in a correctional facility. These courses can be applied to the associate degree in Institutional Corrections if desired.

| Course \& Title | Credit <br> Hours |  |
| :--- | :--- | ---: |
| FIRST QUARTER |  |  |
| LEP | 101 | Constitutional Law |

## SECOND QUARTER

COR 102 Crisis Intervention 3
COR 103 Legal Issues in Corrections 3
COR 104 Written Communications In Corrections 3
COR 105 Alternatives to Prison 3
COR 206 Institutional Procedures, Jails \& Detention $\quad 3$
THIRD QUARTER

| PED | 200 | First Aid \& Safety | 2 |
| :--- | :--- | :--- | ---: |
| COR | 126 | Correctional Services in the Community | 3 |
| COR | 205 | Law \& the Juvenile Offender | 3 |
| COR | 226 | Contemporary Issues in Corrections | 3 |
| COR | 295 | Corrections Seminar | 3 |
|  |  |  | 14 |

## Exercise Specialist

## (44 Total Credit Hours)

This certificate is designed to provide students with the knowledge and skills for employment in the fitness and exercise industry. Students will be trained scientifically with the goal of being able to administer basic fitness assessments and health risk appraisals. Students will also be trained to communicate current information on exercise, nutrition and wellness.

Course \& Title

FIRST QUARTER

BIO 107 Human Biology 5
PED 106 Weight Training 1
PED 200 First Aid \& Safety 2
ENG 111 English Composition I 3
PED 239 Athletic Injuries TOTAL $\frac{3}{14}$

## SECOND QUARTER

PED 234 Concepts of Total Fitness 3
PED 236 Personal \& Community Health 3
PED 199 Computer Applications in PED 2
PED 107 Flexibility Fitness 2
ENG 112 English Composition II 3
COM 211 Effective Speaking TOTAL $\frac{3}{15}$

## THIRD QUARTER

PED 193 Physical Fitness Evaluation 1
PED 154 Aerobic Conditioning 1
DIT 111 Nutrition for a Healthy Lifestyle 3
ENG 113 English Composition III 3
COM 206 Interpersonal Communication 3
PED __ Elective 3
PED
Elective Activity Class
TOTAL
$\frac{1}{15}$

As Marshall Neuhaus found, Sinclair provides opportunities for students of all ages and backgrounds. Programs can be specifically designed to meet the student needs, and activities and opportunities give a well rounded learning environment.



Design department, assistant professor Amanda Romero was another 2002 National Institute for Staff and Organizational Development (N.I.S.O.D.) award recipient for teaching excellence. The scope of her work includes digital graphics, web page design, digital pre-press and interactive design.

Dr. Clarence Walls, Dean (937) 512-2881, Room 2217

Joanne Cunningham
Academic Counselor (937) 512-2544, Room 2222

Sheila Magnuson
Academic Counselor
(937) 512-2544, Room 2222

Art
Dr. Sally Struthers, Chairperson (937) 512-5381, Room 13201

## Design

Shari Rethman, Chairperson
(937) 512-4505, Room 13212

Communication Arts
Lori Zakel, Chairperson
(937) 512-4580, Room 2220

## Music

Dr. Robert Ruckman, Chairperson (937) 512-4580, Room 2220

## Theatre/Dance

Neil Vanderpool, Chairperson (937) 512-4580, Room 2220


## Academic Counseling:

Monday-Thursday, 8:00 a.m. - 7:00 p.m.; Friday, 8:00 a.m. - 5:00 p.m.
Note: Please call to make an appointment to ensure that a counselor will be available. These hours may vary.

## Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.

Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the web at http://www.sinclair.edu/ departments/rsr/home.htm. Access to grades has been maintained through the InTouch information kiosks. Check the quarterly class bulletin for details.

## Planning the Program

The student is required to complete the course work below to earn a degree or certificate for a particular

Fine \& Performing Arts program. Some courses have prerequisites. Others must be taken in special sequences. The student should plan a course of study with an academic counselor, Room 2222, (937) 512-2544.

The student choosing a career in Fine \& Performing Arts may select a university parallel or career program. The Fine \& Performing Arts (University Parallel) programs are for the student who intends to transfer to a fouryear college or university. These include Art, Music Performance, Music Education, Communication Arts, Theatre Performance, Theatre Technical, and Dance. A graduate of these programs will earn the associate of arts degree and will usually receive junior status at the four-year school. Specific transfer programs may be obtained from an academic counselor, Room 2222, (937) 512-2544. The Fine \& Performing Arts career programs prepare a student for employment in visual communication, interior design, and printing technologies. The graduate will receive the associate of applied science degree. Several colleges are allowing a graduate to enroll as a junior upon completion of this degree.

## Articulation Agreements

Art Academy of Cincinnati<br>Central State University<br>University of Dayton<br>Wright State University<br>Visual Communications, Art Communication<br>Music, Communication<br>Music, Communication, Art

## University Parallel Transfer Degree Programs <br> Art <br> (102 Total Credit Hours)

The Art university parallel program is oriented toward students who intend to transfer to a four-year college or university. The Art curriculum challenges the students' creative and thinking abilities with its studio and art history courses. Although the most obvious career for college graduates with Art degrees is that of fine artists, there are other opportunities which require the skill, knowledge and talents gained through the study of Art. These include art teachers, art historians, art curators, and art therapists. Credit

## Course \& Title

| ENG | 111 | English Composition I | 3 |
| :--- | :--- | :--- | :--- |
| ENG | 112 | English Composition II | 3 |
| ENG | 113 | English Composition III | 3 |
| COM | 211 | Effective Speaking I | 3 |
| BIS | 160 | Introduction to Word, PowerPoint \& Excel <br> or | 3 |
| BIS | 105 | Introduction to Computers <br> or | 3 |
| BIS | M41 | Introduction to Excel <br> and | 1 |

BIS M51 Introduction to PowerPoint 1
BIS M61 Introduction to Word 1

MAT 108 Mathematics \& the Modern World 3
BIO 111 General Biology I 3
BIO 112 General Biology II 4
BIO 113 General Biology III 3
GLG 141 General Geology I 4
GLG 142 General Geology II 4
GLG 143 General Geology III 4
GLG 144 Geological Field Trips 4
PHY 141 College Physics I 4
PHY 142 College Physics II 4
PHY 143 College Physics III 4
CHE 141 College Chemistry I 4
CHE 142 College Chemistry II 4
CHE 143 College Chemistry III 4
AST 111 Introduction to Astronomy 3
AST 112 The Solar System 3
AST 113 Stars, Galaxies \& Cosmology 3
PSY 121 General Psychology I 3
PSY 122 General Psychology II 3
Social Science Elective (Non PSY)
ART 108 Design Basics: Color 3

ART 109 Elements of Composition 3
ART 111 Art Drawing I 3
ART 112 Art Drawing II 3
Art Drawing III
ART 231 Art of the Ancient World
3
ART 232 Art of the Medieval \& Renaissance Worlds 3
ART 233 Art of the Modem World 3
ART 205 Professional Problems in Art 3
ART 195 Portfolio Development in Art 1

ART

| ART | 295 |
| :--- | :--- |
| ART | 270 |
| ART | 161 |
| ART | 121 |
| ART | 122 |
| ART | 123 |
| ART | 125 |
| ART | 131 |
| ART | 132 |
| ART | 133 |
| ART | 136 |
| ART | 141 |
| ART | 142 |
| ART | 143 |
| ART | 146 |
| ART | 162 |
| ART | 163 |
| ART | 175 |
| ART | 176 |
| ART | 212 |
| ART | 213 |
| ART | 216 |
| ART | 217 |
| ART | 218 |
| ART | 231 |
| ART | 232 |
| ART | 233 |
| ART | 235 |
| ART | 236 |
| ART | 263 |

Pre-Graduation Exhibition
Art Internship 1

Photography I
Painting I 3
Painting II 3
Painting III
Africa Ar 3
African Art 3
Sculpture I 3
Sculpture II 3
Sculpture III 3
Virtual Sculpture 3
Ceramic Art I
Ceramic Art II 3
Ceramic Art III 3
Video Production 3
Photography II 3
Photography III
Computer Photography I 3
Computer Photography II 3
Advanced Drawing II
Advanced Drawing III 3
Life Drawing \& Anatomy
Advanced Life Drawing \& Anatomy 3
Life Drawing \& Anatomy III 3
Art of the Ancient World
Art of the Medieval \& Renaissance World
Art of the Modem World
History of Photography
History of Women Artists
Business of Art

## Communication Arts

## (91 Total Credit Hours)

Communication Arts is the study of interactions between people in interpersonal, small group, public speaking, organizational, and mass media settings. This degree can lead to a successful transfer to a four-year college or university baccalaureate program. A communication degreecan provideopportunities in journalism, speech education, business, industry, government, broadcast media, law, ministry, social services and public relations. Through careful course selection and internship experience, a program of study can be planned to satisfy a student's particular educational and career interests. Enhancing communication skills provides invaluable benefits for all students, regardless of major. Specific articulation agreements have been developed with WrightState University, University of Dayton and Central State University. See an academic counselor for appropriate course selection.

## I. Ohio Transfer Module ( 54 hours)

Completion of the minimum requirements in each of the categories of the Transfer Module with an additional 6 credit hours from both the Social/Behavioral and Art/ Humanities to equal a total of 54 hours

English - 9 hours
Mathematics - 3 hours
Natural \& Physical Science - 12 hours
Social \& Behavioral Science - 15 hours
(choose from at least two areas)
Arts \& Humanities - 15 hours
(choose from at least two areas)

## II. Computer ( 3 hours)

BIS 160 (3 hours) or BIS M41, M51, M61
(1 hour each)
or BIS 105

## III. Communication (22 hours)

Required:
COM 201, 206, 211, 225, 278*
Choose three courses:
COM 212, 215, 227, 230, 235, 245, 250, 270, 285
COM 286, 287, 290, 297
JOU 101, 102, 270

## IV. Electives ( 12 hours)

Courses must be approved by an academic counselor

* Students should keep copies of all communication course projects, papers, etc., for completion of the capstone.


## Dance

## (104-110 Total Credit Hours)

Graduates of the program may dance, teach, choreograph, and/or work with dance or theater productions. Behind the scenes, dancers may assist with costuming, lighting, make-up, and set design. Choreographers create new and original dance compositions which they may teach to other performers. Graduates may teach in or open private dance studios.
I. Communications ( $\mathbf{1 2}$ hours)

ENG 111, 112, 113
COM 206
II. Computer/Mathematics ( $6-8$ hours)

BIS 160 or BIS 105 or BIS M61, M41, M51
MAT elective (MAT 108 or MAT $116^{* *}$ )
III. Natural Sciences (9-12 hours)

BIO 141, 142, 143
or
BIO 105, 107
or
BIO 111, 112, $113^{* *}$
IV. Social Sciences ( 15 hours)

HIS 111, 112, 113
PSY 121, 122
V. Music \& Theatre (9 hours)

MUS 121
MUS 115
THE 111
VI. Foreign Language (3-4 hours)

FRE 100
or
FRE 101
VII. Dance Emphasis ( 50 hours)

Required (44 hours)
DAN 155, 157, 241, 242, 180, 170
DAN 204, 205, 206 (3 credits)
DAN 272 (9 repeatable credits)
DAN 273, 274, 275
DAN 145 (1 credit hour for 6 quarters)
Electives ( $6^{*}$ hours)
DAN 145, 171, 176, 177, 120
DAN 207, 297
DAN 273, 274, 275 (repeatable credits) or
6 hours from Ohio Transfer Module*
*Minimum number of hours
**Transfer module option
NOTE: This is a model only. Each student should plan his or her specific program with dance faculty or academic counselor. To complete the Ohio Transfer Module see an academic counselor.

## Music Education ${ }^{* * *}$

## (99 Total Credit Hours)

Graduates of this program receive an associate of arts degree in music and may choose to transfer to a four-year institution for further study. One of the strengths of the Sinclair program is the emphasis on public performance with an opportunity for students to perform in recitals each quarter. These performing experiences prepare the student for additional music studies or for the world of work. This program satisfies specific articulation agreements with Wright State University and the University of Dayton. Students are advised to work with an academic counselor for appropriate course selection. A 20-minute solo recital is required before graduation.
I. Applied Music Instrument - Major (12 hours)

MUS 168-192 (2 credit hours, repeatable credit)
II. Applied Music Instrument - Minor (6 hours)**

MUS 116, 117, 118
MUS 216, 217, 218
or
MUS 171 (1 credit hour, repeatable credit)
III. Music Theory and Sight Singing \& Dictation (24 hours)

MUS 111, 112, 113 MUS 141, 142, 143
MUS 211, 212, 213 MUS 241, 242, 243
IV. Survey of Musical Styles (9 hours)

MUS 131, 132, 133
V. Ensemble
( 6 hours, 1 credit hour, repeatable credit)
MUS 166, 194, 195, or 296
VI. Vocal Diction (6 hours)*

MUS 106, 107, 108
VII. Communication ( 12 hours)

ENG 111, 112, 113
COM Elective ***
VIII. Natural Sciences \& Mathematics (15-17 hours)

One sequence with lab required:
AST 111, 112, 113
BIO 111, 112, 113
CHE 141, 142, 143
CHE 151, 152, 153
GLG 141, 142, 143 or 144
PHY 141, 142, 143
PHY 201, 202, 203
Math Elective ***
IX. Social Sciences (9 hours)***
X. Music Elective (6 hours)***

* For voice majors and minors only.
** Voice for piano majors, piano for all others.
*** See academic counselor.
****Sinclair's Music program is accredited by the National Association of Schools of Music (N.A.S.M.).
NOTE: To complete the Ohio Transfer Module see an academic counselor.


## Music Performance**** <br> (105 Total Credit Hours)

Graduates of this program receive an associate of arts degree in music and may choose to transfer to a four-year institution for further study. One of the strengths of the Sinclair program is the emphasis on public performance with an opportunity for students to perform in recitals each quarter. These performing experiences prepare the student for additional music studies or for the world of work. This program satisfies specific articulation agreements with Wright State University and the University of Dayton. Students are advised to work with an academic counselor for appropriate course selection. A 30-minute solo recital is required before graduation.
I. Applied Music Instrument - Major (24 hours)

MUS 168-192 (4 credit hours, repeatable credit)
II. Applied Music Instrument - Minor (6 hours)**

MUS 116, 117, 118
MUS 216, 217, 218
or
MUS 171 (1 credit hour, repeatable credit)
III. Music Theory and Sight Singing \& Dictation (24 hours)

MUS 111, 112, 113 MUS 141, 142, 143
MUS 211, 212, 213 MUS 241, 242, 243
IV. Survey of Musical Styles (9 hours)

MUS 131, 132, 133
V. Ensemble
( 6 hours, 1 credit hour, repeatable credit) MUS 166, 194, 195 or 296
VI. Vocal Diction (6 hours)* MUS 106, 107, 108
VII. Communication ( 12 hours) ENG 111, 112, 113 COM Elective ***
VIII. Natural Sciences and Mathematics (15 hours) One sequence with lab required:

AST 111, 112, 113
BIO 111, 112, 113
CHE 141, 142, 143
CHE 151, 152, 153
GLG 141, 142, 143 or 144
PHY 141, 142, 143
PHY 201, 202, 203
MAT Elective ${ }^{* * *}$
IX. Social Sciences (9 hours)***

* For voice majors and minors only.
** Voice for piano majors, Piano for all others.
***See academic counselor.
****Sinclair's Music program is accredited by the National Association of Schools of Music (N.A.S.M.).
NOTE: To complete the Ohio Transfer Module see an academic counselor.


## Theatre Performance

## (109 Total Credit Hours)

This degree is designed as a university parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on student development and performance training. Classroom theory is applied in a multiple performance theatre season.
I. Theatre Historical Perspective ( $\mathbf{1 2}$ hours)

THE 105, 201, 202, 203
II. Theatre Performance Concentration (28 hours)

THE 112, 113, 114, 206, 213
THE 299 (2 credit hours for 2 quarters)
THE 278
THE 240 or 245
THE 255
Choose one from the following:
THE 215 (Shakespeare) or 218 (Musical Theatre)
III. Technical Theatre ( 15 hours)

THE 106, 115
THE 126
THE 198 (1 credit hour/6 hours repeatable credit)
IV. Dance (6 hours)

DAN 172 or 173
DAN 174 or 175
V. Communication ( $\mathbf{1 2}$ hours)

ENG 111, 112, 113
COM 215
VI. Natural Science, Mathematics, Computer Skills (18 hours)
Natural Science sequence ( 12 hours - AST, BIO, GLG, CHE, PHY from Ohio Transfer Module) MAT 108 BIS 160 (3 hours) or BIS M41, M51, M61 or BIS 105 (1 hour each)
VII. Social Science, Humanities (18 hours) PSY 121, 122 LIT 227 Social Science Elective (9 hours from Ohio Transfer Module, 3 hours must be in an area other than psychology)

## Theatre Technical

## (110 Total Credit Hours)

This degree is designed as a university parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on the application of rigorous classroom theory and laboratory experience in theatrical productions.
I. Theatre Historical Perspective ( 12 hours)

THE 105, 201, 202, 203
II. Theatre Technical Concentration ( 23 hours)

THE 106, 115, 116, 235
THE 125 or 126
THE 198
(1 credit hour repeatable credit for 5 hours)
THE 278
THE 298 (2 credits)
III. Theatre Performance (9 hours)

THE 111, 206
THE 240 or 245

## IV. Design, Art, Architecture (18 hours)

VIS 106, 107, 109
ARC 101
ART 111, 113
V. Communication (12 hours)

ENG 111, 112, 113
COM 206
VI. Natural Science, Mathematics, Computer Skills (18 hours)
Natural Science Sequence
(12 hours - AST, BIO, CHE, GLG, PHY from Ohio
Transfer Module)
MAT 108
BIS 160 (3 hours) or BIS M61, M51, M41 (1 hour each) or BIS 105 (3 hours)
VII. Social Science, Humanities (18 hours)

PSY 121, 122
LIT 227
Social Science Elective
(9 hours from Ohio Transfer Module; 3 hours must be in area other than in psychology)

## Career Degree Programs <br> Printing Technologies

## (90 Total Credit Hours)

Printing Technologies graduates typically pursue careers with small print shops, large commercial printers and graphic arts service bureaus. Printing work is detail oriented and fast-paced. People in the printing industry may work in prepress, digital page layout, digital color separation, prepare negatives and plates, run presses, estimate jobs, sell printing, or work in a bindery. The goal of this program is to provide state-of-the-art instruction aimed at helping students develop real world job skills. Advanced computer skills, hands-on press experience and job-seeking techniques are incorporated into the curriculum.

## Credit

## Course \& Title <br> FIRST QUARTER

Hours

| ENG | 111 | English Composition I |  |
| :--- | :--- | :--- | :--- |
| PRT | 101 | Graphic Arts Processes I | 3 |
| VIS | 106 | Design Basics: 2D | 3 |
| VIS | 104 | Computer Basics | 3 |
| MAT | - | Elective | 3 |
|  |  |  | TOTAL |


| SECOND QUARTER |  |  |  |
| :--- | :--- | :--- | :--- |
| ENG | 112 | English Composition II <br>  <br>  <br>  <br> or |  |
| PRT | 131 | Business Communication I |  |
| PRT | 221 | Graphic Arts Processes II | 3 |
| VIS | 146 | Offset Presswork I | 4 |
| VIS | 147 | Digital Illustration | 3 |
|  |  |  |  |


| THIRD QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| ENG | 113 | English Composition III |  |
|  | 132 | Business Communication II | 3 |
| MAN | 105 | Introduction to Business | 3 |
| PSY | 140 | Psychology of Interaction \& Human or |  |
|  | 145 | Patterns of Human Relationships | 3 |
| PRT | 222 | Offset Presswork II | 3 |
| VIS | 148 | Digital Page Layout | 3 |
|  |  | TOTAL | 15 |
| FOURTH QUARTER |  |  |  |
| PRT | 270 | Graphic Arts Internship | 3 |
| PRT | 271 | Digital Prepress I | 3 |
| COM | 206 | Interpersonal Communication | 3 |
| VIS | 108 | Typography | 3 |
|  |  | General Education Elective** | 3 |
|  |  | TOTAL | 15 |
| FIFTH QUARTER |  |  |  |
| PRT | 270 | Graphic Arts Internship | 3 |
| PRT | 272 | Digital Prepress II | 3 |
| PRT | 120 | Screen Printing I | 3 |
| HUM |  | Elective** | 3 |
|  |  | Business Elective | 3 |
|  |  | TOTAL | 15 |
| SIXTH QUARTER |  |  |  |
| ACC | 111 | Principles of Accounting I | 3 |
| PRT | 270 | Graphic Arts Internship | 3 |
| PRT | 278 | Printing Technologies Capstone | 4 |
| PRT |  | Elective or |  |
| VIS |  | Elective | 3 |
|  |  | TOTAL | 13 |

** See page 52.

## Visual Communications

## (97 Total Credit Hours)

Visual Communications graduates typically pursue careers as graphic designers (also called commercial artists) in design studios, advertising agencies, magazine and book publishing companies, or corporate design departments. Design work is creative, fast-paced and in demand by most businesses. Whether it is stationery, brochures, magazines, advertising, packaging, signage, television graphics, animation or multimedia, designers probably had a hand in it. The goal of the program is to provide state-of-the-art instruction to help students develop real world job skills. Advanced computer skills, portfolio development and jobseeking strategies are incorporated into the curriculum.

## FIRST QUARTER

ENG 111 English Composition I 3

ART 111 Art Drawing I 3
VIS 100 Design Survey 3
VIS 104 Computer Basics 3
VIS 106 Design Basics: 2D 3
ART 101 Art Appreciation: Introduction to Art TOTAL

| SECOND QUARTER |  |  |  |
| :---: | :---: | :---: | :---: |
| ENG | 112 | English Composition II |  |
|  |  | or |  |
|  | 131 | Business Communication I | 3 |
| VIS | 107 | Design Basics: 3D | 3 |
| VIS | 109 | Design Drawing | 3 |
| VIS | 115 | Digital Graphics I | 3 |
| VIS | 146 | Digital Illustration | 3 |
|  |  | TOTAL | 15 |
| THIRD QUARTER |  |  |  |
| ENG | 113 | English Composition III or |  |
|  | 132 | Business Communication II | 3 |
| VIS | 108 | Typography | 3 |
| VIS | 116 | Digital Graphics II | 3 |
| VIS | 147 | Digital Imaging | 3 |
| VIS | 148 | Digital Page Layout | 3 |
| PRT | 101 | Graphic Arts Processes I | 3 |
|  |  | or |  |
| VIS | 101 | Tech Prep Seminar I* and | 1 |
|  | 102 | Tech Prep Seminar II* and | 1 |
|  | 103 | Tech Prep Seminar III* | 1 |
|  |  | TOTAL | 18 |
| FOURTH QUARTER |  |  |  |
| MAT | 101 | Elementary Algebra or |  |
|  | 105 | Business Mathematics | 4 |
| VIS | 206 | Design Principles I | 3 |
| VIS | 236 | Design Applications I | 3 |
| PRT | 271 | Digital Prepress I | 3 |
| PRT | 221 | Offset Presswork I |  |
|  |  | or |  |
| VIS | 117 | Web Page Design | 3 |
|  |  | TOTAL | 16 |
| FIFTH QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
| VIS | 207 | Design Principles II | 3 |
| VIS | 237 | Design Applications II | 3 |
| VIS | 265 | 3D Digital Graphics I | 3 |
| PRT | 272 | Digital Prepress II | 3 |
|  |  | TOTAL | 15 |
| SIXTH QUARTER |  |  |  |
| PSY | 121 | Psychology I | 3 |
| ART | 161 | Photography I | 3 |
| VIS | 276 | VisCom Portfolio Development | 3 |
| VIS | 278 | VisCom Capstone | 3 |
|  |  | Elective | 3 |
|  |  | TOTAL | 15 |

Visual Communications Interior Design Option

## (99 Total Credit Hours)

Interior design graduates typically pursue careers as designers or consultants in design studios, architecture firms or commercial retailers. Design work is creative, fast paced, and detail oriented. Developing floor plans, selecting and coordinating colors, floor and wall coverings, furniture and other accessories and preparing drawings, cost estimates, and contracts are all common activities for an interior designer. The goal of this program is to provide state-of-the-art instruction aimed at helping develop real-world job skills. Advanced design and drafting skills, business practices and portfolio development are incorporated into the curriculum.

| Course \& Title | Credit <br> FIRST QUARTER |
| :--- | :--- | :--- | ---: |
| FIS | Hours |

## THIRD QUARTER



## FIFTH QUARTER



## Certificate Program <br> Church Music

## (45 Total Credit Hours)

Students completing this certificate will have an ecumenical knowledge of current church music practices. Some churches may provide scholarships or financial assistance for musicians to pursue this certificate.
I. Music Theory

| MUS 111 | Music Theory I |
| :--- | :--- |
| MUS 112 | Music Theory II |
| MUS 113 | Music Theory III |

MUS 112 Music Theory II
MUS $113 \quad$ Music Theory III
3
3
II. Sight Singing \& Dictation
$\begin{array}{ll}\text { MUS 141 } & \text { Singing \& Dictation I } \\ \text { MUS 142 } & \text { Singing \& Dictation II } \\ \text { MUS 143 } & \text { Singing \& Dictation III }\end{array}$
III. History of Church Music
$\begin{array}{lll}\text { MUS 148 } & \text { History of Music \& Worship I } & 3 \\ \text { MUS 149 } & \text { History of Music \& Worship II } & 3 \\ \text { MUS 150 } & \text { History of Music \& Worship III } & 3\end{array}$
IV. Choral Conducting

MUS 136
V. Church Service Playing

MUS $245 \quad$ Church Service Playing I
MUS $246 \quad$ Church Service Playing II
Applied Music Practicum (organ instruction)
MUS 299 (Repeatable for 3 quarters)
VII. Church Music Practicum

MUS 275
VIII. Music Electives 4

## Short Term Certificates <br> Art Administration

## (43 Total Credit Hours)

The certificate in Arts Administration is designed for the individual who works in the arts and needs more business acumen, or for the individual desiring a position in arts administration: theatre box office, sales or gallery worker. The certificate includes courses in business, the arts, and arts appreciation, including hands-on internships.

| Course \& Title |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $\mathrm{COM}$ | $206$ | Interpersonal Communication |  |
| ENG | 131 | Business Communications I | 3 |
| COM | 285 | Professional Communication or | 3 |
|  | 225 | Group Communication | 3 |
| BUO | 108 | Tax Compliance \& Record Keeping for Small Business | 3 |
| MAN | 105 | Introduction to Business | 3 |
| MAN | 201 | Introduction to Supervision | 3 |
| BIS | M41 | Introduction to Excel | 1 |
| BIS | M31 | Introduction to Access | 1 |
| BIS | M61 | Introduction to Word | 1 |
| MRK | 201 | Marketing I | 3 |
| MRK | 225 | Sales Fundamentals | 3 |
| ART | 261/ | Business of Art | 3 |
| MAN | 263 |  |  |
| FPA | 278 | Capstone | 1 |

Six credit hours from the following:

| THE | 105 | Introduction to Theatre I |
| :--- | :--- | :--- |
| DAN | 157 | Dance Appreciation |
| ART | 101 | Art Appreciation: Introduction to Art |
| ART | 231 | Art of the Ancient World |
| ART | 232 | Art of the Medieval \& Renaissance Worlds |
| ART | 233 | Art of the Modern World |
| MUS | 115 | Music Appreciation |

Four credit hours form the following (no repeat credit): 4

| MUS | 194 | Wind Symphony |
| :--- | :--- | :--- |
| MUS | 195 | Concert Band |
| THE | 111 | Acting I |
| THE | 106 | Stagecraft |
| DAN | 172 | Ballet I |
| DAN | 173 | Modern Dance I |
| DAN | 174 | Jazz I |
| DAN | 175 | Tap Dance I |
| ART | 106 | Studio Art |
| ART | 111 | Art Drawing I |
| ART | 131 | Sculpture I |
| ART | 141 | Ceramic Art I |
| ART | 161 | Photography I |

Two credit hours from the following (no repeat credit):
ART $270 \quad$ Fine Arts Internship
MUS $270 \quad$ Music Internship
THE 198 Applied Theatre Technology

## Basic Drawing <br> (12 Total Credit Hours)

This certificate proves basic proficiency in freehand drawing. The student will draw with a variety of materials including charcoal, pastel and ink. The student will be able to render three-dimensional items on a two-dimensional surface, and will be able to demonstrate proficiency in value, contour and perspective. This certificate will provide the student with a broad range of styles and historic sources for their work, whether the individual is a graphic designer or freelance illustrator.

## Course \& Title

## Credit

ART 111 Art Drawing I 3
ART 112 Art Drawing II
VIS 109 Design Drawing
ART 113 Art Drawing III
ART 121 Painting I
or
211 Advanced Drawing I
or
216 Life Drawing \& Anatomy I

## Ceramics \& Sculpture Technology

## (24 Total Credit Hours)

The short-term certificate in Ceramics \& Sculpture is designed for the serious art student, or would-be professional, who desires to find employment in an art studio or similar commercial venue. The certificate ensures proficiency in the use of hand and power tools and equipment including the potter's wheel, kilns and electrical/mechanical tools. The student will learn not only study techniques, methods and processes, but also will develop concepts for three-dimensional thinking. The completion of the certificate will ensure that the student has a well-rounded knowledge of ceramic and sculpture techniques and application Credit
Course \& Title Hours
ART 141 Ceramic Art I
ART 142 Ceramic Art II
ART 143 Ceramic Art III
ART 241 Advanced Ceramic Art I
ART 131 Sculpture I
ART 132 Sculpture II
ART 133 Sculpture III
ART 251 Advanced Sculpture
TOTAL

## Dance

## (44 Total Credit Hours)

The purpose of this short term certificate is to equip the dance student with the basic skills necessary to work in a dance studio or to be a good teacher/choreographer. These skills include: ballet, modern dance, jazz dance, tap dance techniques, dance composition, performance, and pedagogy. Students should meet with an academic counselor to ensure correct sequencing of courses.

| Course \& Title |  |  | Credit <br> Hours |
| :--- | :--- | :--- | ---: |
| DAN | 145 | Dance Practicum 3X | 3 |
| DAN | 178 | Technical Theatre for Dancers | 2 |
| DAN | 180 | Music for Dancers | 3 |
| DAN | 155 | Dance History | 3 |
| DAN | 157 | Dance Appreciation | 3 |
| DAN | 204 | Ballet Pedagogy | 1 |
| DAN | 205 | Modern Dance Pedagogy | 1 |
| DAN | 206 | Jazz Dance Pedagogy | 1 |
| DAN | 241 | Dance Composition I | 3 |
| DAN | 242 | Dance Composition II | 3 |
| DAN | 272 | Ballet II 2X | 6 |
| DAN | 273 | Modern Dance II | 3 |
| DAN | 274 | Jazz Dance II | 3 |
| DAN | 275 | Tap Dance II | 3 |
| MAN | 105 | Introduction to Business | 3 |
| BIS | 160 | Introduction to Word, PowerPoint, Excel | 3 |
|  | or |  |  |
| BIS | M61 | Introduction to Word |  |
| BIS | M41 | Introduction to Excel |  |
| BIS | M51 | Introduction to PowerPoint |  |
|  | or |  |  |
| BIS | 105 | Introduction to Computers |  |

## Desktop Publishing

## (18 Total Credit Hours)

The desktop publishing certificate provides an introduction to the fundamental skills, techniques and software used to create a variety of printed items, including stationery, brochures, newsletters and advertisements. The course work is designed to accommodate the needs of the novice and business professionals whose jobs include desktop publishing tasks.

|  |  | - |  | Credit |
| :---: | :---: | :---: | :---: | :---: |
| Cou | e \& |  |  | Hours |
| FIR | QU | RTER |  |  |
| VIS | 104 | Computer Basics |  | 3 |
| VIS | 106 | Design Basics: 2D |  | 3 |
|  |  |  | TOTAL | 6 |
| SEC | ND | UARTER |  |  |
| VIS | 146 | Digital Illustration |  | 3 |
| VIS | 108 | Typography |  | 3 |
|  |  |  | TOTAL | 6 |
| THI | D QU | RTER |  |  |
| VIS | 147 | Digital Imaging |  | 3 |
| VIS | 148 | Digital Page Layout |  | 3 |
|  |  |  | TOTAL | 6 |

## Digital Prepress

## (28 Total Credit Hours)

The digital prepress certificate program provides an introduction to fundamental and advanced techniques and the software used to prepare page layouts and designs for printing. The course work includes a variety of digital prepress techniques and the use of computer hardware and software commonly used in the industry. The course work is designed to accommodate the needs of the novice and business professionals whose jobs require these skills.

| Course \& Title |  |  |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| FIRST QUARTER |  |  |  |  |
| VIS | 104 | Computer Basics |  | 3 |
| VIS | 108 | Typography |  | 3 |
| PRT | 101 | Graphic Arts Process I |  | 3 |
|  |  |  | TOTAL | 9 |
| SECOND QUARTER |  |  |  |  |
| VIS | 146 | Digital Illustration |  | 3 |
| VIS | 147 | Digital Imaging |  | 3 |
| PRT | 102 | Graphic Arts Process II |  | 4 |
|  |  |  | TOTAL | 10 |
| THIRD QUARTER |  |  |  |  |
| PRT | 271 | Digital Prepress I |  | 3 |
| PRT | 272 | Digital Prepress II |  | 3 |
| VIS | 148 | Digital Page Layout |  | 3 |
|  |  |  | TOTAL | 9 |

## Multimedia

## (27 Total Credit Hours)

The multimedia certificate program provides an introduction to the fundamentals skills, techniques and software used to create a variety of interactive components of multimedia. The course work includes digital sound, digital video development, 2D and 3D animations, and multimedia authoring.

## Course \& Title <br> FIRST QUARTER

| VIS | 104 | Computer Basics |  | 3 |
| :--- | :--- | :--- | :--- | :--- |
| VIS | 106 | Design Basics: 2D |  | 3 |
| VIS | 108 | Typography |  | 3 |
|  |  |  | TOTAL | 9 |


| SECOND QUARTER |  |  |
| :--- | :--- | :--- |
| VIS | 147 | Digital Imaging |
| VIS | 146 | Digital Illustration |
| VIS | 115 | Digital Video |

THIRD QUARTER

| VIS | 117 | Web Page Design |  | 3 |
| :--- | :--- | :--- | :--- | :--- |
| VIS | 116 | Digital Graphics II |  | 3 |
| VIS | 265 | Digital Authoring |  | 3 |
|  |  |  | TOTAL | 9 |

## Offset Printing

## (19 Total Credit Hours)

The offset printing certificate program provides an introduction to the fundamental skills, techniques and equipment/software used in printing processes. The course work includes digital prepress techniques and will develop an understanding of various printing processes including letterpress, gravure, flexographic, offset, digital and silkscreen.

| Course \& Title |  |  |  | Credit Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| VIS | 104 | Computer Basics |  | 3 |
| PRT | 101 | Graphic Arts Processes I |  | 3 |
|  |  |  | TOTAL | 6 |
| SECOND QUARTER |  |  |  |  |
| PRT | 102 | Graphic Arts Processes II |  | 4 |
| PRT | 221 | Offset Presswork I |  | 3 |
|  |  |  | TOTAL | 7 |
| THIRD QUARTER |  |  |  |  |
| PRT | 120 | Silk Screen Printing |  | 3 |
| PRT | 222 | Offset Presswork II |  | 3 |
|  |  |  | TOTAL | 6 |

## Photographic Technology

## (33 Total Credit Hours)

This certificate is designed for the serious photographer or student who desires to find a job in the photo studio/photo processing industry. The certificate ensures proficiency in composing a good photograph in the studio or field, and developing and printing photographs in black and white and color. The student will learn studio techniques, and how to operate both manual 35 mm and digital cameras. Basic computer imaging techniques and photographic restoration will also be covered. The completion of the certificate will ensure that the student has a well-rounded knowledge of photographic techniques and applications.

| Course \& Title |  |  | Credit <br> Hours |
| :--- | :--- | :--- | ---: |
| ART | 161 | Photography I | 3 |
| ART | 162 | Photography II | 3 |
| ART | 175 | Computer Photography | 3 |
| ART | 163 | Photography III | 3 |
| ART | 265 | Color Photography I | 3 |
| ART | 266 | Color Photography II | 3 |
| ART | 170 | Non-Silver Photography | 3 |
| ART | 171 | Studio Photography | 3 |
| ART | 164 | Photo Restoration | 3 |
| ART | 267 | Color Photography III | 4 |
| ART | 194 | Portfolio Development I | 1 |
| ART | 294 | Portfolio Development II | 1 |

## Professional Communication

## (27 Total Credit Hours)

Communication skills are critically important for everyone. Earning a professional communication certificate can be an important key to career success. Completion of the certificate will demonstrate to current and prospective employers that a student recognizes the importance of various communication skills and strategies in a variety of professional settings. The results of a 1998 survey by the National Association of Colleges and Employers showed clearly the importance of communication skills in the workplace. When asked of employers what characteristics they seek in job candidates, interpersonal skills topped the list, with teamwork skills and communication skills followed immediately behind.

| Course \& Title |  |  | Credit <br> COM |
| :--- | :--- | :--- | ---: |
| Cours |  |  |  |

Please note: A student may choose any 9 courses from the above list.

Postsecondary Education Opportunity says education makes a difference. Median yearly earnings noted in 2000 were for high school graduates, \$28,807; for a graduate holding an associate degree, earnings were $\$ 35,389$.


Dr. Yvonne Stebbins was honored for teaching excellence by the National Institute for Staff and Organizational Development (N.I.S.O.D.) for 2002. She is professor of French, Humanities, and Japanese.

Dr. Richard Jones, Dean
(937) 512-2916, Room 6122

Dr. Eva Abdullahi
Academic Counselor
(937) 512-5134, Room 6121A

Joyce Haywood
Academic Counselor
(937) 512-5134, Room 6121B

Jason McGrath
Academic Counselor (937) 512-5134, Room 6121C

## Biology

Phyllis Williams, Chairperson (937) 512-2747, Room 3041B

Chemistry, Geography, Geology
Michael Canestaro, Interim
Chairperson
(937) 512-2890, Room 12301B

English
Gary Mitchner, Chairperson
(937) 512-3078, Room 6323B

Humanities, Government, Modern

## Languages

Dr. Laurel Mayer, Chairperson
(937) 512-2844, Room 4142B

## Mathematics

Al Giambrone, Chairperson (937) 512-2767, Room 1341C

## Physics

Art Ross, Chairperson
(937) 512-3047, Room 4230A

Psychology
Barbara Kabat, Chairperson
(937) 512-2889, Room 4143B


## Academic Counseling:

Monday-Thursday, 8:30 a.m. - 7:00 p.m.; Friday, 8:30 a.m. - 5:00 p.m.
Note: Please call (937) 512-5134 to make an appointment to ensure that a counselor will be available. These hours may vary each quarter.

## Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair is no longer mailing grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.

Student grades now will be available by telephone and on the World Wide Web on the Wednesday after the end of each quarter for a period of six weeks. Beginning 8:00 a.m., students will be able to call 1-800-613-9516, 24 hours a day from anywhere in the U.S. Grades also will be available on the WWW at http: / /www.sinclair.edu/departments/rsr/home.htm. Access to grades has been maintained through the InTouch information kiosks. Check the quarterly class bulletin for details.

## Sociology

Dona Fletcher, Chairperson (937) 512-2944, Room 12351A

## Honors

Dr. Thomas Martin, Director
(937) 512-2517, Room 10339

Phi Theta Kappa
Dr. Katherine Rowell, Advisor (937) 512-2517, Room 8025

## Planning the Program

Liberal Arts \& Sciences programs are designed for students who wish to take the first two years of a four-year college program at Sinclair. Graduates of the Liberal Arts \& Sciences program receive either the Associate of Arts (A.A.) or Associate of Sciences (A.S.) degree. The Associate of Arts curriculum contains a slightly greater emphasis on humanities, while the Associate of Science contains more mathematics and science coursework. Both contain the general education core requirements for baccalaureate degrees.

The Sinclair Transfer Module (see page 151) is embedded in both the Associate of Arts and Associate of Science degrees to facilitate successful transfer of courses between Sinclair and public colleges and universities. Most courses offered in the Liberal Arts \& Sciences program will parallel those offered in the freshman and sophomore years at a four-year institution.

Since students are required to take specific course sequences and electives to earn degrees in Liberal Arts \& Sciences, they should plan their program of study with an academic counselor. Call (937) 512-5134 or come to Room 6121 to meet with an academic counselor.

Articulation Agreements

| Antioch University | College of Arts \& Sciences |
| :---: | :---: |
| Bowling Green State University | College of Arts \& Sciences |
| Capital University | Core General Education Requirements |
| Central State University | Elementary Education Secondary Education |
| University of Cincinnati | College of Arts \& Sciences Raymond Walters College: Veterinary Tech Program |
| University of Dayton | College of Arts \& Sciences |
| Indiana University East | College of Arts \& Sciences |
|  | Elementary Education |
| McGregor School of Antioch University |  |
| Miami University | College of Arts \& Sciences |
| Ohio University | College of Arts \& Sciences |
| The Ohio State University | College of Arts \& Sciences |
| University of Toledo | College of Arts \& Sciences |
| Urbana University | College of Arts \& Sciences |
| Wilberforce University | CLIMB Program |
| Wittenberg University | College of Arts \& Sciences |
| Wright State University | College of Liberal Arts College of Education College of Science \& Mathematics |
| Xavier University | College of Arts \& Sciences |

## Associate of Arts

## (94 Total Credit Hours)

The Associate of Arts degree program in Liberal Arts \& Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as Education, English, Geography, History, Modern Languages, Philosophy, Political Science,Psychology,Social Work,Sociology,etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module at other Ohio public colleges and universities.
I. English (9 hours required)

English (ENG)
111 Composition I 3
112 Composition II 3
113 Composition III 3

Credit Hours33
3
II. Mathematics (3 hours minimum required)

Mathematics (MAT)
108 Math \& the Modern World ..... 3
116 College Algebra ..... 5
117 Trigonometry ..... 4
122 Statistics I ..... 4
151 Introduction to Mathematical Modeling ..... 3
201 Calculus \& Analytic Geometry I ..... 5
202 Calculus \& Analytic Geometry II ..... 5
203 Calculus \& Analytic Geometry III ..... 5
204 Calculus \& Analytic Geometry IV ..... 5
215 Differential Equations ..... 5
216 Elements of Linear Algebra ..... 4
218 Calculus for Business \& Economics ..... 5
III. Natural \& Physical Sciences
One sequence required with labs; 12 hours minimum required Astronomy (AST)
111 Introduction to Astronomy ..... 4
112 The Solar System ..... 4
113 Stars, Galaxies, \& Cosmology ..... 4
Biology (BIO)
111 General Biology I ..... 4
112 General Biology II ..... 4
113 General Biology III ..... 4
225 Ecology ..... 4
235 Introduction to Genetics ..... 4
240 Field Botany ..... 4
Chemistry (CHE)
141 College Chemistry I ..... 4
142 College Chemistry II ..... 4
143 College Chemistry III ..... 4
151 General Chemistry I ..... 5
152 General Chemistry II ..... 5
153 General Chemistry III ..... 5
201 Organic Chemistry I ..... 5
202 Organic Chemistry II ..... 5
203 Organic Chemistry III ..... 5
Geology (GLG)
141 General Geology I ..... 4
142 General Geology II ..... 4
143 General Geology III ..... 4
or
144 Geological Field Trips ..... 4
Physics (PHY)
100 Introduction to Physics ..... 4
104 Sound, Light \& Modern Physics ..... 4
AST 101 Survey of Astronomy ..... 4

| 141 | Credit <br> Hours |  |
| :--- | :--- | :---: |
| 142 | College Physics I | 4 |
| 143 | College Physics II | 4 |
|  | 4 |  |
| 151 | Mechanical Universe I | 4 |
| 152 Mechanical Universe II | 4 |  |
| 153 Mechanical Universe III | 4 |  |
|  |  | 5 |
| 201 | General Physics I | 5 |
| 202 | General Physics II | 5 |
| 203 | General Physics III | 4 |

## IV. Social \& Behavioral Sciences

15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list.
Choose courses from at least two areas listed below.

## Economics (ECO)

201 Principles of Economics I 3
202 Principles of Economics II 3
203 Principles of Economics III

## Geography (GEO)

101 Introduction to Geography I 3
102 Introduction to Geography II 3
201 World Regional Geography I 3
202 World Regional Geography II 3
Political Science (PLS)
101 American Federal Government I 3
102 American Federal Government II 3
103 State Government 3
104 Urban Government 3
200 Political Life, Systems \& Issues 3
201 International Relations I 3
Psychology (PSY)
119 General Psychology 5
or
121 General Psychology I 3 and
122 General Psychology II 3
208 Life Span \& Human Development 5 or
205 Child Development 4 and
206 Adolescent \& Adult Psychology 3
207 Psychology of Aging 3
217 Abnormal Psychology 4
225 Social Psychology 4
228 Psychology in the Workplace 4
Sociology (SOC)
120 General Sociology 5 or
111 General Sociology I 3 and
112 General Sociology II 3
145 Comparing Cultures 3
160 Social Patterns in Aging 3

|  | Credit <br> Hours |  |
| :--- | :--- | :---: |
| 205 | Social Problems | 4 |
| 208 | The Urban Environment | 3 |
| 215 | American Ethnic \& Racial Groups | 4 |
| 226 | Criminology | 3 |

V. Arts \& Humanities
15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list.

Choose courses from at least two areas listed below.

Art (ART)
101 Art Appreciation I ..... 3
102 Art Appreciation II ..... 3
125 African Art ..... 3
232 Art of the Medieval \& Renaissance Worlds 3
233 Art of the Modern World ..... 3
236 History of Women Artists ..... 3
Dance (DAN)
155 Dance History ..... 3
157 Dance Appreciation ..... 3
History (HIS)
101 U.S. History (1607-1815) ..... 3
102 U.S. History (1815-1919) ..... 3
103 U.S. History (1919-Present) ..... 3
111 Western Civilization (0-1300) ..... 3
112 Western Civilization (1300-1815) ..... 3
113 Western Civilization (1815-Present) ..... 3
105 African-American History ..... 4
214 History of Southeast Asia ..... 3
215 Survey of African History ..... 3
216 Survey of Latin American History ..... 3
Humanities (HUM)
125 The Human Image ..... 3
130 Humanities \& Challenge Technology ..... 3
131 Search for Utopia ..... 3
255 People \& Religion ..... 3
Literature (LIT)
201 Survey of English Literature (to 1660) 3
202 Survey of English Literature (1660-1832) ..... 3
203 Survey of English Literature (1832-Present) 3
211 Survey of American Literature I ..... 3
212 Middle American Literature ..... 3
213 Modern American Literature ..... 3
217 Images of Women in Literature ..... 3
227 Introduction to Shakespeare ..... 3
230 Great Books of the Western World ..... 3
234 Literature of Africa, Asia, \& Latin America 3
Music (MUS)
115 Music Appreciation ..... 3
131 Survey of Musical Styles I ..... 3
132 Survey of Musical Styles II ..... 3
133 Survey of Musical Styles III ..... 3

| Philosophy (PHI) | Electives for the Associate of Arts Degree |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 204 Great Books: Philosophy | Arts \& Humanities ${ }^{\substack{\text { Credit } \\ \text { Hour }}}$ |  |  |  |
| 206 Personal Ethics |  |  |  |  |
|  |  |  | Social \& Behavioral |  |
|  | ART (any course) | 3 | Sciences |  |
| 111 Eastern Religions | DAN (any course) | 3 | AFR 111 | 3 |
| 112 Western Religions | HUM/ |  | AFR 112 | 3 |
| 135 American Religious Movements | EGR 132 | 3 | ECO 215 | 3 |
|  | LIT 236 | 3 | PSY 160 | 3 |
| Theatre (THE) | LIT 238 | 3 | PSY 218 | 4 |
| 105 Introduction to Theatre | PHI 207 | 3 | PSY 223 | 4 |
| 201 History of Theatre I | MUS (any course) | 3 | PSY 228 | 4 |
| 202 History of Theatre II 3 | THE (any course) | 3 | PSY 229 | 3 |
| 203 History of Theatre III |  |  | PSY 235 | 3 |
| VI. Communication (3 hours required) | Modern Languages |  | PSY 236 | 4 |
| Communication (COM) | FRE 101 FRE 102 | 4 | PSY 242 | 4 |
| 206 Interpersonal Communication | $\begin{array}{ll}\text { FRE } & 102 \\ \text { FRE } & 103\end{array}$ | 4 | SOC 115 | 4 |
| 211 Effective Speaking I | FRE 103 | 4 | SOC 117 | 3 |
| 225 Small Group Communication 3 | FRE 201 | 4 | SOC 125 | 3 |
|  | FRE 202 | 4 | SOC 130 | 3 |
| VII. Computer Competency (3 hours required) | FRE 203 | 4 | SOC 209 | 3 |
| CIS 111 Introduction to Computer Programming 3 | GER 101 | 4 | SOC 210 | 3 |
| BIS 119 PC Applications - MS Works 3 | GER 102 | 4 | SOC 216 | 3 |
| BIS 160 Introduction to Word, PowerPoint, | GER 103 | 4 | SOC 225 | 3 |
| \& Excel | SPA 101 | 4 | SOC 227 | 3 |
| CHE 152 General Chemistry II | SPA 102 | 4 | SOC 235 | 3 |
| MAT 220 Statistics II 4 | SPA 103 | 4 | SOC 235 |  |
| VIII. Multicultural (3 hours required)* | SPA 201 | 4 | Other |  |
|  | SPA 202 | 4 | ACC 111 | 3 |
| GEO 102 Human Geography | SPA 203 | 4 | ACC 112 | 3 |
| GEO 202 World Regional Geography II |  | Mathematics |  | ACC 113 | 3 |
| LIT 217 Images of Women in Literature |  |  |  | COM (any course) | 3 |
| LIT 234 Lit. of Africa, Asia \& Latin America | MAT 133 (A.A. only) | 5 | JOU 101 | 3 |
| PLS 200 Political Life, Systems \& Issues | MAT 134 | 5 | JOU 102 | 3 |
| PSY 225 Social Psychology |  | 5 | LAW 101 | 3 |
| SOC 145 Comparing Cultures | Natural \& Physical Sciences |  | LAW 102 | 3 |
| SOC 215 Cultural Diversity |  |  | MAC 111 | 3 |
|  | BIO 141* | 4 | MAC 112 | 3 |
| IX. Freshman Experience (2 hours required) | BIO 142* | 4 | MAC 113 | 3 |
| ASE 101 LAS Freshman Experience 2 | BIO 143* | 4 | MAC 132 | 4 |
| X. Electives (31 hours maximum required) | BIO 151 | 4 | MAC 133 | 4 |
|  | BIO 152 | 4 | MAN105 | 3 |
| Students select elective courses from the following areas | BIO 205 | 5 | MAN 205 | 3 |
| to complete their degree: <br> - Emphasis area list(s) | CHE 120 | 4 | MRK 201 | 3 |
| - List of electives | CHE 121 | 4 | MRK 202 | 3 |
| - Any course within the Transfer Module not used to | CHE 122 | 4 |  |  |
|  | $\begin{aligned} & \text { GLG } 145 \\ & * \text { "old" } 121,122 \end{aligned}$ |  | Physical Education |  |
|  |  |  | PED 200 | 2 |
| * Other courses that meet the multicultural requirement may have been approved since the publication of this catalog. |  |  | PED 208 | 1 |
|  |  |  | PED (any activity cours) |  |

Note: A maximum of two hours of PED activity courses may be applied to the A.A. or A.S. degree.
Substitutions to the electives listed above may only be made by the academic counselor by permission of the dean of Liberal Arts \& Sciences.

## Associate of Arts Degree Emphasis Areas

An area of emphasis is a group of courses recommended for inclusion in the associate of arts degree program for students interested in pursuing the first two years of a program leading to a baccalaureate degree in the following areas:

African-American Studies
Creative Writing
Education
English
Geography
History
Modern Languages
Philosophy
Political Science
Psychology
Social Work
Sociology
Students interested in pursuing the first two years of a program leading to a professional degree (Pre-Law) should meet with a Liberal Arts \& Sciences academic counselor to plan their program.

Completion of all courses listed in the emphasis area will lead to notation of the emphasis area on the students' degrees. While these courses have been selected based upon ease of transferability, requirements may vary with each transfer institution. Therefore, it is recommended that students meet with a Liberal Arts \& Sciences academic counselor for assistance.

African-American Studies

| AFR | 111,112 | African-American Studies |
| :--- | :--- | :--- |
| HIS | 105 | History of Black America |
| HIS | 106 | History of Civil Rights |
| HIS | 215 | African-American History |
| LIT | 236 | African-American Literature |
| SOC 215 | American Racial Groups |  |
| PSY | 119 or (121 \& 122) | General Psychology |
| PSY | 160 | African-American Psychology |
| SOC 120 or (111 \& 112) | General Sociology |  |

## Creative Writing (English)

ENG 250
ENG 255
ENG 256
ENG 257
ENG 258
ENG 259
Advanced Composition
Poetry
Fiction
Freelance
Advanced Fiction
Writing the Novel

## Education

Early Childhood Education:
Pre-Kindergarten to Grade 3, ages birth to age 8
Middle Childhood Education:
Grades 4 to 9 , ages 8 to 14

## Adolescent to Young Adult Education:

Grades 7 to 12, ages 12 to 21
Students interested in the Education Emphasis should meet with a Liberal Arts \& Sciences academic counselor to plan their program based on the four-year institution to which they plan to transfer.

## English

LIT 201, 202, 203 English Literature 1660 to Present
LIT 211, 212, 213 American Literature
LIT 227 \& 230 Shakespeare \& Great Books

## Geography

GEO 101, 102 Introduction to Geography
GEO 201, 202 World Geography
PLS 101, 102 Federal Government
ECO 201, 202 Principle of Economics
SOC 120 or (111 \& 112) General Sociology

## History

HIS 101, 102, 103 U.S. History
HIS 111,112, 113 Western Civilization
HIS 105 History of Black America
HIS 214, 215, 216, 217 Non-Western History
Modern Languages
SPA 101, 102, 103 Elementary Spanish
SPA 201, 202, 203 Intermediate Spanish
FRE 101, 102, 103 Elementary French
FRE 201, 202, 203 Intermediate French
GER 101, 102, 103 Elementary German
Select two sequences of one language and one of another.
HIS 111, 112, 113 Western Civilization

## Philosophy/Religion

PHI 204
PHI 205
PHI 206
PHI 207
REL 111
REL 112
REL 135
REL 204

Political Science
PLS 101, 102
PLS 103
PLS 104
PLS 200
ECO 201
HIS 101, 102, 103

Great Books
Introduction to Philosophy
Personal Ethics
Logic
Eastern Religions
Western Religions
American Religions
Great Books

Federal Government
State Government
Urban Government
Political Systems \& Issues
Principles of Economics
U.S. History

\author{

Psychology <br> \begin{tabular}{lll}
PSY \& 119 or (121 \& 122) \& General Psychology <br>
PSY \& 208 or (205 \& 206) \& Life Span Development <br>
PSY \& 217 \& Abnormal Psychology <br>

PSY \& 225 \& | Social Psychology |
| :--- |
| PSY |
| 228 or 229 | <br>

Psychology Workplace/ <br>

PSY \& 223 or 242 \& | Work Group Dynamics |
| :---: |
| Cognitive Psychology / |
| Educational Psychology | <br>

PSY 207 or 218 \& | Psychology of Aging/ |
| :--- |
| Principles of Counseling | <br>

SOC 120 or (111 \& 112) \& \begin{tabular}{l}
General Sociology <br>
Logic

 \& 

PHI 207 \&
\end{tabular}

\end{tabular}

}

Social Work
PSY 119 or (121 \& 122) General Psychology
SOC 120 or (111 \& 112) General Sociology
SOC 145 Comparative Cultures
SWK 206 Social Welfare
SWK 211 Introduction to Social Work
SWK 212 Social Work Practice

| Sociology |  |
| :---: | :--- |
| PSY 119 or (121 \& 122) | General Psychology |
| SOC 120 or (111 \& 112) | General Sociology |
| SOC 145 | Comparative Cultures |
| SOC 160 | Social Patterns in Aging |
| SOC 205 | Social Problems |
| SOC 215 | Cultural Diversity |
| SOC 115 | Today's Changing Family |

## Associate of Science

## (94 Total Credit Hours)

The Associate of Science degree program in Liberal Arts \& Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as Biology, Chemistry, Environmental Sciences, Geology, Mathematics, Physics, Psychology and Pre-professional programs, i.e. Medicine, Dentistry, Pharmacy, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module at other Ohio public colleges and universities.

## I. English (9 hours required) English (ENG) <br> Credit Hours <br> 111 Composition I <br> 112 Composition II <br> 3 <br> 113 Composition III <br> 3

- 29 hours of math/science course credits are required. Choose from courses listed here. Additional science courses may be applicable. See an academic counselor for more information
II. Mathematics (4 hours minimum required) ..... CreditMathematics (MAT)Hours
116 College Algebra ..... 5
117 Trigonometry ..... 4
122 Statistics I ..... 4
201 Calculus \& Analytic Geometry I ..... 5
202 Calculus \& Analytic Geometry II ..... 5
203 Calculus \& Analytic Geometry III ..... 5
204 Calculus \& Analytic Geometry IV ..... 5
215 Differential Equations ..... 5
216 Elements of Linear Algebra ..... 4
218 Calculus for Business \& Economics ..... 5
III. Natural \& Physical Sciences
One sequence required with labs; 12 hours minimum required
Astronomy (AST)
111 Introduction to Astronomy ..... 4
112 The Solar System ..... 4
113 Stars, Galaxies, \& Cosmology ..... 4
Biology (BIO)
111 General Biology I ..... 4
112 General Biology II ..... 4
113 General Biology III ..... 4
225 Ecology ..... 4
235 Introduction to Genetics ..... 4
240 Field Botany ..... 4
Chemistry (CHE)
141 College Chemistry I ..... 4
142 College Chemistry II ..... 4
143 College Chemistry III ..... 4
151 General Chemistry I ..... 5
152 General Chemistry II ..... 5
153 General Chemistry III ..... 5
201 Organic Chemistry I ..... 5
202 Organic Chemistry II ..... 5
203 Organic Chemistry III ..... 5
Geology (GLG)
141 General Geology I ..... 4
142 General Geology II ..... 4
143 General Geology III ..... 4

or
144 Geological Field Trips ..... 4
Credit
Hours

Physics (PHY)
100 Introduction to Physics 4
104 Sound, Light \& Modern Physics 4
AST101 Survey of Astronomy 4
141 College Physics I 4
142 College Physics II 4
143 College Physics III 4
151 Mechanical Universe I 4
152 Mechanical Universe II 4
153 Mechanical Universe III 4
201 General Physics I 6
202 General Physics II 6
203 General Physics III 6
204 General Physics IV 4

## IV. Social \& Behavioral Sciences

15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list.
Choose courses from at least two areas listed below.

## Economics (ECO)

201 Principles of Economics I 3
202 Principles of Economics II 3
203 Principles of Economics III 3

## Geography (GEO)

101 Introduction to Geography I 3
102 Introduction to Geography II 3
201 World Regional Geography I 3
202 World Regional Geography II 3

## Political Science (PLS)

101 American Federal Government I 3
102 American Federal Government II 3
103 State Government 3
104 Urban Government 3
201 International Relations I 3
200 Political Life, Systems \& Issues 3

## Psychology (PSY)

119 General Psychology 5
or
121 General Psychology I 3
and
122 General Psychology II 3
208 Life Span \& Human Development 5 or
Credit Hours

205 Child Development 4
and
206 Adolescent \& Adult Psychology 3
207 Psychology of Aging 3
217 Abnormal Psychology 4
225 Social Psychology 4
228 Psychology in the Workplace 4
Sociology (SOC)
120 General Sociology 5
or
111 General Sociology I 3
and
112 General Sociology I 3

145 Comparing Cultures 3
160 Social Patterns in Aging 3
205 Social Problems 4
208 The Urban Environment 3
215 American Ethnic \& Racial Groups 4
226 Criminology 3

## V. Arts \& Humanities <br> 15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list. Choose courses from at least two areas listed below.

## Art (ART)

101 Art Appreciation I 3
102 Art Appreciation II 3
125 African Art 3
231 Art of the Ancient World 3
232 Art of the Medieval \& Renaissance Worlds 3
233 Art of the Modern World 3
235 History of Photography 3
236 History of Women Artists 3
Dance (DAN)
155 Dance History 3
157 Dance Appreciation 3

## History (HIS)

101 U.S. History (1607-1815) 3
102 U.S. History (1815-1919) 3
103 U.S. History (1919-Present) 3
111 Western Civilization (0-1300) 3
112 Western Civilization (1300-1815) 3
113 Western Civilization (1815-Present) 3
105 African-American History 4
214 History of Southeast Asia 3
215 Survey of African History 3


## Electives for the Associate of Science Degree

| Credit <br> Hours |  |  | Credit Hours |
| :---: | :---: | :---: | :---: |
| Arts \& Humanities |  | Social \& Behavioral |  |
| HUM/ |  | Sciences |  |
| EGR 132 | 3 | AFR 111 | 3 |
| LIT 236 | 3 | AFR 112 | 3 |
| LIT 238 | 3 | ECO 215 | 3 |
| PHI 207 | 3 | PSY 160 | 3 |
| ART (any course) | 3 | PSY 218 | 4 |
| DAN (any course) | 3 | PSY 223 | 4 |
| MUS (any course) | 3 | PSY 229 | 3 |
| THE (any course) | 3 | PSY 235 | 4 |
|  |  | PSY 236 | 4 |
| Modern Languages |  | PSY 242 | 4 |
| FRE 101 | 4 | SOC 115 | 4 |
| FRE 102 | 4 | SOC 117 | 3 |
| FRE 103 | 4 | SOC 125 | 3 |
| FRE 201 | 4 | SOC 130 | 3 |
| FRE 202 | 4 | SOC 209 | 3 |
| FRE 203 | 4 | SOC 216 | 3 |
| GER 101 | 4 | SOC 225 | 3 |
| GER 102 | 4 | SOC 227 | 3 |
| GER 103 | 4 | SOC 235 | 3 |
| SPA 101 | 4 |  |  |
| SPA 102 | 4 | Other |  |
| SPA 103 | 4 | ACC 111 | 3 |
| SPA 201 | 4 | ACC 112 | 3 |
| SPA 202 | 4 | ACC 113 | 3 |
| SPA 203 | 4 | COM (any) | 3 |
|  |  | JOU 101 | 3 |
| Mathematics |  | JOU 102 | 3 |
| MAT 132 (A.A. only) | 5 | LAW 101 | 3 |
| MAT 133 | 5 | LAW 102 | 3 |
| MAT 134 | 5 | MAC 111 | 3 |
| MAT 220 | 4 | MAC 112 | 3 |
|  |  | MAC 113 | 3 |
| Natural \& Physical Sciences |  | MAC 131 | 4 |
| BIO 104 | 3 | MAC 132 | 4 |
| BIO 141* | 4 | MAC 133 | 4 |
| BIO 142* | 4 | MAN 105 | 3 |
| BIO 143* | 4 | MAN 205 | 3 |
| BIO 151 | 4 | MRK 202 | 3 |
| BIO 152 | 4 | PED 200 | 2 |
| BIO 205 | 5 | PED 208 | 1 |
| CHE 120 | 4 | PED (any activity course) | 1 |
| CHE 121 | 4 | Substitutions to the | lectives |
| CHE 122 | 4 | listed above may only | be made |
| $\begin{aligned} & \text { GLG 145 } \\ & \text { * "old" 121,122 } \end{aligned}$ |  | by the academic coun | selor by |
|  |  | permission of the dean Arts \& Sciences. | of Liberal |

## Associate of Science Degree Emphasis Areas

An area of emphasis is a group of courses recommended for inclusion in the associate of arts degree program for student interested in pursuing the first two years of a program leading to a baccalaureate degree in the following areas:

## Biology

Chemistry
Environmental Science
Geology
Mathematics
Physics
Psychology
Adolescent to Young Adult Education
Students interested in pursuing the first two years of a program leading to a professional degree (Pre-Chiropractic, Pre-Dentistry, Pre-Medicine, Pre-Mortuary Science, Pre-Optometry, Pre-Pharmacy, Pre-Veterinary) should meet with a Liberal Arts \& Sciences academic counselor to plan their programs.

Completion of all courses listed in the emphasis area will lead to notation of the emphasis area on the students' degree. While these courses have been selected based upon ease of transferability, requirements may vary with each transfer institution. Therefore, it is recommended that students meet with a Liberal Arts \& Sciences academic counselor for assistance.

## Biology

BIO 171, 172, 173 Principles of Biology I, II, III
CHE 151, 152, 153 General Chemistry I, II, III
CHE 201, 202, 203 Organic Chemistry I, II, III
MAT 201, 202, 203
Calculus I, II, III

## Chemistry

CHE 151, 152, 153
CHE 201, 202, 203
General Chemistry I, II, III
Organic Chemistry I, II, III
PI 201, 202, 203 General Physics I, II, III
MAT 201, 202, 203, 204 Calculus I, II, III, IV

## Education

Adolescent to Young Adult Education: Grade 10 to age 21 in a Math or Science concentration.
Students interested in the Education Emphasis should meet with a Liberal Arts \& Sciences academic counselor to plan their program based on the four-year institution to which they plan to transfer.

## Environmental Science

BIO 111, 112, 113
BIO 205, 225
CHE 151, 152, 153
CHE 201, 202, 203
GLG 141, 142, 143
MAT 201
PHY 201, 202, 203

General Biology I, II, III Microbiology, Ecology
General Chemistry I, II, III
Organic Chemistry I, II, III
General Geology I, II, III Calculus I
General Physics I, II, III

## Geology

GLG 141, 142
GLG 143 or 144
CHE 151, 152, 153
PHY 201, 202, 203
MAT 201, 202, 203, 204 Calculus I, II, III, IV
Mathematics

| MAT 117 | Trigonometry |
| :--- | :--- |
| MAT 201, 202, 203, 204 | Calculus I, II, III, IV |
| MAT 215 | Differential Equations |
| MAT 216 | Linear Algebra |

## Physics

PHY 201, 202, 203, 204 General Physics I, II, III, IV
MAT 201, 202, 203, 204 Calculus I, II, III, IV
CHE 151, 152, 153 General Chemistry I, II, III
EET/MET 260

## Psychology

PSY 119 or (121 \& 122) General Psychology
PSY 208 or (205 \& 206) Life Span \& Human Development
PSY 217
PSY 225
PSY 228 or 229
PSY 207 or 218
SOC 120 or (111 \& 112)
BIO 111, 112, 113
CHE 151,152, 153
PHI 207

General Geology I, II and
General Geology III or Field Trip
General Chemistry I, II, III
General Physics I, II, III
nometry
Differential Equations
Linear Algebra

Engineering Tech. Applications with Computers

Abnormal Psychology
Social Psychology
Psychology Workplace/Work Group Dynamics
Psychology of Aging/Principles of Counseling
General Sociology
General Biology I, II, III
General Chemistry I, II, III
Logic

## Career Degree Program Biotechnology

## (101-105 Total Credit Hours)

The Associate of Applied Science degree in Biotechnology provides a full range of courses to prepare students for entry-level positions in the biotechnology field. The curriculum provides a background in historical development of biotechnology, bioethics, safety, reagent preparation, cell culture techniques, protein purification and analysis techniques, microbiology and fermentation methods, molecular biology (DNA) techniques and bioinformatics.

| Course \& Title | Credit <br> Hours |  |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| BIO | 111 | General Biology I | 4 |
| ENG | 111 | English Composition I | 3 |
| MAT | 106 | Allied Health Mathematics | 4 |
|  | 116 | or |  |
| College Algebra |  | 5 |  |
| BTN | 110 | Biotechnology \& Bioethics |  |
|  |  |  | TOTAL |
|  |  |  | $\frac{3}{14-15}$ |


| SECOND QUARTER |  |  |  |
| :--- | :--- | :--- | ---: |
| BIO | 112 | General Biology II | 4 |
| ENG | 112 | English Composition II | 3 |
| CHE | 131 | Technical Chemistry I <br> or | 4 |
|  | 120 | Introduction to Chemistry <br>  <br> Biosafety | 4 |
| BTN | 120 | TOTAL | $\frac{3}{14}$ |

## THIRD QUARTER

| BIO | 113 | General Biology III | 4 |
| :--- | :--- | :--- | ---: |
| ENG | 113 | English Composition III | 3 |
| CHE | 122 | Introduction to Biochemistry | 4 |
| BTN | 130 | Biological Reagents Preparation | 3 |
| BTN | 140 | Cell Culture | 3 |
|  |  |  | TOTAL |

## FOURTH QUARTER



FIFTH QUARTER

| BIO | 107 | Human Biology | 5 |
| :--- | :--- | :--- | ---: |
|  |  | Multicultural Elective | 3 |
| BTN | 210 | Protein Purification \& Analysis | 6 |
| BTN | 295 | Seminar | 2 |
|  |  |  | TOTAL |

## SIXTH QUARTER

| BTN | 220 | Microbiology \& Fermentation Techniques |  |  |
| :---: | :---: | :---: | :---: | :---: |
| BTN | 230 | Molecular Biology Techniques 6 |  |  |
|  |  | ARTS/HUM ElectiveSOC/BEH Elective |  | 3 |
|  |  |  |  | 3 |
|  |  |  | TOTAL | 16 |
| SEVENTH QUARTER |  |  |  |  |
| BTN | 240 | Bioinformatics |  | 3 |
| BTN | 270 |  |  | 6-9 |
|  |  | Elective |  | 3 |
|  |  |  | TOTAL | 2-15 |

*See page 52.

## Short Term Certificates

## Family Advocate

## (23-26 Total Credit Hours)

This certificate offers in-depth, competency based, task-specific training for Head Start family specialists, family service specialists, and family workers who provide the support services needed by families to enhance the quality of family life. Courses focus on achieving proficiency in the following areas: social work core knowledge, values, skills, social work ethics and theory, interviewing and documentation; group/organization and micro level methodologies; collaboration and advocacy; understanding family dynamics, barriers to self-sufficiency, conflict resolution, cultural and social diversity issues, the relationship between social problems and institutional responses; and aid in the development of beginning computer skills.

Credit
Course \& Title
Hours
FIRST QUARTER
SOC 111 General Sociology I
BIS 101 Personal Computer Keyboarding or
119 P.C. Applications - Microsoft Works or
160* Introduction to Word, PowerPoint \& Exce
TOTAL $\qquad$
SECOND QUARTER
SOC 112 General Sociology II 3

| SWK | 206 | Introduction to Social Welfare | TOTAL |
| ---: | ---: | ---: | ---: |
|  |  | 4 |  |

THIRD QUARTER
$\begin{array}{llll}\text { SOC } & 115 & \text { Today's Changing Family } & 4 \\ \text { SWK } & 211 & \text { Introduction to Social Work Practice } & 3 \\ & & & \text { TOTAL }\end{array}$
FOURTH QUARTER
$\begin{array}{ll}\text { SWK } 212 \quad \begin{array}{l}\text { Theory \& Method in Social } \\ \text { Work Practice }\end{array} & \left.\begin{array}{l}3 \\ \hline\end{array}\right]\end{array}$
*Or Substitute:
SOC 130 Family Violence
TOTAL
3

PSY $140 \quad \begin{aligned} & \text { and/or } \\ & \text { Psychology of Interaction \& }\end{aligned}$
Human Potential

## Social Service <br> (33 Total Credit Hours)

This certificate provides the tools needed for volunteers and volunteer leaders related to non-profit organizations and human service agencies emphasizing the skills of communication, critical analysis of social problems, investigative techniques, an understanding of the bureaucratic social and legal system serving the community, and the role of the volunteer.

Course \& Title

|  | Credit <br> Hours |
| :---: | ---: |
|  | 3 |
| TOTAL | -3 |
|  | 6 |
|  | 3 |
|  | 4 |
| TOTAL | 4 |
|  | 11 |

continued next column

THIRD QUARTER
SOC 130 Family Violence 3
SWK 206 Introduction to Social Welfare 4
MHT 140 Child \& Adolescent Mental Health
TOTAL

## FOURTH QUARTER

LEP 297 Special Topics: Juvenile Justice System 3
SOC 297 The Capstone Experience - 3
TOTAL 6

## Sinclair Community College Transfer Module

The Transfer Module must include 54-60 credit hours of introductory courses in these areas: English Composition, Mathematics, Natural and Physical Sciences, Social and Behavioral Sciences and Arts/Humanities.

## English Composition

(9 quarter hours)

| ENG | 111 | $(3)$ |
| :--- | :--- | :--- |
| ENG | 112 | $(3)$ |
| ENG | 113 | $(3)$ |

## Mathematics

(minimum of 3 quarter hours)

| MAT | 108 | $(3)$ |
| :--- | :--- | :--- |
| MAT | 116 | $(5)$ |
| MAT | 117 | $(4)$ |
| MAT | 122 | $(4)$ |
| MAT | 151 | $(3)$ |
| MAT | 201 | $(5)$ |
| MAT | 202 | $(5)$ |
| MAT | 203 | $(5)$ |
| MAT | 204 | $(5)$ |
| MAT | 215 | $(5)$ |
| MAT | 216 | $(4)$ |
| MAT | 218 | $(5)$ |

Natural \& Physical Sciences
(minimum of 12 quarter hours
3 courses from one sequence)

| AST | 101 | $(4)$ |
| :--- | :--- | :--- |
| AST | $111 / 117$ | $(4)$ |
| AST | $112 / 118$ | $(4)$ |
| AST | $113 / 119$ | $(4)$ |
| BIO | 111 | $(4)$ |
| BIO | 112 | $(4)$ |
| BIO | 113 | $(4)$ |
| BIO | $171 / 177$ | $(5)$ |
| BIO | $172 / 178$ | $(5)$ |
| BIO | $173 / 179$ | $(5)$ |
| BIO | 205 | $(4)$ |
| BIO | 225 | $(4)$ |
| BIO | 235 | $(4)$ |
| CHE | 141 | $(4)$ |
| CHE | 142 | $(4)$ |
| CHE | 143 | $(4)$ |
| CHE | 151 | $(5)$ |
| CHE | 152 | $(5)$ |
| CHE | 153 | $(5)$ |


|  | CHE | 201 | (5) | Arts \& Humanities |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CHE | 202 | (5) |  |  |  |
|  | CHE | 203 | (5) | (minimum of 9 quarter hours |  |  |
|  | GLG | 141 | (4) | from two areas) |  |  |
|  | GLG | 142 | (4) | ART | 101 | (3) |
|  | GLG | 143 | (4) | ART | 102 | (3) |
|  | GLG | 144 | (4) | ART | 125 | (3) |
|  | PHY | 100 | (4) | ART | 231 | (3) |
|  | PHY | 104 | (4) | ART | 232 | (3) |
|  | PHY | 141 | (4) | ART | 233 | (3) |
|  | PHY | 142 | (4) | ART | 235 | (3) |
|  | PHY | 143 | (4) | ART | 236 | (3) |
|  | PHY | 151/157 | (4) | DAN | 155 | (3) |
|  | PHY | 152/158 | (4) | DAN | 157 | (3) |
|  | PHY | 153/159 | (4) | HIS | 101 | (3) |
|  | PHY | 201 | (5) | HIS | 102 | (3) |
|  | PHY | 202 | (5) | HIS | 103 | (3) |
|  | PHY | 203 | (5) | HIS | 105 | (4) |
|  | PHY | 204 | (4) | HIS | 111 | (3) |
|  |  |  |  | HIS | 112 | (3) |
|  | Social \& Behavioral Sciences <br> (minimum of 9 quarter hours from at least two areas) |  |  | HIS | 113 | (3) |
|  |  |  |  | HIS | 214 | (3) |
|  |  |  |  | HIS | 215 | (3) |
|  | ECO | 201 | (3) | HIS | 216 | (3) |
|  | ECO | 202 | (3) | HIS | 217 | (3) |
|  | ECO | 203 | (3) | HIS | 218 | (3) |
|  | GEO | 101 | (3) | HUM | 125 | (3) |
|  | GEO | 102 | (3) | HUM | 130 | (3) |
|  | GEO | 201 | (3) | HUM | 131 | (3) |
|  | GEO | 202 | (3) | HUM | 135 | (3) |
|  | PLS | 101 | (3) | HUM | 255 | (3) |
|  | PLS | 102 | (3) | LIT | 201 | (3) |
|  | PLS | 103 | (3) | LIT | 202 | (3) |
|  | PLS | 104 | (3) | LIT | 203 | (3) |
|  | PLS | 200 | (3) | LIT | 211 | (3) |
|  | PLS | 201 | (3) | LIT | 212 | (3) |
|  | PSY | 119 | (5) | LIT | 213 | (3) |
|  | PSY | 121 | (3) | LIT | 217 | (3) |
|  | PSY | 122 | (3) | LIT | 227 | (3) |
|  | PSY | 205 | (4) | LIT | 230 | (3) |
|  | PSY | 206 | (3) | LIT | 234 | (3) |
|  | PSY | 207 | (3) | MUS | 115 | (3) |
|  | PSY | 208 | (5) | MUS | 131 | (3) |
|  | PSY | 217 | (4) | MUS | 132 | (3) |
|  | PSY | 225 | (4) | MUS | 133 | (3) |
|  | PSY | 228 | (4) | PHI | 204 | (3) |
|  | PSY | 223 | (4) | PHI | 205 | (3) |
|  | PSY | 242 | (4) | PHI | 206 | (3) |
|  | SOC | 111 | (3) | REL | 111 | (3) |
| 5 | SOC | 112 | (3) | REL | 112 | (3) |
| 亿 | SOC | 120 | (5) | REL | 135 | (3) |
|  | SOC | 145 | (3) | REL | 204 | (3) |
|  | SOC | 160 | (3) | THE | 105 | (3) |
|  | SOC | 205 | (4) | THE | 201 | (3) |
|  | SOC | 208 | (3) | THE | 202 | (3) |
|  | SOC | 215 | (4) | THE | 203 | (3) |
|  | SOC | 226 | (3) |  |  |  |



Patty Santoianni, a professor in Computer Information Systems, was the co-principal investigator for the National Science Foundation Information Technology Grant. She serves as I.T. Tech Prep liaison and is a college and division merit recipient.

Courses are listed alphabetically by course and then by course number followed by the credit hours each course offers. There is a brief description of each course followed by any prerequisite requirements. If there are no prerequisites listed, there are none required for the course. Lab information is usually noted. An " $R$ " following the course title indicates the course may be repeated for additional credit.

| Accounting (ACC) | English (ENG) | Marketing (MRK) |
| :--- | :--- | :--- |
| African-American Studies (AFR) | Environmental Technology (EVT) | Mathematics (MAT) |
| Allied Health (ALH) | Experience Based Education (EBE) | Mechanical Engineering Technology (MET) |
| Architectural Technology (ARC) | Extended Learning (EXL) | Medical Assistant Technology (MAS) |
| Art (ART) | Financial Management (FIN) | Mental Health Technology (MHT) |
| Arts \& Sciences Education (ASE) | Fire Science Technology (FST) | Music (MUS) |
| Astronomy (AST) | French (FRE) | Nursing (NSG) |
| Automotive Technology (AUT) | Geography (GEO) | Occupational Therapy Assistant (OTA) |
| Aviation Technology (AVT) | Geology (GLG) | Philosophy (PHI) |
| Biology (BIO) | German (GER) | Physical Education (PED) |
| Biotechnology (BTN) | Gerontology (GRN) | Physical Therapist Assistant (PTA) |
| Business Information Systems (BIS) | Health Information Management (HIM) | Physics (PHY) |
| Business Ownership (BUO) | History (HIS) | Plastics \& Composites (PLA) |
| Career Planning (CAP) | Hospitality Management (HMT) | Political Science (PLS) |
| Chemistry (CHE) | Humanities (HUM) | Printing Technologies (PRT) |
| Chinese (CHN) | Industrial Design \& Graphic Technology | Psychology (PSY) |
| Civil Engineering Technology (CCT) | (DRT) | Purchasing (PUR) |
| Communication Arts (COM) | Industrial Engineering Technology (IET) | Quality Engineering Technology (QET) |
| Computer Information Systems (CIS) | Industrial Manufacturing Technology (INT) | Radiologic Technology (RAT) |
| Corrections (COR) | Insurance (INS) | Real Estate (RES) |
| Dance (DAN) | Interior Design (IND) | Religious Studies (REL) |
| Dental Hygiene (DEH) | Japanese (JPN) | Respiratory Care (RET) |
| Developmental Studies (DEV) | Journalism (JOU) | Safety Engineering Technology (SRM) |
| Dietetics Technology (DIT) | Sabor Studies (LAS) | Social Work (SWK) |
| Disabilities Intervention Services (DIS) | Law (LAW) | Spanish (SPA) |
| Early Childhood Education (ECE) | Law Enforcement (LEP) | Surgical Technology (SUT) |
| Economics \& Finance (ECO) | Legal Assisting (LAP) | Theatre (THE) |
| Electrical \& Electronics Repair (EER) | Literature (LIT) | Transportation Management (TRA) |
| Electronics Engineering Technology (EET) | Management (MAN) | Travel \& Tourism (TNT) |
| Emergency Medical Services (EMS) | Management of Volunteer Programs (VOL) | Visual Communications (VIS) |
| Engineering Technology (EGR) | Manual Communication (MAC) |  |

## Accounting (ACC)

## 111 Principles of Accounting I

3 Cr. Hrs.
Fundamentals of accounting and their application to journals, ledgers, worksheets, and financial statements.
Prerequisite: DEV 065, DEV 075, DEV 108

## 112 Principles of Accounting II

Principles of accounting for inventories, depreciation, payroll, partnerships and corporations.
Prerequisite: ACC 111

## 113 Principles of Accounting III

3 Cr. Hrs.
Corporation accounting principles for long term obligations, manufacturing, and cash flow.
Prerequisite: ACC 112

## 115 Personal Computer Applications in Accounting 3 Cr . Hrs.

Fundamentals of personal computer applications in accounting utilizing spreadsheet software.
Prerequisite: ACC 111 and BIS 119 or BIS 160, or BIS M61, BIS M41, BIS M51.

## 201 Intermediate Accounting I

3 Cr. Hrs.
Accounting theory and practice relating to financial statement preparation and selected asset accounts such as cash.
Prerequisite: ACC 113, ACC 115

## 202 Intermediate Accounting II 3 Cr. Hrs.

Accounting theory and practice relating to selected asset and liability accounts such as plant assets and current liabilities. Prerequisite: ACC 201

## 203 Intermediate Accounting III <br> 3 Cr. Hrs.

Accounting theory and practice relating to owners' equity, income determination and reporting, and financial reporting.
Prerequisite: ACC 202

## 210 Advanced Accounting

3 Cr. Hrs.
Accounting theory and practice relating to corporate consolidations, governmental and not-for-profit organizations and partnerships.
Prerequisite: ACC 202

## 211 Cost Accounting I 3 Cr. Hrs.

Accounting principles for job order and process cost accounting systems.
Prerequisite: ACC 113, ACC 115
212 Cost Accounting II 3 Cr. Hrs.
Managerial cost control through budgets, standards, capital expenditures, and break-even analysis.
Prerequisite: ACC 211

221 Federal Taxes I
3 Cr. Hrs.
Beginning course in federal income taxation. ACC 112 is recommended.

## 222 Federal Taxes II

3 Cr. Hrs.
Continuation of ACC 221 with emphasis on corporate income taxation.
Prerequisite: ACC 221

## 235 Auditing Theory \& Practice

3 Cr. Hrs.
Auditing principles, standards, and procedures employed by the internal auditor and the independent public accountant. Prerequisite: ACC 201

## 240 Microcomputer Accounting Systems <br> 3 Cr. Hrs.

Hands-on microcomputer experience with an integrated software package. Prerequisite: ACC 113, ACC 115
270 Accounting Internship

See EBE 270 Internship for course description.
295 Accounting Seminar 3 Cr. Hrs. Application of accounting theory to forms and procedures of an accounting practice. Prerequisite: ACC 201

## 297 Special Topics

## R

0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only 6 credit hours earned by Special Topics courses can apply toward an associate degree in Business.

## African-American Studies (AFR)

## 111 African-American Studies I

3 Cr. Hrs.
Origins, relevance and scope of AfricanAmerican Studies, including African and African-American historical background, black male and female relationships, Afrocentricity and multiculturalism.

## 112 African-American Studies II

3 Cr. Hrs.
Practical exercises and simulated problems on recent advancements and expansions of African-American studies, including Black psychology, creative production, Afrocentricity, Black women studies, Blacks in science, and multicultural studies.

## 297 Special Topics

R
1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.

## Allied Health (ALH)

100 EMT: Basic Theory \& Practice I

5 Cr. Hrs.
Meeting currentstandards of National TrainingCurriculum of EMT-Basicaswellas Basic Life Support. First of two courses required for Ohio certification as EMT-B (Basic).

## 103 Introduction to Health Care Delivery <br> 3 Cr. Hrs.

Orientation to the health care delivery system including history, economics, medical/legal issues, professionalism, ethics, and wellness concepts. The development of health care team skills including critical thinking and problem-solving strategies, customer relations and multicultural health care perspectives.
104 Allied Health Informatics 2 Cr. Hrs. Orientation to the use of technology in the health care delivery system including: hardware, software, user interfaces, telecommunications and networks, and health management information systems(HMIS). One lecture, two lab hours per week.

## 105 Introduction to Allied Health

2-3 Cr. Hrs.
Orientation to the health care delivery system including history, definition, medical cost, publichealth, nutritional health, community dental, mental and environmental health, medical-legal, and patient rights. Also includes a brief description of Sinclair health programs. The optional credit hour will cover basic computer terminology, and its applications in health care.

## 106 Introduction to Basic Health Care Practice <br> 2 Cr. Hrs.

Orientation to safe and effective basic health care practice including patient assessment and documentation, infection control, body mechanics, oxygen delivery, and environmental safety considerations. One lecture, two lab hours per week.

## 107 Principles of Electrocardiography

 3 Cr. Hrs.Principles of electrocardiography including equipment operation, recording and troubleshooting. Fundamental principles of cardiovascular physiology and basic EKG interpretation will also be presented. Two lecture, two lab (ALH 108) hours per week.

## 108 Lab for ALH 107

Laboratory must be taken with ALH 107.
111 Clinical Phlebotomy 3 Cr. Hrs.
Introduction to the fundamental and clinical methods and practices of phlebotomy including lecture, laboratory, and clinical components. The course provides instruction in hematology, venipuncture, microcollection techniques, routine processing, and special testing procedures. Two lecture, two lab (ALH 112) hours per week. Prerequisite:DEV 065,075,085orequivalents

## 112 Lab for ALH 111

Laboratory must be taken with ALH 111.

## 113 Venipuncture for Health Care Providers 1 Cr. Hr.

Introduction to the fundamental clinical methods and practices of phlebotomy, including basic hematology, venipuncture techniques, routine processing and special testing procedures. Two lab hours per week.
Prerequisite: BIO 107, BIO 121 or BIO 131
114 Specialized Phlebotomy 1 Cr. Hr. Clinical methods and practices of phlebotomy, including peripheralIV therapy, microcollection techniques, and special testing procedures. Two lab hours per week.
Prerequisite: ALH 113
120 Nurse Aide Training 6 Cr. Hrs. Seventy-eight clock hours of nurse aide training and competency evaluation required by the State of Ohio to be eligible to take the state certification test. Nursing related services for patients or residents in a long-term care facility. Four lecture, four lab, and four clinical hours per week.
Prerequisite: DEV 065, DEV 075, DEV 085

## 121 Allied Health Management

 3 Cr. Hrs.The basic concepts of supervision encountered in hospitals and other health care agencies for those aspiring toward first line supervision.

## 122 Pharmacy Technician I 5 Cr. Hrs.

 Scope of pharmacy practice including legal aspects of drug dispensing and specific role of pharmacy technicians. Scientific terminology and dosage calculations essential for pharmacy technicians.
## 123 Pharmacy Technician II 5 Cr. Hrs.

Scope of pharmacy practice including handling of infectious and hazardous waste, interpersonal skills, and beginning pharmacology and dose calculations. Prerequisite: ALH 122
124 Pharmacy Technician III 5 Cr. Hrs. Scope of pharmacy practice including sterile compounding, non-sterile compounding, inventory control, beginning pharmacology, and pharmaceutical calculations. On site experiences in all pharmacy practices.
Prerequisite: ALH 123
125 Therapeutic Recreation 3 Cr. Hrs. Activity planning in long term care facilities; needs assessment, treatment modalities, professional role, documentation. Certificate awarded for completion of 36 hour Basic Activity course.

## 130 Electrocardiography

Principles of electrocardiography including equipment operation, recording and troubleshooting.

## 131 Patient Care Assistant 6 Cr. Hrs.

 Seventy clock hours of patient care assistant training, evaluation and clinical experience. Includes the role, job description, legal/ethical issues, personal care and treatments performed by the patient care assistant in an acute, or subacute health care facility. Three lecture, two lab, six clinical hours per week.Prerequisite: ALH 120 or State Tested Nurse Aide Certificate

## 132 Home Health Aide 3 Cr. Hrs.

Forty clock hours of home health aide training to prepare the student to provide client care in a home setting. Theory content will include the role, job description, legal/ethical issues, community resources, growth and development, personal care and treatments performed by the nurse aide in a home setting. Assessment techniques will emphasize the environment, family and client. Practicum experience includes home visits and environmental assessments. Two lecture, three clinical hours per week.
Prerequisite: ALH 120 or State Tested Nurse Aide Certificate

## 133 Pediatric Patient Care Assistant 6 Cr. Hrs.

Seventy-five clock hours of pediatric patient care assistant training, evaluation and clinical experience. Includes the role, job description, legal/ethical issues, personal care and treatments performed by the patient care assistant in an acute care pediatric health care setting or facility. Thirty-seven and one-half hours lecture/ lab and thirty-seven and one-half hours of clinical practice in an acute care pediatric health care setting.
Prerequisite: ALH 120, DEV 065, DEV 075, DEV 085

## 135 Administration of Activities Programming $\quad 3$ Cr. Hrs.

Skills and knowledge required for directing activity programs in long term care facilities: licensure regulations, managing difficult clients, quality assurance issues, volunteer management, community resources.
Prerequisite: ALH 125 or instructor's permission
140 Basic Life Support Training R 0.5-1 Cr. Hr.

Theory and techniques of basic life support as established by the American Heart Association.

## 141 Emergency Cardiac Care (ACLS) R 2 Cr . Hrs.

Management of cardiovascular emergencies, including the American Heart Association's curriculum in Advanced Cardiac Life Support. One lecture and four lab hours per week for seven weeks. Prerequisite: ALH 140 or current BLS card

## 142 Fundamentals of Disease Processes <br> 4 Cr . Hrs.

Pathological changes associated with the most commonly occurring diseases of each body system. Correlates changes with patient's response, diagnostic studies, and treatment modalities. Three lecture, two lab hours per week.
Prerequisite: BIO 107, BIO 143, BIO 162 or BIO 122

## 144 American Heart Association Heart Saver Facts <br> R <br> \section*{0.5-1 Cr. Hr.}

First aid and CPR are presented in an easy to understand, short format. Students with little or no medical background can learn how to control bleeding, how to start a stopped heart; how to save a life.

## 146 Self-care for the Allied Health Professional <br> 2 Cr. Hrs.

Agroup experience which provides information and techniques to assist health care professionals maximize personal and professional well-being in their chosen profession. Topics include life balance, recognition of professional crises, signs and symptoms of emotional, physical, and intellectual bankruptcy, and self care plan.

## 147 History of American Health Care

3 Cr. Hrs.
Historical development of the American health care system colonial times to present. How wars and other sociological events affected health care practices, the emergence of allied health workers, reforms and transformation and the evolution of changes which led to our current health care system.

## 148 Health Care Law \& Ethics

## 2 Cr. Hrs.

Overview of how medical law and ethics impact the clinical practices of allied health professionals. Ethical theories and models, principles of beneficence and non-malfeasance, patient autonomy, and informal consent, confidentiality, ethics of diversity, risk management, common law, the tort of negligence and legal doctrines.

## 151 Introduction to Holistic Therapy 1 Cr . Hr .

Exploration and development of a holistic approach to therapeutic interventions.
152 Pain Management 4 Cr. Hrs.
Pathology and psychology of pain; traditional and complementary medical and holistic approaches to pain management. Prerequisite: IMT chairperson or ALH counselor signature

## 155 Issues in Activity Programming 3 Cr. Hrs.

Mental health issues, medications, ethics, third party payer and regulatory requirements and workplace violence in longterm care facilities. Final course in sequence to complete 90 -hour certification as determined by the National Association of Activity Professionals.
Prerequisite: ALH 125, ALH 135

## 160 Learning Communities for Health <br> Care Professionals <br> 1 Cr . Hr.

Learning communities natural to Allied Health Technologies will be used to develop an understanding of individual learning styles and the learning methods which facilitate success within a health care environment.

## 201 Survey of Drug Therapy 2 Cr. Hrs.

Overview of the conventional drug classes presenting only the more commonly prescribed agents, emphasizing common effects and indications for use.
Prerequisite: BIO 107 or equivalent

## 202 Alzheimer Disease: Understanding \& Management <br> 3 Cr. Hrs.

Alzheimer's Disease: In-depth look at disease process, diagnosis process, communication techniques, management of activities of daily living and behavior, developing activity programs, working with families/family impact, evaluating community resources.

## 203 Health Care Wellness \& Promotion <br> 2 Cr. Hrs.

Developing health behaviors and behavioral change using a holistic, multi-disciplinary approach.
Prerequisite: IMT chairperson or counselor signature

## 210 Introduction to Community Health Advocacy <br> 4 Cr. Hrs.

Concepts, information, and skills related to the role and responsibilities of a community health advocate. Emphasis on elements of working in community based settings; characteristics of health models and plans; impact of culture and socioeconomic status on individual's health, communication; barriers to health care services; health care needs across the life span; and community resources.
219 General Pharmacology 3 Cr. Hrs. General principles of drug absorption, distribution, metabolism, actions and effects presented according to conventional drug classification with emphasis on the prototype of each class; primarily intended for students in health professions, but may be of interest to those majoring in biological sciences.
Prerequisite: BIO 143 or BIO 211 or equivalent

220 Pathophysiology 4 Cr. Hrs. Study of human disease using a system approach emphasizing the abnormal physiological processes which result in the signs and symptoms of each disorder. Prerequisite: BIO 107, BIO 211 or BIO 143 or equivalent

## 230 Quality Management in Health Care <br> 1 Cr . Hr .

Continuous quality improvement (CAI) techniques are used to analyze and improve health care practice in the current competitive and regulatory environment. Focus is on practical application of CQI processes and tools.

## 278 Supervisory Applications in Health Care <br> 3 Cr . Hrs.

Assessment of achievement by Allied Health Management Certificate students in attaining program outcomes by completing a project demonstrating principles and practices of supervisory management. Prerequisite: ALH 230, MAN 230, MAN 231, MAN 232, MAN 237

## 297 Special Topics

R 1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.

## M25 Intravenous Therapy

R

## $1 \mathrm{Cr} . \mathrm{Hr}$.

Multi-skilling module designed to provide the experienced health care provider with the knowledge and skills to competently insert an intravenous (I.V.) line, maintain it, administer fluids and medications, and discontinue the line. Identifying and troubleshooting common complications of I.V. therapy will be discussed. A clinical experience is incorporated within the module requirements.

## M26 Pharmacology for Intravenous Therapy <br> 1 Cr . Hr.

Provides experienced health care providers with the knowledge and skills to competently administer cardiopulmonary drugs to adults and children via intravenous (I.V.) access. In-depth discussions of cardiopulmonary pharmacology, drug incompatibilities, and advanced I.V. techniques such as piggybacks and I.V. push. Prerequisite: ALH M25

## Architectural Technology (ARC)

101 Architectural Drafting 3 Cr. Hrs.
Develop proficiency with manual drafting instruments and skill in lettering and drawing techniques, architectural problem solving by using orthographic, isometric and oblique pictorial techniques. Two lecture, two lab hours per week.

## 102 Architectural Detail Drafting

## 5 Cr. Hrs.

Manual drafting of architectural sections, stair details, door and window details. Standard representation of the materials used in wood frame and light construction buildings. Construction laboratory including, framing stairs, and structural details. Prerequisite: ARC 101

## 103 Architectural 3-D Drafting <br> 3 Cr. Hrs.

Three dimensional graphic architectural drafting, applying principles of axonometrics, perspectives and model building. Rendering of architectural elements and accessories. Use of color media. Two lecture, two lab hours per week.
Prerequisite: ARC 101

## 105 Construction Methods \& Materials 4 Cr. Hrs.

Construction materials origin, development, and use. Methods of construction for buildings and heavy and highway projects. Emphasis on processes and techniques.

## 107 Architectural Building Codes

3 Cr. Hrs.
Building permit process and definition of buildings as described in the Ohio Basic Building Code and local one, two and three family codes. Emphasis on use groups, construction classification, exit requirements and fire resistance requirements. Develop graphics of proper code assemblies of wall/roof/floor materials. Identify and apply minimum materials standards to construction standards and develop installation details. One lecture, two lab hours per week.

## 116 Architectural History \& Preservation

3 Cr. Hrs.
Architectural achievements from the ancient world, Asia and America. Practice with preservation techniques in a laboratory environment. Two lecture, two lab hours per week.

## 117 Architectural Restoration \& Rehabilitation <br> 3 Cr. Hrs.

Demonstration of the best use of a Dayton area vacated historic building, involving field measuring, investigation of zoning and building codes and cost estimating. Verbal and graphic presentation of project. Two lecture, two lab hours per week. Prerequisite: ARC 116

## 138 Architectural Blueprint Reading 3 Cr. Hrs.

 Basic techniques for reading and interpreting construction plans and specifications, both residential and commercial. Includes all major building uses and types of construction as defined by the building code.
## 139 Mechanical Systems Blueprint Reading <br> 2 Cr. Hrs.

Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC, and fire protection systems. One lecture, two lab hours per week.

## 211 Building Systems Drafting

5 Cr. Hrs.
Manual drafting of building systems and materials applicable to commercial construction. Assignments that reflect the current zoning code and the basic building code requirements for fire resistance ratings, means of egress, accessibility and plumbing code requirements. Two lecture, four lab hours per week.
Prerequisite: ARC 102, ARC 105, ARC 107, PHY 131

## 220 Architectural History \& Analysis, Ancient Through Medieval

3 Cr . Hrs.
Study of architecture history including ancient civilizations, Greek, Roman, Islamic, Byzantine, Gothic, Romanesque.

## 221 Architectural History \& Analysis, Renaissance Through Present

 3 Cr. Hrs.Architecture history including Renaissance, Baroque, 18th and 19th centuries modern and post-modern.

## 240 Computer Aided Architectural Drawing $\quad 4 \mathrm{Cr}$. Hrs.

First of a two-course sequence using computers for architectural drafting incorporating architectural file structure, manipulation of architectural symbols, menu commands, and text conventions to generate architectural plans. Two lecture, four lab hours per week.
Prerequisite:DRT198 and one of the following: ARC 102, DRT 106 or DRT 111.

## 241 Computer Aided Architectural Drafting II 4 Cr. Hrs.

Second of a two-course sequence using computers for architectural drafting. Deals with multi-story buildings used for business or commercial purposes. Plans, sections, details and elevations for this building classification will be covered. Two lecture, four lab hours per week.
Prerequisite: ARC 240
270 Architectural Technology Internship R

1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 278 Architectural Technology Capstone <br> 4 Cr. Hrs.

Assessment of achievement by Architectural Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. One lecture, six lab hours per week.
Prerequisite: ARC 211, ARC 240, MET 207

## 297 Special Topics

R
1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom-seminar setting or in a nontraditional format such as television, videotapes, etc.

## Art (ART)

## 101 Art Appreciation: Introduction to Art <br> 3 Cr. Hrs.

Emphasis on the language of art, exposure to many different art forms and formulative ideas about what is viewed.

## 102 Art Appreciation: Art Media

## 3 Cr. Hrs.

Exploration of art through specific media including painting, sculpture, and architecture. Analysis and evaluation through class discussion and written assignments.

## 106 Studio Art

4 Cr. Hrs.
Creativity enhancement for the non-art major. Studio experience in drawing, design fundamentals and three-dimensional processes, including clay.

## 107 Beginning Photoshop 3 Cr. Hrs.

 Introductory course in the Photoshop imaging program. Basic introduction to scanning, capturing, and altering images for the art major or non-art major.
## 108 Design Basics: Color 3 Cr. Hrs.

 Color theory applied to utilizing design principles and color psychology emphasizing the Josef Albers color theories. One lecture, four lab hours per week.109 Elements of Composition 3 Cr. Hrs. Composition and visual elements in a studio setting with emphasis on hands-on learning. One lecture, four lab hours per week.

## 111 Art Drawing I

3 Cr. Hrs. Studio drawing develops visual skills relative to the drawing process, with emphasis on traditional as well as contemporary problems on representation and composition.

## 112 Art Drawing II

3 Cr. Hrs.
Traditional as well as contemporary approaches to mixed media drawing with an emphasis on ink; still life objects and the human form as subjects for exploration.
Prerequisite: ART 111

## 113 Art Drawing III <br> 3 Cr. Hrs.

Foundation drawing emphasizing color theory through the use of color drawing media. Prerequisite: ART 112, ARV 109 or VIS 109

## 121 Painting I

4 Cr. Hrs.
Studio painting, basic color principles with emphasis on color, form, and space in compositional design.
Prerequisite: ART 111
122 Painting II
4 Cr. Hrs.
Personalexpression with instructioninclassical as well as modern techniques; complex problems in color and composition.
Prerequisite: ART 121
123 Painting III
4 Cr. Hrs.
Contemporary areas relative to medium and technique; the painting process as a means of communication; integration of 20th century concepts.
Prerequisite: ART 122
125 African Art
3 Cr. Hrs.
Introduction to symbolic and aesthetic elements of African art and its influence on modern art styles.

## 131 Sculpture I <br> 3 Cr. Hrs.

First of a three-course sequence; introducing methods of sculpture with clay, paper, and other materials for constructing threedimensional art work.

## 132 Sculpture II <br> 4 Cr. Hrs.

Increasingly complex visual problems using more sophisticated surface treatments; design problems using the figure doing an architectural piece in modular units. Includes woodworking shop projects.
Prerequisite: ART 131
133 Sculpture III
4 Cr. Hrs.
Personal development and expression of style; participation in critiques and discussion; projects involve integration of materials and an environmental piece.
Prerequisite: ART 132

## 136 Introduction to Virtual Sculpture 3 Cr. Hrs.

Study of sculpture using non-uniform rational B-splines (NURBS) modeling. Emphasis on translating forms, curves, surfaces and solids into accurately modeled sculptures on the computer. One lecture, four lab hours per week.

## 141 Ceramic Art I

4 Cr. Hrs.
Materials and processes of ceramic art for the beginning student; handbuilding and glazing demonstrated through a variety of functional and sculptural projects.
142 Ceramic Art II
4 Cr. Hrs.
Introduction of the potter's wheel, with an emphasisonfunctional pottery; experimentation with various glazing techniques.
Prerequisite: ART 141

## 143 Ceramic Art III

4 Cr. Hrs.
Focus on personal development and expression in pursuing individual projects; contemporary issues in clay.
Prerequisite: ART 142
146 Video Production 4 Cr. Hrs.
Mechanics and techniques of video camera operation, including editing with emphasis on the planning needed for translating this electronic media format into an art form through a series of assignments. One lecture, four lab hours per week.

## 151 Art as Therapy I

3 Cr . Hrs.
Art in the therapeutic process utilizing exploration of art media, basic art therapy techniques, and art-related diagnostic tools. Also offered as MHT 151; students may enroll in either course, but not both.

## 152 Art as Therapy II $\quad 3$ Cr. Hrs.

Clinical art therapy experiences with varied populations; development of professional observation, assessment, and motivational skills. Also offered as MHT 152; students may enroll in either course but not both.
Prerequisite: ART 151

## 161 Photography I <br> 4 Cr. Hrs.

An introduction to the art and technique of black and white photography. Photographic shooting, processing and printing are stressed. Students to supply own camera ( 35 mm or 120 , adjustable preferred), film and print paper. One lecture, four lab hours per week.

## 162 Photography II $\quad 4$ Cr. Hrs.

Intermediate course in black and white photography. Further introduction and application of the tools and techniques of the photographic art. Students to supply own camera ( 35 mm or 120 , adjustable preferred), film and print paper, retouching supplies, and photo mounting supplies. One lecture, four lab hours per week.
Prerequisite: ARV 161 or ART 161
163 Photography III 4 Cr. Hrs.
Advanced photographic techniques. Specialized darkroom techniques, special purpose films and processes are explored. Students to supply own camera ( 35 mm or 120 or $4 \times 5$, adjustable preferred), film and print paper, retouching materials and dry mount agents. One lecture, four lab hours per week.
Prerequisite: ARV 162 or ART 162
164 Photo Restoration 3 Cr. Hrs.
Manual and computerized methods of restoring photographs. One lecture, four lab hours per week.
Prerequisite: ART 161 or ARV 161
170 Non-Silver Photography 4 Cr. Hrs.
Principle and theories of non-silver chemical processes used for print production including gum, cyanotype, and palladium printing. One lecture, four lab hours per week.
Prerequisite: ARV 161 or ART 161

171 Studio Photography 4 Cr. Hrs. Mechanics and aesthetics of photography in a studio environment covering a range of subjects and emphasizing lighting techniques and equipment as well as use and maintenance of large-format cameras. One lecture, four lab hours per week. Prerequisite: ARV 161 or ART 161

## 175 Computer Photography 13 Cr. Hrs.

Techniques for transforming photographic images through use of computers and digital cameras. Use of a computer to create high-tech fine art images. One lecture, four lab hours per week.
Prerequisite: ART 161 or ARV 161

## 176 Computer Photography II3 Cr. Hrs.

Advanced computer software to create fine art in the digital medium. Advanced Photoshop techniques include layers, color correction, masking and special effects. One lecture, four lab hours per week. Prerequisite: ART 175 or ARV 175

## 181 Fiber Fabric Design 4 Cr. Hrs.

Traditional needlework in original and creative art forms with emphasis on fashion design, clothing embellishment, and accessories with a history of various needle arts. Students explore the use of new and unusual materials.

## 194 Photography Portfolio I

R
1 Cr . Hr .
One-to-one instruction regarding the student's photography portfolio, establishing groundwork for remaining courses. Instructor will meet once each week to review the student's portfolio and its progression. Suggestions for direction and improvement will be given in regard to image content, critical theory and final presentation. This is a pass/fail course and is required of each student in the Photography certificate program. It is taken after completing the first four photography courses, halfway through the program. Course may be repeated up to three times to receive a passing mark. Students failing to pass the course will be dropped from the program. Failure to take and pass this course will make the student ineligible for the Photography certificate
Prerequisite: 12 credit hours in Photography

## 195 Portfolio Development in Fine

 Arts$1 \mathrm{Cr} . \mathrm{Hr}$.
Mechanics and techniques of preparing slides of art work; matting and framing of art work; artist resume writing and overall presentation needed for development of portfolio.
Prerequisite: 45 total hours earned, 21 of which must be in ART

## 205 Professional Problems in Art

3 Cr. Hrs.
Information to help the visual artist identify challenges of making a living as an artist. Includes legal aspects and copyright laws.
Prerequisite: 12 hours of ART courses

211 Advanced Drawing I 4 Cr. Hrs. Personal expression developed through a variety of 2-D media, cubistic techniques; gestural and figure studies.
Prerequisite: ART 113

## 212 Advanced Drawing II 4 Cr. Hrs.

Definition of a personal expression through the drawing process; traditional and modern approaches to drawing the figure, still life, and other contemporary subjects.
Prerequisite: ART 211

## 213 Advanced Drawing III 4 Cr. Hrs.

Emphasis on the technical process and the language of drawing; a variety of media and techniques focusing on personal expression.
Prerequisite: ART 212
216 Life Drawing \& Anatomy 14 Cr. Hrs.
Figure drawing with a foundation in anatomical study. Emphasis on proportion as well as design. One lecture, four lab hours per week.
Prerequisite: ART 111
217 Life Drawing \& Anatomy II 4 Cr. Hrs. Continued development of design and proportion with an application toward mood and content. One lecture, four lab hours per week.
Prerequisite: ART 216
218 Life Drawing \& Anatomy III
4 Cr. Hrs.
Advanced figure drawing with a foundation in anatomical study. Emphasis on proportion and scale. Development of content and design through collage aesthetic. One lecture and four lab hours per week.
Prerequisite: ART 217

## 221 Advanced Painting I 4 Cr. Hrs.

Creative possibilities through color and imagery. Especially designed for Fine Art university parallel majors.
Prerequisite: ART 123

## 222 Advanced Painting II 4 Cr. Hrs.

The visual phenomenon of color as a communication vehicle; develops independence in the studio process; begin work for exhibition.
Prerequisite: ART 221
223 Advanced Painting III 4 Cr. Hrs.
Develops independence and freedom of expression; critiqueand discussion of new trends; research and analysis of color, form imagery, and design.
Prerequisite: ART 222
231 Art of the Ancient World 3 Cr. Hrs.
Art history from early cave paintings to the period of Byzantine and Islamic art.

## 232 Art of the Medieval \&

 Renaissance Worlds3 Cr. Hrs. Art history of the early Medieval period through the High Renaissance period.

233 Art of the Modern World 3 Cr. Hrs. Art history from the periods of Mannerism and Late Renaissance to the Twentieth Century.
235 History of Photography 3 Cr. Hrs. Historical survey of photography as an art form from its beginnings in the 1830's until the present day; developments in photographic processes, artistic trends, and study of major photographic artists.
236 History of Women Artists3 Cr. Hrs. A history of women artists from the Middle Ages to the present day, with emphasis on the history of style, and on women's historical roles.

## 241 Advanced Ceramic Art I 4 Cr. Hrs.

Introducing porcelain clay and glazing techniques; development of personal style, extending to experimentation in low fire clay and glazes.

## Prerequisite: ART 143 or equivalent

242 Advanced Ceramic Art II 4 Cr. Hrs. Exploration of personal style, extending to experimentation in low fire clay and glazes. Prerequisite: ART 241 or equivalent
243 Advanced Ceramic Art III 4 Cr. Hrs. Specialization and research in one area, presentation of research, development of personal style.
Prerequisite: ART 242 or equivalent
251 Advanced Sculpture 4 Cr. Hrs. Selection of an area of research with formulation of goals that develop personal expression and style.
Prerequisite: ART 133 or equivalent

## 261 Watercolor

4 Cr. Hrs.
Technical variety and experimentation with selected design problems; for both the beginning and experienced watercolorist. Prerequisite: ART 111

## 263 Business of Art

3 Cr. Hrs.
An interdisciplinary course which tracks the historic evolution of the seemingly unnatural partnership between business and art. This course concentrates specifically on the creation, marketing and acquisition of art through the ages with emphasis on current day trends.
264 Woodcut Printmaking 4 Cr. Hrs. Introductory printmaking course using wood cutting tools and printing editions by hand; overview of the history of woodcuts. Prerequisite: ART 111

## 265 Color Photography I 4 Cr. Hrs.

An introduction to the technique of color photography and processing. The color negative process will be explored. Student to supply own camera ( 35 mm or 120 , adjustable preferred), films and paper, polarizing filter and specified conversion filters. Prerequisite: ARV 161 or ART 161

266 Color Photography II 4 Cr. Hrs. An intermediate course in color photography. Various camera and darkroom techniques will be employed to enhance the print. Student to supply own camera ( 35 mm or 120, adjustable preferred), film and paper.
Prerequisite: ARV 261 or ART 265
267 Color Photography III 4 Cr. Hrs. The advanced photographic course. Creative darkroom and camera techniques will be explored. Portfolio to be produced. Student to supply own camera ( 35 mm or 120, adjustable preferred), films and paper. Prerequisite: ARV 262 or ART 266
268 Collage
4 Cr. Hrs.
Basic course in the techniques of collage, or cut paper; design and compositional studies using different materials to encourage experimentation.
Prerequisite: ART 111 or ART 106

## 269 Printmaking

3 Cr. Hrs.
Examines the philosophy, history and techniques of multiple image preparation as well as lithographic, intaglio and seriographic processes. One lecture, four lab hours per week.
Prerequisite: ART 111

## 270 Arts Internship

R 1-12 Cr. Hrs.
Practicum providing student with experience in organizing and hanging of art exhibits, assisting in studios,

## 278 Fine \& Performing Arts Capstone R 1 Cr . Hr .

A course designed to allow students to demonstrate proficiency in the program learning outcomes of the Arts Administration certificate.
Prerequisite: 20 hours completed toward Arts Administration certificate

## 294 Photography Portfolio II R

 1 Cr . Hr .One-on-one instruction regarding the student's final graduating photography portfolio. Instructor will meet with student during final quarter of study to help the student compose their final graduating portfolio. This is a pass/fail course that must be completed successfully. Student may repeat course up to three times to achieve a passing grade. Failure to take and pass this course will make the student ineligible for the Photography certificate. Prerequisite: Photo certificate major, 28 hours of photography courses and/or taken during final quarter of study

295 Pre-Graduation Exhibition 1 Cr. Hr. Graduating Art majors will have a formal gallery exhibition of their work to be followed by an open oral discussion with a panel of three faculty members to evaluate presentation and techniques within the work. One-fourth of work shown will be created specifically for exhibition. Student will be responsible for presentation and installation.
Prerequisite: 75 credit hours earned

## 297 Special Topics

R
0.5-6 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline, as well as receive credit for instruction delivered in a non-traditional format such as TV.

## Arts \& Sciences Education (ASE)

## 101 The Freshman Experience 2 Cr. Hrs.

Team-taught interdisciplinary course integrating various learning strategies to familiarize students with the competencies and skills necessary to achieve Liberal Arts \& Sciences degree program outcomes. This course will connect students to all levels of student support services designed to improve academic success. Required for all Liberal Arts \& Sciences A.A. and A.S. degree programs, effective winter 2002.
Prerequisite: DEV 065 and DEV 074

## 145 Foundations in Problem Solving \& Scientific Literacy 4 Cr. Hrs.

Philosophical and experiential understanding of the constructivist, cooperative classroom environment acquired through introductory hands-on inquiry experiences with the context of fundamental, unifying science themes and core concepts. Three lecture, three lab hours per week. Prerequisite: MAT 102 or sufficient score on the mathematics placement test.

## Astronomy (AST)

## 101 Survey of Astronomy 4 Cr. Hrs.

 A survey of the solar system, galaxies, star evolution, recently discovered phenomena and cosmology. Three lecture, three lab hours per week (AST 107).
## 107 Lab for AST 101

Laboratory must be taken with AST 101.

## 111 Introduction to Astronomy

3 Cr. Hrs.
Patterns and movements of heavenly bodies; history of astronomy; gravity, light and matter; various types of telescopes. Students may not receive credit for both AST 111 and AST 101 (previously PHY 114). Optional laboratory AST 117.

Prerequisite: DEV 108

## 112 The Solar System 3 Cr. Hrs.

Planets and their moons; interior and atmosphere of the Sun; comets, asteroids, meteoroids; origin of the solar system; space exploration. Optional laboratory AST 118.
Prerequisite: AST 111

## 113 Stars, Galaxies \& Cosmology 3 Cr. Hrs.

Properties and evolution of stars including the Sun; black holes and other stellar remnants; Milky Way and other galaxies; origin and fate of the Universe. Optional laboratory AST 119.
Prerequisite: AST 111

## 117 Introduction to Astronomy Laboratory <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

Laboratory and field activities to supplement AST 111. Taken concurrently with AST 111.
118 Solar System Laboratory 1 Cr. Hr. Laboratory and field activities to supplement AST 112. Taken concurrently with AST 112.

## 119 Stars, Galaxies \& Cosmology Laboratory <br> 1 Cr . Hr.

Laboratory and field activities to supplement AST 113. Taken concurrently with AST 113.

## 297 Special Topics in Astronomy R 1-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in astronomy. Objectives will vary with the particular content area.

## Automotive Technology (AUT)

## 100 Basic Automotive Systems

3 Cr. Hrs.
Language of automotive systems and major automotive functions. Students will change oil and lubricate own car, perform safety check, ignition tune up, and brake inspection, service cooling system, and evaluate used cars. Basic hand tools required. One lecture, four lab hours per week.

## 102 Dealership Principles for ASEP

0.1-3 Cr. Hrs.

Work assignment practices necessary for beginning service technician, including tools and tool usage; paint finesse and touch-up, correcting water leaks, wind noise, rattles; oil changes and tire balancing; parts, service, new and used car prep. Eye protection required.

108 Engine Systems
R
0.1-5 Cr. Hrs.

Engine operation, nomenclature, measurements and tolerances, including service and overhaul procedures of cooling, lubrication, and valve train systems (basic engine machining practices). Basic hand tools required. Three lecture, four lab hours per week.

## 111 Automotive Management

3 Cr. Hrs.
Introduction to an automotive service department as it pertains to management. Skill development for operating an automotive business, including service consulting, service management and communication practices. Instruction in federal, state and local regulations for operating a service department.

## 112 Service Consultant II 3 Cr. Hrs.

Introduction to automotive selling service, importance of maintenance schedules, warranties, and accounting procedures. Includes legal aspects of running a dealership related to city, state and federal laws.
Prerequisite: AUT 111

## 115 Fuel \& Emission Systems R 0.1-7 Cr. Hrs.

Operation and service of carburetion, and fuel injection (including computer control) and fuel delivery systems, emission control systems and engine fuels. Basic hand tools required. Three lecture, eight laboratory hours per week.

## 125 Electrical \& Electronic Systems R

 0.1-7 Cr. Hrs.Basic electricity, Ohm's Law, series and parallel circuits, and operation of starting and charging systems. Ignition systems including electronic ignition and automotive electronic systems as well as lighting and accessories circuits and dash instrumentation. Basic hand tools required. Three lecture, eight lab hours per week.

## 128 Advanced Engine Systems

5 Cr. Hrs.
Measurements and tolerances, advanced diagnosis of engine problems, complete engine blueprinting and machining, performance analysis and measurement; total rebuilding and machining of automotive engines; preparation for ASE Engine Machinist Tests. Complete set of hand tools required. Three lecture, four lab hours per week.
Prerequisite: AUT 108 or equivalent

## 142 Manual, Transmissions \& Drive Line

R
0.1-5 Cr. Hrs.

Theory and operation of manual transmission, clutch, transaxle, drive shaft, universal joint, rear axle, limited slip differential and axle shaft, diagnosis, and repair. Basic hand tools required. Three lecture, four lab hours per week.

146 Automotive Heating \& Air Conditioning

## R

0.1-5 Cr. Hrs.

Theory and operation of automotive heating and air conditioning systems. Includes lab activity in diagnosis and repair procedures. Basic hand tools required. Three lecture, four lab hours per week.

## 165 Automotive Brake System

1-5 Cr. Hrs.
Theory and operation of hydraulic braking systems;drumbrake, discbrake, and power assist diagnosis and service; and, antilock brake systems. Basic hand tools required. Three lecture, four lab hours per week.

## 210 Steering, Suspension \& Alignment

 0.1-5 Cr. Hrs.Steering system diagnosis and service including front and rear suspension components, wheel and tire, front and rear wheel alignment. Basic hand tools required. Three lecture, four lab hours per week.

## 215 Automotive Service Operations <br> 10 Cr. Hrs.

Actual experience in the laboratory with diagnosis and repair, use of manuals and records, customer relations, safety, communications, supervision and delegation of work. Automotive service facility and operation consideration. Basic hand tools required. Five lecture, 15 lab hours per week. Prerequisite: Permission of chairperson or instructor

## 221 High Performance Engine Blocks \& Rotating Assemblies 7 Cr. Hrs.

 Measurement and tolerances, diagnosis, disassembly, and machining of engine blocks for hi-performance applications. Race preparation and balancing of internal components. Theory and discussion of choices for hi-performance rotating assembly parts such as pistons, connecting rods, bearings and camshafts. Three lecture and eight lab hours per week.Prerequisite: AUT 108 or instructor's approval

## 222 High Performance Cylinder Heads \& Valve Train <br> 7 Cr. Hrs.

Measurement and tolerance, disassembly and machining of cylinder heads. Head flow development and race preparation. Valve train theory and design for hi-performance use. Complete cylinder head blueprinting. Three lecture, eight lab hours per week.
Prerequisite: AUT108or instructor's approval

## 223 High Performance Engine <br> Assembly \& Dynamometer Testing 7 Cr. Hrs.

Precision engine assembly using blueprinting techniques. Set-up and testing on superflow engine dyno for performance and durability. Familiarization with dyno procedures and software. Three lecture, eight lab hours per week.
Prerequisite: AUT 108 or instructor's approval

## 224 High Performance Induction Systems <br> 7 Cr. Hrs.

Performance rebuilding and tuning of carburetors. Operation and performance applications of electronic fuel injection, nitrous oxide injection, ignition systems, intake manifolds, and super chargers. Evaluation, testing and tuning using a flow bench, engine dynamometer and or chassis dynamometer. Three lecture, eight lab hours per week.

## 241 Automatic Transmissions R 0.1-7 Cr. Hrs.

Theory and operation of automatic transmissions and transaxles; includes lab experience in diagnostics and overhaul. Basic hand tools required. Three lecture, eight lab hours per week.

## 245 Engine Performance \& Driveability R <br> 0.1-7 Cr. Hrs.

Advanced diagnostics and repair of engine, ignition, fuel, emission and cooling systems; advanced computer controlled fuel system diagnosis and service. Basic hand tools required. Three lecture, eight lab hours per week.

## 265 Vehicle Safety Systems 5 Cr. Hrs.

Theory, operation and service of computerized, mechanical, electrical and hydraulic vehicle safety systems; anti-lock brake systems, inflatable restraint systems, electronic passive restraint systems, traction control systems, four-wheel steering systems and computerized ride controls. Basic hand tools and eye protection required. Three lecture, four lab hours per week. Prerequisite: AUT 125, AUT 165

## 270 Automotive Internship

## R

 1-12 Cr. Hrs.See EBE 270 Internship for course description.

## 297 Special Topics

0.3-7 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as special seminars) as well as additional topic concentration within the discipline. May serve as AUT elective.

## Aviation Technology (AVT)

105 Orientation To Aviation 3 Cr. Hrs. Overview of aviation career specialties required for successful operation of the national airspace system. Evaluation of career interests relative to the market for aviation opportunities. Guest lecturers and site visits will be used to illustrate the broad spectrum of aviation occupations available. Prerequisite: DEV 085, DEV 065 or ENG111, 121, or 131

## 110 Ground School/Primary Flight

 3 Cr. Hrs.Preparation for the Private Pilot Knowledge test. Includes all topics required by Federal Aviation Regulations 61.105(b)(113), e.g. airplane systems, aerodynamics, regulations, meteorology, navigation, communications and the flight environment.
Prerequisite: DEV 085, DEV 065 or ENG 111, 121 or 131

## 111 Navigation Science I 3 Cr. Hrs.

Basics of navigation including deduced reckoning (dead reckoning), airways, Global Positioning Systems (GPS), Variable Omni Range (VORs), Non-Directional Beacons (NDBs), horizontal and vertical navigation aids. Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) basics of navigation. Also Federal Aviation Regulations (FARs) affecting navigation.

## 119 Aviation Meteorology 3 Cr. Hrs.

Meteorology for aviators including micro and macro weather systems, solar geometry, atmospheric moisture, wind and pressure systems, cyclonic activity, aviation web resources, and flight service station guidance.
120 Primary Flight
3 Cr. Hrs.
Provides pilots in the Professional Pilot option with the flight knowledge necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Private Pilot certificate.
Prerequisite: AVA110(orinstructorapproval)
124 Flight Lab for AVT 1201 Cr. Hr. Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Commercial Pilot certificate.
Prerequisite: Chairperson permission

## 125 Developments in Aviation 3 Cr. Hrs.

Provides pilots and other aviation professionals with an in depth understanding of how aviation technology has evolved from the invention of the airplane to today's sophisticated jet aircraft and their equally sophisticated flight systems.
Prerequisite: AVT 105

## 143 Aircraft Maintenance 3 Cr. Hrs.

Introduction to aircraft maintenance for A\&P mechanics. Topics covered include overall aircraft systems and theory, aircraft configurations, airframe materials and construction techniques, modes of failure, preventive and predictive maintenance, tolerances, and proper use of tools.

160 Ground School/Instrument 4 Cr. Hrs. Basic non-visual reference flight education leading to the FAA instrument written examination. Topics include flight by instruments, theory of instrument operations, air traffic control, Standard Instrument Departures (SIDs), Standard Terminal Arrival Routes (STARs), runway configurations and lighting, minimums, Federal Aviation Regulations (FARs), and approaches.
Prerequisite: AVA 110, AVT 111

## 171 Aircraft Piston Powerplant Systems <br> 4 Cr. Hrs.

Course includes an in-depth look at piston engine powerplants, inspection, operation, component systems, and overhaul procedures. Includes a survey of the most popular engine makes and models.
205 Aviation Management 3 Cr. Hrs. Provides pilots and other aviation professionals with an in depth knowledge of management, marketing, and finance principles within the complex regulatory framework of the aviation field.
Prerequisite: AVT 105
206 Aerodynamics
3 Cr. Hrs.
Provides pilots and other aviation professionals with instruction on flight dynamics. Applies basic fluid theory to aerodynamic surfaces and provides indepth instruction on the concepts of lift coefficient, drag, stall icing, turbulence, flaps, spoilers, center of lift, chord, span, and aspect ratios.
Prerequisite: PHY 131 or permission of instructor or department chairperson

## 211 Navigation Science II 3 Cr. Hrs.

Provides pilots and other aviation professionals with in-depth knowledge of the advanced navigation systems used in commercial aviation operations.
Prerequisite: AVT 111

## 220 Instrument Flight 3 Cr. Hrs.

Provides pilots in the Professional Pilot option with the flight knowledge necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Instrument rating. Prerequisite: AVT 160
224 Flight Lab for AVT 2201 Cr. Hr. Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the instrument rating.
Prerequisite: Chairperson permission

## 228 Aircraft Engines 3 Cr. Hrs.

Basics of propulsion systems including piston, turbine, turboprop, turbojet, turbochargers, turbosuperchargers, and accessory drives.

## 238 Aircraft Avionics

3 Cr. Hrs.
Study of avionics systems, their operations and failure modes, including communications (VHF/UHF radios, Transponders, Data Link, etc.), navigational electronics (VOR, ADF, GPS, RNAV, LORAN, MLS, etc.) primary and secondary flight instruments (Vertical Speed Indicator, Horizontal Situation Indicator, Attitude Director Indicator, altimeter, turn coordinator, compass, clock, etc.), and engine instruments (tachometer, oil, fuel pressure, Turbine Inlet Temperature, manifold pressure, etc.).
Prerequisite: DEV 085 and DEV 065 or ENG 111,121 or 131 or permission of chairperson or instructor.

## 240 Human Factors In Aviation

3 Cr. Hrs.
Provides pilots and other aviation professionals with an in-depth knowledge of human performance capabilities and limitations and their relationship with aircraft systems operation. Automation and programming of Flight Management Systems (FMS), supervisory control, and Crew Resource Management (CRM), are among the topics that this course will address.
Prerequisite: DEV 085 and DEV 065 or ENG 111, 121 or 131

## 242 Aircraft Accident Investigation 3 Cr . Hrs.

Provides pilots and other aviation professionals with knowledge of the techniques used by accident investigators to identify causes of accidents. Case studies of aircraft accidents will be explored and discussed. The results of poor decision making and judgment will be understood and avoided.
Prerequisite: DEV 085, DEV 065 or ENG 111, 121, or 131
245 Aviation Law
3 Cr. Hrs.
Provides pilots and other aviation professionals with a working knowledge of the legal system and important legal concepts as they pertain to aviation. The legal aspects of aircraft ownership, rental, insurance, and liability will be explained.
Prerequisite: DEV 085, DEV 065 or ENG 111, 121, or ENG 131

## 247 Flight Controls

3 Cr. Hrs.
Provides pilots and other aviation professionals with instruction on flight controls. The course explores basic concepts of flight controls from conventional systems to advanced fly-by-wire systems.
Prerequisite: AVT 206

## 248 Aircraft Structures \& Systems 3 Cr. Hrs.

Basics of load bearing structural airframe components and related aircraft systems, operational limitations,failure modes, corrosion, repair, inspection, certification, FARs and documentation. Survey of various models of airframes, from simple light singleengined aircraft to commercial systems.

250 Commercial Pilot Ground School 3 Cr. Hrs.
Constant speed propellers, advanced fuel systems, retractablelanding gear systems, and high altitude operations of complex and high performance aircraft.
Prerequisite: AVT 160, AVT 220 or department chairperson's signature
253 Commercial Flight 4 Cr. Hrs. Provides aviation pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Commercial Pilot certificate.
Prerequisite: AVT 250 and AVT 220 or chairperson permission

## 255 Multi-Engine Operations 3 Cr. Hrs.

 Advanced aircraft systems, fuel management, engine failures, asymmetric thrust, and advanced weight and balance calculations required to operate multi-engine aircraft.Prerequisite: AVT 120, AVT 160 or department chairperson permission
256 Multi-Engine Flight 3 Cr. Hrs. Provides aviation pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the multi-engine rating. Prerequisite: AVT 253

## 257 Flight Laboratory <br> 1 Cr . Hr.

Provides aviation pilots in the Professional Pilot option with the pilot in command experience necessary to progress toward Federal Aviation Administration (FAA) advanced certificates and ratings.
Prerequisite: AVT 120 or chairperson permission

## 258 Flight Instructor Ground School 4 Cr. Hrs.

Flight instruction methods. Aviation concepts and principles primarily for advanced students.
Prerequisite: AVT 250 or chairperson permission

## 259 Instructor Flight <br> 3 Cr. Hrs.

Provides aviation pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the flight instructor certificate.
Prerequisite: AVT 258 or chairperson permission
261 Airframe I
3 Cr. Hrs.
Practical and lab component of A\&P program. Limited to A\&P students only.
263 Flight Lab for AVT 2531 Cr. Hr.
Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Commercial Pilot certificate.
Prerequisite: Chairperson permission

266 Flight Lab for AVT 2561 Cr. Hr. Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the multi-engine rating.
Prerequisite: Chairperson permission

## 268 Aircraft Powerplant Applications I

3 Cr . Hrs.
Components and configuration of aircraft piston engines, and normal operation of piston engines, with practical laboratory experiences. Limited to Airframe and Powerplant program students.
269 Flight Lab for AVT 2591 Cr. Hr. Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the flight instructor certificate.
Prerequisite: Chairperson permission

## 270 Aviation Internship

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1-12 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite: Chairperson permission

## 297 Special Topics

R
1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar or other non-traditional manner.

## Biology (BIO)

## 101 Body Structure \& Function

4 Cr. Hrs.
Basic anatomy and physiology background for ancillary medical personnel emphasizing basic principles of the structure and function of the human body.
104 HIV/AIDS 3 Cr. Hrs.
Balanced view of the biological, medical, social, and legal issues associated with HIV disease and AIDS.

## 105 Introduction to Biology 4 Cr . Hrs.

Focuses on cell structure and function, processes of metabolisms, genetics, ecology, diversity. Three lecture, two lab hours (BIO 106) per week.

## 106 Lab for BIO 105

Laboratory must be taken with BIO 105.
107 Human Biology 5 Cr. Hrs.
Survey of structure and function of the human body. Four lecture, two lab hours (BIO 108) per week.
Prerequisite: DEV 065,DEV 075, DEV 085 or equivalent

108 Lab for BIO 107
Laboratory must be taken with BIO 107.
109 Basic Microbiology 3 Cr. Hrs.
Introduction to microbiology including metabolism, genetics, pathogenic microorganisms, host-parasite relationships and food and water microbiology. Two lecture, two lab hours (BIO 114) per week.

## 111 General Biology I

4 Cr. Hrs.
Basic chemistry, cytology, cell energetics, cell reproduction. Three lecture, two lab hours (BIO 117) per week.

## 112 General Biology II

4 Cr. Hrs.
Transmission and molecular genetics, gene regulation, microevolution, and speciation. Three lecture, two lab hours (BIO 118) per week.

## Prerequisite: BIO 111

## 113 General Biology III 4 Cr. Hrs.

Population genetics, evolution biological diversity, and ecology. Three lecture, two lab hours (BIO 119) per week.
Prerequisite: BIO 112

## 114 Lab for BIO 109

Laboratory must be taken with BIO 109.

## 117 Lab for BIO 111

Laboratory must be taken with BIO 111.

## 118 Lab for BIO 112

Laboratory must be taken with BIO 112.
119 Lab for BIO 113
Laboratory must be taken with BIO 113.
121 Anatomy \& Physiology I 5 Cr. Hrs.
Integrated coverage of structure and function of human body: nervous system, cytology, histology, circulatory system, digestive system, metabolism. Four lecture, two lab hours (BIO 127) per week.
Prerequisite: BIO 115, CHE 117, CHE 120 or CHE 122
122 Anatomy \& Physiology II 5 Cr. Hrs.
Integrated coverage of structure and function of human body: skeletal system, respiratory system, urinary system, water and electrolyte balance, nerve-muscle physiology, endocrine system, reproductive system. Four lecture, two lab hours (BIO 128) per week.
Prerequisite: BIO 121

## 125 Respiratory Anatomy \& Physiology $\quad 3$ Cr. Hrs.

Normal adult lung anatomy and physiology including: ventilation, diffusion, perfusion, gas transport, acid-base status, pulmonary mechanics, defense mechanisms, and non-respiratory, functions of the lungs.
Prerequisite: BIO 115, CHE 117 or CHE 122

## 127 Lab for BIO 121

Laboratory must be taken with BIO 121.
128 Lab for BIO 122
Laboratory must be taken with BIO 122.

## 131 Radiologic Anatomy \& Physiology I 5 Cr . Hrs.

Structure and function of the human body and radiographic appearance: osteology, nervous system, cytology, histology. Four lecture, two lab hours (BIO 137) per week.

## 132 Radiologic Anatomy \& Physiology II 5 Cr . Hrs.

Structure and function of human body: cardiovascular system, gastrointestinal, urogenital, respiratory systems. Four lecture, two lab hours (BIO 138) per week. Prerequisite: BIO 131

## 137 Lab for BIO 131

Laboratory must be taken with BIO 131.
138 Lab for BIO 132
Laboratory must be taken with BIO 132.

## 141 Principles of Anatomy \&

 Physiology I4 Cr. Hrs.
Structure and function of the human body with an emphasis on introductory terminology, biochemistry, cytology, digestion, metabolism, nutrition, arthrology, skeletal and integumentary systems.
Prerequisite:DEV 065, DEV 075, DEV 085 or equivalent and CHE 117 or CHE 120 or equivalent

## 142 Principles of Anatomy \&

Physiology II 4 Cr. Hrs.
Continuation of BIO 141/147, Principles of Anatomy \& Physiology I, with an emphasis on the human muscular, nervous, endocrine, and reproductive systems.
Prerequisite: BIO 141 or equivalent

## 143 Principles of Anatomy \& <br> Physiology III <br> 4 Cr . Hrs.

Continuation of BIO 142/148, Principles of Anatomy \& Physiology II, with an emphasis on the human cardiovascular,lymphatic, immune, respiratory, and urinary systems, and water, electrolyte, and acid/ base balance.
Prerequisite: BIO 142 or equivalent

## 147 Lab for BIO 141

Laboratory must be taken with BIO 141.

## 148 Lab for BIO 142

Laboratory must be taken with BIO 142.

## 149 Lab for BIO 143

Laboratory must be taken with BIO 143.
161 Surgical Anatomy \& Physiology I 5 Cr. Hrs.
Anatomical structure and physiological functions of cells, tissue, skin, muscles, nerves and bones. Emphasis on structural relationships. Four lecture, two lab hours (BIO 166) per week.

162 Surgical Anatomy \& Physiology II
5 Cr. Hrs.
Continuation of BIO 161. Anatomical structure and physiological function of the cardiovascular, respiratory, nervous, urinary and digestive systems. Emphasis on structural relationships. Four lecture, two lab hours (BIO 167) per week.
Prerequisite: BIO 161

## 166 Lab for BIO 161

Laboratory must be taken with BIO 161.

## 167 Lab for BIO 162

Laboratory must be taken with BIO 162. Prerequisite: BIO 161
171 Principles of Biology I 5 Cr. Hrs. First course in a university parallel sequence for biology and science majors. Topics include the scientific method, basic chemical and biochemical foundations, cell biology, cell respiration, photosynthesis, cell reproduction, and Mendelian and chromosomal genetics. Four lecture, three lab (BIO 177) hours per week.
Prerequisite: MAT 101 or equivalent, DEV 065, and DEV 075.
172 Principles of Biology II 5 Cr. Hrs. Second course in a university parallel sequence for biology and science majors. Topics include molecular genetics, biotechnology, genetic basis of development, population genetics, microevolution, macroevolution, prokaryotes and fungi. Four lecture, three lab (BIO 178) hours per week.
Prerequisite: BIO 171
173 Principles of Biology III 5 Cr. Hrs. A continuation of BIO172. Topics covered include plant and animal diversity, plant and animal structure and function, the biosphere, behavioral ecology, population ecology, communities, and ecosystems. Four lecture, three lab (BIO 179) hours per week.
Prerequisite: BIO 172

## 177 Lab for BIO 171

Laboratory must be taken with BIO 171.

## 178 Lab for BIO 172

Laboratory must be taken with BIO 172.

## 179 Lab for BIO 173

Laboratory must be taken with BIO 173.
205 Microbiology 4 Cr. Hrs.
Morphology and physiology of microorganisms and selected human parasites, mechanisms of disease production, host responses, spread of infectious diseases. Three lecture, three lab hours (BIO 206) per week.
Prerequisite: BIO 107, BIO 111, BIO 121, BIO
115, BIO 161, BIO 141, CHE 117 or CHE 122
206 Lab for BIO 205
Laboratory must be taken with BIO 205.

## 211 Human Physiology 5 Cr. Hrs.

 Essentials of human physiology for nursing students in the LPN Fast Track Program who have had an anatomy and physiology course in LPN school; therefore, this course substitutes for the departmental anatomy and physiology sequence (BIO 141, 142, and 143). Other students who have completed one of the course prerequisites may take this course to gain a background in the functioning of the human body at a more advanced level. Four lecture, three lab hours (BIO 212) per week. Prerequisite: BIO 107 or BIO 112 or BIO 121 or BIO 141 or permission of instructor
## 212 Lab for BIO 211

Laboratory must be taken with BIO 211.

## 213 Essentials of Exercise Physiology

3 Cr. Hrs.
Study of how the major body systems are affected by exercise and how systems adapt to long-term fitness, strength, and performance training.
Prerequisite: BIO 107, BIO 113 or BIO 143

## 225 Ecology

4 Cr. Hrs.
Basic concepts in ecology and application to current environmental issues. Focuses on terrestrial and aquatic communities, species diversity, succession, population dynamics (ecological efficiency), conservation of natural resources, field experiences, data collection, analysis of environment. Three lecture and three lab hours per week.

## 226 Lab for BIO 225

Laboratory must be taken with BIO 225.

## 227 Tropical Ecology 5 Cr. Hrs.

Exploration of tropical ecosystems including the tropical rainforest, coral reef, and mangrove communities. A two-week travel/study component within a neotropical country (such as Belize, Costa Rica) is required. The course covers concepts of biodiversity, community interactions, plant and animal adaptations, conservation, collaborative field projects, multicultural exposure.
Prerequisite: Permission of instructor
235 Introduction to Genetics 4 Cr. Hrs. Mendelian genetics, gene action, regulation of gene action, mutations, population genetics. Three lecture, two lab hours (BIO 236) per week.

Prerequisite: BIO 113, BIO 121, BIO 131 or BIO 141

## 236 Lab for BIO 235

Laboratory must be taken with BIO 235.

## 240 Field Botany

4 Cr. Hrs.
Field identification of local vascular plant species and factors influencing their habitat distribution. Three lecture, four lab hours per week. Lab (BIO 246) includes field trip.
Prerequisite: BIO 105 or BIO 113

## 246 Lab for BIO 240

Laboratory must be taken with BIO 240.
270 Biology Internship
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Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students established learning outcomes and prepare related reports and/or projects each quarter.

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses, workshops, and special interest topics in Biology.

## Business Information Systems (BIS)

## 101 Personal Computer Keyboarding 2 Cr. Hrs.

Development of "touch" keyboarding using word processing software on a personal computer; development of competency on the ten-key pad; minimum of 20 wpm expected. Out-of-class lab work required.

## 102 Document Formatting 2 Cr. Hrs.

 Introduction to word processing software and continued development of personal computer skills; format and produce reports, letters, memos, multiple-column tables, and other business documents; minimum speed of 35 wpm expected. Completion of BIS 101 or OIS 101 or 118, and completion of or concurrently taking BIS M61 and BIS M62 or OIS M61 and OIS M62. Out-of-class lab work required.Prerequisite: BIS 101 or OIS 101 or OIS 118 and BIS M61 or OIS M61 or BIS 160 or OIS 160

## 103 Advanced Document Formatting/ Skillbuilding <br> 4 Cr. Hrs.

Use of personal computer word processing software to produce correctly formatted letters and memos, complicated tables, reports, and other business documents; minimum of 50 wpm expected. Out-ofclass lab work required.
Prerequisite: BIS 102 or OIS 102 and one of the following: BIS M62 or OIS M62 or BIS 161 or OIS 161

## 105 Introduction to Computers

3 Cr. Hrs.
Introduces students to personal computers, software, peripheral devices, and other current and developing hardware and software elements within the home or office setting. History, equipment, programming concepts, information media and literature of computer information systems in business and industry are introduced. Elementary P.C. assignments require lab time outside of class.

## 109 Keyboarding Speed/Accuracy Development <br> 4 Cr. Hrs.

Development of increased personal computer keyboarding speed and accuracy through proper diagnostic testing and corrective procedures.
114 Filing Applications 2 Cr. Hrs. Alphabetic filing, numeric, alpha/numeric, and other classification systems; creating archives and maintaining confidentiality; choosing equipment and supplies.
115 Workplace Technology 2 Cr. Hrs. An introduction of the newer technologies that have gained acceptance within the workplace: scanners and OCR software, digital cameras, voice recognition software, multipurpose devices, copiers, and productivity software for scheduling. MS Outlook software will be covered in detail.
116 Medical Office Procedures 4 Cr. Hrs. Basic principles of the office supportstaff/ secretarial, bookkeeping duties, and responsibilities pertinent to the medical office and health care agencies.
Prerequisite: BIS 136 and BIS 102 or BIS 103

## 117 Electronic Files Management 2 Cr. Hrs.

Introduction to the methods of appropriately saving, naming, and managing files for electronic storage and retrieval. Also included: backups, disaster planning/recovery programs, the life cycle of recorded media and emerging technologies within electronic records storage.

## 119 P.C. Applications: Microsoft Works <br> 3 Cr. Hrs.

Introductory course in personal computer applications. This course emphasizes word processing, spreadsheet, and database applications software using MicroSoft Works. Significant lab work outside of class is required.

## 120 Advanced P.C. Applications: Microsoft Works <br> 3 Cr. Hrs.

Development of proficiency in Microsoft Works personal computer applications with emphasis on integrated projects, personal finance and asset planning, home publishing, a multimedia encyclopedia, trip planning, and photo manipulation software. Significant lab work outside of class is required.
Prerequisite: BIS 119 or CIS 119
135 Machine Transcription 3 Cr. Hrs.
Transcription of correspondence in various letter forms from dictated media cassettes to proper form using transcribers and personal computers with an up-todate word processing software package, emphasizing English grammar skills. Prerequisite: BIS 103 and ENG112 or ENG132.

## 136 Introduction to Medical <br> Terminology 4 Cr. Hrs.

Root words, prefixes, suffixes, and combining forms as well as anatomy and physiology as it pertains to the medical office specialist; terminology, clinical procedures, and pathologies relating to the digestive and urinary systems.

## 137 Intermediate Medical <br> Terminology

4 Cr. Hrs.
Correct spelling, pronunciation, definition, use of words, clinical procedures and pathologies relating to the female and male reproductive systems, as well as the nervous, cardiovascular, respiratory, blood and lymphatic systems.
Prerequisite: BIS 136 or OIS 136

## 138 Advanced Medical Terminology 4 Cr. Hrs.

Correct spelling, pronunciation, definition, use of words, clinical procedures and pathologies relating to the musculoskeletal system, the skin, sense organs, endocrine system, cancer medicine, radiology and pharmacology.
Prerequisite: BIS 136 or OIS 136

## 143 Introduction to Legal Terminology 2 Cr. Hrs.

Spelling, pronunciation, and definitions of legal terms and their proper use by legal professionals.

## 160 Introduction to Word, PowerPoint, \& Excel <br> 3 Cr. Hrs.

Course is a combination of three modules: BIS M61 (Word), BIS M51 (PowerPoint), and BIS M41 (Excel) Word: Fundamental concepts and applications of Microsoft Word for Windows for professional and/ or personal use, emphasizing commonlyused commands and strategies for formatting, editing, and revising text. Not for BIS majors. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. PowerPoint: Basic features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows and paper-based printouts. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Excel: Basic spreadsheet applications emphasizing formatting procedures in generating reports fundamentals of creating, entering data into spreadsheet, storing, using formulas, and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-class lab work required.

## 161 Intermediate Word, PowerPoint, \& Excel 3 Cr . Hrs.

Course is a combination of three modules: BIS M62 (Word), BIS M52 (PowerPoint), and BIS M42 (Excel) Word: Intermediate concepts and applications of Microsoft Word for Windows for professional and/ or personal use emphasizing intermediate commands and strategies for formatting, editing, and revising text. Assumes experience with Microsoft Word and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. PowerPoint: Intermediate features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows, paper-based printouts, 35 mm slides, and the Internet. Assumes experience with MicrosoftPowerPoint and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Excel:Spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheets, storing, using formulas, printing a spreadsheet, creating charts, sorting and filtering lists, developing macros, and linking workbooks. Assumes experience with Microsoft Exceland Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: BIS 160 or OIS 160

## 162 Advanced Word, PowerPoint, \& Excel 3 Cr. Hrs.

Course is a combination of three modules: BIS M63 (Word), BIS M53 (PowerPoint), and BIS M43 (Excel). Word: Advanced concepts and applications of Microsoft Word for Windows for professional and/ of personal use emphasizing intermediate commands and strategies for formatting, editing, and revising text. Assumes experience with Microsoft Word and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab required. PowerPoint: Advanced features, commands, and capabilities of PowerPoint; In this section, students learn to enhance presentation in three key areas: animation, PowerPoint on the web, and customization features. Students will develop skills using the newest animation features, adding movies and sound, and incorporating clip art from the web. Skills will also be developed using PowerPoint's web features, Office integration, PowerPoint macros, and the use of add-in programs. Out-of-class lab work required. Excel: This section covers advanced competencies associated with Microsoft Excel. Skills and activities covered within this module include analyzing list data, enhancing charts, incorporating WordArt and data tables, and mapping data. It will also include using the What-if Analysis through creating scenarios and data tables, as well as working with pivot tables. This module builds on the introductory and intermediate skills and competencies
covered in the prerequisites. Assumes experience with Microsoft Excel and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: BIS 161 or BIS M42, BIS M52, BIS M62

## 172 Integrated Solutions 2 Cr. Hrs.

Integration of the Microsoft office Suite (Word, PowerPoint, Excel, and Access) with exercises to acquaintstudents in how the individual applications in Microsoft can work together as one. Assumes experience with basic MS Office packages, computers, and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: BIS 160 or BIS M61 and BIS M31 and BIS M41 and BIS M51 or a working knowledge of Microsoft Office and Windows.

## 201 Customer Service 3 Cr. Hrs.

Introduction to the basic concepts of customer service. Topics include customer service telephone skills, face-to-face communication, confidentiality, professional attitude when dealing with clients/customers, decision making, time management, problem solving, and dealing with difficultsituations. Attention to detail will be emphasized.

## 202 Online Customer Service 3 Cr. Hrs.

Introduction to the electronic application of customer service. Topics include the use of emerging technology within the customer service setting, quality tools and tracking, phone-based customer service, and scenarios/cases.

## 207 Telecommunications 2 Cr. Hrs.

Telecommunications technologies: voice mail, management of telecommunications equipment, appropriate use of services, automated dictation systems, fax machines, cell phones, digital phones, pagers, multifunction devices, and software for teleconferencing purposes.

## 215 Office Applications Practicum/ Seminar <br> 4 Cr . Hrs.

Students will participate in a volunteer capacity, in a work/learning experience. Students will establish work related learning outcomes, derived from BIS approved objectives, maintain a learning journal, and complete a paper or project assigned by instructor.
Prerequisite: BIS 116 and BIS 251 or 80 credit hours. Department approval.

## 220 Computer Applications for the Medical Office $\quad 4 \mathrm{Cr}$. Hrs.

 Entry level skills for computer-based management of a medical office emphasizing software for patient records, billing and collections, daily financial transactions, insurance processing, and the production of routine reports and summaries. Out-of-class lab work required.Prerequisite: BIS 102

## 223 Using Word Perfect 2 Cr. Hrs.

 Basic office applications of Word Perfect software, emphasizing commonly used commands and strategies for formatting, editing, and revising text. Out-of-class lab work is required.
## 250 Medical Transcription Skills <br> 2 Cr. Hrs.

Overview of grammar and background of medical reports, emphasizing sentence structure, formation of Latin plurals for medical terms, the formation of nouns into adjectives, the use of abbreviations in medical transcription, and stressing proficiency in the use of medical reference materials. This course should be taken during the same quarter as BIS 251.
Prerequisite: BIS 102 or OIS 102 and one of the following: BIS 137 or BIS 138 or OIS 137 or OIS 138

## 251 Medical Transcription I 4 Cr. Hrs.

Transcription of medical/surgical reports on a personal computer and word processing software into an accurate and acceptable format using medical terminology. This course should be taken during the same quarter as BIS 250.
Prerequisite: BIS 102 or OIS 102 and one of the following: BIS 137 or BIS 138 or OIS 137 or OIS 138

## 252 Medical Transcription II 4 Cr. Hrs.

Continuing emphasis on precision of transcription and personal computer word processing skills in preparation of complex medical reports. Second of a twocourse sequence.
Prerequisite: BIS 251

## 270 Business Information Systems Internship

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite: Department approval

## 297 Special Topics

R
0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses can apply toward an associate degree in Business.

## M11 Pretranscription Skills 1 Cr. Hr.

Introduction to machine transcription equipment while completing exercises in grammar, punctuation, and formatting. BIS 135 must be taken as a corequisite. Prerequisite: BIS 103 or OIS 103 and ENG 132 or ENG 112: BIS 135 must be taken as a corequisite.

M15 Introduction to Windows 1 Cr. Hr. Introduction to the Graphic User Interface, Windows and basic computer features. Basic Windows features include use of the mouse, understanding icons, buttons, and menus, learning the Windows Accessories, creating directories, copying files, moving files, changing and enhancing the desktop features.

## M21 Introduction to Desktop Publishing <br> 1 Cr . Hr.

Introduction to desktop publishing for office applications using Microsoft Publisher software for creation of proposals, flyers, newsletters, and web pages. Keyboarding skills required. Out-of-class lab work required.

## M22 Intermediate Desktop Publishing 1 Cr . Hr .

Intermediate level of desktop publishing for office applications using Microsoft Publisher software for creation and enhancement of proposals, flyers, newsletters, and web pages using styles and other special features. Keyboarding skills required. Out-of-class lab work required. Prerequisite: BIS M21

## M31 Introduction to Access 1 Cr. Hr.

 Introduction to basic database features of Microsoft Access. Skills and activities used to create databases and tables, enter and update data, display and print records, create forms and queries, and create reports. Assumes experience with computers and Microsoft Windows. Keyboarding skills required. Out-of-class lab work required.M32 Intermediate Access 1 Cr. Hr. Intermediate database features and applications used to search through databases, create reports, create subforms and update forms and report designs. assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: BIS M31, OIS M68 or CIS M68

## M33 Advanced Access 1 Cr. Hr.

Advanced competencies associated with Microsoft Access. Skills and activities include integration of Microsoft Access with other programs, creating advanced queries, adding complex objects to forms, and creating advanced forms and reports. This module builds on the introductory and intermediate skills and competencies covered in the prerequisites.
Prerequisite: BIS M32, OIS M69 or CIS M69

M34 Expert Access
1 Cr. Hr.
Expert competencies associated with Microsoft Access. Skills and activities include managing database objects, creating, running, and troubleshooting macros; creating modules using Visual Basic; and managing the database through backup procedures, password, and security issues. This course builds on the introductory, intermediate, and advanced skills and competencies covered in the prerequisites. Prerequisite: BIS M33

## M41 Introduction to Excel 1 Cr. Hr.

 Basic spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheet, storing, using formulas, and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-class lab work required.
## M42 Intermediate Excel 1 Cr. Hr.

 Spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheets, storing, using formulas, printing a spreadsheet, creating charts, sorting and filtering lists, developing macros, and linking workbooks. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: BIS M41, BIS 160, OIS M64 or OIS 160
## M43 Advanced Excel

$1 \mathrm{Cr} . \mathrm{Hr}$.
Advanced competencies associated with Microsoft Excel. Skills and activities include analyzing list data, enhancing charts, incorporating Word Art and data tables, and mapping data. Also includes using the What-if Analysis through creating scenarios and data tables, as well as working with pivot tables. This module builds on the introductory and intermediate skills and competencies covered in the prerequisites. Prerequisite: BIS M42 or OIS M65

## M44 Expert Excel <br> 1 Cr . Hr.

 Expert competencies associated with Microsoft Excel. Skills and activities include advanced spreadsheet applications emphasizing generating reports and charts with enhancements, as well as incorporating worksheets in other applications, and linking worksheets to the Internet. This module builds on the introductory, intermediate, and advanced skills and competencies covered in the prerequisite.Prerequisite: BIS M43
M51 Introduction to PowerPoint $1 \mathbf{C r}$. Hr. Basic features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows and paper-based printouts. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

M52 Intermediate PowerPoint 1 Cr. Hr. Intermediate features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows, paper-based printouts, 35 mm slides, and the Internet. Assumes experience with computer and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: BIS M51, BIS 160, OIS M66 or OIS 160
M53 Advanced PowerPoint 1 Cr. Hr. Enhance presentation skills in three areas: animation, PowerPoint on the web, and customization features. Develop skills using the newest animation features, adding movies and sound, and incorporating clip art from the web. Also develop skills using PowerPoint's web features, Office integration, PowerPoint macros, and addin programs.
Prerequisite: BIS M52 or OIS M67
M61 Introduction to Word $1 \mathbf{C r}$. Hr. Fundamental concepts and applications of Microsoft Word for windows for professional and/or personal use emphasizing commonly used commands and strategies for formatting, editing, and revising text. Keyboarding skills necessary and assumes experience with computers and Microsoft Windows. Out-of-class lab work required.

## M62 Intermediate Word 1 Cr. Hr.

Intermediate concepts and applications of Microsoft Word for Windows for professional and/or personal use emphasizing intermediate commands and strategies for formatting, editing, and revising text. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: BIS M61 or BIS 160

## M63 Advanced Word

$1 \mathrm{Cr} . \mathrm{Hr}$.
Advanced concepts and applications of Microsoft Word for Windows for professional and/or personal use emphasizing advanced commands and strategies for formatting, editing, and revising text. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: BIS M62, OIS M62 or BIS 161

## M64 Expert Word

1 Cr . Hr .
Expert concepts and applications of Microsoft Word for Windows for professional and/or personal use emphasizing advanced/expert commands and strategies forformatting, working with graphics,sharing information with other programs, and working with long documents. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: BIS M63 or OIS M63

## M70 Introduction to the Internet

1 Cr. Hr.
Introduction for beginners in navigation through the Internet and the World Wide Web. Includes electronic communication with others, terminology, concepts, and applications. Assumes experience with computers and Microsoft windows. Keyboarding skills necessary. Out-of-class lab work required.

## M71 Intermediate Internet 1 Cr. Hr.

Intermediate and advanced uses of the Internet in finding information, transferring files, modifying files, utilizing on-line services, attaching files to e-mail, basic web page building, and Internet security issues. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: BIS M70, OIS M70 or CIS M70

## M81 Introduction to Microsoft Project

1 Cr . Hr .
Basic skills and competencies of the Microsoft Project software: managing tasks, time management, management of resources, handling multiple projects, tracking, graphics, and customizing.

## M82 Intermediate Microsoft Project 1 Cr . Hr .

Intermediate skills and competencies of the Microsoft Project software: Project Family Management, Labor Overtime and Interim Plans, Macros, and Consolidating Projects.
Prerequisite: BIS M81

## Biotechnology (BTN)

## 110 Biotechnology \& Bioethics

3 Cr. Hrs.
Historical perspective on the development of biotechnology, introduction to terminology and fields of study, recent advances in biotechnology, their implications and applications; discussion of current issues in bioethics.

## 120 Laboratory Safety \& Regulatory Compliance 3 Cr. Hrs.

Overview of laboratory safety procedures and precautions, biosafety, radiation safety, compliance standards of regulatory agencies. Also included: introduction to radioactivity, uses of radioisotopes in biological applications, detection methods for the different types of radioactivity. Prerequisite: MAT 106 or MAT 116 or equivalent and concurrent course CHE 131 or 120 or equivalent.

## 130 Biological Reagents Preparation

 3 Cr. Hrs.Overview of chemical grades of reagents used in biological research, review of guidelines for safe storage of chemicals, emphasis on chemical formulas, including molarity, molality, normality; preparation of various reagents and media for biological applications, use of sterile techniques in reagent preparation.
Prerequisite: MAT 106 or MAT 116 or equivalent and CHE 120 or CHE 131 or equivalent, and BTN 120

## 131 Lab for BTN 130

Laboratory must be taken with BTN 130.

## 140 Cell Culture

3 Cr. Hrs.
Historical overview of the development of cell culture, introduction to sterile techniques used in cell and tissue culture, use of laminar flow hoods, in vitro maintenance and propagation of mammalian cells, cell counting, cell viability tests, cryopreservation and recovery of cell lines. Prerequisite: BIO111,BTN120 and MAT 106 or MAT 116 or equivalent.

## 141 Lab for BTN 140

Laboratory must be taken with BTN 140.

## 210 Protein Purification \& Analysis <br> 6 Cr. Hrs.

Introduction to purification methods-bulk fractionation, size-exclusion, ion-exchange and affinity chromatography; equipment, buffers, assays used; principles of protein quantification and analysis; precautions taken to avoid proteolysis, loss of activity; purification strategy, calculation of yield, enrichment, purity. Three lecture, six lab hours (BTN 211) per week.
Prerequisite: BIO 112, CHE 122, BTN 120, BTN 130, MAT 106 or MAT 116 or equivalent
211 Lab for BTN 210
Laboratory must be taken with BTN 210.

## 220 Microbiology \& Fermentation Methods <br> 4 Cr. Hrs.

Introduction to microbiology, metabolism and genetics of microorganisms, food and water microbiology, use of microbes in biotechnology, principles of fermentation, batch vs. continuous cultures, use of bioreactors for large-scale propatation. Two lecture, four lab hours (BTN 221) per week.
Prerequisite: BIO 112, CHE 122, BTN 120,
BTN 130, MAT 106 or MAT 116 or equivalent

## 221 Lab for BTN 220

Laboratory must be taken with BTN 220.

## 230 Molecular Biology Techniques

6 Cr. Hrs.
Structure of nucleic acids, DNA replication mechanisms, DNA cloning, genetic engineering techniques, use of plasmids and viruses as vectors, nucleic acid analysis by electrophoresis, Southern and Northern hybridization, DNA amplification and sequencing. Three lecture, six lab hours (BTN 231) per week.
Prerequisite: BIO 112, CHE 122, BTN 120, BTN 130 and MAT 106 or MAT 116 or equivalent

## 231 Lab for BTN 230

Laboratory must be taken with BTN 230.
240 Bioinformatics 3 Cr. Hrs.
Introduction to public domain DNA sequence databases, use of software and internet resources for database searching, use of database information in sequence comparisons, sequence alignment, structure prediction, gene prediction, and genome analysis. Two lecture, two lab hours (BTN 241) per week.
Prerequisite: BIO113,BTN210,BTN230 and BIS 119 or BIS 160 or equivalent.

## 241 Lab for BTN 240

Laboratory must be taken with BTN 240.

## 270 Biotechnology Internship R

6-9 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite: Departmental approval
295 Biotechnology Seminar 2 Cr. Hrs. Study of the biotechnology job market, resume preparation, essential workplace skills for success, professionalism at the workplace, small group interactions.
Prerequisite: Instructor signature

## 297 Special Topics

R
1-3 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses, workshops and special interest topics in Biotechnology. Prerequisite: Instructor signature

# Business Ownership (BUO) 

## 105 Business Ownership Orientation

 3 Cr. Hrs.General nature of business ownership and the opportunities, advantages, disadvantages, and personal requirements of owning and operating a small business.

## 108 Tax Compliance \& Recordkeeping <br> for Small Business 3 Cr. Hrs.

Bookkeeping principles and recordkeeping fundamentals for the small business owner.

## 110 Small Business Management

## 3 Cr. Hrs.

Organization and operation of small scale retail, trading, service, or manufacturing businesses relating to location, financing, marketing, labor supply, accounting, production, stock control, taxes, and insurance. Prerequisite: BUO 105

## 112 Small Business Marketing 3 Cr. Hrs.

Marketing factors contributing to the overall success of a small business: feasibility analysis; market studies; promotional campaigns; pricing strategies; and, distribution channels.

## 114 Import/Export for Small Business

3 Cr. Hrs.
Procedures, marketing strategies and research for foreign trade business development, including direct and indirect export channels of distribution, financing, overseas markets, government controls/regulations, and pricing.

## 115 Business Ownership Case Studies

3 Cr. Hrs.
Everyday problems of owning and operating a small business through the case method. Preparing and completing a business plan is a major focus.

## 120 Introduction to Franchising

 3 Cr. Hrs.Aspects of the franchising concept: trends, opportunities, limitations, laws, and regulations.

## 125 Small Business Plan Development

 3 Cr. Hrs.Preparation of detailed multi-part business plan including financial proposal and market analysis tailored to meet individual business needs.
270 Business Ownership Internship $\begin{array}{r}\text { 1-9 Cr. Hrs. }\end{array}$
See EBE 270 Internship for course description.

## 297 Special Topics in Small Business R 0.5-6 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

## Career Planning (CAP)

105 Career Selection<br>2 Cr. Hrs.

Exploration of personal and career goals, examination of occupational trends and options. Practical experience with resume development and interviewing techniques. Note: Students interested in cooperative education see EBE 170.

## 125 Pre-Retirement Planning \& Seminar

2 Cr. Hrs.
An eight-week seminar covering major areas of planning for retirement: health, housing, financial, legal and personal adjustment.
205 Job Campaign Strategy 2 Cr. Hrs. Career strategies for students ready to apply for employment. Emphasizes techniques of job hunting, salary negotiations, interview skills, and resume preparations.

## Civil Engineering Technology (CCT)

## 102 Basic Construction Surveying 4 Cr. Hrs.

Introduction to construction layout with appropriate math concepts. Automatic levels and total stations will be used in practical construction layout projects.
Prerequisite: ARC 138

## 105 Properties of Construction Materials

3 Cr. Hrs.
Properties of basic construction materials examined through laboratory analysis. Emphasis on how properties of materials affect their use in the construction industry. One lecture, four lab hours per week.

## 106 Construction Workers Tools for Success: Essential Workplace Skills <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

An overview of the unique human relations in the construction industry, with emphasis on building a strong trusting relationship with supervisors and fellow workers.

## 118 Core Construction Skill \& Safety

1.5 Cr. Hrs.

Introduction to the technology of building construction viewed through the eyes of the craftspeople. Review of construction terminology, job site safety, and blueprints.
119 Basic Construction Skills 1 Cr. Hr.
Introduction to basic construction safety, math, hand tools and power tools for individuals new to the construction industry.

## 120 Introduction to Construction

 Trades3 Cr. Hrs.
An orientation to the various construction trades including carpentry, ironwork, masonry, concrete, electrical, plumbing and HVAC.

## 121 Carpentry Level 1-A 2 Cr. Hrs.

Introduction to the craft of carpentry with strong emphasis in hands-on learning exercises.
Prerequisite: CCT 119, CCT 120
122 Carpentry Level 1-B 3.5 Cr. Hrs. Advanced instruction in the carpentry trade with emphasis on pre-manufactured systems-floors, walls and roofs. Advanced concrete framework is also studied. Emphasis is on hands-on learning experiences.

## Prerequisite: CCT 121

123 Carpentry Level 2-A 3.5 Cr. Hrs. Learning experiences in carpentry skills with emphasis on exterior site construction. Prerequisite: CCT 122
124 Carpentry Level 2-B 3.5 Cr. Hrs. Carpentry work associated with placing Portland cement concrete.
Prerequisite: CCT 123
125 Carpentry Level 3-A 3.5 Cr. Hrs. Advanced skills in carpentry with emphasis on exterior finishes.
Prerequisite: CCT 122
126 Carpentry Level 3-B 3.5 Cr. Hrs.
In-depth study of the materials used and the skills required to finish an interior building space. Research and lab exercises are used to explore the aesthetics of building interiors.
Prerequisite: CCT 125

## 127 Carpentry Level 4-A $\quad 3.5$ Cr. Hrs.

Essentials for the layout of complex building projects, beginning with basic site layout through complex floor, wall, and roof systems.

## Prerequisite: ССТ 126

## 128 Carpentry Level 4-B 3.5 Cr. Hrs.

Review of light frame building construction. Less traditional methods of frame construction are compared with the more common applications.
Prerequisite: ССТ 127
131 Iron Worker Level 1-A 3.5 Cr. Hrs. First of a two-part introduction to the ironworking trade with strong emphasis on hands-on learning exercises.
Prerequisite: CCT 118
132 Iron Worker Level 1-B 3.5 Cr. Hrs. Continuation of the introduction and basics of the ironworking trade. Emphasis is on hands-on learning exercises.
Prerequisite: CCT 131
133 Iron Worker Level 2-A 3.5 Cr. Hrs.
An examination of math and complex blueprints associated with the introduction to the ironwork industry as well as advanced arc welding and an introduction to reinforcing steel.
Prerequisite: CCT 132

134 Iron Worker Level 2-B 3.5 Cr. Hrs. Advanced ironworking skills in structural steel joists, girders along with study of construction cranes and surveying equipment.
Prerequisite: CCT 133

## 141 Portland Cement Concrete Level-1 3.5 Cr. Hrs.

Introduction to the craft of working with concrete with strong emphasis on handson learning exercises.
Prerequisite: CCT 119

## 142 Portland Cement Concrete Level 2-A 3.5 Cr . Hrs.

Hands-on training in placing and finishing Portland cement concrete.
Prerequisite: CCT 141

## 143 Portland Cement Concrete Level 2-B <br> 3.5 Cr. Hrs.

Advanced finishing techniques and quality control for Portland cement concrete. Prerequisite: CCT 142
151 Introduction to Millwright 3 Cr. Hrs. Introduction to the specific skills associated with the millwright craft.
Prerequisite: CCT 119
201 Introduction to Surveying 3 Cr. Hrs. Distance measurement via taping to third order accuracy and making appropriate corrections. Profiles, cross-sections topo data and level circuits will be developed using the automatic level. Recording proper field notes will be emphasized. Both English and metric measurements will be used. Two lecture, two lab hours per week.
Prerequisite: DEV 085 or equivalent

## 202 Construction Surveying 5 Cr. Hrs.

Introduction to the total station and data collector. Horizontal and vertical alignment will be studied with field work included. Traverse closure, area, volume, coordinate calculations, and building layout will be incorporated into field projects. Two lecture, six lab hours per week. Prerequisite: CCT 201, 226, MAT 131 or equivalents

## 203 Subdivision Design <br> 4 Cr. Hrs.

Research of courthouse records for deed transfers and descriptions; study of subdivision regulations for the development of a finished plat ready for recording. Triangulation with ties to Ohio's state plane coordinate system will be developed. Introduction to Global Position Stationing equipment and software. Two lecture, four lab hours per week.
Prerequisite: CCT 202
206 Structural Analysis II 4 Cr. Hrs.
Theories of structural analysis with emphasis on the theories of design of reinforced concrete. Hands-on laboratory problems will enable students to demonstrate design concepts.
Prerequisite: MET 207, CCT 105

216 Construction Estimating 4 Cr. Hrs. Construction estimating, beginning with an understanding of the costs of labor equipment and materials as well as profit and overhead. Quantity measurements of basic construction materials will be used to develop bidding packages. Two lecture, four lab hours per week.
Prerequisite: MET 198, CCT 105 and either ARC 101, and ARC 105 or ARC 138

## 226 Heavy Highway Construction

## 3 Cr. Hrs.

Highway engineering design utilizing the Ohio Department of Transportation (ODOT) manuals and specifications. Interpretation of the relationships of plans, elevations, sections and details along with the coordination with published specifications. Two lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent

## 235 Legal Principles for Surveyors

4 Cr. Hrs.
Advanced course in surveying. Gives working knowledge of real property, systems used to describe land, simultaneous conveyances created by state law, reversion rights, riparian and littoral owners, and retracements.
Prerequisite: CCT 202

## 238 Construction Utilities Drafting

3 Cr. Hrs.
Mechanical areas of plumbing, heating, and electrical work. Plumbing, heating, and electrical plans, with detailing, lettering of notes, outline specifications and schedules for actual construction projects using AutoCAD. Two lecture, two lab hours per week.
Prerequisite: CCT 201

## 240 Construction Law \& Specifications

3 Cr. Hrs.
Examination of legal principles in the area of contracts and specifications, including development, design, manufacture and sale of reliable products.
Prerequisite: CCT 256

## 242 Construction Management

Personnel Issues 3 Cr. Hrs.
Analysis of the construction industry and the people associated with it. Specific emphasis is on the unique characteristics of construction and how these characteristics affect people.
Prerequisite: CCT 240
245 Soil Mechanics
4 Cr. Hrs.
Theories of soil mechanics including soil classifications, sampling and testing methods, stress distribution, shearing resistance and strength of soils. Two lecture, four lab hours per week.
Prerequisite: CCT 105, MET 207

## 246 Topographic Drawing \& Mapping 4 Cr. Hrs.

State-of-the-art software is used to develop topographic drawings. Information from data collectors will be downloaded to develop data bases for the creation of profiles, cross sections, and volumes. Two lecture, four lab hours per week.
Prerequisite: CCT 202, DRT 198

## 256 Construction Management

 3 Cr. Hrs. Inter-relationships and operations of a construction firm with a simulation of the management process by student teams demonstrating management skills required to succeed in business today. Finance, accounting, marketing and sales will be examined. Two lecture, two lab hours per week.Prerequisite: ARC138or ARC101 and ARC105

## 258 Project Management Techniques

3 Cr. Hrs.
Theory, nomenclature and practical applications of management techniques using computer software. Practical planning and project control with critical path methods, financial planning and cost control. Two lecture, two lab hours per week. Prerequisite: CCT 216, CCT 256

## 270 Civil Construction Internship R 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

## 278 Civil/Construction Capstone

4 Cr. Hrs.
Assessment of achievement by Civil Engineering Technology \& Construction Management Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. One lecture, six lab hours per week.
Prerequisite: Approval of chairperson

## 297 Special Topics

R

## 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.

## Chemistry (CHE)

## 116 Introduction to Scientific Glassblowing

Basic operations used in scientific glassblowing emphasizing design, construction, and repair of simple scientific apparatus. Three hours lab per week.

## 117 Chemistry of Life Processes

4 Cr. Hrs.
Selected topics in inorganic, organic, and biochemistry. Primarily for Allied Health students.

## 120 Introduction to Chemistry 4 Cr . Hrs.

 Surveys chemistry for allied health, nonscience and elementary education majors. Atomic theory, periodic law, chemical bonding, nomenclature, basic chemical calculations, states of matter, solutions, acids and bases and nuclear chemistry. Three lecture, two lab (CHE 126) hours per week. Prerequisite: DEV 085 or equivalent
## 121 Introduction to Organic Chemistry 4 Cr . Hrs.

An introduction to alkanes, alkenes, alkynes, aromatic hydrocarbons, alkyne halides, aldehydes, ketones, alcohols, ethers, amides, carboxylic acids, amines, esters, phosphines, stereoisomerism, and polymers. Three lecture, three lab (CHE 127) hours per week.

Prerequisite: CHE 120 or equivalent

## 122 Introduction to Biochemistry 4 Cr. Hrs.

Introduces organic functional groups, nomenclature, carbohydrates, lipids, proteins, enzymes, metabolism of carbohydrates, lipids and proteins, heredity and protein synthesis, vitamins and hormones, chemistry of body fluids. Three lecture, threelab (CHE 128) hours per week.

## Prerequisite: CHE 120 or equivalent

## 126 Lab for CHE 120

Laboratory must be taken with CHE 120.

## 127 Lab for CHE 121

Laboratory must be taken with CHE 121.

## 128 Lab for CHE 122

Laboratory must be taken with CHE 122.

## 131 Technical Chemistry I 4 Cr. Hrs.

Application of atomic structure, elements, compounds, periodic table, chemical bonding, nomenclature, stoichiometry, states of matter, equilibria, acids and bases, oxidation reduction, electrochemistry, and organic chemistry. Three lecture, three lab (CHE 137) hours per week. Prerequisite: MAT 102 or equivalent

## 134 Environmental Analytical Chemistry <br> 4 Cr. Hrs.

Field data acquisition techniques of analysis; separation, volumetric, gravimetric, gas and high pressure chromatography, atomic absorption; statistical methods using EPA protocols. Two lecture, six lab (CHE 139) hours per week.
Prerequisite: CHE 121

## 137 Lab for CHE 131

Laboratory must be taken with CHE 131.

## 139 Lab for CHE 134

Laboratory must be taken with CHE 134. 141 College Chemistry I 4 Cr. Hrs. A university parallel course for the nonscience majors. Atomic theory, periodic law, chemical bonding, kinetics and equilibrium, nuclear chemistry and energy. Three lecture, three lab (CHE 147) hours per week.
Prerequisite: MAT 102 or equivalent
142 College Chemistry II 4 Cr. Hrs. University parallel sequence; Acids and bases, oxidation and reduction, cations polymer chemistry, and biochemistry. Three lecture, three lab (CHE 148) hours per week.
Prerequisite: CHE 141, CHE 151 or CHE 120 143 College Chemistry III 4 Cr. Hrs. University parallel sequence; chemistry of water, the atmosphere, agriculture, nutrition, medicine, household chemistry, transportation chemistry, and chemistry of imaging. Three lecture, three lab (CHE 149) hours per week.
Prerequisite: CHE 142

## 147 Lab for CHE 141

Laboratory must be taken with CHE 141.

## 148 Lab for CHE 142

Laboratory must be taken with CHE 142.

## 149 Lab for CHE 143

Laboratory must be taken with CHE 143.

## 151 General Chemistry I 5 Cr. Hrs.

A university parallel course for science and engineering majors. Atomic theory, periodic law, chemical bonding, nomenclature, stoichiometry, and elementary organic and biochemistry. Four lecture, three lab (CHE 157) hours per week. High school chemistry or CHE 120 is strongly recommended.
Prerequisite: MAT 102 or equivalent
152 General Chemistry II 5 Cr. Hrs.
Continues general chemistry, emphasizes ideal and non-ideal states of matter and their mixtures - gases, solids, liquids, solutions, and colloids; thermodynamics, kinetics and basic equilibria. Four lecture, three lab (CHE 158) hours per week. Prerequisite: CHE 151

153 General Chemistry III 5 Cr. Hrs. Continues general chemistry. Emphasizes applied equilibria, pH , electrochemistry, descriptive chemistry of selected elements, qualitative analysis, gas chromatography, visible and IR spectroscopy, and nuclear chemistry. A chemistry industry is toured. Three lecture, six lab (CHE 159) hours per week.
Prerequisite: CHE 152

## 157 Lab for CHE 151

Laboratory must be taken with CHE 151.

## 158 Lab for CHE 152

Laboratory must be taken with CHE 152.

## 159 Lab for CHE 153

Laboratory must be taken with CHE 153.

## 201 Organic Chemistry I 5 Cr. Hrs.

Alkanes, alkyl halides, stereochemistry, organmetallic compounds, alcohols, ethers, and spectroscopy. Four lecture, three lab (CHE 207) hours per week.
Prerequisite: CHE 143 or CHE 152

## 202 Organic Chemistry II 5 Cr. Hrs.

Alkenes, alkynes, aromatichydrocarbons, aldehydes, and ketones, carboxylic acids, and spectroscopic methods of organic analysis. Four lecture, three lab (CHE 208) hours per week.
Prerequisite: CHE 201
203 Organic Chemistry III 5 Cr. Hrs. Enolates, derivatives of carboxylic acids, amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, polymers, composite materials, and biochemistry. Four lecture, three lab (CHE 209) hours per week.

Prerequisite: CHE 202

## 207 Lab for CHE 201

Laboratory must be taken with CHE 201.
208 Lab for CHE 202
Laboratory must be taken with CHE 202.

## 209 Lab for CHE 203

Laboratory must be taken with CHE 203.

## 211 Analytical Chemistry I 4 Cr. Hrs.

Traditional techniques of chemical analysis including: gravimetric, volumetric, precipitation, and selected topics in spectroscopy and electro-chemistry. Two lecture, six lab (CHE 217) hours per week. Prerequisite: CHE 143 or CHE 153
212 Analytical Chemistry II 4 Cr. Hrs. Traditional instrumental analysis including: colorimetry, infrared, ultraviolet, visible, atomic absorption and various chromatographic methods. Primarily intended for the associate degreestudent. Twolecture, six lab (CHE 218) hours per week.
Prerequisite: CHE 211

## 217 Lab for CHE 211

Laboratory must be taken with CHE 211.

## 218 Lab for CHE 212

Laboratory must be taken with CHE 212.

245 Concepts in Chemistry 5 Cr. Hrs. Basic concepts and applications including matter, physical states and changes, periodicity, compounds and bonding, chemical changes, solutions and electrolytes, acids and bases, oxidation and reduction, and organic chemistry. Applications use an inquiry learning environment which emphasizes science process skills integrated with mathematics. Early childhood education majors only. Does not satisfy chemistry requirement for middle childhood education majors. Four lecture, three lab hours per week.
Prerequisite: MAT 110, ASE 145
270 Chemistry Internship
2-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in the discipline. Objectives will vary with the particular content area.

## Chinese (CHN)

100 Conversational Chinese 3 Cr. Hrs. Basic Chinese conversational skills through situational dialogues and command of the phonic pinyin system and essential idiomatic expressions. Mastery of written Chinese characters is not required.

## 105 Conversational Chinese II

3 Cr. Hrs.
Advanced conversational skills through situational dialogues and idiomatic expressions within complex cultural settings. Mastery of written Chinese characters is not required.
Prerequisite: CHN 100

## Computer Information Systems (CIS)

## 107 Introduction to Operating Systems <br> 3 Cr. Hrs.

Introduction to operating systems commonly used in business, covering beginning and intermediate operating system commands and their functions on the personal computer. Assignments require lab time outside of class. This course has a technical focus and is intended for CIS majors. It is assumes that studentshavekeyboarding and mouseskills. It is recommended that all Developmental courses (DEV) be completed prior to enrolling in this course. An assessment of basic computerconcepts, keyboarding, and mouse skills will be done upon entering the course. Recommend BIS 105 (or equivalent).

108 Introduction to Windows 2000 Professional

3 Cr. Hrs.
Introduction to Windows 2000 Professional, including use of the graphical user interface, file manipulation, basic network operations and administration. This course has a technical focus and is intended for CIS majors. It is assumed that students have keyboarding and mouse skills, and have completed all Developmental (DEV) requirements. An assessment of basic computer concepts, keyboarding and mouse skills will be done upon entering the course. Recommend BIS 105 and CIS 107 (or equivalent knowledge).
110 Program Design \& Logic 3 Cr. Hrs. Introduction to logical problem solving techniques used in programming. The course focuses on development and improvement of the student's programming design ability. Some of the learning outcomes are: problem solving skills, structured and modular design using both flow charts and pseudocode, sequential file processing, file data structures, arrays and array processing, and graphical user interface and event driven programming design. Recommend BIS 105 or equivalent. Prerequisite: MAT 101

## 111 Introduction to Computer <br> Programming

3 Cr. Hrs. Computer programming fundamentals: Several programming projects will be completed to develop skill in the program development process. Projects will encompass all aspects of the development process within the event driven programming environment: understand the problem, graphical user interface design, object dictionary specification, script design, coding, testing, and debugging. Course projects will increase in difficulty beginning with simple input-process-output projects to include modular design using procedures and functions, decision making structures, repetition structures, array processing, and file processing. Recommend CIS 107, CIS 108, or Windows skills. Prerequisite: CIS 110 or PHI 218

## 112 Object Oriented Concepts

3 Cr. Hrs.
Introduction to software development using objectoriented analysis and design. This methodology expresses solutions in terms of objects: self-contained entities composed of data and operations on that data. Classes, objects, encapsulation, inheritance, and polymorphism concepts will be presented. Various Object Oriented Analysis \& Design (OOA \& D) tools and models including Unified Modeling Language (UML) will be introduced. Students will apply their skills in mini design sessions.
Prerequisite: CIS 111

113 Object Oriented Design 4 Cr. Hrs. Concepts and vocabulary of object-oriented design with an investigation into the three pillars of object oriented programming: inheritance, encapsulation, and polymorphism. Design case studies are an essential component of this course. Prerequisite: CIS 111

## 117 RPG I <br> 3 Cr. Hrs.

Introduction to RPG II language: elementary input/output, arithmetic and logic operations; file/reports used in mini and small mainframe business computer applications. Programming assignments require lab time outside of class.
Prerequisite: CIS 111

## 118 RPG II

3 Cr. Hrs.
Arrays/tables, secondary file organization and access. Programming assignments require lab time outside of class.
Prerequisite: CIS 117

## 129 Introduction to HTML/JavaScript 3 Cr. Hrs.

Development of web pages using the Hypertext Markup Language and JavaScript. Prerequisite: OIS M71 or BIS M71

## 130 Introduction to Web Development 3 Cr . Hrs.

Creation of a web page using a page wizard and an authoring tool, such as FrontPage or Composer. Introduction to web authoring and web programming. Customization using HTML/JavaScript code.
Prerequisite: OIS M71 or BIS M71

## 131 Intermediate Web Development 3 Cr . Hrs.

Development of a web site using an authoring tool, such as Composer or FrontPage, working in a team environment.
Prerequisite: CIS 130
134 Macromedia Flash 3 Cr. Hrs.
Development of interactive, animated, digital creations appropriate for disk, $C D$ or web delivery. The primary authoring tool is Macromedia's Flash with other authoring tools being reviewed. The course is best described as a community of learners who develop collaborative project skills as they develop Flash Expertise.
Prerequisite: CIS 130 or equivalent
136 Introduction to HTML 2 Cr. Hrs. Introduction to HyperText Markup Language (HTML) and design issues involved in creating documents for distribution on the World Wide Web. The standard HTML tags will be covered, including basic formatting, headers, body attributes, page layout, links tables, frames, and forms.
Prerequisite: OIS M71

137 Introduction to JavaScript 2 Cr. Hrs. Introduction to the JavaScript programming language that is used to create dynamic, interactive effects on web pages. Standard programming language concepts will be covered, including variables, branching, looping, functions, and parameter passing. Projects will include pop-up windows, scrolling messages, validating forms, and cookies.
Prerequisite: CIS 136 and CIS 111 or equivalent

## 138 Advanced Macromedia Flash <br> 3 Cr. Hrs.

Expansion of the skill set taught in CIS 134 by designing more advanced, interactive web sites and by developing web projects that incorporate the more complex Flash techniques including ActionScripting and forms. The primary authoring tool is Macromedia's Flash. Other authoring tools will be reviewed. The course is best described as a community of learners who develop collaborative project skills as they develop Flash expertise.

## Prerequisite: CIS 134

## 141 Active Server Pages 3 Cr. Hrs.

Introduction to Microsoft's Active Server Pages (ASP) technology for use in a dynamic, database driven web site. Students will be introduced to the N-tier client/ server web architecture, VBScripting platform, ASP Objects, the ADO model, ODBC database connectivity, and serverside components. Students will develop a web application using ASP technology.
Prerequisite: CIS 111, CIS 265 and CIS 129 (or CIS 136 and CIS 137)

## 143 Cold Fusion Markup Language <br> 3 Cr . Hrs.

Introduction to the Cold Fusion Markup Language (CEML) technology for use in the development of dynamic, databasedriven web sites. Students will be introduced to the CFML tags then develop Cold Fusion web applications that interact with users, query and update databases, generate dynamic content, create session and client variables, and interact with the web server.
Prerequisite: CIS 111, CIS 265 and CIS 129 (or CIS 136 and CIS 137)

## 144 Perl Common Gateway Interface <br> 3 Cr . Hrs.

Introduction to the perl scripting language used to develop Common Gateway Interface (CGI) programs that generate HTML. Students will be introduced to PERL language constructs, learn to use the command line debugger, and code PERL applications that use regular expressions, PERL modules with CGI.pm and perldoc. The basics of CGI environment variables and form processing will be covered. Students will learn how to set up a web server to host CGI programs that deliver HTML content.
Prerequisite: CIS 111, CIS 265 and CIS 129 (or CIS 136 and CIS 137)

## 147 Visual Basic Programming I

3 Cr. Hrs.
Visual Basic language for Window applications for P.C. users in a business related environment. Development of visually oriented problem solving skills using the graphical user interface of Windows and the BASIC language. Programming assignments require lab time outside of class. Prerequisite: CIS 111 and CIS 107 or equivalent

## 148 Advanced Visual Basic 3 Cr. Hrs.

 Advanced Visual Basic programming. Primary topic is developing/using databases. Other topics include MDI, OLE, and Windows API. Enables designing/ developing most VB applications a typical business environment. Uses the latest technology/architecture software and techniques. Programming assignments require lab time outside of class.Prerequisite: CIS 147

## 160 Introduction to Word, Excel, \& Access <br> 3 Cr. Hrs.

Course is a combination of three modules: CIS M61(Word), CIS M64 (Excel), and CIS M68(Access). Word: Fundamental concepts and applications of Microsoft Word for Windows for professional and / of personal use, emphasizing commonly used commands and strategies for formatting, editing, and revising text. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Excel: Basic spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheet, storing, using formulas, and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-classlab work required. Access: Introduction to basic database features of Microsoft Access. Skills and activities used to create databases and tables, enter and update data, display and print records, create forms and queries, and restructuring of databases. Assumes experience with computers and Microsoft Windows. Out-of-class lab work required.

## 162 Microsoft Office Troubleshooting <br> \& Problem Solving 3 Cr. Hrs.

 Introduction to troubleshooting and problem solving techniques for Microsoft Office. Review of the major components of the complete Office package. Real world cases help the students to develop critical thinking skills in evaluating needed computer support while focusing on avoiding or preventing software problems. The students work with integration of networks and web as used in the software.Prerequisite: BIS 160 or (BIS M41, BIS M51 and BIS M61)

## 164 Introduction to User Support

3 Cr. Hrs.
Introduction to the skills and abilities required to provide technical support and assistance to computer users. Emphasis is on customer service, problem solving and communication skills (needs analysis, troubleshooting and interaction with users). Topics include service concepts, skill sets, career paths, strategies to provide technical support and operations of the help desk and user support industry.
Prerequisite: CIS 107

## 166 User Support Tools \& Techniques

3 Cr. Hrs.
An in-depth look into the business processes for user support, including processes and procedures for using help desk tools and technologies to determine and resolve typical help desk and user support problems.
Prerequisite: CIS 164

## 210 Computer Systems Analysis <br> 3 Cr. Hrs.

Life cycle of computer information systems, emphasizing the requirements, methodology, and skills related to systems specification, design and documentation. May require lab time outside of class.
Prerequisite: CIS 111

## 211 Computer Aided Software <br> Engineering <br> 3 Cr. Hrs.

Analysis, planning, and design of business computer systems using computerized flowcharts, structure charts, prototypes, screen generators, code generators and other software tools.
Prerequisite: CIS 210
219 Microsoft Office 3 Cr. Hrs.
Advanced interactive development of P.C. based productivity application design incorporating word processing (Word for Windows), spreadsheet accounting (Excel), and graphic presentations (PowerPoint).

## 221 COBOLI

3 Cr. Hrs.
Syntax and grammar of the COBOL language; structured design and documentation. Programming assignments require lab time outside of class.
Prerequisite: CIS 111

## 222 COBOL II

3 Cr. Hrs.
Advanced COBOL programming; tablehandling and multiple file handling techniques; interactive program development and interaction with data bases. Programming assignments require lab time outside of class.
Prerequisite: CIS 221 or equivalent

## 223 Extensible Markup Language

3 Cr. Hrs.
Introduction to the Extensible Markup Language (XML) for data exchange and document publishing. Topics including Extensible Style Sheet Language (XSL), Document Type Definitions (DTD), Document Object Model (DOM), and Simple Application Programming Interface for XML (SAX). Students will apply their knowledge by creating e-commerce application.
Prerequisite: CIS 111, CIS 265 and CIS 129 (or CIS 136 and CIS 137)

## 224 Web Server Administration \& Security 4 Cr. Hrs.

Introduction to the technical skills needed to install, configure and maintain a secure web server. Topics include web directories and permissions, user accounts and documents, client and server security, secure online transactions, and intrusion detection and recovery.
Prerequisite: CIS 131, CIS 141, CIS 143, CIS 144 or CIS 284

## 225 Systems Software Troubleshooting

3 Cr. Hrs.
Computer operating systems, functions and characteristics, including brief study of job control language, data communications. Lab oriented projects assigned.
Prerequisite: CIS 107 or CIS 108

## 229 Advanced JavaScript 3 Cr. Hrs.

Introduction to the more advanced topics of JavaScript and more in-depth knowledge of the JavaScript language. The student is introduced to the JavaScript Object model and events that are used to interact with the user.
Prerequisite: CIS 129 (or CIS 136 and CIS 137) and CIS 111 or equivalent
230 Computer Networks
3 Cr. Hrs.
Fundamentals of network and data communication including protocols, hardware, software, and local and area wide networks with emphasis on network analysis, design, management, and applications; balances technical aspects of both data communications and managerial issues by incorporating current models such as the seven-layer open systems interconnection (OSI) and systems network architecture (SNA).
Prerequisite: CIS 107 or CIS 108

## 231 UNIX I <br> 3 Cr. Hrs.

A user's introduction to the functions, capabilities and basic operations of the UNIX Systems. Assignments require lab time outside of class.
Prerequisite: CIS 107

232 UNIX II 3 Cr. Hrs.
Advanced study of the UNIX Operating System for programmers including writing and debugging shell procedures, pipes and interprocess communications, and commands list. Assignments require lab time outside of class.
Prerequisite: CIS 231

## 233 C++ Programming I 3 Cr. Hrs.

 An introduction to the $\mathrm{C}++$ programming language. The course builds on prior introduction to programming studies. Topics include C++ syntax, logic and repetition structures, data types, input/output methods. Programming assignments require additional time outside of class.Prerequisite: CIS 111
234 C++ Programming II 3 Cr. Hrs.
This coursebuilds on the foundation of $\mathrm{C}++$ studies covered in CIS 233. Intermediate and advanced topics of sorting, searching, pointers, linked lists, recursion, and objectoriented programming techniques will be covered. Programming assignments require additional time outside of class.
Prerequisite: CIS 233
236 Visual C++
3 Cr. Hrs.
Windows based $\mathrm{C}++$ language concepts and programming including objects, classes, inheritance and encapsulation; selected intermediate/advancedC++language features/practices. Programming assignments require lab time outside of class.
Prerequisite: CIS 234

## 237 Data Structures in Java 4 Cr. Hrs.

The course covers data structures, methods of organizing large amounts of data; and algorithm analysis, the estimation of the running time of algorithms. The goal of this course is to teach students good programming and algorithm analysis skills so that they can develop efficient programs. Prerequisite: CIS 281, MAT 116 or equivalent

## 238 Personal Computer Installation Management <br> 3 Cr. Hrs.

Installing, configuring, maintaining and troubleshooting microcomputer hardware and software including CPU, storage devices, add-on boards and adapters, video displays, printers and communication devices, operating systems, and diagnostic software programs.
Prerequisite: CIS 107

## 240 Network Installation Management 3 Cr . Hrs.

Advanced networking concepts for designing, installing and configuring network systems which include the effective use of hardware and network/application software for peer-to-peer and client/ server environments. Students will demonstrate their working network solutions. Prerequisite: CIS 230

## 241 Cisco Networking Fundamentals 7 Cr. Hrs.

First course in the four-course Cisco Certified Networking Associate (CCNA) sequence. Foundation skills needed for the mastering of the basic concepts of networking in an Internet/Intranet networking environment. Includes both hardware and software installation and management. Prerequisite: CIS 107

## 242 Cisco Router Fundamentals 7 Cr. Hrs.

Second course in four-course sequence, building on the concepts of the Cisco Networking Fundamentals course (CIS 241). Adds the fundamental concepts of router configuration and management, and basic router hardware and software components. Additional assignments will require lab time outside of class.
Prerequisite: CIS 241

## 243 Cisco Routing in LANs 7 Cr. Hrs.

Third course in four-course sequence, building on the concepts of previous courses. Topics include advanced router configurations, LAN switching theory, VLANs, advanced LAN and LAN switched design, Novell IPX, and threaded case studies. Additional assignments will require lab time outside of class.
Prerequisite: CIS 242

## 244 Cisco Routing in WANs 7 Cr. Hrs.

Fourth course in a four-course sequence, building on the concepts of previous courses. Topics include WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, Network troubleshooting, National SCANS Skills, and treaded case studies. Additional review and practice for the Cisco Certified Network Associate and the network and industry standard exams. Additional assignments will require lab time outside of class.
Prerequisite: CIS 243
260 MCSE Exchange Server 4 Cr. Hrs.
Skills needed to implement, administer, and troubleshoot information systems that incorporate Microsoft ExchangeServer 5.5. Install, configure and manage Exchange Server 5.5 on an Intel-based computer platform running Microsoft Windows NT Server network operating system version 4.0.
Prerequisite: CIS 252, CIS 272

## 264 A+ Certification 3 Cr. Hrs.

Installing, configuring, upgrading, maintaining and troubleshooting microcomputer hardware and software including CPU, storage devices, add-in boards and adapters, video displays, printers and communication devices. Prepares students for the CompTIA A+ Certification Exam. A+ Certification is a testing program sponsored by the Computing Technology Industry Association (CompTIA) that certifies the competency of service technicians in the computer industry. Prerequisite: CIS 238 or permission of counselor.

## 265 Database Management Systems

3 Cr. Hrs.
Introduction to application development in a database environment. Discussion of data structure and database models. Discussion of database administration and analysis (design and implementation). An explanation and comparison of the various database models: relational, network and hierarchical. Students will design and develop a simple database and implement a small portion of this project. Project requires lab time outside of class.
Prerequisite: CIS 111, OIS M69, CIS M69 or BIS M32
266 Client/Server Database 4 Cr. Hrs. Introduction to application development in a client/server database environment. Discussion of data structures and database models; database planning, design, administration and analysis. An explanation and comparison of the various database models: object, relational, network, and hierarchical. Discussion of a methodology for conceptual, logical and physical design for relational systems. Requires lab time outside of class.
Prerequisite:CIS113 or (CIS111 and BISM31)

## 268 Introduction to Oracle: SQL \& PL/SQL <br> 3 Cr. Hrs.

Introduction to Oracle DBMS in a client/ server environment. The course covers SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve and manipulate data. Students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports and data management applications. Prerequisite: CIS 265 or CIS 266

## 270 Computer Information Systems Internship <br> R

1-9 Cr. Hrs.
See EBE 270 Internship for course description.
271 MCSE 2000 Professional 4 Cr. Hrs. Intermediate and advanced aspects of the administration and support functions of a Windows 2000 Professional administrator. Outcomes include installation and setup of the Windows 2000 Professional, setup and administer a peer-to-peer network and in-depth knowledge of the Windows 2000 Professional Operating System. Prepares students for the industry certification exam. Assignments require computer lab time outside of class. Prerequisite: CIS 108, CIS 230

## 272 MCSE 2000 Server 4 Cr. Hrs.

 Intermediate and advanced aspects of the administration and support functions of a Windows 2000 Server administrator. Outcomes include installation and setup of the Windows 2000 Server, setup and administer a client server network and in-depth knowledge of the Windows 2000 Server Operating System. Prepares students for the industry certification exam. Assignments require lab time outside of class. Prerequisite: CIS 108, CIS 230
## 273 MCSE 2000 Infrastructure 4 Cr. Hrs.

Intermediate and advanced aspects of the administration and support functions of a Windows 2000 network infrastructure. Focus on the ability to install, manage, monitor, configure, and troubleshoot DNS, DHCP, Remote Access, Network Protocols, IP Routing, and WINS in a Windows 2000 network. Prepares students for the industry certification exam. Assignments require lab time outside of class. Prerequisite: CIS 272

## 274 MCSE 2000 Directory Services Administration <br> 4 Cr. Hrs.

This course provides the skills needed to implement, administer and support functions of Windows 2000 Directory Services. Focus on the ability to install, configure, and troubleshoot Microsoft Windows 2000 Directory Services. Prepares students for the industry standard certification exam. Assignments require computer lab time outside of the classroom.
Prerequisite: CIS 272

## 275 MCSE 2000 Designing Directory Services 4 Cr. Hrs.

Intermediate and advanced aspects of the design and support functions of Windows 2000 Directory Services. Focus is on the ability to design and analyze Directory Services architecture. Preparesstudents for the industry certification exam. Assignments require lab outside of classroom.
Prerequisite: CIS 274

## 276 MCSE Internet Explorer <br> Administration

3 Cr. Hrs.
Intermediate and advanced aspects of the administration and support functions of Internet Explorer within a Windows 2000 network. Focus on the ability to install, manage, monitor, configure, and troubleshoot services related to Internet Explorer. Prepares students for the Industry certification exam. Assignments require lab time outside of class.
Prerequisite: CIS 272

## 278 CIS Capstone

4 Cr. Hrs.
Assessment of skills and competencies by CIS students through project based activities. Demonstration of achievement of degree option outcomes via oral and written presentations and creation of a professional growth plan. Course should be taken in the last quarter prior to graduation.
Prerequisite: CIS 225

280 Java Programming I 4 Cr. Hrs. Basics of java programming and objectoriented software. Objects, attributes, and methods in Java are covered. The basics of programming structures are covered: selection, looping and arrays.
Prerequisite: CIS 111
281 Java Programming II 4 Cr. Hrs.
A continuation of the Java Programming I course, delving more deeply into the basics of Java programming and objectoriented software. Classes, object families, menus, graphics, sound, the AWT, streams, files, data structures and utility classes, threads, and networking.
Prerequisite: CIS 280
283 Advanced Java
4 Cr. Hrs.
Accelerated course in the Java programming language fundamentals for professional programmers preparing for Sun Java Programmer Certification and Sun Java Developer Certification. Advanced Java covers the material in both CIS 280 and CIS 281.
Prerequisite: CIS 113
284 Client/Server Web Tools 3 Cr. Hrs. Designing, writing and deploying webbased n-tier applications using current development tools such as Microsoft Visual InterDev. Topics include: HTML, JavaScript, cookies, session variables, server-side scripting, ODBC, and Data Objects. Extensive lab exercises reinforce course topics. Students will design, create and deploy a small e-business web site.
Prerequisite: CIS 111 and OIS M68 or CIS 265

## 285 Web Application Development with Java 4 Cr. Hrs.

Designing, writing and deploying webbased n-tier applications using Java-related technologies. Topics include:HTML,JavaScript, cookies, session variables, Java Servlets, JavaServer Pages, JDBC, Java Beans and XML. Extensive lab exercises reinforce course topics. Students will design, create and deploy a small e-business web site.
Prerequisite: CIS 280 or CIS 283, CIS 265 or CIS 266

## 286 Enterprise Java

4 Cr. Hrs.
Java technologies used in advanced network applications such as Enterprise Java Beans, distributed Servlets, RMI, JNDI, LDAP, Jini, and Java Spaces.
Prerequisite: CIS 283, CIS 285

## 288 Java Enterprise Development Project Seminar <br> 5 Cr. Hrs.

Project based course where student teams propose, design, develop and implement a distributed Java application based on a set of requirements. Guest lecturers will provide insight on the latest Java Enterprise technologies.
Prerequisite: CIS 283, CIS 285

Provides opportunities to receive credit for special interest topics within the discipline. Brief description of topics will be given and prerequisites identified when course is offered. Some lab time outside of class may be required.

## 299 Final Programming Project

4 Cr. Hrs.
Small groups complete a systems development project. Assignments require lab time outside of class.
Prerequisite: CIS 210,CIS 222,CIS 265,COM 211

## M61 Introduction to Word $1 \mathbf{C r} . \mathrm{Hr}$.

Fundamental concepts and applications of Microsoft Word for Windows for professional and / or personal use emphasizing commonly used commands and strategies for formatting, editing, and revising text. Keyboarding skills necessary and assumes experience with computers and Microsoft Windows. Out-of-class lab work required.
M62 Intermediate Word 1 Cr. Hr. Intermediate concepts and applications of Microsoft Word for Windows for professional and/or personal use emphasizing intermediate commands and strategies for formatting, editing, and revising text. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-classlab work required.
Prerequisite: CIS 160, CIS M61, OIS 160 or OIS M61
M64 Introduction Excel 1 Cr. Hr. Basic spreadsheet applications emphasizing formatting procedures in generating reports, fundamentals of creating, entering data into spreadsheet, storing, using formulas and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-classlab work required.

## M65 Intermediate Excel 1 Cr. Hr.

Basic spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheet, storing, using formulas, printing a spreadsheet creating charts, sorting and filtering lists, developing macros, and linking workbooks. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: CIS 160, CIS M64, OIS 160 or OIS M64

## M66 Introduction to PowerPoint

1 Cr. Hr. Basic features, commands and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows and paper based printouts. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
M67 Intermediate PowerPoint 1 Cr. Hr.
Advanced/expert features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows, paper based print outs, 35 mm slides, and the Internet. Assumes experience with computer and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. Prerequisite: CIS M66 or OIS M66
M68 Introduction to Access 1 Cr. Hr. Introduction to basic database features of Microsoft Access. Skills and activities used to create databases and tables, enter and update data, display and print records, create forms and queries, and restructuring of databases. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
M69 Intermediate Access 1 Cr. Hr. Advanced database features and applications used to search through databases, create reports, create subforms and update form and report designs. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite: CIS 160, CIS M68, OIS 160 or OIS M68

## M70 Introduction to the Internet

## $1 \mathrm{Cr} . \mathrm{Hr}$.

An introductory module for beginners in navigation through the Internet (World Wide Web) and electronic communication with others. Class will introduce terminology, concepts, and applications. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
M71 Intermediate Internet $1 \mathbf{C r}$. Hr. Advanced uses of the Internet in finding information, transferring files, modifying files, utilizing online services, and attaching files to e-mail. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-ofclass lab work required.
Prerequisite: CIS M70 or OIS M70

## Communication Arts (COM)

## 201 Introduction to Mass Communication

3 Cr. Hrs.
History, practices, and functions of the press, television, radio, film, advertising, and public relations. Investigates mass media's influence on modern society.

## 206 Interpersonal Communication

3 Cr . Hrs.
Focusing on development of effective interpersonal communication, and stressing better methods of expressing oneself and understanding others through the learning of interpersonal theory.
211 Effective Speaking I 3 Cr. Hrs. Designed to help individuals speak and listen effectively through the study of content, structure and style regarding public address.

## 212 Effective Speaking II 3 Cr. Hrs.

Speech composition with emphasis on research and factors important to delivery in securing a desired audience response. Presentations videotaped for analysis.
Prerequisite: COM 211
215 Oral Interpretation 3 Cr. Hrs. Development of the skills necessary to read literature aloud. Techniques for presenting prose, poetry, and dramatic selections will be studied and performed.

## 225 Small Group Communication

3 Cr . Hrs.
Focusing on development of effective small group decision making and leadership skills, and stressing better methods of expressing oneself and understanding others through learning group communication, theory and participating in small group decision making experiences.
227 Principles of Persuasion 3 Cr. Hrs. Examination of campaigns, movements, and elements of popular culture that contain messages designed to influence the general population;emphasis upon the use and development of persuasive appeals.

## 230 Non-Verbal Communication

 3 Cr. Hrs.Development of effective non-verbal communication skills for the successful communicator, stressing better methods of expressing oneself and understanding others through the learning of the nonverbal theory, Impression Management. Prerequisite: COM 206 or COM 225
235 Principles of Interviewing 3 Cr. Hrs. Developmentofeffectiveinterviewingskills as both interviewer and interviewee. Practical experience in key types of interviews including problem-solving, appraisal, informational and employment interviews.

## 245 Intercultural Communication

3 Cr. Hrs.
Issues focusing on communication effectiveness between divergent major contemporary cultures.

## 250 Applied Health Communication 3 Cr. Hrs.

Overview and application of communication theories directly having an impact on today's health care practitioner; focus on utilization of effective communication skills to enhance understanding and to improve relationships between health care practitioner and clients, patients, co-workers.
Prerequisite: COM 206
270 Communication Internship R 1-12 Cr. Hrs.
See EBE 270 Internship for course description.
278 Communication Capstone 1 Cr . Hr . Demonstration of communication skills and competencies through the development of a communication skills portfolio; independent activity under the direction of a Communication Arts faculty member. Prerequisite: COM 201, 206, 211, 225 and one other COM course

## 285 Business \& Professional Communication <br> 3 Cr. Hrs.

Examines the principles and skills of effective face-to-face communication in business and professional settings; surveys on-thejob communication skills that enhance success for individuals and the organization.
286 Public Relations Principles 3 Cr. Hrs. Examines the principles and skills of public relations in organizations and in society by integrating organizational communication and management practices.
287 Effective Listening 3 Cr. Hrs.
Development of effective listening skills. Practical experience in comprehensive, empathic, critical, and appreciative listening.

## 290 Introduction to Broadcasting

3 Cr. Hrs.
Survey of the history, current issues and trends of commercial and public broadcasting including government regulations and philosophy, structure and general operation of the broadcasting industry.

## 295 Independent Study in Communication R <br> 1-3 Cr. Hrs.

Independent exploration of issues, problems and/or areas of special interest in the field of communication under the direction of the Communication faculty. Open only to second year students. May be repeated but not to exceed three (3) credit hours.

## 297 Special Topics

R 1-6 Cr. Hrs.
Selected topics related to current communications issues, trends, or problems offered through regular class schedules, television, newspaper, or many workshops.

## Corrections (COR)

101 Corrections Ethics 3 Cr. Hrs.
Challenges, expectations, and demands of corrections officers; ethicalbehavior, along with professionalism, and the critical nature of following appropriate standards.
102 Crisis Intervention 3 Cr. Hrs.
Measures for developing a comprehensive riot control plan for correctional institutions; appropriate responses to maintain order and restore peace in a legal and humane fashion.

## 103 Legal Issues in Corrections Institutions <br> 3 Cr. Hrs.

Legal issues a corrective officer may face while working in correctional institutions including suicide prevention, conditions of confinement, use of force, and the right to exercise or practice one's religion.

## 104 Written Communications in <br> Corrections <br> 3 Cr. Hrs.

Practical experience in preparing the diverse forms, notes and reports that accompany correctional work with emphasis on specific skills necessary for accurately completing such tasks.

## 105 Alternatives to Prison 3 Cr. Hrs.

 Alternatives to incarceration involving community based programs, diversion strategies, pre-institutional substitutes, post-institutional programs, drug and alcohol programs, contemporary probation and parole, political problems in corrections, funding sources for community programs, and role of the community.
## 106 Introduction to Corrections

3 Cr. Hrs.
Overview of the demanding daily workload within the institutional setting; critical issues affecting security, custody control, and institutional programs.

## 126 Correctional Services in the

Community
3 Cr. Hrs.
Community resources that can be used in the correctional task (both diversionary and rehabilitative). On-the-scene examination or an orientation by an expert from each prominent resource.
190 Corrections Workshop
1-6 Cr. Hrs.
Workshops offered as part of Sinclair's continuing education program for persons in and interested in the criminal justice system. Will be offered throughout the academic year in a variety of subject areas and for varying lengths of time. May be repeated for credit as topic changes.

## 205 Law \& the Juvenile Offender 3 Cr. Hrs.

The juvenile justice system and the laws that protect the alleged delinquent. The rights and non-rights of juveniles, philosophy and goals of the juvenile court and its programs, and the community attitude toward delinquency.

## 206 Corrections <br> 3 Cr. Hrs.

Reception, classification, program (job) assignment, and release. Jail programs that are or could be implemented are reviewed. Juvenile diversion, holding and detention facilities and practices, and the functions of the custodial staff are examined.

## 226 Contemporary Issues in Corrections <br> 3 Cr . Hrs.

Modern trends in community based corrections. Some of the more advanced concepts and experiments, i.e., work-release, halfway houses, school-release, family conjugal visits, and others are analyzed and evaluated.

## 270 Corrections Internship

1-6 Cr. Hrs.
See EBE 270 Internship for course description.

## 295 Corrections Seminar 3 Cr. Hrs.

Identification and analysis of current issues and problems within the field of corrections.

## Dance (DAN)

105 Beginning Dance

Basic movement classes for students with no previous dance experience. Class work consists of placement exercises, combinations to improve flexibility, and movements common to ballet and modern dance.
107 Jazz Workout
Basic jazz combinations for the non-dancer performed to popular and jazz music; designed to strengthen and stretch the body by developing correct alignment.

## 120 Movement as Therapy

Dance techniques, improvisations, and movement theories used therapeutically and pedagogically.
145 Dance Practicum

Perspectives of dance presentation emphasizing discipline over self, dedication to group, and responsibility to audience.

## 155 Dance History

3 Cr. Hrs.
Historical development of dance from earliest beginnings to the Renaissance birth of ballet to the twentieth century emergence of modern dance.

157 Dance Appreciation 3 Cr. Hrs. Introduction to dance from non-performing perspective focusing on its many artistic, theatrical, and social forms relating to culture, other arts, and the humanities.

## 170 Point Technique <br> R <br> \section*{1 Cr . Hr .}

Classes in basic point technique. Prerequisite: DAN 272
171 Character Dance
R
1 Cr . Hr .
Character dance steps and national styles used in ballet and modern dance.
Prerequisite: DAN 172

## 172 Ballet I

R
3 Cr . Hrs.
Basic fundamentals and theory of classical ballet for beginning students. Class work consists of barre work and center combinations and steps.

## 173 Modern Dance I

3 Cr. Hrs.
Basic fundamentals and theory of modern dance for beginning students. Class work consists of floor exercises, combinations of movements, and basic steps.

## 174 Jazz I

3 Cr. Hrs.
Basic fundamentals of jazz technique. Class work consists of warm-up exercises, isolations, and basic movements.

## 175 Tap Dance I

R
3 Cr. Hrs.
Basic fundamentals of tap technique. Class work consists of basic steps, combinations, and rhythms.

## 176 Men's Technique Class

R
1 Cr . Hr .
Ballet classes emphasizing the skills needed and required of the male dancer.

## 177 Folk \& Ethnic Dance

Classes based on dances of various countries and cultures.

## 178 Technical Theatre for Dancers

2 Cr. Hrs.
Survey of technical aspects of the theatre, including the technical vocabulary required to communicate the unique needs of dancers who are choreographing or performing in a variety of theater settings; and the expectations of theater personnel related to dance productions.
180 Music for Dancers

Music fundamentals and concepts presented from a dance perspective to demonstrate sensitivities to music that will improve the quality of dancing.

204 Ballet Pedagogy
R
1 Cr . Hr .
For intermediate second-year students, this course pursues the techniques and goals of learning how to teach dance, the relation of music structure to dance, and the problems of dance production as it pertains to ballet.
Prerequisite: DAN 272 or intermediate skill level
205 Modern Dance Pedagogy R

## 1 Cr . Hr .

For intermediate second year students, this course pursues the techniques and goals of learning how to teach dance, the relation of music structure to dance, and the problems of dance production. Offered for repeatable credit.
Prerequisite: DAN 273 or intermediate skill level
206 Jazz Pedagogy
R
1 Cr . Hr .
For intermediate students, this course defines the techniques and goals needed for the teaching of jazz dance. Content will include the structural relationship between music and dance, and the theatrical/technical aspects of a jazz performance.
Prerequisite: DAN 274 or intermediate skill level.

## 207 Dance Class Accompanying R

1 Cr . Hr .
Techniques essential for the accompanist's role in the dance class. Must audition using own intermediate level repertoire.

## 241 Dance Composition I

Rules and theory of basic dance composition.
Prerequisite: One year of dance or permission of instructor
242 Dance Composition II
R
3 Cr . Hrs.
Continuation of Dance Composition I, adding studies in improvisation, small groups, and further use of music with compositional forms.
Prerequisite: DAN 241
272 Ballet II
R

## 3 Cr. Hrs.

Intermediate ballet level. Working knowledge ofbasicbarre and centerwork required. Prerequisite: DAN 111 or DAN 172 or previous training
273 Modern Dance II

Intermediate modernlevel. Working knowledge of modern dance technique required.
Prerequisite: DAN 173 or previous training
274 Jazz II
R
3 Cr. Hrs.
Intermediate jazz level stressing techniques and styles needed for musical theatre performance.
Prerequisite: DAN 174 or permission of instructor

## 275 Tap Dance II

3 Cr . Hrs.
Intermediate tap level stressing tap turns, rhythmic combinations and styles needed for musical theatre performance.
Prerequisite: DAN 175 or permission of instructor
297 Special Topics
R
1-3 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a nontraditional format such as television, videotape, etc.

## Dental Hygiene (DEH)

103 Head \& Neck Anatomy 4 Cr. Hrs. Gross anatomy of the head and neck region including the oral cavity. Three lecture, two lab hours per week.
Prerequisite: BIO 107

## 104 Dental Anatomy for Dental Auxiliaries <br> 2 Cr . Hrs.

A study of form and function of the human dentition. Designed for dental care providers. One lecture and two lab hours per week.

## 105 Introduction to Dental Hygiene 2 Cr . Hrs.

Historical, professional, legal and ethical aspects of the dental hygiene profession. Includes basic vocabulary and preventive dental health concepts.
Prerequisite: BIO 107
106 Nutrition \& Oral Health 3 Cr. Hrs. Basic nutrition principles in dental hygiene care, including principles of nutrition, application of basic nutrition principles through the lifespan, nutritional aspects of oral health and disease, systemic disease and nutrition status, and nutrition assessment and counseling for the dental hygiene client.
Prerequisite: BIO 107

## 109 Lab for DEH 103

Laboratory must be taken with DEH 103.

## 111 Pre-Clinical Dental Hygiene I

4 Cr. Hrs.
Scientific principles of dental hygiene practice with emphasis on data collection, client assessment, oral health education, and basic instrumentation. Practice of infection control standards and regulations are an integral component.
Prerequisite: DEH 103, DEH 105

## 112 Pre-Clinical Dental Hygiene II

 4 Cr. Hrs.Scoemtofoc principles of dental hygiene practice with emphasis on care planning and periodontal instrumentation.
Prerequisite: DEH 111

113 Clinical Dental Hygiene I 5 Cr. Hrs. Practice of preventiveand therapeutic dental hygiene procedures in the clinical setting. Prerequisite: DEH 112, DEH 106

## 114 Exposure Control in Dentistry

$1 \mathrm{Cr} . \mathrm{Hr}$.
Infection control and related health and safety, commonly known as exposure control. Knowledge and skills necessary to implement an exposure control program in a variety of oral health care settings.
Prerequisite: Chairperson signature

## 117 Lab for DEH 111

Laboratory must be taken with DEH 111.

## 118 Lab for DEH 112

Laboratory must be taken with DEH 112.

## 119 Lab for DEH 113

Laboratory must be taken with DEH 113. 125 Dental Materials 3 Cr. Hrs.
General knowledge, proper manipulation and use of various dental materials used in the dental practice setting and how to educate and inform patients about materials used for their dental care.
Prerequisite: DEH 113

## 126 Lab for DEH 125

Laboratory must be taken with DEH 125.

## 135 Dental Radiology

4 Cr. Hrs.
Scientific principles of radiation and radiographic production in dental practice. Three lecture, three lab hours per week. Prerequisite: DEH 103

## 136 Lab for DEH 135

Laboratory must be taken with DEH 135.

## 155 Oral Histology, Embryology \& Pathology <br> 4 Cr . Hrs.

Development, microscopic anatomy and congenital/acquired abnormalities of oral and paraoral tissues. Selected principles of general histology and embryology are offered for comparison. Three lecture, two lab hours per week.
Prerequisite: DEH 103

## 156 Dental Hygiene Research Project

 1 Cr . Hr .Preparation of a scientific literature review of a health care related topic with relevance to the clinical practice of dental hygiene. Two lab hours per week.
Prerequisite: ALH 104, DEH 155
157 Research Methodology 2 Cr. Hrs. Overview of biostatistical and epidemiological terminology and notations needed for dental hygiene research and literature review.
Prerequisite: DEH 105

## 210 Drug Therapy in Dentistry

2 Cr. Hrs.
Overview of conventional drug classes with emphasis on actions, effects and indications for dental practice.
Prerequisite: BIO 107 or equivalent

211 Clinical Dental Hygiene II7 Cr. Hrs.
New components of total patient care with specific emphasis on the periodontal patient and incorporating community affiliation sites. One hour lecture, 18 hours clinic per week.
Prerequisite: DEH 113
212 Clinical Dental Hygiene III 7 Cr. Hrs.
A continuation of clinical dental hygiene that includes community affiliation sites, case studies, and special needs patient care. Competencies in advanced techniques for preventive, therapeutic, and supportive care will be taught.
Prerequisite: DEH 211
213 Clinical Dental Hygiene IV 7 Cr. Hrs. Mastery of total patient care in clinic and at community affiliation sites. One lecture, 18 hours clinic (DEH 219).
Prerequisite: DEH 212
215 Periodontics 1
2 Cr. Hrs.
A study of periodontal disease including its etiology, pathogenesis, diagnosis, and treatment. The content is designed to supplement pre-clinical and clinical course work from DEH 111, DEH 112, and DEH 113.
Prerequisite: DEH 112

## 217 Clinical for DEH 211

Clinical must be taken with DEH 211.

## 218 Clinical for DEH 212

Clinical must be taken with DEH 212.

## 219 Clinical for DEH 213

Clinical must be taken with DEH 213.

## 220 Medical Emergencies in the Dental Office 2 Cr. Hrs.

Principles of first aid and the management of medical emergencies in dental care settings. One lecture, two lab hours per week.
Prerequisite: ALH 140, or current BLS certification, ALH 220, DEH 103

## 235 Community Dental Health I

3 Cr. Hrs.
Introduction to public health concepts, principles and practices in oral health promotion and disease prevention. This course will provide the student with a broad understanding of the health care system and the social, political, cultural, behavioral and economic forces directing the system. Students will be introduced to their roles as community health educators through didactic and experiential learning opportunities.
Prerequisite: DEH 113

## 236 Community Dental Health II

 2 Cr . Hrs. Application of dental health education within the community. This will provide the dental hygiene student with specific knowledge and skills required to plan and evaluate dental health promotion/ disease prevention programs in school and community settings. Principles of public health practice will be emphasized using community outreach processes for community health promotion and disease prevention activities and the application of research methodology.Prerequisite: DEH 235

## 247 Expanded Functions for Dental Auxiliary I 6 Cr. Hrs.

Typodont experience of placing cavity bases and liners, matrices, rubber dams, placing and contouring amalgam and tooth-colored restorations, and the technique of instrument transfer.

## 248 Expanded Functions for Dental Auxiliary II <br> 6 Cr. Hrs.

Laboratory and clinical application of placement of CI, II, III, IV, V restorations. Prerequisite: DEH 247

## 249 Expanded Functions for Dental Auxiliary III 6 Cr. Hrs.

Mastery of clinical application of placing amalgam and a composite restorations. Prerequisite: DEH 248

## 250 Periodontics II <br> 2 Cr. Hrs.

A continuation of the study of periodontology; emphasis on non-surgical periodontal therapy and supportive periodontal therapy. Parameters and guidelines for patient care; analysis of current literature; and overview of surgical periodontal therapy, including dental implants.
Prerequisite: DEH 215 or licensed dental hygienist.

## 253 Pain Control in Dentistry 1 Cr. Hr.

 Anatomy, physiology and pharmacology of local anesthesia and nitrous oxide sedation and the indications, limitations and precautions associated with their use. Prerequisite: DEH 210 or ALH 219255 Dental Hygiene Practice 2 Cr. Hrs. This course is designed to prepare student dental hygienists for transition to dental hygiene practice. Emphasis will be placed on current issues in dental hygiene including: resume and/or portfolio development; interviewing strategies and practice setting selection; legal and ethical issues; professional development for life long learning; and organized dental hygiene. Prerequisite: DEH 212

# Developmental Studies (DEV) 

045 English as a Second Language: Basic I<br>R

4 Cr. Hrs.
For non-native speakers of English: basic grammar patterns in speaking and writing, including verb tenses, modifiers, sentence structure, and punctuation; listening and reading techniques for comprehension of expository language. Requires a basic understanding of spoken and written English. (Not an intensive course.)

## 046 English as a Second Language: Basic II <br> R <br> 4 Cr. Hrs.

For non-native speakers of English: grammatical patterns including perfect tenses and complex sentences in reading and writing expository paragraphs; strategies for increasing accuracy and comprehension in listening and speaking. (Not an intensive course.)
Prerequisite: DEV 045

## 047 English as a Second Language: Basic III <br> 4 Cr. Hrs.

For non-native speakers of English: reading and writing paragraphs using topic sentences and supporting sentences; grammatical patterns including comparison, condition, direct and indirect speech, and listening and speaking in structured discussion. (Not an intensive course.)
Prerequisite: DEV 046

## 048 English as a Second Language: Intermediate I <br> R <br> 4 Cr. Hrs.

For non-native speakers of English: grammar and writing skills using all verb forms, modifiers, and selected sentence patterns; reading, discussing and summarizing short essays. (Not an intensive course.) Prerequisite: DEV 046, DEV 047

## 049 English as a Second Language:

 Intermediate IIFor non-native speakers of English: subordination, coordination, complex sentences, transitions and organizational patterns in expository prose for writing, speaking, reading and listening. (Not an intensive course.)
Prerequisite: DEV 046, DEV 047, DEV 048

## 050 English as a Second Language:

 AdvancedFor non-native speakers of English: review of grammar, short essay composition, reading and listening comprehension as preparation for Fundamentals of English and Fundamentals of Reading. (Not an intensive course.) Prerequisite: DEV 049

064 Fundamentals of Reading 4 Cr . Hrs. Basic reading skills, vocabulary, and comprehension, with an emphasis on analyzing unfamiliar words, acquiring general vocabulary, and understanding paragraphs and articles.
065 Developmental Reading 4 Cr. Hrs. Reading and study skills essential for college,emphasizing comprehension, vocabulary, textbook reading, marking, notetaking techniques and rate improvement.
Prerequisite: Placement test referral

## 074 Fundamentals of Sentence

 Structure4 Cr. Hrs.
Review of basic grammar and writing skills with emphasis on creating proper sentence structure through combining, coordinating, and subordinating ideas in correct sentence form including application of the basic principles of grammar.

## 075 Fundamentals of English 4 Cr. Hrs.

Introduction to the basic forms of written communication - the sentence, controlling idea, and paragraph as well as the principles of correct grammar, usage, punctuation, and mechanics.

## 084 Basic Mathematics I 4 Cr. Hrs.

Provides instruction in basic arithmetic for whole numbers, fractions and decimals with the goal of developing computational skills, number-sense, and problem-solving skills. Prepares students for further study in mathematics by employing effective study strategies and a variety of teaching/learning experiences.

## 085 Basic Mathematics II 4 Cr. Hrs.

Review of arithmetic skills. Practice in whole numbers, decimal fractions, common fractions, metric measurement, ra-tio-proportion, and percentage.
Prerequisite: Placement test score or equivalent

## 101 Foundations of Science 4 Cr. Hrs.

Basic principles of general science focusing on the nature of the ecosystem with an introduction to the cell, human anatomy, properties of matter, concepts of motion, force, and work; applications of mathematical operations, techniques for problem solving and for reading technical materials.
Prerequisite: DEV 085, DEV 064
108 Introduction to Algebra 4 Cr. Hrs.
An introduction to elementary algebra stressing order of operations, signed number rules, and interpretation of algebraic symbols as well as a review of selected geometry topics.
Prerequisite: DEV 085 or equivalent

## 110 Fundamentals of Composition <br> 4 Cr. Hrs.

Introduction to the fundamentals of composition, including the stages of composing process pre-writing, drafting, and revising; introduction and planning outlining, editing, and proofreading of the essay. Review of the grammatical principles of governing correctness and effectiveness of expression in the use of the parts of speech, phrases and clauses, sentence structure, and paragraph organization.
Prerequisite: DEV 075 or placement test referral

## 130 Fundamentals of Creative \& Critical Writing $\quad 4$ Cr. Hrs.

Introduction to analyzing literature and writing a research paper, including basic essay writing, revising, and editing techniques; emphasis on creative reflective, and analytical thinking.
Prerequisite: DEV 064, DEV 075

## Disabilities Intervention Services (DIS)

## 105 Introduction to Developmental Disabilities <br> 4 Cr. Hrs.

Orientation to causes and characteristics of developmental disabilities, as well as historical perspectives; service delivery models; legislation; regulations; issues; and skills related to disabilities careers. Field observation required.

## 106 Program Planning \& Developmental Disabilities

4 Cr. Hrs.
Program planning for persons with developmental disabilities including: administration and application of various assessments, legal issues, formulation of individual plans, structuring the learning environment, selection of appropriate equipment and materials. Field observation is required.
Prerequisite: HAS 105 or DIS 105

## 108 Principles/Techniques of Behavior Management 4 Cr. Hrs.

Practical orientation to behavior management techniques and alternatives for intervention application of these techniques along with issues in normalization, ethics, and confidentiality. Field participation required.
Prerequisite: HAS 105 or DIS 105
109 Independent Living Skills3 Cr. Hrs. Techniques used in teaching self-help and functional skills to persons with developmental disabilities; development and selection of adaptive equipment. Field participation required.
Prerequisite: HAS 106 or DIS 106

## 115 Issues/Services \& Developmental Disabilities <br> 3 Cr. Hrs.

Orientation to social services and community resources available to persons with developmental disabilities; referral procedures, current trends and issues. Field observation required.
Prerequisite: HAS 105 or DIS 105

## 120 Developmental Disabilities \& <br> Sexuality Issues 3 Cr. Hrs.

Basic guidelines for designing and implementing sexuality education programs for persons with developmental disabilities with attention to legal issues, agency policies, personal attitudes and values.
Prerequisite: HAS 105 or DIS 105

## 122 Leisure/Recreation Skills \&

Developmental Disabilities 3 Cr. Hrs.
Development of skills in leisure time and recreation for persons with developmental disabilities; curriculum development for therapeutic recreation, environmental analysis, integration into community settings and adapting skills to enhance participation. Field observation/participation required.
Prerequisite: HAS 106 or DIS 106

## 124 Residential Services \&

Developmental Disabilities 3 Cr. Hrs.
History of residential services and current array of options for persons with developmental disabilities; development of goals, active treatment plans, etc., consistent with legal guidelines.
Prerequisite: HAS 106 or DIS 106

## 126 Developmental Disabilities \& the Family <br> 3 Cr. Hrs.

Impact of a disability upon the family including the family environment as a habilitative and intervention resource; strategies to promote effective interdisciplinary relationships. Field observation/ participation required.

## 130 Principles of Production in Adult Services 3 Cr. Hrs.

Theory and application of basic management and production principles in employment settings with adults with developmental disabilities such as marketing, production, bidding, contract procurement, job analysis, layout, and quality control, plan design, and safety.
Prerequisite: HAS 105 or DIS 105

## 131 Counseling Principles \&

Developmental Disabilities 3 Cr. Hrs. Introduction to counseling techniques appropriate for groups and individuals with developmental disabilities focusing on ethical, cultural, and professional issues in various service delivery settings. Prerequisite: HAS 105 or DIS 105

## 132 Principles/Techniques of Supported Employment 3 Cr. Hrs.

 Techniques and strategies to facilitate the transition of persons with developmental disabilities into community based employment settings from secondary education and other employment venues; role of job coach and transition specialist in instruction, job development and placement. Field observation/participation required.Prerequisite: HAS 105, DIS 105 or DIS 130

## 134 Introduction to Vocational

Assessment
3 Cr. Hrs.
Overview of current vocational techniques and instruments appropriate for use with adults with developmental disabilities in a variety of employment settings including assessment of vocational interest, entry level, job related skills and development of appropriate goals. Field observation/participation required.
Prerequisite: HAS 105, DIS 105 or DIS 130
190 Disabilities Intervention Workshop R 0.5-6 Cr. Hrs.

Overview of current topics in developmental disabilities.

## 191 Disabilities Intervention Workshop R 0.5-6 Cr. Hrs.

Overview of current topics in developmental disabilities.

## 192 Disabilities Intervention Workshops R 0.5-6 Cr. Hrs.

Overview of current topics in developmental disabilities.
201 Field Practicum I
5 Cr. Hrs.
Supervised practical experience in a setting with persons with developmental disabilities including weekly seminars. Written application required one quarter in advance.
Prerequisite: DIS 108 and DIS 206

## 202 Field Practicum II 7 Cr. Hrs.

Supervised practical experience in a setting with persons with developmental disabilities; includes weekly seminars. Written application required one quarter in advance.
Prerequisite: four of the following courses: DIS 109, DIS 201, DIS 207, DIS 208, HAS 109, HAS 201, HAS 207, HAS 209.

## 205 Mainstreaming: Principles \& Practices <br> 4 Cr. Hrs.

Orientation to principles and practices of inclusion of people with developmental disabilities, including concept, legislation, characteristics of the population, and individual plan development, and implementation.

## 206 Computer Literacy \& Assistive Technology <br> 1 Cr. Hr.

Introduction to the use of personal computers and software programs with overview of assistive technology used by persons with sensory impairments. Field participation required.
Prerequisite: HAS 105, DIS 105 or MAC 101

## 207 Health Aspects of Developmental Disabilities <br> 4 Cr . Hrs.

Overview of typical physical development, physical disabilities, and specific techniques related to lifting, transferring and positioning; basic approaches to health and nutrition for persons with developmental disabilities. Field observation/participation is required.
Prerequisite: HAS 201 or DIS 201

## 208 Communication Skills \&

Developmental Disabilities 4 Cr. Hrs.
Overview of typical communication development and effects of various developmental disabilities; functional techniques for assessment and programming including augmentative communication with various populations in different settings. Field observation/participation required.
Prerequisite: HAS 201, HAS 270, DIS 201 or DIS 270

## 209 Team Processes <br> 3 Cr. Hrs.

Orientation to organizational characteristics of various service delivery models for persons with developmental disabilities; role of the team including collaboration, trans-disciplinary strategies, conflict resolution, effective listening, problem-solving and stress management.
Prerequisite: HAS 201, HAS 270, DIS 201 or DIS 270

## 210 Assistive Technology \&

Developmental Disabilities 1 Cr . Hr .
Overview of assistive technology used by persons with developmental disabilities and available through community resources; criteria for selection of software and switches. Field participation required.
Prerequisite: HAS 206 or DIS 206

## 270 Internship: Disabilities Intervention R <br> 2-4 Cr. Hrs.

Utilizes student experiences while employed full time in approved setting and incorporates learning outcomes related to principles and theories of special education. Advisor assigned to supervise the experience.
Prerequisite: 12 credit hours within CFE department.

## 295 Special Topics in Disabilities Intervention Services

R
1-5 Cr. Hrs.
Overview of current topics in developmental disabilities.

## 296 Special Topics in Disabilities

 Intervention ServicesOverview of current topics in developmental disabilities.
297 Special Topics
Overview of current topics in developmental disabilities.

# Dietetics Technology (DIT) 

## 108 Introduction to Foods \& Nutrition <br> 3 Cr . Hrs.

An overview of basic nutrition principles, food legislation, sanitation and meal management with consideration of food choices as they relate to nutrition and health. This course is also offered as HMT 108.
109 Introduction to Dietetics 2 Cr. Hrs. A survey of the dietetics field with emphasis on the role of the dietetic technician in practice; includes an introduction to the field experience, field trips, attendance at professional meetings and guest speakers.
110 Contemporary Nutrition 6 Cr. Hrs. Introductory course for nutritional care personnel in health care institutions. Overview of nutrition, diet therapy and menu planning. Three lecture, supervised practicum six hours per week.

## 111 Nutrition For A Healthy Lifestyle 3 Cr. Hrs.

Overview of basic diet planning principles, with emphasis on healthy food choices and disease prevention. Gain nutrition awareness on fad diets, herb and supplemental strategies, and issues of supplements as ergogenic aids. Explore how to effectively utilize nutrition information through use of professional organizations, professional responsibility, and reliable sources.

## 112 Medical Terminology for DIT 2 Cr. Hrs.

The use of prefixes, suffixes, root words and the combining forms, as related to anatomy and physiology, diseases, laboratory operations and drugs.

## 118 Dietary Food Service Supervision <br> 6 Cr. Hrs.

Designed to meet the needs of nutritional care supervisors in health care institutions. Safety, sanitation, ethics, human relations and personnel management. Three lecture, supervised practicum six hours per week.
Prerequisite: DIT 110, DIT 216, DIT 217

## 129 Human Nutrition 5 Cr. Hrs.

Principles of nutrition with emphasis on the functions of the nutrients, their digestion, absorption metabolism and interrelationships, including food economics.

## 135 Nutrition in the Life Cycle 3 Cr. Hrs.

Nutritional needs from conception to maturity, including the physiological, psychological and sociological factors during the life cycle. Must be taken with DIT 224. Prerequisite: DIT 129 or permission of department chairperson and must be taken with DIT 224

## 137 Principles of Food Sanitation \& Safety <br> 3 Cr. Hrs.

Emphasis on correct sanitary practices and techniques to ensure quality food procurement, storage, preparation, service and disposal, including food microbiology, food-borne and gastroenteric outbreaks.
138 Serve/Safe
2 Cr. Hrs.
Food sanitation and safety including an overview of the microworld and foodborne illnesses with emphasis on correct sanitary practices and techniques to ensure quality in food procurement, storage, preparation, service, and disposal. Designed for food service staff with limited time regularly scheduled classes.

## 140 Diet for Life <br> R

1-2 Cr. Hrs.
A program of weight management consisting of sound nutritional practices, food patterns, menus and exercise promoting overall health and wellness as well as ongoing lifestyle behavioral changes. Includes weighing in.
205 Food \& Meal Management 3 Cr. Hrs. Study of foods, their selection, storage, uses and preparation; physical and chemical principles; and application of food sanitation and safety principles. Three hours lectures per week. Must be taken with DIT 206.
206 Directed Practice for 2052 Cr. Hrs. The application of the study of foods, their selection, storage, and preparation, including food sanitation and safety. Four laboratory hours per week.

## 216 Food Preparation \& Dietary Service <br> 6 Cr. Hrs.

Food preparation in health care institutions including quantity cooking principles, recipe standardization, equipment layout/design and menu planning. Three lecture hours, six supervised (DIT 217) hours per week.
Prerequisite: DIT 205 or DIT 110

## 217 Lab for DIT 216

Laboratory must be taken with DIT 216.

## 221 Medical Nutrition Therapy I

## 3 Cr. Hrs.

Nutrition therapy for diabetes mellitus and physiologic stress including texture alteration and feeding routes with emphasis on nutritional assessments, minimum data sets, resident assessment protocols, and care plans. Must be taken with the Dietetics Directed Practice I (DIT 226).
Prerequisite: DIT 135 or permission of department chairperson and must be taken with DIT 226

## 222 Medical Nutrition Therapy II <br> 4 Cr. Hrs.

Medical nutrition therapy for the diseases of the heart and blood vessels; gastrointestinal tract; liver and gallbladder. Diet writing, nutritional assessments, care plans and counseling included. Must be taken with the Dietetics Directed Practice II (DIT 227). Prerequisite: DIT 221 or permission of department chairperson and must be taken with DIT 227

## 223 Medical Nutrition Therapy III <br> 4 Cr . Hrs.

Medical nutrition therapy for the diseases of the endocrine and pancreas, cancer and AIDS. Includes case studies of diseases covered in medical therapy series. Must be taken with the Dietetics Directed Practice III (DIT 228).
Prerequisite: DIT 222 or permission of department chairperson and must be taken with DIT 228

## 224 Community Nutrition 5 Cr. Hrs.

Participation in, and evaluation of, programs designed to meet the nutritional needs of each stage of the human life cycle. One lecture and eight hours of practicum per week.
Prerequisite: Permission of department chairperson

## 225 Educational Methods \& Materials

4 Cr. Hrs.
Teaching/learning methods and materials emphasizing the role of educators, including use and care of media resources, equipment, print and non-print materials. Educational needs of various disciplines.

## 226 Dietetics Directed Practice I <br> 4 Cr. Hrs.

Clinical experience related to diabetes mellitus and physiologic stress. Diet writing, patient interviews, nutritional assessments and care plans are emphasized. Eight directed practice hours per week.
Prerequisite: DIT 135 or permission from the department chairperson and to be taken concurrently with DIT 221

## 227 Dietetics Directed Practice II <br> 4 Cr . Hrs.

Clinical experience and care plans related to topics in DIT 222 course. Eight directed practice hours per week.
Prerequisite: DIT 221 and to be taken concurrently with DIT 222

## 228 Directed Dietetics Practice III 4 Cr. Hrs.

 Clinical experience which includes diet writing, patient interviews, nutritional assessments, care plans, and counseling. Eight directed practice hours per week. Prerequisite: DIT 222, DIT 227 or permission from the department chairperson to be taken concurrently with DIT 223.
## 236 Dietary Organization \& Management <br> 6 Cr. Hrs.

Principles of supervision for the dietary/ foodservice manager; planning, staffing, directing, controlling and budgeting functions as well as labor relations. Three lecture, eight clinic hours per week.
Prerequisite: DIT 216

## 255 Dietetics Seminar <br> 2 Cr. Hrs.

Weekly seminars on the practice, procedures and problems related to dietetics including recent development in nutritional care, nutrition research, legislation and opportunities; comprehensive dietetic technology examination.

## 297 Special Topics <br> R

0.5-6 Cr. Hrs.

Topics and trends in nutrition and dietetics for personal enrichment and continuing education for students and practitioners.

## Experience Based Education (EBE)

## 100 Prior Learning Portfolio

## Development

3 Cr. Hrs.
A course to help students prepare a portfolio describing and documenting their learning from experience. Upon completion, the portfolio is evaluated and college credit is awarded to the extent the learning is college equivalent.

## 104 Passport to Campus Resources

$1 \mathrm{Cr} . \mathrm{Hr}$.
Students use their own passport to campus resources to complete 11 assignments by viewing computer modules, visiting designated offices to gather information, attending extra curricular events, preparing kiosk and computer word processing activities. All on student's time schedule.
130 Degree Planning Seminar3 Cr. Hrs.
Development of the individual plan of study to be followed for successful completion of the ATS/AIS degrees, involving curriculum design, career and life/ work planning, and reflection on adult learner characteristics. Open only to ATS/ AIS students.

## 170 Introduction to Cooperative Education/Internship \& Career Planning <br> 1-3 Cr. Hrs.

Students clarify life/career/education goals, write a resume, letters of application, practice interview techniques, and engage in actual job interviews. Guest lecturers from business, industry and government will participate. Required for prospective Internship (270) or Cooperative Education students seeking employment.

## 190 Developing Lifelong Learning

 Skills
## R

1-9 Cr. Hrs.
Non-traditional education related to independent study and contract learning. Topics: non-traditional vs. traditional study; learning contracts; interpersonal/ intrapersonal skill development; journal writing. Workshop format provides skills and insights associated with adult learning patterns. College Without Walls students should register for three (3) credit hours. Classes meet on three Saturdays during quarters offered.

## 200 Portfolio Update

R 1 Cr . Hr .
A continuation of Portfolio Development I, facilitated through individual sessions with a portfolio faculty person.
Prerequisite: EBE 100 or CWE 100

## 260 Cross-Cultural Awareness R

3 Cr. Hrs.
Acculturation experiences designed to provide multiple perspectives for students planning to work within a particular culture, environment, or geographic region; cultural focus identified each term.

## 261 Cross-Cultural Internship

R
1-3 Cr. Hrs.
Utilization of cultural awareness perspectives in an internship/volunteer field experience; three one-credit modules covering cross-cultural experiences, worklearning objectives, and fundraising.
Prerequisite: EBE 260

## 270 Cooperative Education R 1-13 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite: EBE 170 or departmental approval

## 275 Student Leadership Field Experience

R
1-12 Cr. Hrs.
Student leadership field experience credit offered for preparation to participate and/or lead organizations.

## 276 Tutorial Services Field Experience R 1-12 Cr. Hrs.

Tutorial Services field experience credit offered for provision of tutorial assistance.

## 277 Military Internship

R
2-6 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.

## 278 ATS/AIS Capstone

3 Cr. Hrs.
Pre-graduation seminar focusing on reflective learning, assessment of degree program goals, and documentation of mastery in subject areas used in ATS/AIS degree. Prerequisite: EBE 130

## 297 Special Topics

R
0.5-10 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline and selected modules and customized training package.

## Early Childhood Education (ECE)

## 101 Introduction to Early Childhood Education 3 Cr. Hrs.

 Professional issues in the field of early childhood education; review of related historical and current trends; types of early childhood programs and career options. Center participation required.
## 104 Prenatal Life \& Birth 3 Cr. Hrs.

Prenatal development progressing from conception through birth.

## 106 Childhood, Nutrition, Health \& Safety <br> 3 Cr. Hrs.

Nutritional, health, and safety needs of young children; developing and implementing nutritional, health, and safety activities with young children; Ohio child day care laws and rules relating to nutrition, health, and safety. Center participation required.

## 107 Movement Experiences in Early Childhood Education 2 Cr. Hrs.

Basic knowledge of motor development of young children; planning and implementation of developmentally appropriate experiences in a safe and enriched environment. Center participation required.
Prerequisite: ECE 129, ECE 150

## 111 Child Abuse Recognition \& <br> Prevention <br> 1 Cr . Hr.

Fulfills criteria for child abuse recognition and prevention training requirements established by the Ohio Administrative Code (Chapter 5101), including indicators, reporting, interagency information sharing, familial support, day care issues. On-site participation at appropriate facility required.

## 112 Early Childhood Education:

## First Aid

$1 \mathrm{Cr} . \mathrm{Hr}$.
Recognition and emergency management of first aid situations in a day care center setting; fulfills criteria established by the Ohio Administrative Code (Chapter 5101). On-site participation at appropriate facility required.

## 113 Communicable Diseases:

Prevention \& Recognition 1 Cr . Hr . Fulfills criteria for prevention, recognition, and management of communicable diseases training established by the Ohio Administrative Code (Chapter 5101), including prevention and transmission, hygiene, signs/symptoms, protection of day care center staff.

## 117 Language Experiences in Early Childhood 4 Cr. Hrs.

Children's language development and effective communication techniques; selection and utilization of developmentally appropriate language materials; planning and implementation of developmentally appropriate experiences. Center participation required.

## 118 Mathematics \& Science Experiences in Early Childhood

 3 Cr. Hrs. Mathematics and science development in young children; teacher's role in planning and implementing developmentally appropriate mathematics and science experiences. Center participation required. Prerequisite: ECE 129, ECE 150
## 119 Art \& Music Experiences in Early Childhood $\quad 4$ Cr. Hrs.

 Developmental characteristics of young children in art and music; experiences with a variety of developmentally appropriate activities. Center participation required.Prerequisite: ECE 129, ECE 150, MUS 121

## 120 Observing Young Children

3 Cr. Hrs.
Observing and recording the behaviors of young children in early childhood settings with emphasis on developing educational objectives based on observed needs. Center participation is required.

## 129 Interaction with Young Children <br> 5 Cr. Hrs.

Supervised interaction experience with an emphasis on identification of developmentally appropriate activities in the Sinclair Community College Early Childhood Education Center. Advanced written application required. Two lecture, six lab hours per week.
Prerequisite: ECE 101, ECE 106, ECE 120

## 135 Group Care for Infants \& Toddlers 3 Cr. Hrs.

Programming for the professional infant/ toddler care worker in a group care setting. Criteria for establishing and maintaining a safe and healthy learning environment; developmentally appropriate infant/toddler activities; and improving basic skills of infant/toddler care. Field participation required.
Prerequisite: ECE 150

145 Guidance \& Discipline 3 Cr. Hrs. Guidance and discipline techniques teachers use to help the young child develop self control, positive self concept, independence and pro-social behaviors; practical application of guidance and discipline techniques. Center participation required.

## 150 The Young Child

4 Cr. Hrs.
Promoting positive growth of infants, toddlers, and preschoolers in a child care setting; impact of the child's development on the learning environment.

## 160 Teaching Techniques in Early Childhood Education 3 Cr. Hrs.

 Teacher characteristics, attitudes and skills; teaching techniques; curriculum planning, learning environments, and daily schedules.Prerequisite: ECE 107, ECE 117, ECE 118, ECE 119
182 Student Teaching I 6 Cr. Hrs.
Supervised student teaching experience in the Sinclair Community College Early Childhood Education Center. Written application required one quarter in advance. Student must earn a grade of "C" or better to receive credit in degree program. Two lecture, eight lab hours per week.
Prerequisite: ECE 145, ECE 160, ENG 111 or equivalents

## 190 Early Childhood Education Workshop

R
0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

## 191 Early Childhood Education Workshop

R
0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

## 192 Early Childhood Education Workshop

 R0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.
215 Interaction with Families 3 Cr. Hrs. Trends in family demographics and their relationship to child care; strategies for working with parents including parentteacher conferences, communication, parent involvement, and parent education.
Prerequisite: ECE 182, SOC 145

## 216 Social Studies in Early Childhood Education <br> 3 Cr . Hrs.

Approaches to social studies with emphasis on multi-cultural experiences in early childhood education; developmentally appropriate activities and materials for young child's knowledge, acceptance and appreciation of individual similarities and differences.
Prerequisite: ECE 129, SOC 145

## 220 Assessment in Early Childhood Education 3 Cr. Hrs.

Use of standardized tests and other evaluation and measurement tools that are developmentally appropriate for young children in early child education settings. Center participation required.
Prerequisite: ECE 129

## 225 Administration of Child Care Centers 1-4 Cr. Hrs.

Aspects of developing and operating a child care facility including licensing laws, program development, and personal management, etc. Center participation is required.

## 226 Activities for Young Children

2 Cr . Hrs.
Characteristics of age-appropriate activities for pre-school children; teaching skills for implementing activities; practical ideas for activities including seasonal holidays, etc.; developmental and utilization of materials for activities. Center permission is required.

## 228 School Age Child Care 3 Cr. Hrs.

Child care for school-age children including the four areas of development of the school age child; special needs of school age children; curriculum for a school age program; and how to operate a school age child care program; unique characteristics of day care for school age children. Center participation required.
275 Internship
R
1-4 Cr. Hrs.
Utilizes students' experiences while working with young children. Learning outcomes related to principles and theories of early childhood education. An advisor is assigned to work with the student and monitor the internship experience.

## 281 Early Childhood Education Student Teaching II 7 Cr. Hrs.

 Supervised student teaching experience in an assigned child care facility. Written application required one quarter in advance. Student must earn a grade of " $C$ " or better to receive credit in degree program.Prerequisite: Minimum of 75 credits including ECE 182 and ENG 112
295 Special Topics in Early Childhood
1-5 Cr. Hrs.
Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

## 296 Special Topics in Early Childhood Education

## R

1-5 Cr. Hrs.
Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

## 297 Special Topics in Early Childhood Education R

1-5 Cr. Hrs.
Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

## Economics \& Finance (ECO)

105 General Economics 3 Cr. Hrs.
Beginning economic principles following a micro-economic sequence. Focus is on GNP analysis, fiscal and monetary policy and price theory.
201 Principles of Economics 13 Cr. Hrs. Basic economic principles with micromacro sequence. Interrelationship of households, business, and government is the focus of macro-economics with an examination of the Keynesian Theory, fiscal policy and the public debt.
Prerequisite: DEV 108 or equivalent

## 202 Principles of Economics II 3 Cr. Hrs.

The analysis of economic theory of money and monetary policy. Micro-economic theory considers price theory, the theory of the firm, resource demand and wage determination.

## Prerequisite: ECO 201

## 203 Principles of Economics III 3 Cr. Hrs.

Completion of macro theory. Public policy toward business, poverty, economic inequality, labor, trade, and balance of payments, and the economics of thirdworld nations.
Prerequisite: ECO 202
204 International Economics 3 Cr. Hrs. Analysis of economic interdependence among nations emphasizing national trade, finance and investment, as well as the role of employees, unions and multinational enterprises in the area of global competition.
Prerequisite: ECO 201 or permission of instructor

## 297 Special Topics

0.5-6 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses or approaches to learning, career-related courses/opportunities, and service-learning courses/activities, including special interest topics, workshops or customized training.

## Electrical \& Electronics Repair (EER)

104 Electric Distribution Practicum

6 Cr. Hrs.
Basic principles of electric distribution;safe use of hand tools; roping and rigging; pole climbing and poletop rescue procedures. Two lecture, eight lab hours per week.
115 Essentials of Electricity 3 Cr. Hrs. Designed for non-electrical majors. Elementary concepts of direct current and alternate current circuits, electric machines and controls. Two lecture, two lab hours per week.

## 121 Electronic Problem Solving

## 4 Cr. Hrs.

Essentials of basic algebraic operations with emphasis on applications to problems in electrical and electronic engineering used in electronic industries.
Prerequisite: DEV 108 or equivalent

## 123 High Reliability Soldering

3 Cr. Hrs.
Electronic component identification, resistor color code, electrostatic discharge and operator safety considerations; solder composition and types, high reliability soldering techniques; zero defect soldering, and soldering techniques; Department of Defense Standard 2000. Two lecture, two lab hours per week.

## 124 Printed Wire Board Repair \& Restoration <br> 3 Cr. Hrs.

Types of surface mount devices and packaging; work area layout; installation procedure for SMD; conformal coating removal techniques; repair of conductor paths and through holes on a printed circuit board; testing methods after repair. Two lecture, two lab hours per week.
Prerequisite: EER 123

## 125 Printed Circuit Board Design

3 Cr. Hrs.
Various materials, design, processing and soldering of P.C. boards. In the laboratory the artwork and the processing of P.C. boards will be conducted. Two lecture, two lab hours per week.
Prerequisite: EER 123
126 D.C. Circuits
4 Cr. Hrs.
Basics of D.C. circuits, resistance, inductance and capacitance in circuits, power and energy, series, parallel and seriesparallel circuits, electrical circuit troubleshooting techniques. Three lecture, two lab hours per week.
Prerequisite: EER 121 or equivalent

## 127 A.C. Circuits

4 Cr. Hrs.
Basics of alternating voltage and current, series A.C. circuits; parallel A.C. circuits; series parallel A.C. circuits; series and parallel resonance; Q-factor; power factor; transformers, analog oscilloscopes and their use. Three lecture, two lab hours per week.
Prerequisite: EER 126 or EER 131
128 Discrete Electronics 4 Cr. Hrs. Semiconductor diodes, bipolar junction transistor, junction field-effect transistor, biasing techniques, amplifier operation and analysis, various types of amplifiers. D.C. power supplies, use of analog and digital storage oscilloscopes. Three lecture, two lab hours per week.
Prerequisite: EER 127 or EER 133

## 134 Electric Power Distribution

4 Cr. Hrs.
Introduction to transmission and distribution of electric power: substation and switch yards; electrical safety; use, testing, and care of tools, and equipment; system protection; monitoring; and, transformers.
Prerequisite: EER 127 or EER 133
136 Digital Electronics 3 Cr. Hrs.
Basic digital logic functions and fundamentals to all digital systems, digital circuit concepts and random logic design. Two lecture, two lab hours per week.
Prerequisite: EER 127 or EER 133
137 Linear Integrated Circuits 3 Cr. Hrs.
Elementary study of integrated circuits with reference to fabrication, components, circuits and applications. Two lecture, two lab hours per week.
Prerequisite: EER 128 or EER 132

## 138 Microprocessor Programming \& Applications 3 Cr. Hrs.

Basic ideas of hardware, software, interfacing and application of microprocessors. Two lecture, two lab hours per week. Prerequisite: EER 136

## 139 Electrical Machinery 4 Cr. Hrs.

Basic principles, theory, operation and characteristics of common D.C. and A.C. machinery. Three lecture, two lab hours per week.
Prerequisite: EER 127 or EER 133

## 141 Residential Wiring 3 Cr. Hrs.

Modern wiring procedures, installations of electrical wiring systems in residentialtype section and non-residential projects. Two lecture, two lab hours per week.

## 142 Safety in Electric Distribution

3 Cr. Hrs.
Basic principles of working safely with electricity; use of proper tools, equipment and personal protective equipment; general work rules from the National Electric Safety Code, OSHA and Department of Transportation. Two lecture, two lab hours per week.

147 Industrial Wiring \& NEC 4 Cr. Hrs. National Electric Code standards for light and heavy electrical construction installation; safety and service requirements including over current protection, bonding, grounding, switching and contactors. Three lecture, two lab hours per week. Prerequisite: EER 127 or EER 133

## 153 Radio \& Television: Theory \& Servicing 4 Cr . Hrs.

 Input-output devices, functional block diagrams, signal paths and troubleshooting malfunctions in basic home entertainment devices. Three lecture, two lab hours per week.
## Prerequisite: EER 128 or EER 132

## 155 Electrical Appliances Repair

3 Cr. Hrs.
Introduction to heat producing and motor driven electrical appliances, their features, troubleshooting, diagnostic techniques and repair information. Two lecture, two lab hours per week.

## 165 Electronic Diagnostics \& Repair 3 Cr. Hrs.

Electronic troubleshooting procedures; troubleshooting of analog, digital and microprocessor based circuits; D.C. power supplies; introduction to system troubleshooting and repair techniques; test equipment use. Twolecture, twolabhours per week.
Prerequisite: EER 128 or EER 145

## 166 Industrial Machine Wiring \& Standards <br> 3 Cr. Hrs.

Elementary industrial machine wiring principles; schematics, panel layouts, assembly, wiring techniques, and equipment used in automated industry; standards for safe operation of equipment and protection of personnel with emphasis given to hands-on work and actual wiring of panels. One lecture, four lab hours per week.
Prerequisite: EER 127

## 181 Electrical Construction I R

 3-8 Cr. Hrs.Basic safety procedures, use of hand and power tools; electrical circuit theory; use of test equipment; basics of residential, commercial and industrial wiring observing National Electric Code.

## 182 Electrical Construction II R 3-8 Cr. Hrs.

Alternating current theory, motors, grounding, conduit bending, conductor installation, NEC for cables, terminations and splices, electrical single and three phase installation, circuit breakers and fuses, contactors and relays.
Prerequisite: EER 181

183 Electrical Construction III R

## 3-8 Cr. Hrs.

Load calculations for branch circuits, overcurrent protection, wiring devices, distribution equipment, transformers, calculations for motor circuits; motor maintenance and controls; and basics of HVAC. Prerequisite: EER 182

## 184 Electrical Construction IV R 3-8 Cr. Hrs.

Calculation proceduresfor residential, commercial and farming applications, various wiring systems, standby and emergency systems, basic electronics, fire alarms, special transformers, solid-state controls, welding techniques, heat and freeze protection and high voltage termination.
Prerequisite: EER 183
270 EER Internship

## 1-12 Cr. Hrs.

See EBE 270 Internship for course description. Students must consult the department chairperson in the Engineering \& Industrial Technologies division for the specific degree requirement.
297 Special Topics 3-12 Cr. Hrs. Basic safety procedures, use of hand and power tools; electrical circuit theory; use of test equipment; basics of residential, commercial and industrial wiring observing National Electric Code
Prerequisite: Permission of chairperson

## Electronics Engineering Technology (EET)

## 104 Introduction to Electronics

## 3 Cr. Hrs.

A non-mathematical survey course providing a comprehensive coverage of the field of electronics, its history, evolution, theory, and application.

## 114 Basic Electronic Measurements

3 Cr. Hrs.
Measurement techniques; types of error in measurement; use of measuring instruments; digital multimeter, function generator, D.C. power supplies, timers and counters, analog and digital storage oscilloscopes and sweep generators. Two lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent
116 Electronics Schematics \& Layouts 3 Cr. Hrs.
Basic computer literacy skills with applications for electronic drafting using ORCAD software, electronic symbols, schematic diagrams, printed circuit board layout and design. Two lecture, two lab hours per week.

## 119 Basic Electrical Circuits \& Controls 4 Cr . Hrs.

Principles of direct and alternating current circuits, diodes and transistors, digital logic, electric motors and control, electrical test equipment. Three lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent
121 Electronics Workshop 3 Cr. Hrs. A manual skills training course covering safety, soldering, wiring, electronic component identification, schematic symbols, wiring diagrams, blueprint reading, resistor color code, and use of tools.

## 150 Electrical Circuits \& Instruments I

 4 Cr. Hrs.Electrical units of measure, electrical laws, power and energy, circuit theorems, resistive networks, R.L. and R.C. circuits and D.C. measuring instruments. Three lecture, two lab hours per week.
Prerequisite: EET 114,MAT 101 or equivalent

## 155 Electrical Circuits \& Instruments II

 4 Cr. Hrs.Capacitors, inductors, R.C. and R.L. circuits with D.C. excitation; alternating voltage and current phasors, phasor algebra, reactance, impedance, A.C. power, A.C. instruments and the oscilloscope. Three lecture, two lab hours per week.
Prerequisite: EET 105 or EET 150
197 Tech Prep Seminar 1-4 Cr. Hrs.
A review course for electronics tech prep freshman students covering D.C. circuits, A.C. circuits, and discrete electronics.

## 201 Electronics I

4 Cr. Hrs.
Physics of conduction with emphasis on semiconductors, a study of electronic devices and their characteristics, biasing and basic D.C. and A.C. amplifiers. Three lecture, two lab hours per week.
Prerequisite: EET 155
202 Electronics II $\quad 3$ Cr. Hrs.
Field-effect transistors; large signal amplifiers; A.C. equivalent circuits; class A-, B-, C-amplifiers; amplifier frequency response; power amplifiers and troubleshooting techniques. Two lecture, two lab hours per week.
Prerequisite: EET 201

## 205 Electrical Circuits \& Instruments III

3 Cr . Hrs.
Series-parallel A.C. circuits; power in A.C. circuits; Wye-Delta transformation; lowpass and high-pass filters; series and parallel resonant circuits; transformers and three-phase circuits. Two lecture, two lab hours per week.
Prerequisite: EET 155

207 Linear Integrated Circuits 4 Cr. Hrs. Introduction to operational amplifiers and their applications as basic amplifiers, comparators, signal generators, active filters and for instrumentation; integrated circuit timers (555), three pin integrated circuit regulators, voltage controlled oscillators, phase lock loops and their applications. Prerequisite: EET 201

## 214 Electronic Measurement Techniques <br> 2 Cr. Hrs.

Measurement techniques and use of electronic measuring instruments; noise and distortion meter, sweep generator, spectrum analyzer, P.C. as a controller, automated test equipment and basics of VXI techniques.
Prerequisite: EET 114, EET 201

## 215 Motors, Generators \& Controls

4 Cr. Hrs.
D.C. and A.C. motors, generators, transformers, regulators, protection circuits, and motor and generator controls. Three lecture, two lab hours per week.
Prerequisite: EET 205

## 226 Electronic Communication

 Systems I 3 Cr. Hrs.Methods of communications, communication circuits, amplitude modulation, angle modulation, radio receivers, transmission lines, radio wave propagation. Two lecture, two lab hours per week. Prerequisite: EET 201 or EER 128

## 227 Electronic Communication

 Systems II 3 Cr. Hrs. Antennas, telephone systems, and pulse modulation techniques; basic principles of microwaves, data, two-way and satellite communications. Two lecture, two lab hours per week.Prerequisite: EET 226

## 231 Digital Logic \& Circuits 4 Cr. Hrs.

Number systems, codes, boolean algebra, Karnaugh mapping, exclusive circuits or arithmetic circuits. Three lecture, two lab hours per week.
Prerequisite: EET 155

## 242 Television Systems <br> 4 Cr. Hrs.

Principles of color television, the color camera, color receivers, video systems and video recording. Three lecture, two lab hours per week.
Prerequisite: EET 226

## 251 Digital Systems I 4 Cr. Hrs.

Basic TTL gates, Flip-Flops, clocks, counters, shift-registers, multiplexers and demultiplexers. Three lecture, two lab hours per week.
Prerequisite: EET 231, EET 201

## 252 Digital Systems II 4 Cr. Hrs.

Arithmetic Logic Units, memory devices, parallel and serial input-output devices. Analog-to-digital converters, digital-toanalog converters, communication protocols, keyboard decoders and CRT displays. Three lecture, two lab hours per week. Prerequisite: EET 251
$R$ - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 269 Substation Protection \& Monitoring <br> 4 Cr. Hrs.

Transmission and distribution system protection, monitoring, and control systems, circuit impedances, short circuit currents, basic substation operations and components.
Prerequisite: EET 266
270 EET Internship
R
1-12 Cr. Hrs.
See EBE 270 Internship for course description. Student must consult the department chairperson in the Engineering \& Industrial Technologies division for the specific degree requirement.

## 278 Electronics Project Capstone 4 Cr. Hrs.

Review of electrical circuits, analog and digital electronics, microprocessors; design, fabrication and testing of an electronics project including schematics, wiring diagrams, printed circuit board layout and fabrication; brief presentation and demonstration of working prototype. Two lecture, four lab hours per week. Prerequisite: EET 231, EET 261

## 281 Programmable Logic Controllers

 3 Cr . Hrs.Theory and operation of a programmable controller (P.C.) terminology, memory structure, input and output sections, the processor unit, programming devices and counters, Ladder Logic diagrams and logic control. Two lecture, two lab hours per week.
Prerequisite: EET 231 or EER 136

## 282 Advanced Programmable Logic Controllers 3 Cr. Hrs.

A hands-on approach to the advanced theory and operation of programmable logic controller (PLC), memory structure, advanced programming instruction, PLC networking, and advanced ladder logic diagrams and logic control. Two lecture, two lab hours per week.
Prerequisite: EET 281

## 283 Introduction to Lasers 3 Cr. Hrs.

Basic concepts and principles associated with characteristics and measurements involving lasers in varied professional and industrial applications. Two lecture, two lab hours per week.
Prerequisite: EER 128 or EET 201

## 284 Optoelectronics <br> 3 Cr. Hrs.

Light transmission and reception, electroluminescence, photodetection, fiber optic communication, lightwave fundamentals, optic waveguides, light sources, couplers and connectors, modulation, and optice heterodyne receiver. Two lecture, two lab hours per week.
Prerequisite: EER 128 or EET 201

285 Digital Communications 3 Cr. Hrs. Information theory and elements of a digital communication system: source encoding to binary, digital signal processing, data compression of speech and images, digital modulation and demodulation, channel encoding, interference and crosstalk, and course decoding. Two lecture, two lab hours per week.
Prerequisite: EET 251

## 287 Telecommunications Project <br> 6 Cr. Hrs.

Design, fabricate and test a telecommunications prototype circuit complete with schematics, drawing, printed circuit board layouts and wiring diagrams, and technical report; brief presentation and demonstration of working prototype. Prerequisite: EET 207, EET 226

## 297 Special Topics

R
1-8 Cr. Hrs.
Provides opportunities to receive credit for special interest topics within the discipline. Brief description of the topics will be given and prerequisites identified when offered. Lab time will be part of some content.

## Engineering Technology (EGR)

## 100 Fundamental Mechanical Skills

3 Cr. Hrs.
Utilization of general/specialized hand/ power tools that are typically used in the electromechanical industry; use of various dimension measurement devices; simple machine repair procedures from belt replacement to complete subsystem repair; drilling, reaming and tapping holes for various mechanical fasteners; introduction to basic rigging techniques used for moving heavy industrial equipment. One lecture, four lab hours per week.

## 115 Human Factors Engineering

3 Cr. Hrs.
Interfacing man-machine concepts, human factors in engineering design system products, the human anthropometry and working conditions for better human performance. Two lecture, two lab hours per week.

## Prerequisite: ENG 121 or equivalent

128 Robotics in CIM Systems 4 Cr. Hrs. Industrial robot applications with Computer Integrated Manufacturing (CIM) systems. Emphasis on robot safety, system components, hardware, software, classification methods, terminology; and path control. Applied use of sensors, Programmable Logic Controllers (PLCs), machine vision, and other related industrial technology. Exploration of career opportunities. Use of lab and web resources to support and reinforce learning. Three lecture, two lab hours per week.

## 132 Connecting Technology \& Our Lives <br> 3 Cr . Hrs.

History, underlying concepts and effects on community values and quality of life resulting from technological development in Dayton; impact on students and their families; personal and community planning for future changes.

## 160 Succeeding in Engineering Technology <br> 1 Cr . Hr .

Overview of unique skills and education needed to have a successful career in an engineering technology career field. Students will review the unique skills needed for their selected technology, set their initial career goals and develop a vision for their early career progress. The course includes an introduction to time management, study skills and the learning environment.
161 Pbasic \& Stamp 3 Cr. Hrs. Pbasic is a simple but versatile programming language used for position and motion control of small scale remotely controlled robotics and other autonomous motion controlled, smart mechanisms utilizing the basic stamp PLD. Two lecture, two lab hours per week.

## 164 Survey Of Engineering Technology

## 1 Cr . Hr .

An overview of all Engineering Technology disciplines and the skill required for each. Students will perform lab exercises in each engineering technology program, identify the discipline that is best suited to their career goal, and conduct individual research on that discipline. Engineering Technology related field trips and/or guest lecturers may be used to supplement the lab assignments.

## 201 Fundamentals of Computer Graphics <br> 3 Cr. Hrs.

Fundamental concepts and applications of computer aided design (CAD) using basic system commands, operating modes, and text writing. Two lecture, two lab hours per week.

## 206 Engineering Technology

 Economics3 Cr. Hrs.
Basic economic concepts, decisions, analysis and evaluations as applied to engineering design, production, maintenance and quality control. Two lecture, two lab hours per week.
Prerequisite: MET 198, MAT 131 or equivalent

## 208 Engineering Computer Graphics <br> 3 Cr . Hrs.

Introduction to 3-D Computer Aided Design, CAD, techniques with an application focus on electromechanical and robotics components and work cells systems. Two lecture, twolab hours per week. Prerequisite: EGR 128, IET 198

## 215 Control Systems 3 Cr. Hrs.

Introduction to modern control theory as applied to industrial robotics mechanical unit positioning, accuracy, repeatability, control techniques, with initial focus on three phase electric motors, utilizing various forms of positioning and speed control; pulse width modulation; feedback systems; control techniques for variable speed motors and drive systems; analysis techniques using Laplace transforms; troubleshooting techniques. Two lecture, two lab hours per week.
Prerequisite: EER 136, EER 139, MAT 132 or equivalent.

## 217 Fluid Power \& Control 4 Cr. Hrs.

Fundamentals and basic applications of fluid power components, systems, controls and accessories. The design parameters and the terminology required to specify and plan fluid power systems. Three lecture, two lab hours per week.
Prerequisite: EER 166, EGR 128

## 218 Maintainability Engineering <br> Technology 3 Cr. Hrs.

Maintainability as one of the major elements in system effectiveness of engineering design with respect to performance, operational and hardware reliability, maintenance concepts and maintenance and maintainability analysis.
Prerequisite: MAT 131 or equivalent

## 220 Machine Vision 3 Cr. Hrs.

Analysis of various methods of utilizing vision systems in industrial applications to focus on; hardware, frame grabber board, memory allocation, software development, system troubleshooting and repair and the following application areas; part identification and inspection, part orientation, range finding, and image analysis techniques.
Prerequisite: EGR 252

## 236 Electrical Network Analysis

4 Cr. Hrs.
Fundamental, calculus-based network analysis techniques for direct and alternating current circuits, analyzing transient and steady state responses of simple RLC networks, while utilizing engineering analysis software for problem solving assistance. Four lecture, one lab hours per week. Prerequisite: MAT 215

## 237 Engineering Design Reliability 3 Cr. Hrs.

Topics in reliability, function, component life, standby systems, series and parallel systems, reliability testing, failure rates, reliability allocations and human reliability. Emphasis on design aspects.
Prerequisite: MAT 133 or equivalent
246 Robotic Fundamentals 3 Cr. Hrs. The fundamentals definitions and terminology of robot technology, robot justification and availability, properselection,acceptance, principles, and general applications of robots. Two lecture, two lab hours per week.

## 247 Operating \& Programming Robots

 3 Cr. Hrs.Introduces the student to modes and techniques of operating robots, safety and programming for different manufacturing and process control operations. Two lecture, two lab hours per week.
Prerequisite: EGR 246
248 R-C Robot Programming 3 Cr. Hrs. Deals with some of the basic industrial applications using the robots for automation purposes. Two lecture, two lab hours per week.
Prerequisite: EGR 128, IET 198

## 249 Robotic Applications Programming

3 Cr. Hrs.
Covers more advanced application utilizing the robots and discusses future applications for industrial process automation. Two lecture, two lab hours per week.
Prerequisite: EGR 248 or EGR 252

## 250 Robot Mechanical Unit Repair

3 Cr. Hrs.
This course instructs the student in mechanical teardown. It includes removal and replacement of belts with recalibration through the computer controller. Two lecture, two lab hours per week.
Prerequisite: EGR 252, EGR 100

## 251 Robot Controller Diagnostics

3 Cr. Hrs.
Teaches the student theory of controller operation, function of power input and supply units, command and feedback signals, and troubleshooting and diagnostics. Two lecture, two lab hours per week. Prerequisite: EER 136, EGR 252

## 252 KAREL Robot Programming

3 Cr. Hrs.
Introduction to KAREL robot controllers programming including controls functions, program development and editing, incorporating various industrial sensors and controls for input and output. Two lecture, two lab hours per week.
Prerequisite: EGR 128, IET 198

## 253 Robotics \& Expert Systems

3 Cr. Hrs.
Path positioning, tooling placement and interaction for electronic system diagnostics; application of software in robotics for development of heuristic search in alternative solutions analysis.
Prerequisite: EGR 261, EER 138

## 254 KAREL Advanced Programming

3 Cr. Hrs.
Focus on User/Built-in Functions of different types of input/output control; application specific software and overall use of the KAREL controller as a work cell controller; introduction to manufacturing application protocols, MAP, and vision robot guidance.
Prerequisite: EGR 252, EGR 217, EET 281

## 255 Machine Communication Protocols <br> 3 Cr. Hrs.

Fundamental industrial automated machine and robot data communication techniques and telemetry used for cell control; data transmission, hardware/software networking protocols; serial, parallel, modulation techniques, multiplexing, optical, radio frequency and selected networking software.
Prerequisite: EGR 252, EGR 261, EER 136

## 256 Automated Data Acquisition Systems 3 Cr. Hrs.

 Application of data acquisition technologies;bar coding, image recognition, optical character recognition, CCD camera images, laser scanning, voice recognition, and radio frequency and microwave transponders; data capture techniques at the site of event with direct transmission to a computer/storage system for processing data. Prerequisite: EER 136, EGR 261
## 257 Handling Tool/TPP Program

3 Cr. Hrs.
Introduction to Fanuc Robotics' newest Microsoft Windows based robot programming language, Handling Tool, previously called TPP, Teach Pendant Programming, where TPP programs are developed using Teach Pendant Editor, TPE for motion control, input and output control of system I/ O; these new robots also have capacity of Ethernetcommunication. Twolecture, two lab hours per week.

## Prerequisite: EGR 252

## 261 Engineering Problems Solving Using "C" 4 Cr. Hrs.

Computer solutions of engineering problems using "C++" programming language incorporating compiling, running, editing, debugging techniques along with language specific functions, array and pointer structures, stream I/O and video control coding; introduction to linking " $\mathrm{C}++$ " to Quattro Pro for rule based control structures and integration of natural language commands; introduction to artificial intelligence. Three lecture, two lab hours per week.
Prerequisite: IET 198, MAT 101 or equivalent

## 262 Advanced "C++" Programming Engineering Applications 4 Cr. Hrs.

Solve representative engineering problems using advanced "C" and "C++" commands, with a focus on: writing in object oriented style, computer control of input/ output port control, stand-alone executable code, library linking for various applications. Three lecture, two lab hours per week.
Prerequisite: EGR 261 or equivalent

## 270 Engineering Technology Internship

1-12 Cr. Hrs. See EBE 270 Internship for course description. Student must consult the department chairperson in the Engineering \& Industrial Technologies division for the specific degree requirement.

## 278 Automated Manufacturing Project 3 Cr. Hrs.

Performance based review of the major components of the Electromechanical Engineering Technology associate degree program, with emphasis on robot workcell system design, layout and integration of related industrial systems, and skills from the following areas; robots and programming languages, electronic systems, component installation, troubleshooting, mechanical repair, and preventative maintenance. Additional focus on graphics, word processing analytical and simulation tools, assembly testing, troubleshooting and repair of a functional robot workcell. One lecture, four lab hours per week.
Prerequisite: EGR 220, EGR 254

## 297 Special Topics

## 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar or other non-traditional manner.

## Emergency Medical Services (EMS)

## 102 Paramedic Theory \& Practice II 8 Cr . Hrs.

Meeting current standards of National Training Curriculum of EMT-Paramedic; emphasis on anatomy, pathophysiology, assessment and management of cardiovascular emergencies including interpretation of electrocardiograms.

## Prerequisite: EMS 101

## 104 Paramedic Theory \& Practice IV 8 Cr. Hrs.

Meeting current standards of National Training Curriculum of EMT-Paramedic; emphasis on substance abuse, behavioral emergencies, geriatrics and rescue including comprehensive written/practicum exam in preparation for paramedic state certifying exam and American Heart Association advanced cardiac life support provider course. Five lecture, two lab, 10 clinical hours per week.
Prerequisite: EMS 103

## 105 First Responder

3 Cr. Hrs.
Designed for the lay person, this course presents skills and solutions related to medical emergencies without the use of advanced medical equipment. Police, safety officers, medical response team members, anyone who may have to begin care of the sick and injured while on the job would benefit from this course.

## 115 EMT-Basic Theory \& Practice I

5 Cr. Hrs.
Meeting current standards of National Training Curriculum of EMT-Basic as well as Basic Life Support. First of two courses required for Ohio certification as EMT-B (Basic).

## 116 EMT-Basic Theory \& Practice II R

 2.5-3 Cr. Hrs.Meeting current standards of National Training curriculum of EMT-Basic. Second of two courses required for Ohio certification as EMT-A (Basic) as well as accommodating EMT Recertification Bridge course through variable credit registration. Successful completion establishes eligibility for state certifying/ recertifying exam.
Prerequisite: ALH 100 or EMS 115

## 117 EMT-Basic Theory \& Practice I \& II

 8 Cr . Hrs.Caring for sick and injured people, handling emergency situations, and developing self confidence are the areas important within this course. It meets the current standards of National Standard Curriculum of EMT-Basic as well as Basic Life Support. At the end of this course, successful students will be eligible to sit for Ohio certification testing as an EMT-B (Basic). This course is equivalent to EMS 115 and 116 combined. Four lecture, seven lab hours per week.

## 120 EMT-Basic Refresher

R
2.5-3 Cr. Hrs.

Ohio EMS board approved content. Includes key content from National Standard Training Curriculum for EMT-Basics for National Registry recertification. Emphasis on assessment and initial basic management of the critically ill and injured patient including medical and traumatic emergencies. Two lecture and one lab hour per week.

## 125 Emergency Medical Technician: Intermediate <br> 6 Cr. Hrs.

Meeting current standards of National Training Curriculum of EMT-Intermediate; emphasis on patient assessment and initial management, airway and ventilation, pathophysiology of shock and basic cardiology.
Prerequisite: ALH 102 or EMS 116 or EMT Basic certification

135 EMT-Paramedic I: Introduction to ALS Care 8 Cr. Hrs.
Following the 1998 National Standard Curriculum for EMT-Paramedics, this course will cover general anatomy and physiology, patient assessment, basic and advanced airway management, pharmacology and pathophysiology.
Prerequisite: Ohio State EMT Basic Certification
136 EMT-Paramedic II: Cardiovascular/ Respiratory Emergencies 8 Cr . Hrs.
Following the 1998 National Standard Curriculum for EMT-Paramedics, emphasis on general anatomy and physiology of the cardiovascular system, assessment, management and evaluation of the cardiac and respiratory patient.
Prerequisite: EMS 135

## 137 EMT-Paramedic III: Pediatric \& Trauma Emergencies 8 Cr . Hrs.

 Following the 1998 National Standard Curriculum for EMT-Paramedics, emphasis on assessment, management and evaluation of the pediatric, obstetric, and or trauma patient.Prerequisite: EMS 136

## 138 EMT-Paramedic IV: The Medical Patient 8 Cr. Hrs.

Following the 1998 National Standard Curriculum for EMT-Paramedics, emphasis on care and management of the medical patient focusing on hematology, endocrine, neurology, gerontology, toxicology and behavioral.
Prerequisite: EMS 137

## 139 EMT-Paramedic V: Integration <br> 7 Cr. Hrs.

Following the 1998 National Standard Curriculum for EMT-Paramedics, emphasis on integrating skills from the preceding four quarters. Other areas covered include mass casualty, EMS research, crimescene management, and ethics within EMS care.
Prerequisite: EMS 138
150 EMT-Paramedic Refresher 4 Cr. Hrs. This course meets all Ohio state requirements as a paramedic recertification course. Designed for the practicing paramedic, EMS 150 places emphasis on assessment and initial management of the critically ill and injured patient including medical and traumatic emergencies.

## English (ENG)

111 English Composition I 3 Cr. Hrs. Prewriting, drafting, revision, editing, audience awareness, controlling theme and thesis development through reflective, informational, and argumentative writing based on student's experience; critical reading skills.
Prerequisite: DEV 110 or appropriate placement score
112 English Composition II 3 Cr. Hrs.
Further development of writing skills with emphasis on reading, reasoning, and argumentation; the research process and the research paper.
Prerequisite: ENG 111
113 English Composition III 3 Cr. Hrs. Continuing development of expository writing skills with emphasis on critical writing. Study of literature provides material for student essays.
Prerequisite: ENG 112
116 Advanced Vocabulary 3 Cr. Hrs. Builds English vocabulary through the study of component parts in words; namely Greek and Latin roots, prefixes, and suffixes. Emphasis on words commonly encountered in higher education with emphasis on legal, medical, and scientific terminology. Prerequisite: ENG 111 or equivalent

## 121 Technical Composition I 3 Cr. Hrs.

Composition skills and critical writing and reading for students in the technical fields, focusing on prewriting, drafting, revision, editing, and audience awareness through expository and analytical writing; introduction to the forms of technical writing and technical communication.
Prerequisite: DEV 110 or appropriate placement score
122 Technical Composition II 3 Cr. Hrs. Further development of critical writing and reading skills for students in the technical fields with emphasis on informal and formal report writing, including research and documentation techniques.
Prerequisite: ENG 121

## 131 Business Communications I

3 Cr. Hrs.
The four major types of business letters, emphasizing use of correct grammar, punctuation, spelling, and vocabulary.
Prerequisite: DEV 110 or equivalent

## 132 Business Communications II 3 Cr. Hrs.

Principles and skills for writing a resume and letter of application, short reports, and a formal business report involving library research and documentation techniques.
Prerequisite: ENG 131

## 199 Text Editing <br> 3 Cr. Hrs.

Strategies to achieve a clear, concise, cohesive, emphatic writing style; sentence structure; contemporary grammar and usage. Prerequisite: ENG 112

## 245 Introduction to Linguistics 3 Cr. Hrs.

 Modern linguistic studies including processes of linguistic change, grammar as a formal system, and historic and comparative language study.Prerequisite: ENG 112

## 247 The Art of Film

3 Cr. Hrs.
Viewing, analyzing, writing about American and international films.

## 250 Personal Essay: Advanced Composition <br> 3 Cr. Hrs.

Sophisticated techniques of expository writing and the refinement of style.
Prerequisite: ENG 112
255 Creative Writing (Poetry) 3 Cr. Hrs.
Writing and critical reading of poetry. Manuscript form and publication and market information.
256 Creative Writing (Fiction)3 Cr. Hrs. Writing and critical reading of short stories. The various techniques of fiction writing, such as plot, character, dialogue, and conflict.

## 257 Freelance Writing 3 Cr. Hrs.

Freelance magazine and newspaper article writing. Emphasizes generating, researching, developing non-fiction prose. Presentations by professional writers in various fields.

## 258 Advanced Fiction Writing3 Cr. Hrs.

Advanced study of traditional short story elements in a workshop setting; the mechanics of manuscript submission.
Prerequisite: ENG 256
259 Writing the Novel 3 Cr. Hrs.
Study of traditional novel elements and the mechanics of manuscript submission in a workshop setting.
Prerequisite: ENG 256 or permission of instructor
264 Advanced Poetry Writing 3 Cr. Hrs. Advanced study of the elements of poetry, including the mechanics of manuscript submission, in a workshop setting.
Prerequisite: ENG 255

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special topics within the discipline.

## Environmental Technology (EVT)

106 Air Pollution Control 3 Cr. Hrs. Chemicals that are air pollutants; sources of air pollution particularly chemical;monitoring techniques and control methods with applicable federal and state air pollution acts, amendments and standards. Two lecture, two lab hours per week.
Prerequisite: EVT 110, CHE 131
107 Water Management Technology 3 Cr. Hrs.
Causes of water pollution; methods of contaminate identification and source site identification; Clean Water Act and applicable state regulations. Two lecture, two lab hours per week.
Prerequisite: EVT 110, CHE 131,MAT131 or equivalents

## 110 Environmental Compliance

## 3 Cr. Hrs.

Introduction to the acts and regulations governing the production, treatment, transportation, and disposal of hazardous materials/wastes. Two lecture, two lab hours per week.

## 120 Environmental Sampling \& Analysis <br> 3 Cr. Hrs.

Sampling and analysis techniques for environmental compliance are discussed in detail. Sampling methods and protocols are presented and sampling plans developed. Environmental monitoring is explained with emphasis on a quality, surface water and groundwater. Two lecture, two lab hours per week.

## 180 Solid Waste Management 3 Cr. Hrs.

 Identify, describe and use the various methods and basic design concepts of solid waste treatment and disposal. Design concepts include landfilling, incineration, recycling and composting. Federal and state regulations are also presented and discussed. Two lecture, two lab hours per week.
## 200 Environmental Waste

Management
4 Cr. Hrs.
Environmental reduction of hazardous waste that is generated prior to treatment, storage, or disposal in industry and the public sector; methods to minimize waste production for small and large quantity generators.
Prerequisite: EVT 110

## 210 Environmental Site Assessment

4 Cr. Hrs.
Environmental liability aspects of property transfer; environmental liability reduction; records review; on-site inspection; site assessment for transfer of single family, multiple family, and commercial properties required by private and governmental organizations. Three lecture, two lab hours per week.

215 Asbestos Management 3 Cr. Hrs. Instruction in the management, identification and removal of asbestos. Emphasis on management, safety, affects asbestos on the human body, asbestosis disease, identification and removal techniques, personal protective equipment, decontamination and disposal techniques. Two lecture, two lab hours per week.

## 216 Lead Management 3 Cr. Hrs.

Instruction in the management, identification and removal of lead. Emphasis on management, safety, affects of lead on the human body, associated diseases, identification and removal techniques, personal protective equipment, decontamination and proper disposal techniques. Two lecture, two lab hours per week.

## 217 Confined Space Management

2 Cr. Hrs.
A detailed examination of the regulations and procedures required for entry into confined spaces. Analysis of the hazards of confined spaces and below ground environments as well as the application of confined space entry techniques are covered. One lecture, two lab hours per week.

## 240 Groundwater/Basic Fluid Mechanics

4 Cr. Hrs.
Examination of the basic concepts of the hydrologic cycle, hydrogeology, aquifers, groundwater supply and demand, contamination and decontamination. Techniques of groundwater protection are discussed and analyzed. Fluid flow types, laminar flow and turbulent flow, are presented. The principles of flow in open channels and pipes are discussed. Flow in natural as well as engineered systems is also analyed. Two lecture, four lab hours per week.
Prerequisite: PHY 131,MAT133orequivalent

## 260 Treatment, Storage \& Disposal of Hazardous Materials 3 Cr. Hrs.

Introduction to the treatment, storage, and disposal of hazardous wastes, or hazardous constituents, including land disposal, surface impoundment, solidification, incineration, and disposal management. Two lecture, two lab hours per week.
Prerequisite: EVT 110, EVT 200 and CHE 131

## 265 Remediation

3 Cr. Hrs.
Overview of the corrective action process related to contamination at RCRA permitted facilities. Description and evaluation of remedial technologies. Two lecture, two lab hours per week.
Prerequisite: CHE 131, EVT 260, MAT 132
278 Environmental Capstone 3 Cr. Hrs.
Assessment of achievement by Environmental Engineering Technology degree students in attaining program outcomes by employing reflective learning through demonstration of environmentally related principles and practices. Two lecure, two lab hours per week. Prerequisite: Permission of chairperson

## Financial Management (FIN)

## 105 Introduction to Financial Institutions

3 Cr . Hrs.
Overview of financial institutions, including the money creation function of the commercial banking system, the history and roles of various financial institutions, their services and operations.

## 148 Financial Institutions Management

3 Cr. Hrs.
How planning, structure, and control aid in bank management, and on the interrelationship of different departments. Highlights management decisions in areas such as lending, investing, public relations, and internal areas through the use of case studies and current examples.
Prerequisite: FIN 105

## 182 Deposit Accounts \& Services

3 Cr. Hrs.
Regulations governing deposit operations, depositinsurance, and other financial products. Disclosure, nondiscrimination and meeting customer needs are examined.

## 200 Consumer Credit

3 Cr. Hrs.
Nature and function of retail and mercantile credit, interchange services and uses, financial statement analysis, interpretation of creditreports, and collection procedures. Prerequisite: FIN 105

## 202 Consumer Credit Counseling

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3 Cr. Hrs.
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Skills and practice necessary to provide financial counseling services. Includes diagnosis of financial problems and their causes; effective questioning and listening techniques; ethical responsibilities of counselors; credit managementstrategies; and the development of debt management plans.
Prerequisite: FIN 105, FIN 200
205 Commercial Credit 3 Cr. Hrs. A survey of the operation of a commercial credit office. Organizations, policies and procedures of a commercial office, sources of credit information, legal aspects of collections and analysis of a financial statement. Prerequisite: FIN 200

## 215 Corporation Finance 3 Cr. Hrs.

Internal and external financing of a modern corporation. Finance and its relationship to the overall operation and management of the corporation. Financial analysis and planning; cash budgets, short and long-term financing; and asset management.
Prerequisite: ACC 113

## 245 Personal Finance

3 Cr. Hrs.
Household budgeting, use of charge accounts, insurance and savings as investment. Buying and selling of securities.

246 Principles of Investment 3 Cr. Hrs. For nonprofessional investors interested in expanding their knowledge and awareness of the stock market and its environment.

## 255 Money \& Capital Markets

3 Cr. Hrs.
Fundamentals of money and how it functions in the United States and world economies. This course explores money as a medium of exchange. Students are introduced to the concept of money supply and the role of banks as money creators and participants in the nation's payment mechanism. Different financial institutions are analyzed.
Prerequisite: ECO 202

## 260 Employee Benefits 3 Cr. Hrs.

Exploration of the range of benefits available to employees through group plans in order to make students educated consumers and prepare them for employment in financial institutions. An examination of employee benefits in relationship to an employee's financial health.

## 270 Financial Management Internship 3 Cr . Hrs .

Credits toward degree requirements for work experiences. Learning experiences relate to the financial services industry. Prerequisite: Twelve hours of FIN courses including FIN 105, 255 and 256 and permission of Co-op office

## 297 Special Topics

R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline.

## French (FRE)

100 Conversational French 3 Cr. Hrs. Understanding and speaking in conversational settings, using knowledge of French speaking cultures. May not be taken for credit if the student has completed FRE 101 or any other first or second year French course.

## 101 Elementary French I 4 Cr. Hrs.

 Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.
## 102 Elementary French II 4 Cr. Hrs.

 Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.Prerequisite: FRE 101

## 103 Elementary French III 4 Cr. Hrs.

 Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.Prerequisite: FRE 102

201 Intermediate French I 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 103
202 Intermediate French II 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 201
203 Intermediate French III 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 202

## Fire Science Technology (FST)

## 101 Introduction to Fire Science 4 Cr. Hrs.

Principles of combustion, extinguishment, ventilation calculations, heat transfer, and the combustible properties of fuels. The history of life and property loss by fire.

## 102 Fire Protection \& Organization 4 Cr . Hrs.

The organization and function of public, governmental, and private sector fire protection agencies, applications of various insurance rate making methods including the Insurance Service Office Fire Suppression Rating Schedule.

## 103 Fire Prevention Fundamentals, Codes \& Ordinances 4 Cr. Hrs.

 Interpretation and application of the Ohio Fire Code and the Life Safety Code (NFPA 101). The enforcement of fire codes and statutes and the legal ramifications.
## 115 Fire Apparatus \& Equipment <br> 3 Cr . Hrs.

Construction, operation and maintenance of pumping engines, aerial ladder trucks and platforms, and specialized fire equipment. Twolecture, two lab hours per week. 116 Fire Protection Systems 13 Cr. Hrs. The principles of design, application, and operation of fire detection, alarm and suppression systems and portable fire extinguishers based on the applicable standards of the National Fire Codes. Two lecture, two lab hours per week.

## 117 Fire Protection Systems II 3 Cr. Hrs.

Design, installation and maintenance of: fire detection systems, fire suppression systems using carbon dioxide, dry chemical, halon. Students will design each of the above systems using appropriate national fire codes. Two lecture, two lab hours per week.
Prerequisite: FST 116

120 Fire Safety Inspector 6 Cr. Hrs.
Instruction in fire hazard identification; fire hazard abatement; fire inspection procedures; fire code compliance; public fire safety education; application of fire codes and standards and fire hazards associated with special material and equipment. Four lecture, four lab hours per week.

## 125 Fire Investigation Procedure

## 4 Cr. Hrs.

Techniques used to determine the point of origin and cause of a fire, methods and motives for fire setting, State of Ohio statutes on arson and related offenses and trial preparation and presentation.
Prerequisite: FST 101 or FST 191 orpermission of chairperson

## 170 Technical Rescue Awareness

## 1 Cr . Hr .

Introduction to the issues and concerns thatemergency first responders must deal with when first on the scene of a technical rescue incident. Includes first responder's responsibilities in emergency response to a rescue incident, recognizing technical rescue incidents and related dangers, how to initiate the proper technical rescue response and stabilizing the rescue scene.
171 Introduction to BERT $1 \mathbf{C r}$. Hr. An overview of the Basic Emergency Rescue Technician (BERT) program with emphasis on the role of technical rescue in emergency response, application of the physic concepts needed for technical rescue and the application of the Incident Management System within the frame work of the BERT program.

## 172 Vehicle Extrication <br> 2 Cr. Hrs.

An examination of procedures and skills involved in the extrication of a victim from a vehicle accident. Covered will be the proper use of a variety of rescue equipment and the Incident Management System requirements of vehicle rescue. Completion of several practical exercises will be required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171
173 Line Rescue
2 Cr. Hrs.
A detail examination of the rescue procedures and techniques for victims involved in emergency situations that include high angles and/or great heights and distances. Completion of a series of practical exercises is required. This course is a component of the Basic Emergency rescue Technician (BERT) program.
Prerequisite: FST 171

## 174 Confined Space Rescue 2 Cr. Hrs.

 A detailed examination of the removal of a victim from a confined space. Analysis of the hazards of confined spaces and below ground environments as well as the application of confined space rescue techniques are covered. Completion of a series of practical exercise is required. This class is a component of the Basic Emergency Rescue Technician (BERT) program and exceeds what is required for the standard required OSHA confined space training.
## Prerequisite: FST 171, FST 173

175 Machinery Extrication 2 Cr. Hrs. An examination of the extrication of a victim trapped from an accident involving heavy machinery. Covered will be the proper use of the appropriate rescue equipment, the Incident Management System requirements of machinery rescue and the disassembling of complex machines. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 172

## 176 Trench Rescue

2 Cr . Hrs.
Examination of the extrication of an individual trapped in a collapsed excavation trench. Covered will be the trench settings and environment, proper use of rescue tools and apparatus, proper shoring techniques, stabilization of the trench area and the Incident Management requirements of a trench rescue. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 173, FST 174

## 177 Structural Collapse 2 Cr. Hrs.

An examination of the rescue needs of victims trapped during a structural collapse. Covered will be assessing structural integrity, stabilizing structural members, proper use of rescue equipment during structural collapse rescue and the Incident Management System requirements during structural collapse operations. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171

## 178 Top Water Rescue 2 Cr. Hrs.

An examination of the rescue needs of victims involved in water emergencies that are primary on the surface of either a static or dynamic water body. Course will cover assessing water emergencies, weather considerations, rigging, water craft needs and limitations, victim removal and Incident Management Systems requirements. This course is part of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 173

179 Urban Search \& Rescue 2 Cr. Hrs. An examination of the procedures needed to locate missing individuals due to actions that might or might not be within their control. The course will cover fundamentals of search operations, search tactics and strategies and Incident Management Systems requirements. Completion of a practical exercise is required. The course is a component the Basic Emergency Rescue Technician (BERT) program.

## 180 Firefighter II

14 Cr. Hrs.
Basic, intermediate and advanced instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances and equipment; built-in fire suppression systems and firefighting safety and survival. Four lecture, twenty lab hours per week.

## 181 Firefighter I

7 Cr. Hrs.
Basic and intermediate instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances, equipment, built-in fire suppression systems and firefighting safety and survival. Two lecture, ten lab hours per week. Prerequisite: Permission of chairperson
191 Volunteer Firefighter 3 Cr. Hrs. Basic instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances and equipment and firefighting safety and survival. One lecture, four lab hours per week.
Prerequisite: Permission of chairperson
192 Firefighter I Transition 4 Cr. Hrs. Intermediate instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances and equipment; built-in fire suppression systems and firefighting safety and survival. One lecture, six lab hours per week.
Prerequisite: FST 191
193 Firefighter II Transition 7 Cr. Hrs. Intermediate instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances and equipment; built-in fire suppression systems and firefighting safety and survival. Two lecture, ten lab hours per week.
Prerequisite: FST 192

## 201 Fire Hydraulics 5 Cr. Hrs.

Fundamental principles of water movement through pipe and fire hose, application of formulas to solve friction loss, flow rate, engine and nozzle pressures, evaluation of water supplies and sprinkler requirements. Four lecture, two lab hours per week.
Prerequisite: MAT 131 or MAT 116
202 Building Construction 4 Cr. Hrs. Fundamentals of building construction, design and materials as fire protection features, hazards, venting, heating, air conditioning structures, demolition and evaluation considerations to high density areas with high fire hazard potential.

## 204 Water Suppression Systems I <br> 4 Cr. Hrs.

Code requirements for the design, installation and maintenance of automatic sprinkler systems, types of systems and their applications to fire protection. Three lecture, two lab hours per week.
Prerequisite: FST 201 or permission of chairperson

## 205 Fire Administration I 4 Cr. Hrs.

The duties and responsibilities of the fire officer, administrative techniques to assist the officer in planning, organizing, leading and evaluating activities. Preparing reports and maintaining records.
Prerequisite: FST 102, FST 115

## 206 Incident Command System 4 Cr. Hrs.

Emergency sceneoperations management, fundamental principles of effective placement and utilization of apparatus and personnel to resolve emergencies in a safe and efficientmanner.Pre-emergency planning, organization, staging and sectorization. Two lecture, four lab hours per week.
207 Fire Administration II 4 Cr. Hrs.
Planning, organizing, staffing, budgeting, and creativity needed for solving fire department's problems affecting the fire protection delivery system.
Prerequisite: FST 102 and 205 or permission of chairperson

## 208 Incident Command System II

The principles of preparation and coordination of an emergency response agency to major disasters. Disaster planning, in-ter-agency coordination, dealing with media, communications and resource management. Response to a variety of man-made disasters (hazardous materials, fires, etc.) as well as natural disasters (weather, earthquake, etc.).
Prerequisite: FST 206 or FST 251
209 Fire Service Instructor 3 Cr. Hrs. Development and delivery of fire service training materials. Instructional motivations, student learning strategies and evaluation are addressed. This course also meets the requirements of the State of Ohio certification as a State Fire Instructor as well as the objectives in National Fire protection Association (NFPA) Standard 1041, Fire Service Instructor I. Two lecture, two lab hours per week.

## 210 Water Suppression Systems II

 4 Cr. Hrs.Design installation and maintenance requirements for fixed water spray extinguishing systems including: standpipe systems, foam spray systems, sprinkler systems; use of hydraulic calculations, and appropriate national fire codes, with related Factory Mutual Loss Prevention Data manuals. Three lecture, two lab hours per week.
Prerequisite: FST 204

## 218 Plans Review For Fire Safety 3 Cr. Hrs.

Role of a plans examiner and the part played in a fire protection environment; identification of code requirements; the analysis and abatement of building/fire code violations.
Prerequisite: ARC 107

## 251 Fire Officer Level I <br> 8 Cr. Hrs.

Management, supervision, and leadership within the basic fire department functional unit of the fire company. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Level I.
Prerequisite: FST 192

## 252 Fire Officer Level II 4 Cr. Hrs.

Management, supervision and leadership needed to manage and command multcompany situations are examined. This course meets the objectives of the National Fire protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Level II.
Prerequisite: FST 251

## 253 Fire Officer Level III 4 Cr. Hrs.

Administration of fire department operations and the management of facilities and resources needed to provide a public fire protection delivery system. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications, Fire Officer Level III. Prerequisite: FST 252

## 254 Fire Officer Level IV 4 Cr. Hrs.

Assesses the public fire protection needs of a community including the planning, developing, and implementation of a public fire protection delivery system. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications, Fire Officer Level IV. Prerequisite: FST 253

## 270 Fire Science Technology Internship

R 1-12 Cr. Hrs.
The internship is designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgment of that learning with internship credit upon submission of a portfolio to an evaluation committee. Youngerstudents with limited experience will participate in selected off-campus experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and / or projects are submitted each quarter.
Prerequisite: Permission of chairperson

## 278 Fire Administration Capstone 4 Cr. Hrs.

Master planning, decision making, and problem solving in the public fire protection environment. A capstone course for the Fire Science Technology, Fire Administrative Option.
Prerequisite: Permission of chairperson

## Geography (GEO)

101 Physical Geography 4 Cr. Hrs. Analysis of the principle spheres of Earth-atmosphere, lithosphere, hydrosphere, and biosphere; an explanation of processes involved in shaping the Earth's physical environment; and current environmental issues such as global warming, ozone depletion, air and water pollution. Laboratory will include use of the internet and various computer softwares. Three lecture, two lab hours per week.

## 102 Human Geography 3 Cr. Hrs.

 Introduction to aspects of geography concerned with the efforts of humans to cope with their environment: population and settlement forms; utilization of resources; spatial distribution of language and religion; the influence of political systems on culture; and the origin and dispersal of cultural elements among the various world realms.
## 145 Introduction to Meteorology 4 Cr. Hrs.

Survey of major atmospheric elements such as temperature, pressure, moisture, and precipitation and the concepts of meteorology followed by weather analysis and forecasting. Through computer simulations, exploration and introduction to the formation and development of individual weather disturbances such as thunderstorms, tornadoes and hurricanes. Also included are impacts of human actions on the atmosphere. Laboratory exercises will combined the latest computerized software with in class assignments. Three lecture and two lab hours per week.

## 146 Lab for GEO 145

Laboratory must be taken with GEO 145.

## 201 World Regional Geography I

3 Cr. Hrs.
Cultural, social, economic, and political development of representative regions of the western world in relation to geographic conditions.

## 202 World Regional Geography II

 3 Cr. Hrs.Cultural, social, economic, and political development of representative regions of the non-western world in relation to geographic conditions.

Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special topics in the discipline.

## German (GER)

100 Conversational German 3 Cr. Hrs. Understanding and speaking in conversational settings, using knowledge of German speaking cultures. May not be taken for credit if the student has completed GER 101 or any other first or second year German course.

## 101 Elementary German I 4 Cr. Hrs.

 Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.
## 102 Elementary German II 4 Cr. Hrs.

Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.
Prerequisite: GER 101
103 Elementary German III 4 Cr. Hrs. Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.
Prerequisite: GER 102

## Geology (GLG)

## 100 Introduction to Earth Sciences <br> 4 Cr. Hrs.

A survey of rocks and minerals, internal and external Earth processes, nature of the atmosphere, characteristics of the oceans, origin and development of the biosphere, Earth in space. Three lecture, two lab (GLG 110) hours per week.

## 110 Lab for GLG 100

Laboratory must be taken with GLG 100. 141 General Geology I 4 Cr. Hrs. Identification of rocks, minerals, their origin, destruction, recycling, surface processes of wind, water and ice in changing Earth's surface, interior forces that cause earthquakes, mountain building, plate tectonics. Three lecture, two lab (GLG 147) hours per week.

## 142 General Geology II 4 Cr. Hrs.

The Earth in space, physical evolution of oceans, atmosphere and continents, origin of life and its evolution, physical and biological development of North American continent. Three lecture, two lab (GLG 148) hours per week.

Prerequisite: GLG 141

143 General Geology III 4 Cr. Hrs. The interaction of geologic processes and human purposes. Use and misuse of resources, hazardous environments, engineering difficulties, storage of toxic wastes, groundwater pollution, trace elements and human health. Three lecture, two lab (GLG 149) hours per week.

## Prerequisite: GLG 141

144 Geological Field Trips 4 Cr. Hrs. Hands-on experience during five daylong field trips to different locations with direct observation of rocks and fossils, onsite study of effects of weathering, water erosion, glaciation and other Earth processes, and awareness of man's impact on the environment.
Prerequisite: GLG 141, GLG 142

## 147 Lab for GLG 141

Laboratory must be taken with GLG 141.

## 148 Lab for GLG 142

Laboratory must be taken with GLG 142.

## 149 Lab for GLG 143

Laboratory must be taken with GLG 143.
245 Concepts in Earth Science 5 Cr. Hrs. Basic concepts and applications including properties of earth materials, objects in the sky, and changes in the earth and sky using the inquiry learning environment which emphasizes science process skills integrated with mathematics. Early childhood education majors only. Does not satisfy physics requirement for middle childhood education majors. Four lecture, three lab hours per week.
Prerequisite: MAT 110, ASE 145

## 270 Geology Internship

2-12 Cr. Hrs.
Designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgment of that learning with internship credit upon submission of a portfolio to an evaluation committee. Younger students with limited experience will participate in selected non-classroom experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and/or projects are submitted each quarter. See EBE 270 Internship for course description.

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses such as courses by TV and newspaper as well as special interest topics in the discipline. Objectives will vary with the particular content area.

## Gerontology (GRN)

## 111 Human Services

3 Cr. Hrs.
Surveys the historical development of human services with appropriate goals, functions, and structure. The role of human service workers and their involvement in the delivery of such services. Southern Regional Educational Board (SREB) guidelines and other national organizations for human services workers.
112 Human Services with the Elderly 3 Cr. Hrs.
Analysis of current services and delivery systems for the elderly at national, state, and local levels, including legislative effects, employment and retirement, legal factors related to the elderly, environmental considerations regarding physical designs of facilities, and the American with Disabilities Act as they relate to the elderly.

## 115 Aging \& Health

3 Cr. Hrs.
Aspects of human aging: biological, psychological, and sociological. Insight into the health of the well-elderly, diseases of the various body systems that affect the elderly based on the Minimum Data Set (MDS).

## 135 Family Relations in Later Years

3 Cr. Hrs.
The dynamics of marital and family interaction during the middle and later years of the life-cycle; developmental tasks, socioeconomic influences, and marital and family needs, caregiving, intergenerational and cultural issues, families with special needs.

## 211 Field Practicum with the Elderly I

 5 Cr. Hrs.Fifteen hours per week of professionally supervised practical experiences in an organization providing services to the elderly. A weekly two-hour seminar accompanies the practicum, and focuses on selected readings and case studies, and journal documentation of experiences encountered in the practicum.
Prerequisite: GRN 112

## 212 Field Practicum with the Elderly II 5 Cr . Hrs.

Continuation of the application of theories studied in the classroom to maximize students' skills in human service practice with the elderly. A weekly seminar accompanies the field practicum.
Prerequisite: GRN 211

## Health Information <br> Management (HIM)

110 Health Information Processing I 3 Cr. Hrs.

Foundations of health information management and health care data including health care systems, the Health Information Management profession, patient and health care data, and data collection methodologies. Two lecture, two lab (HIM116) hours per week.
Prerequisite: DEV 065 or equivalent

## 111 Health Information Processing II

3 Cr. Hrs.
Health care data and data management and its use including data quality, access, retention and health care registries. One lecture, four lab (HIM118) hours per week. Prerequisite: HIM 110

## 116 Lab for HIM 110

Laboratory must be taken with HIM 110.

## 118 Lab for HIM 111

Laboratory must be taken with HIM 111.

## 121 Basic Medical Terminology 3 Cr. Hrs.

Basic prefixes, roots, and suffixes; disease terminology including anatomic, diagnostic, symptomatic, eponymicterms and standard abbreviations of the basic body systems. Prerequisite: DEV 065 or equivalent

## 122 Specialized Medical Terminology 3 Cr. Hrs.

Continuation of HIM 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: HIM 121 or MRT 121

## 132 Basic Medical Transcription 3 Cr. Hrs.

Theory and application of equipment and skills required in order to transcribe dictated medical reports; exposure to common reference materials. Two lecture, three lab (HIM 137) hours per week.

## 135 Medicolegal Aspects of Health Care Records <br> 3 Cr. Hrs.

Evaluation of health care records as legal documents; special emphasis on policies and procedures concerning release of medical information and patient confidentiality; principles and organization of the judicial system; risk management. Two lecture, two lab hours per week. Prerequisite: HIM 111

## 137 Lab for HIM 132

Laboratory must be taken with HIM 132.

## 202 Medical-Surgical Transcription Lab Practicum 3 Cr. Hrs.

Lab practicum for HIM 132. Student transcribes English and foreign physician dictation in a simulated office environment. Six lab hours per week.
Prerequisite: HIM 132
204 Health Informatics 3 Cr. Hrs.
An in-depth look at the use of information technology in the health care delivery system including: the role, purpose and use of health information systems, the com-puter-based patient record, various health information system applications, information systems life cycle and future technologies. Two lecture, two lab (HIM 207) hours per week.
Prerequisite: ALH 104

## 207 Lab for HIM 204

Laboratory must be taken with HIM 204.

## 218 Cancer Registry

1 Cr . Hr .
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.

## 220 Health Information in Long Term Care <br> 2 Cr . Hrs.

Purposes, uses, and handling of health information; departmental and facility administration; licensing and accreditation requirements as well as an introduction to payment systems in long term care. One lecture, two lab hours per week.

## 222 Coding \& Billing Long Term Care

3 Cr. Hrs.
The reimbursement system in Long Term Care facilities will be examined with specific emphasis on the ICD-9 and CPT Coding Process as well as the billing procedures used.

## 231 Inpatient ICD-9-CM Coding II

 5 Cr. Hrs.Theory and application of skills necessary to assign ICD-9-CM diagnosis and procedure codes to inpatient cases for reimbursement and research. Additional time required outside of class for testing. Three lecture, four lab (HIM 233) hours per week.
Prerequisite: HIM 236, HIM 265

## 233 Lab for HIM 231

Laboratory must be taken with HIM 231.
235 Health Record Statistics 3 Cr. Hrs.
Theory and application of health care statistics; generating manual and computerized reports, graphically presenting data, securing and reporting vital statistics. Two lecture, four lab (HIM 329) hours per week.

## 236 Ambulatory Coding for Hospitals 3 Cr. Hrs.

Theory and application of skills required to assign and sequence codes for hospital ambulatory services for reimbursement using CPT and ICD-9-CM classification systems. Additional time outside of class required for testing. One lecture, two lab (HIM 238) hours per week.
Prerequisite: HIM 260, HIM 261 and permission of chairperson

## 238 Lab for HIM 236

Laboratory must be taken with HIM 236. 239 Lab for HIM 235
Laboratory must be taken with HIM 235.

## 244 Health Care Quality Improvement

 3 Cr. Hrs.Organization and use of data in health care quality improvement programs including quality assessment and monitoring, case management, risk management and credentialing under current external and internal guidelines. Previous course work or experience in the health care industry is required. Two lecture, four lab (HIM 247) hours per week.

## 245 Health Information Resource Management $\quad 3$ Cr. Hrs.

Planning, staffing and analysis of management systems along with job standards and performance evaluations emphasizing development of supervisory skills. Two lecture, two lab hours per week.
Prerequisite: DEV 065 and permission of chairperson

## 247 Lab for HIM 244

Laboratory must be taken with HIM 244.
250 HIM Directed Practice I 2 Cr. Hrs.
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. Six hours per week in $1 / 2$ term.
Prerequisite: HIM 135
251 HIM Directed Practice II 3 Cr. Hrs. Practical application of health information management processes including: medicolegal release of medical information, DRG coordination and assignment, ambulatory coding, flowcharting, generation of job procedures and optical disk scanning. Six hours per week in full term. Prerequisite: HIM 250

## 252 HIM Directed Practice III 4 Cr. Hrs.

 Practical application and reinforcement of knowledge previously learned including hospital-wide and HIM department quality assurance; utilization review; risk management and tumor registry. Twelve practicum hours per week.Prerequisite: HIM 251

260 ICD-9-CM Medical Office Coding 3 Cr. Hrs.
Basic rules, regulations and principles for assigning ICD-9-CM codes to patient encounters for billing physician services. Student should process proficiency in basic medical terminology. Additional out-of-class assignments required. Additional time outside of class may be required for testing. Three lecture hours per week.
Prerequisite: HIM 121, OIS 137 or BIS 137
261 CPT Medical Office Coding 3 Cr. Hrs. Basic rules, regulations and principles for assigning CPT codes to patient encounters for billing physician services. Student should process proficiency in basic medical terminology. Additional out-of-class assignments required. Additional time outside of class may be required for testing. Three lecture hours per week.
Prerequisite: HIM 121, OIS 137 or BIS 137

## 262 Advanced Medical Office Coding 4 Cr. Hrs.

Advanced theory and practice of ICD-9CM, CPT and HCPCS Level II coding for the medical office environment. Three lecture hours, two lab hours per week.
Prerequisite: HIM 260, HIM 261, HIM 122, BIO 107

## 265 Health Care Data in Reimbursement

3 Cr. Hrs.
Organization of the health care delivery system including managed care and capitation. Theory and use of reimbursement systems such as DRGs, APGs, and RBRVS. Discussion of data flow from admission to billing and analysis of casemix. Two lecture, two lab hours per week.
Prerequisite: HIM 260, HIM 261

## 278 Health Information Management Capstone <br> 3 Cr. Hrs.

Projects, oral and written presentations, case studies, creation of professional growth plan and portfolio development incorporating the Domains, Subdomains and Tasks for Two Year HIM Programs from the American Health Information Management Association. Completion of two mock accreditation exams outside of class. Six lab hours per week.
Prerequisite: HIM 251

## 297 Special Topics

R

## 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses as well as special interest topics within the discipline.

## History (HIS)

101 United States History (1607-1815) 3 Cr. Hrs.
Development of the people of the United States in political, social, economic, and cultural areas.

## 102 United States History (1815-1919) 3 Cr . Hrs.

Development of the people of the United States in political, social, economic, and cultural areas.

## 103 United States History (1919Present)

3 Cr . Hrs.
Development of the people of the United States in political, social, economic, and cultural areas.

## 105 African-American History 4 Cr. Hrs.

Contributions of African-Americans to the institutions and culture of the United States from 1619 to present.

## 106 Civil Rights Era in the United States 3 Cr. Hrs.

Historical development of civil rights movement in United States with analysis of social, political, and economic impact.

## 111 Western Civilization (0-1300)

 3 Cr. Hrs.Major trends in the development of Western culture, emphasizing political, economic, social, and cultural achievements.

## 112 Western Civilization (1300-1815)

3 Cr. Hrs.
Major trends in the development of Western culture, emphasizing political, economic, social, and cultural achievements.

## 113 Western Civilization (1815Present) <br> 3 Cr. Hrs.

Major trends in the development of Western culture, emphasizing political, economic, social, and cultural achievements.

## 140 The Civil War

3 Cr . Hrs.
Detailed coverage through use of original documents and photos tracing the political, economic and social causes, progression, and consequences of the American Civil War.

## 214 History of Southeast Asia3 Cr. Hrs.

Survey of Indo-China, Indonesia, and the Philippines, with emphasis on economic, political, and religious evolution tracing ancient and colonial influences on modern nations of the area.

## 215 Survey of African History 3 Cr. Hrs.

Overview of the history of Africa from prehistoric times to the present from an Afrocentric perspective; special emphasis on twentieth century issues and problems.

## 216 Survey of Latin American History

 3 Cr. Hrs.Overview of Latin American history from prehistoric times to the present, tracing ancient and colonial influences on modern nations of the area.

## 217 Survey of East Asia 3 Cr. Hrs.

Survey of East Asia (China, Korea, and Japan) from earliest times to the present, with special emphasis on twentieth century issues and problems.

## 218 History of Ohio <br> 3 Cr. Hrs.

Survey of the political, social, economic, and cultural development of the peoples of Ohio, from prehistoric times to the present. Ohio's role in the growth of the United States.

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special interest topics in the discipline.

## Hospitality <br> Management (HMT)

105 Survey of Food Industry 3 Cr. Hrs.
An overview of the food service industry, and the skills, abilities, and interest necessary for success in restaurant, hospital, school, nursing home, industry, and dormitory food service management. Field trips provide a general background of the organization, operation and management of food service organizations.
Prerequisite: DEV 065, DEV 085, DEV 110

## 107 Sanitation \& Safety 3 Cr. Hrs.

Food sanitation topics including food spoilage, microorganisms, food illnesses and outbreaks, and HACCP (Hazard Analysis Critical Control Point) controls, proper handling of equipment and personal hygiene.
Prerequisite: DEV 065, DEV 110 or equivalent.

## 108 Introduction to Foods \& Nutrition

 3 Cr. Hrs.An overview of basic nutrition principles, food legislation, sanitation and meal management with consideration of food choices as they relate to nutrition and health. This course is also offered as DIT 108.

## 110 Menu Planning \& Dining Services

 3 Cr. Hrs.Menu development and design including investigation and evaluation of food delivery systems.
Prerequisite: HMT 105

112 Basic Food Preparation 5 Cr. Hrs. Kitchen orientation, culinary terms, methods of cookery; soups, sauces, vegetables, grains, farinaceous dishes and salad preparation; interpretation of menus and recipe structure. Two lecture; six lab (HMT 113) hours per week.

Prerequisite: HMT 107, DEV 085 or equivalent.

## 113 Lab for HMT 112

Laboratory must be taken with HMT 112.

## 114 Advanced Food Preparation

## 5 Cr. Hrs.

Introduction to basic baking principles; production of meats, poultry, seafood and sandwiches as well as breakfast cookery methods. Two lecture and six lab (HMT 115) hours per week.

Prerequisite: HMT 112
115 Lab for HMT 114
R
Laboratory must be taken with HMT 114.

## 118 Introduction to Bakery Arts

5 Cr. Hrs.
Orientation to bakery terms, systems and equipment. Techniques for professional development and introduction to basic yeast raised products. Two lecture, six lab hours per week.

## 125 Bar Operations Management <br> 3 Cr. Hrs.

Examination of bar operations from supervision to control functions, including the National Restaurant Association Bar Management guidelines for service; legal aspects of liquor control; and differentiation of production methods of beer, wine and liquor.
128 Advanced Bakery Arts 5 Cr. Hrs. Examination and practice in procedures for a variety of bakery materials; how to finish and label bakery products, bakery visitations. Two lecture, six lab hours per week.

## 201 Food Service Equipment Design \& Maintenance <br> 3 Cr. Hrs.

Types of equipment used in the food service industry and maintenance performed. Layout of equipment in terms of efficiency and cost.
Prerequisite: HMT 105

## 206 Garde Manger <br> 5 Cr. Hrs.

Preparation of force meats, sausages, pates, terrines, galantines, mousse, roulades, pate en croute, hors d'oeuvres and canapes as well as cold sauce production such as aspics and chaud froid sauces; development of skills necessary to produce a cold food buffet utilizing vegetable carvings, ice carvings, platter layout, display and design. Two lecture and six lab (HMT 236) hours per week.
Prerequisite: HMT 114

## 207 Butchery \& Fish Management 4 Cr. Hrs.

Identifying grades, cutting of meat and fish; techniques for wholesale purchase and distribution as well as sanitary storage and practical management of a larder department. Two lecture, four lab hours per week. Prerequisite: HMT 114
208 Pastry \& Confectionery 5 Cr. Hrs. Theory and practice of pastry and confectionery for the hotel and restaurant industry; dessert menu planning; orientation and familiarization with patisserie environment; all basic pastry preparation, presentation and application to classical dessert making. Two lecture, six laboratory (HMT 238) hours per week.
Prerequisite: HMT 114
209 Professional Cooking 5 Cr. Hrs. Enhancement of chef skills by planning, coordinating and preparing of advanced professional menus; critical analysis of recipe preparation techniques and organizational skill abilities. Two lecture, six laboratory (HMT 239) hours per week.
Prerequisite: HMT 114, HMT 206, HMT 208

## 210 Hotel-Motel Operations Management <br> 3 Cr. Hrs.

Management and operation of the lodging industry.
Prerequisite: HMT 105

## 211 Hospitality Industry Computer Systems <br> 3 Cr. Hrs.

Information needs of lodging properties with food services; essential aspects of computer systems, such ashardware, software, and generic applications; comput-er-based property management systems for both front and back office functions; hotel sales computer applications and yield management strategies; and com-puter-based food and beverage management systems for both service oriented and management oriented functions.
Prerequisite: HMT 105, CIS 119
212 Front Office Operations 3 Cr. Hrs. A systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check out and settlement. An examination of the various elements of effective front office management, with particular attention to the planning and evaluation of office operations and human resources management. Front office procedures and management are placed within the context of a lodging operation. Prerequisite: HMT 105

## 215 Food \& Labor Cost Controls

3 Cr. Hrs.
Basic methods used to control food, labor and operational costs in an average restaurant, bar and fast food operation. Financial statement analysis as a control, weekly usage sheets, inventories, control records, time card analysis, and sales slips. Prerequisite: ACC 112, HMT 105

218 Bakery Arts Production 5 Cr. Hrs. Examination of the baking process with emphasis on new techniques of production and advancements in technologies of mixes, bases and frozen products; fried products, cake decorating, and presentation. Two lecture, six lab hours per week.

## 225 Organization \& Administration of Hospitality Industry 3 Cr. Hrs.

This course is designed to provide students with the principles of supervision as they apply specifically to the hospitality industry.
Prerequisite: MAN 205, HMT 105

## 226 Purchasing for Hospitality

 Industry3 Cr. Hrs.
Procurement techniques and product information on food, furniture, fixtures and equipment, with emphasis on purchasing as a managerial function.
Prerequisite: HMT 105

## 227 Marketing in the Hospitality Industry <br> 3 Cr. Hrs.

Organization of the marketing function in the hospitality industry; its role and responsibility in developing an integrated hospitality marketing program.
Prerequisite: MRK 201, HMT 105

## 228 Managing Bakery Production \& Sales 5 Cr. Hrs.

Exploration of bakery management styles and models of organization; scheduling and employee guidelines;merchandising; baking for the future. Two lecture, six lab hours per week.

## 236 Lab for HMT 206

R
Laboratory must be taken with HMT 206.
238 Lab for HMT 208
R
Laboratory must be taken with HMT 208.
239 Lab for HMT 209
R
Laboratory must be taken with HMT 209.

## 270 Food Service Management Internship <br> R <br> 1-9 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
291 Food Service Internship I
R
3 Cr. Hrs.
For Hospitality Management majors only. See EBE 270 Internship for course description.

## 292 Food Service Internship II R

 3 Cr. Hrs.For Hospitality Management majors only. See EBE 270 Internship for course description.

293 Food Service Internship III R
3 Cr. Hrs.
For Hospitality Management majors only. See EBE 270 Internship for course description.

## 295 Seminar in Food Service <br> Management <br> 3 Cr. Hrs.

Gives graduating students an overall review and update of the courses taken in Hospitality Management. Prepares the student seeking employment with application procedures and job interviews.
Prerequisite: HMT 215, HMT 225, MAN 205

## 297 Special Topics in Hospitality Industry <br> R

1-5 Cr. Hrs.
Topics within the Hospitality or Culinary Arts programs not covered within existing courses; opportunities for non-traditional learning and continuing professional development in these areas.

## Humanities (HUM)

## 115 International Environment:

Culture \& Business
3 Cr. Hrs.
An exploration of the social, political, cultural and business conditions in the international arena will be presented. Social and business practices in various environments areexplored.Student participation through discussion and a team project will be included. Also offered as MRK 115; students may enroll in either course but not both.

## 125 The Human Image 3 Cr. Hrs.

Explores the nature and content of the humanities by examining and comparing our culture with various cultures from the past.

## 130 Humanity \& the Challenge of <br> Technology <br> 3 Cr. Hrs.

Opportunities and dangers faced by humankind in the evolution of new technologies through examining several instances of contemporary technological development.

## 131 The Search for Utopia 3 Cr. Hrs.

A survey of humanity's creative search for the ideal society with special emphasis on ideas that have changed the world.

## 132 Connecting Technology \& Our Lives <br> 3 Cr. Hrs.

History, underlying concepts and effects on community values and quality of life resulting from technological development in Dayton; impact on students and their families; personal and community planning for future changes.
135 Environmental Ethics 3 Cr. Hrs.
Overview of philosophical and ethical dimensions of the environmental crisis, such as environmental politics, animal rights, non-western views. Available for Honors credit.

140 Appalachian Folkways 3 Cr. Hrs. Overview of the many facets of folkways and folklore in the Appalachian region of the United States, including folk customs, material culture, performing folk arts, and oral literature.

## 141 Appalachia

3 Cr. Hrs.
An examination of various facets of life in Appalachia, including history, culture, economics, politics, education and religion.

## 194 World \& Community Issues <br> 3 Cr. Hrs.

A discussion and study forum focused on broad humanities themes related to the Phi Theta Kappa study topics for the year in which the course is offered. Students select a research project or take on the task of recruiting a speaker; viewing and discussing the satellite seminar programs and community speakers; evaluating and critiquing each other's projects in class; contributing to class discussions; and making a project presentation at the end of the course.

## 195 Patterns of Leadership

To understand the matrix of creative leadership in its many aspects (philosophical, sociological, political, etc.) and to examine and evaluate leaders in action. Included are leadership studies in the revolutionary, reform, intellectual, and moral arenas.

## 205 Cultures of Ancient Greece \& Rome 3 Cr. Hrs.

Rise and fall of these cultures; their contributions to western culture.

## 236 International Studies 6 Cr. Hrs.

Under the supervision of Sinclair faculty, visit another country, study activities related to specific academic majors.

## 245 The Vietnam War: Narratives \& Issues <br> 3 Cr . Hrs.

History of American military involvement in Vietnam; course focuses on narratives written by those involved in the war and the antiwar movement.

## 255 People \& Religion 3 Cr. Hrs.

Interdisciplinary investigation of the religious influences in the life of the individual and in society.
297 Special Topics
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in the discipline.

# Industrial Engineering Technology (IET) 

## 101 Work Methods Analysis \& Improvement <br> 3 Cr. Hrs.

Introduction to the purpose and need for work methods analysis technique, human resistance to change, methods to justify and implement new production methods and the use of microcomputers in methods work.

## 105 Industrial Metrics Conversion 2 Cr. Hrs.

Develops skills in conversion of English system to metric system. Emphasis on linear length conversion and industrial needs for dimensions and tolerances on engineering product drawings.

## 111 Work Measurement Techniques 4 Cr. Hrs.

Work measurement techniques, including taking time studies, calculating standard times, estimating product costs, developing standard data, performing methods/time/measurement standards, establishing work sampling standards, and learning curve analysis. Three lecture, two lab hours per week.
Prerequisite: IET 101

## 115 Survey of Production \& Inventory Control <br> 2 Cr . Hrs.

Basic concepts of production and inventory control of an industrial organization.

## 125 Introduction to World-Class <br> Manufacturing 3 Cr. Hrs.

An overview of world-class manufacturing principles, illustrating the many interrelated functions within successful companies including market research, conceptual design, detailed design, production planning, manufacturing, sales and customer support. Additional focus on current trends in manufacturing. Prerequisite: DEV 110

## 126 Supervision \& Work Teams Leadership <br> 3 Cr. Hrs.

Role and techniques of industrial supervision, including the function of supervisors, leadership styles, employee motivation, and supervision in a union shop situation.

## 130 Just-in-Time Production Systems

 3 Cr. Hrs.Manufacturing principles of Just-in-Time (JIT) applications including lead time reduction, containerization, module design, Kanban, and management by eye. Two lecture, two lab hours per week.
Prerequisite: IET 101

## 135 Manufacturing Cost Analysis

3 Cr . Hrs.
Industrial cost analysis and control for manufacturing operations, to include: standard, overhead, and other types of costs; budget breakeven points; cost-volume-profit relationships; and cost estimating.
Prerequisite: MAT 131 or equivalent
161 IET Tech Prep Seminar I 1 Cr. Hr. An overview of the unique skills and education needed by IET and Manufacturing Engineering Technology Tech Prep students. Students will also set career goals and develop a vision for their early career progress.
162 IET Tech Prep Seminar II 1 Cr. Hr.
Industry site tours and classroom contact with practicing industrial and manufacturing engineers.
163 IET Tech Prep Seminar III 1 Cr. Hr. An overview of IET and Manufacturing Engineering Technology career development opportunities available after the associate degree.

## 190 Industrial Engineering Workshop R 0.5-3 Cr. Hrs.

Various topics related to Industrial Technology.

## 198 Computer Programming Applications in Engineering Technology 2 Cr. Hrs.

 Computer operating systems and programming for engineering technology problem solving, emphasizing use of DOS and Windows, QBASIC and the introduction to Visual BASIC. One lecture and two lab hours per week.
## 201 Computer Integrated Workcells I 3 Cr. Hrs.

Study and application of computer integrated manufacturing equipment, including the integration and coordinated use of tactile and light sensors, electronic and pneumatic communications and control systems, microcomputers, material handling equipment, robots, and CNC equipment. Twolecture, two lab hours per week. Prerequisite: IET 198 or IET 199

## 202 Computer Integrated Workcells II <br> 3 Cr. Hrs.

Advanced study in application of computer integrated manufacturing equipment, along with the application of workcells to process planning and group technology for the production of product family groups. Two lecture, two lab hours per week.
Prerequisite: EGR 252 or IET 201

205 Process Engineering 3 Cr. Hrs. Introduction to manufacturing process planning including survey of manufacturing processes and equipment, relationship to computer integrated manufacturing, use of group technology, process stimulation and process selection and planning. Two lecture, two lab hours per week.
Prerequisite: IET 101 or permission of instructor
206 Value Engineering 3 Cr. Hrs.
Analyzes performance of functional cost ratios in manufacturing and relates these to profits.
Prerequisite: IET 205 or permission of instructor

## 207 Manufacturing Systems Analysis 3 Cr. Hrs.

Manufacturing simulation to solve manufacturing problems. Involves actual programming of manufacturing models consisting of labor, material, and equipment to predict future outcome of different alternatives. Two lecture, two lab hours per week.

## Prerequisite: IET 205

## 216 Industrial Facilities Layout 4 Cr. Hrs.

Study of actual manufacturing plant layouts, symbols, nomenclature and their interpretations. Specific requirements and conditions are given as a lab project to solve a manufacturing facilities layout problem. Two lecture, four lab hours per week.
Prerequisite: IET 205 or permission of instructor

## 235 Operations Management 3 Cr. Hrs.

Subfunctions of manufacturing engineering which coordinate with and implement process planning to optimize production and use of materials.
Prerequisite: MAT 131 or equivalent

## 270 Industrial Engineering Internship R

 1-12 Cr. Hrs.See EBE 270 Internship for course description.

## 277 IET Tech Prep Project 3 Cr. Hrs.

Application of IET and manufacturing principles, using student teams for real or laboratory simulations ofmanufacturing processes. Two lecture, two lab hours per week.

## 278 Manufacturing Capstone

Experience 3 Cr. Hrs.
Assessment of achievement by Industrial Engineering Technology students in attaining manufacturing-related outcomes by completing a project demonstrating principles and practices of the major. One lecture, four lab hours per week.

## 297 Special Topics

New developments in Industrial Engineering \& Manufacturing Technology and their impact on manufacturing operations, competitiveness and productivity. Lecture and lab hours are variable.

# Integrative Massage Therapy (IMT) 

## 101 Integrative Medical Massage Therapy I 2 Cr. Hrs.

History of medical massage, the therapeutic environment and relationship, professional ethics; applied anatomy of integumentary system and superficial fascia; introduction toSwedish massage. One lecture, two lab hours per week.
Prerequisite: BIO 141 and department chairperson signature

## 102 Lab for IMT 101

Laboratory must be taken with IMT 101.

## 103 Integrative Medical Massage Therapy II 5 Cr. Hrs.

Taking medical history, documentation; ethics and boundaries in therapeutic relationship; Swedish massage techniques continued; introduction to musculoskeletal disorders. Two lecture, six lab hours per week.
Prerequisite: IMT 101, IMT 102

## 104 Lab for IMT 103

Laboratory must be taken with BIO 103.

## 107 Anatomy \& Physiology for the Massage Therapist I 5 Cr. Hrs.

Introduction to the human body including chemical, cellular and tissue organization, integumentary system and appendicular and axial skeletons with application in massage therapy. Two lecure, six lab hours per week.
Prerequisite: BIO 142, IMT 101, Chairperson signature

## 108 Lab for IMT 107

Laboratory must be taken with IMT 107.

## 205 Integrative Medical Massage Therapy III 5 Cr. Hrs.

 Introduction to soft tissue barriers and their clinical significance; Muscle Energy Techniques, Swedish Massage continued; palpatory and assessment skills, pathology of joints, professional ethics, and communication in therapeutic relationship. Two lecture, six lab hours per week.Prerequisite: IMT 103, IMT 107, Chairperson signature

## 207 Integrative Medical Massage Therapy IV <br> 5 Cr. Hrs.

Introduction to Craniosacral therapy; Pain physiology and assessment; Myoneural therapy; Swedish massage continued; Applied anatomy of neuromuscular and musculoskeletal systems. Two lecture, six lab (IMT 217) hours per week. Prerequisite: IMT 205, IMT 210, Chairperson signature

## 219 Massage Therapy Directed Practice <br> 2 Cr. Hrs.

Application of knowledge and skills of integrative medical massage in a community setting. One lecture, five lab hours per week.
Prerequisite: IMT 208, IMT 214, IMT 218, Chairperson signature

## 220 Anatomy \& Physiology Seminar 3 Cr. Hrs.

A comprehensive review and application of anatomy and physiology principles for massage therapist.
Prerequisite: IMT 208, IMT 214, IMT 218, Chairperson signature
221 Massage Therapy Seminar 3 Cr. Hrs.
Comprehensive review of massage therapy theory and practice for the massage therapist.
Prerequisite: IMT 208, IMT 214, Chairperson signature

## 226 Lab for IMT 216

Laboratory must be taken with IMT 216.

## 228 Lab for IMT 218

Laboratory must be taken with IMT 218.
229 Lab for IMT 219
Laboratory must be taken with IMT 219.

## Interior Design (IND)

131 Interior Design I
3 Cr. Hrs.
Design foundations exploring profession, principles, elements, and processes; space planning and furniture arrangement fundamentals with emphasis on design drawings and professional presentation form. Two lecture, four lab hours per week.

## 132 Interior Design II

3 Cr. Hrs.
Data gathering, problem solving, psychological parameters of planning and selection of materials and furnishings; continuation of design, drawings, and processes. Twolecture,four labhoursperweek. Prerequisite:ARC101 and (IND131or ARV131)

## 133 Interior Design III 3 Cr. Hrs.

Historical evolution of architectural design examining the extended environment, building systems and exterior styles, electrical and wiring plans; continuation of design drawings and processes. Two lecture, four lab hours per week.
Prerequisite: IND 132

## 134 Interior Design Textiles \& Materials $\quad 3 \mathrm{Cr}$. Hrs.

Overview of Specifications, relative costs and performance properties of materials used in interior design. Includes textiles. Prerequisite: IND 131

231 Advanced Interior Design I 4 Cr. Hrs. Advanced issues in barrier-free/universal design. Study and application of construction types. Two lecture, four lab hours per week.
Prerequisite: IND 133, ARC 102

## 232 Advanced Interior Design II <br> 4 Cr. Hrs.

Advanced issues in kitchen design and anthropometrics. Study and application of building systems. Advanced oral and visual presentation skills. Two lecture, four lab hours per week.
Prerequisite: IND 231 or IND 243

## 233 Advanced Interior Design III 3 Cr. Hrs.

Introduction to interior design business practices, including; cost estimating, contract writing, sales and communication techniques. One lecture, four lab hours per week.
Prerequisite: IND 232 or IND 242
240 History of Furniture 3 Cr. Hrs.
Examination of the stylistic development of domestic furniture and furnishings from classical times to the present.
Prerequisite: IND 133

## Insurance (INS)

270 Insurance Internship
R
1-9 Cr. Hrs.
See EBE 270 Internship for course description.

## 297 Special Topics

R
0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses toward an associate degree in Business.

## Industrial Design \& Graphics Technology (DRT)

## 100 Engineering Drawing Interpretation

2 Cr. Hrs.
Training in the reading and interpretation of engineering drawings. Includes principles of orthographic projection, dimensioning and tolerancing, various types of views. Covers information in title block and revision block.

## 106 Essentials of Machine Drawing

 3 Cr. Hrs. Industrial drafting course covering use of drawing instruments, lettering, sketching, multi-view drawing, sections auxiliary views, pictorial drawings, and basic dimensioning practices. Two lecture, two lab hours per week.
## 110 Design Processes 2 Cr. Hrs.

Processes for the formulating and substantiating ideas and concepts for the design of systems, components, and technical processes. One lecture, two lab hours per week.

## 196 Introduction to Print Reading, Sketching \& CAD <br> 3 Cr. Hrs.

Industrial technical graphics covering basic blueprint reading, sketching (from concept sketching to accurate, detailed sketches for the subsequent creation of solid models and working drawings) and an introduction to computeraided design(CAD).Twolecture, two lab hours per week.

## 198 Introduction to Computer Aided Drafting Concepts 2 Cr. Hrs.

P.C. based computer-aided drafting, including two-dimensional drawing, drawing layout and sizing, drawing and editing commands, drawing magnification, and drawing output using the latest release of AutoCAD. One lecture, two lab hours per week.
Prerequisite: DRT 196 or DRT 106 \& MET 198 or DRT 106\& IET 198or ARC 101 \& MET 198 or ARC 101

## 199 Advanced Computer Aided Drafting <br> 3 Cr . Hrs.

Study and application of advanced drawing using computer graphic systems. Major emphasis on 2D commands, with an introduction 3D drawings. Prerequisite may be taken concurrently. Two lecture, two lab hours per week.
Prerequisite: DRT 198, MET 198
200 Engineering Technology Graphics 5 Cr. Hrs.
Utilization of parametric design in the creations of both two- and three-dimensional drawings. Both individual detail drawings and assembly drawing types will be used. Three lecture, four lab hours per week.
Prerequisite: DRT 199

## 205 Advanced Autodesk Parametric Design <br> 5 Cr. Hrs.

Application of advanced parametric design tools in the creation of 3D assembly models. Assembly animations, software customization, utilization of varied drawings outputs are applied. Three lecture, four lab hours per week.
Prerequisite: DRT 200
206 Autodesk Inventor Update 1 Cr . Hr.
Provide Autodesk Inventor users with a summary of the new features (updates) provided in each major release. One half hour of lecture, one hour of lab per week. Prerequisite: DRT 200 \& DRT 255 or DRT 200 with DRT 2??

## 217 Introduction to Geometric Dimensioning \& Tolerancing 3 Cr. Hrs. <br> Develop an understanding of the geometric dimensioning and tolerancing system, incorporating dimensioning of parts with respect to the function of the part. Two lecture, two lab hours per week. <br> Prerequisite: DRT 106 or DRT 196

223 Engineering Animation I 3 Cr. Hrs. Animating 2D and 3D drawings; applying colors, textures, images onto objects and creating short animation; light and camera placements, and object rendering. Two lecture, two lab hours per week.
Prerequisite: DRT 199

## 229 AutoCAD Certification Review <br> 2 Cr. Hrs.

Preparation for assessment utilizing the internationally recognized exam on basic AutoCAD skills. Pretest diagnostic and hands-on usage of AutoCAD. One lecture, two lab hours per week.
Prerequisite: DRT 199
234 Tool Design
4 Cr. Hrs.
Theory, principles and techniques for the design of jigs, fixtures and pressworking tools. Two lecture, four lab hours per week Prerequisite: DRT110,DRT196,MAT131 or equivalent.
247 SolidWorks Basics 5 Cr. Hrs.
Utilize SolidWorks mechanical design automation software tobuild parametric models of parts and assemblies and learn how to make drawings of those parts and assemblies. Two lecture, six lab hours per week. Prerequisite: DRT 110

## 248 SolidWorks Advanced 5 Cr. Hrs.

The focus of this course is two-fold. 1. Apply SolidWorks fundamental skills, tools, and concepts central to successfully building freeform shapes. 2. Utilize the assembly modeling capabilities of SolidWorks mechanical design automation software. Two lecture, six lab hours per week. Prerequisite: DRT 247

## 249 SolidWorks Update

1 Cr . Hr.
Provide SolidWorks users with a summary of the new features (updates) provided in each major release. One half hour lecture, one hour lab per week.
Prerequisite: DRT 247 \& DRT 255 or DRT 247 with DRT 255 as a corequisite

## 255 Software Integration for Design Analysis <br> 5 Cr. Hrs.

Incorporate various software tools in the development of an individual design project with an emphasis on design analysis. A formal report and drawings are created for a technical presentation. Two lecture and six lab hours per week.
Prerequisite: DRT 200, DRT 110, DRT 217, DRT 234

## 260 Rapid Prototyping \& Manufacturing <br> 3 Cr. Hrs.

Rapid prototyping fundamentals including the production of a prototype part from solid model data. A study of currently available rapid prototyping technologies, case study applications and the resultant impact to industry and society. Two lecture, two lab your per week
Prerequisite: DRT 200, DRT 110, DRT 217, DRT 234

## 265 Unigraphics® Level I 5 Cr. Hrs.

 An introduction to Unigraphics® 3D Modeling software intended for new Unigraphics ${ }^{\circledR}$ users or individuals with basic CAD skills. Emphasis will be placed on the development of basic skills and methods to create solid models. Two lecture, six lab hours per week.Prerequisite: DRT 110, DRT 199, DRT 217
266 Unigraphics ${ }^{\circledR}$ Level II 5 Cr. Hrs. Provides a sound understanding of constraint based modeling, assemblies and the creation of working drawings using Unigraphics® 3D modeling software. Two lecture, six lab hours per week. Prerequisite: DRT 265

## 267 Unigraphics ${ }^{\circledR}$ Update 1 Cr. Hr.

 Provide Unigraphics ${ }^{\circledR}$ users with a summary of the new features (updates) provided in each major release. One half hour of lecture, one hour of lab per week.Prerequisite: DRT 265, DRT 266

## 270 Industrial Design Internship R 1-12 Cr. Hrs.

Preparing a portfolio based on work-related on-the-job experience.

## 278 Industrial Design \& Graphic Technology Capstone 4 Cr. Hrs.

Assessment of achievement by Industrial Design \& Graphic Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Teamwork on projects will be emphasized. One lecture, six lab hours per week.
Prerequisite: Approval of chairperson

## 297 Special Topics

## R

 1-6 Cr. Hrs.Provides opportunity to offer special interest content within the discipline as well as receive credit for non-traditional courses.

## Industrial Manufacturing Technology (INT)

## 109 Fundamentals of Tool \&

 Manufacturing Processes 4 Cr. Hrs.Nomenclature, functions and capabilities of the machine shop and manufacturing processes. Three lecture, two lab hours per week.

## 111 Tool \& Manufacturing Processes I <br> 3 Cr. Hrs.

Introduces tool and manufacturing processes through machine tool projects with development of process charts. An overview of foundry, steel making, heat treatment, safety and measurement equipment. Two lecture, two lab hours per week.

## 112 Tool \& Manufacturing Processes II <br> 3 Cr. Hrs.

Knowledge of machine tool operations extended by utilizing various types of milling machines, drill presses, lathes and EDM. Twolecture, two lab hours per week. Prerequisite: INT 111
113 Fundamentals of CNC 3 Cr. Hrs. Development of computer numerical control programs tapes for actual operations on the three-axis CNC equipment. Two lecture, two lab hours per week.
Prerequisite: INT 109 or INT 112
114 Jig \& Fixture Design 3 Cr. Hrs. Determining when a certain type of jig and fixture is necessary and what factors are involved in the application and function of the tool. Two lecture, two lab hours per week.
Prerequisite: INT 109 or INT 112

## 121 Introduction to Pattern Making

2 Cr. Hrs.
Introduction to pattern making tools and safe operation practices.
122 Basics of Pattern Making 2 Cr. Hrs.
The various constructions, machinery and processes are introduced.
Prerequisite: INT 121

## 131 Basic Moldmaking 3 Cr. Hrs.

Basic topics of moldmaking including material properties, injection, transfer and blow molding.

## 132 Advanced Moldmaking 3 Cr. Hrs.

Advanced aspects of moldmaking including die casting, rubber molds, blow molding and mold construction.
Prerequisite: INT 131

## 141 Applied Shop Mathematics I

3 Cr. Hrs.
A basic course in arithmetic and algebra that relates durability with problems encountered in a metal-working training program.
Prerequisite: DEV 085 or equivalent

## 142 Applied Shop Mathematics II

3 Cr. Hrs.
Theory and applications of plane geometry as encountered in the metal-working industry.
Prerequisite: INT 141

## 143 Applied Shop Mathematics III 3 Cr. Hrs.

Theory and application of trigonometry as applied to the metalworking industry: compound angles, tapers and measurement set-ups.
Prerequisite: INT 142

## 151 Principles of Welding 3 Cr. Hrs.

General methods of welding, oxyacetylene, brazing, soldering, ARC, TIG, MIG, Heliarc. Typical operations such as butt, lap, fillet, and vee welds will be demonstrated. Two lecture, two lab hour per week.

## 152 ARC Welding

3 Cr. Hrs.
The theory and background skills of ARC, TIG, MIG, and Heliarc welding. Handson projects and demonstrations. Two lecture, two lab hours per week.
153 Oxyacetylene Welding 3 Cr . Hrs. The theory and background skills of oxyacetylene welding, brazing, soldering and torch cutting. Hands-on projects and demonstrations. Two lecture, two lab hour per week.

## 161 Machine Operations Laboratory I <br> 8 Cr. Hrs.

The student will be required to complete the following machine shop projects: Tslot cleaner, taper wedge, parallels, drift punch, center punch, edge finder, parallel clamp, non-twist clamp, 1-2-3 blocks, solid square, angle plate, and screw jack. Two lecture, 18 lab hours per week.

## 162 Machine Operations Laboratory II 8 Cr. Hrs.

The student will be required to complete the following machine shop projects: surface gage, magnetic parallels (2), V-block and clamp assembly, and double V-block and clamp assembly. Two lecture, 18 lab hours per week.
Prerequisite: INT 161

## 163 Machine Operations Laboratory III 8 Cr. Hrs.

Thestudent will be required to complete the following machine shop projects: sinebar, grinding vise, and other optional projects. Two lecture, 18 lab hours per week.
Prerequisite: INT 162

## 165 Advanced Machine Operations Laboratory 4 Cr . Hrs.

In-depth study of machine tool practices in the areas of grinders, shapers, rotary tables, welding, electrical machining processes, precision layout practices, and inspection practices. A project relating to course topics is required.
Prerequisite: INT 112 or 109 or permission of instructor

## 204 Computer Numerical Control Lathe Programming 3 Cr. Hrs.

 Computer Numerical Control lathe programming and machine tool operation. Two lecture, two lab hours per week. Prerequisite: INT 113 or permission of instructor
## 209 CNC Wire Electrical Discharge

 Machining Programming 3 Cr . Hrs.Computer Numerical Control Wire Electrical Discharge Machining (EDM) programming and machine tool operation. Two lecture, two lab hours per week. Prerequisite: INT 113 or permission of instructor

## 211 Advanced Computer Numerical Control <br> 3 Cr. Hrs.

Introduces CNC programming language, the tape format and CNC tools and equipment. Twolecture, two lab hours per week. Prerequisite: INT 113 or permission of instructor

## 212 Computer Assisted Programming 3 Cr . Hrs.

Programming assignments and their implementation with CNC equipment. Two lecture, two lab hours per week.
Prerequisite: INT 211

## 213 Computer Numerical Control Applications <br> 3 Cr. Hrs.

Programming and operation of machines using single part and large volume production techniques with emphasis on workholding, rough machining, high precision machining, computer assisted programming, G-code programming, and conversational programming; production of a variety of products. Two lecture, two lab hours per week.
Prerequisite: INT 212

## 225 Tool Design <br> 3 Cr. Hrs.

Scientific principles involved in the design and use of tools used for material removal, press working, casting, joining and inspection processes. Two lecture, two lab hours per week.
Prerequisite: DRT 217 or DRT 220
270 Industrial Technology Internship R 1-12 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.

## Journalism (JOU)

## 101 Journalism I <br> 3 Cr. Hrs.

Kinds ofnewspaperstories, practice in writing news stories, features and interviews; the history, scope and function of newspapers. Keyboarding skills are essential.
Prerequisite: ENG 111 or ENG 113
102 Journalism II
3 Cr. Hrs.
Advanced reporting and newswriting with practice in writing news stories, editorials and sports articles. Work on the college newspaper or other journalistic activity providing laboratory experience. Prerequisite: JOU 101
270 Journalism Internship R
1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## Japanese (JPN)

100 Conversational Japanese I 3 Cr. Hrs. Develops conversational skills in Japanese by analyzing the basic pattern and structure of the language and by promoting mastery of basic vocabulary and idiomatic expressions. Intensive classroom discussion in Japanese is an integral part of the course.
105 Conversational Japanese II 3 Cr. Hrs. Develops further the conversational skills in Japanese acquired JPN 100 by presenting a more complex syntactical pattern and idiomatic structure. Promotes free expression in Japanese within more specific and complex cultural contexts.
Prerequisite: JPN 100 or equivalent

## Legal Assisting (LAP)

## 105 Paralegal Principles 5 Cr. Hrs.

The legal system and the function of the paralegal within that system. The role of case law, statutes, administrative regulations and the constitution within this system and analysis of various judicial opinions. Basic technology technique used in a law office.
111 Legal Research \& Writing I 4 Cr. Hrs. An introduction to major Ohio legal publications and techniques of legal research and writing. Students will complete assigned problems in legal research and a memorandum of law.
Prerequisite: LAP 105

## 112 Legal Research \& Writing II 4 Cr. Hrs.

Builds on and develops skills learned in Legal Research \& Writing I. Use of federal and regional legal materials. Students will prepare a memorandum of law.
Prerequisite: LAP 111

## 113 Legal Research \& Writing III 3 Cr. Hrs.

Analysis and computer-assisted research of federal and state statutory and case law with emphasis on use of LEXIS R system and preparation of memoranda of law.
Prerequisite: LAP 112

## 114 Legal Technology Resources

3 Cr. Hrs.
Use of software in legal environment, including spreadsheets, timekeeping, calendaring, and research on the Internet. Prerequisite: LAP 105

## 115 Contract Law \& Uniform <br> Commercial Code 3 Cr. Hrs.

Principles of contract law and Uniform Commercial Code emphasizing sales and secured transactions. Problems in contract agreements and accompanying documents.
Prerequisite: LAP 105

## 121 Litigation I

3 Cr. Hrs.
The basics of jurisdiction of state and federal courts, tort law and the rules of evidence. Emphasis is on the Rules of Civil Procedure.
Prerequisite: LAP 105

## 122 Litigation II

3 Cr. Hrs.
Procedural matters involved in civil litigation and an overview of the attorney's function in the trial process. Skills relative to interviewing, document preparation and organization of materials for civil trial are emphasized.
Prerequisite: LAP 121
131 Real Estate Transactions I 3 Cr. Hrs.
The law of real property and common types of real estate transactions and conveyances, such as deeds, real estate sales contracts, and leases and an overview of the system of recording. Problems in instrument drafting.
Prerequisite: LAP 105

## 132 Real Estate Transactions II <br> 3 Cr. Hrs.

Emphasis on commercial transactions and financing instruments. Thestudentacquires skills dealing with forms required by lending institutions and government agencies. Prerequisite: LAP 131
201 Business Organization I 3 Cr. Hrs. Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements and employment contracts.
Prerequisite: LAP 105

## 202 Business Organization II 3 Cr. Hrs.

 Corporation problems involving shareholder agreements, employment contracts, mergers, dissolutions, and foreign corporations.Prerequisite: LAP 201

205 Criminal Law \& Procedure 3 Cr. Hrs.
The Ohio Criminal Code and the Criminal Procedure Laws. Pleadings of criminal trials. Prerequisite: LAP 105

## 211 Probate Law I

3 Cr. Hrs.
The law of wills and estates, and estate administration including Ohio estate tax returns and fiduciary accounting.
Prerequisite: LAP 105

## 212 Probate Law II <br> 3 Cr. Hrs.

The law of guardianships and trusts with particular emphasis on guardianship administration, land sales, trust accounting and fiduciary income tax returns.
Prerequisite: LAP 211
213 Estate Taxes $\quad 3$ Cr. Hrs.
Tax law affecting the decedent's estate with emphasis on final personal income tax, Ohio and federal estate tax and the estate's income tax including preparation of tax returns and schedules.
Prerequisite: LAP 211

## 215 Family Law

3 Cr. Hrs.
Divorce and dissolution and all matters relating to the ending of a marriage. Training in how to conduct interviews, use court forms, prepare pleadings and courtdecrees. Prerequisite: LAP 121

## 220 Law Office Ethics 3 Cr. Hrs.

Ethical issues facing paralegals are assessed including the unauthorized practice of law, confidentiality, and conflicts of interest in various size law firms. Ethical issues related to time keeping, client's files, record maintenance, retrieval, planning, and software are emphasized.
Prerequisite: LAP 105

## 235 Bankruptcy Law <br> 3 Cr. Hrs.

Federal bankruptcy statutes. Procedures required to file bankruptcy and skills necessary to gather information are stressed. Prerequisite: LAP 105

## 240 Social Security Law 1.5 Cr. Hrs.

Introduction to Social Security law concepts and practices.
Prerequisite: LAP 105

## 241 Workers' Compensation Law

1.5 Cr. Hrs.

Introduction to concept and practices of Ohio Workers' Compensation law and the Industrial Commission. Student must be accepted into the Legal Assisting Program
Prerequisite: LAP 105
242 Intellectual Property 1.5 Cr. Hrs.
Overview of legal concepts of patents, trademarks and copyrights. Forms and procedures required to legally acquire ownership of intellectual property. Prerequisite: LAP 105

## 243 Legal Interviewing Skills

### 1.5 Cr. Hrs.

The role of a legal assistant in the client interview, including interpersonal skills and ethical concerns.
Prerequisite: LAP 105

## 291 Legal Assisting Internship I

2 Cr. Hrs.
Application of skills learned in the classroom to a law related work experience. Interviewing techniques; development of a resume; preparation of a report and log of the work experience. Eight practicum hours per week.
Prerequisite: 21 LAP credit hours including LAP 112 and permission of instructor
292 Legal Assisting Internship II

## 2 Cr. Hrs.

Application of skills learned in the classroom to a law related work experience; students prepare a portfolio displaying evidence of skills learned. Eight practicum hours per week.
Prerequisite: 43 LAP credit hours including LAP 291 and permission of instructor
297 Special Topics
R
0.5-6 Cr. Hrs.

Provides opportunities to receive credit for special interest topics within the discipline. Only six credit hours earned by special topics courses can apply toward an associate degree in Business.

## Labor Studies (LAS)

## 105 Introduction to Organized Labor in America 3 Cr . Hrs.

The American labor movement. The workplace as a political institution organized for economic ends. The union as an agency to democratize private power. The Industrial Civil War, 1885-1935, and its aftermath. Concepts of economic functions in a free society.

## 125 Union Structure \& Administration <br> 3 Cr. Hrs.

Organizing for representation election under labor law. Conducting union elections in accordance with law. Legal aspects of union constitutions, by-laws. Structural characteristics of various unions. Internal division of political power and styles of administration and control.

## 135 Union Leadership Skills 3 Cr. Hrs.

 Nature of political power, behavior control techniques, "iron law of oligarchy" and response. Simulation exercises in using various decision-making methods. Special problems of union leaders in building a consensual democracy while facing an authoritarian institution.
## 201 Negotiating Labor-Management Contracts <br> 3 Cr. Hrs.

Collective bargaining defined. Union/ management goals in bargaining. Typical contract coverage. Legal basis and controls for bargaining. Responsibilities of parties in bargaining process. Analysis of typical labor-management contracts. Simulation bargaining.
Prerequisite: LAS 135

## 202 Administering Labor-Management Contracts 3 Cr . Hrs.

Typical contract content including rights, procedures, working conditions, fringes, wages, job classification. Methods for handling grievances. Fair representation duty. AdministeringEEO,health/safety in plant/ office. Simulated grievance hearings. Prerequisite: LAS 201

## 203 Arbitrating Disputes in Labor-

Management Contracts 3 Cr . Hrs.
Arbitration statutes and practice. Selecting arbiters. Anatomy of arbitration hearings: issues, stipulations, opening statements, rules of evidence, witnesses, direct and cross-examination, hearsay evidence, documentation, summary statement. Simulation with video playback for analysis.
Prerequisite: LAS 202, LAS 215

## 211 Labor Relations

3 Cr. Hrs.
Labor laws and regulations. Causes and effects of labor unrest. Negotiation, grievance procedures, labor-management cooperation and trade unionism.

## 212 Collective Bargaining

3 Cr. Hrs.
Reasons for development of collective bargaining in America. Activities of employers, labor unions, government, in collective bargaining relationship. Negotiation/arbitration procedures.

## 215 Labor Law <br> 3 Cr. Hrs.

Decisions interpreting Constitution and law affecting unions. Court decisions relating to powers of corporation. Labor legislation such as Railway Labor Act, Norris-LaGuardia, Taft-Hartley, Lan-drum-Griffin, William Steiger Acts. Effect of law/ executive orders on collective bargaining process. The law making process. Effect of coalitions.

## 225 Perceptions of Productivity

3 Cr. Hrs.
Concepts of productivity. Behaviorism, scientific management, work measurement, self-actualization, quality of work-life, worker-ownership, self-manage-ment, and their uses and abuses in promoting productivity. Considers union role as protector from exploitation, promoter of non-coercive means for building productivity.

235 Seminar in Labor Studies 3 Cr. Hrs. Trends of union participation in the future American milieu, based on patterns and policies developed over two centuries. Emphasis on theory, strategies, goals, wins, losses of the union movement, and speculation on the direction of future shock.
Prerequisite: LAS 105

## 245 Consumer Education 3 Cr. Hrs.

The worker as a consumer. The relationship between income received from the labor market and spent in the product market. The role of workers in the consumer movement.

## 255 Public Sector Labor Relations

3 Cr. Hrs.
The concepts, approaches, strengths and weaknesses of labor legislation for public employees at federal, state, county and municipal levels. Comparison of various state, municipal laws/ordinances. Interviews with current practitioners at each level of government of both sides. Evaluation of current and future trends.
Prerequisite: LAS 105

## 265 Comparative Labor Movements 3 Cr. Hrs.

An analysis of labor movement as a worldwide phenomenon. A comparison of the U.S. labor movement with other major labor movements. International labor organizations and the relationship between labor and multi-national corporations. Prerequisite: LAS 105

## 270 Labor Studies Internship R

 1-9 Cr. Hrs.See EBE 270 Internship for course description.

## 297 Special Topics <br> R

0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by special topics courses can apply toward an associate degree in Business.

## Law (LAW)

101 Business Law I
3 Cr. Hrs.
The American legal system as it relates to business transactions including the court system, business crimes, the law of contract, sales and personal property.

## 102 Business Law II

3 Cr. Hrs.
The American legal system as it relates to business transactions including the law of commercial paper, secured transactions, agency, corporations, partnerships and real property.

## 103 Consumer Law <br> 3 Cr. Hrs.

Legalities relating to credit, sale of real estate, autos and other goods, warran-
ties, purchase of energy and landlord/ tenant relationships; rights and remedies of consumers reviewed in non-technical terms; information to aid in making intelligent purchasing decisions and concerning effective approaches to solving consumer problems.
104 Environmental Law 3 Cr. Hrs. Protection of air, water, and land as it relates to the individual, business and government; role of administrative agencies, legislatures, industry and advocacy groups in prevention and control of pollution in the physical environment.

## 111 Personal Law

3 Cr. Hrs.
The laws relating to homeowning, marriage, motor vehicles, insurance, investments, and estate planning. Subjects are approached in non-technical terms in an effort to aid understanding of laws that affect personal choices and decisions.

## 297 Special Topics <br> 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only 6 credit hours earned by Special Topics courses can apply toward an associate degree in Business.

## Law Enforcement (LEP)

080 Private Police Training
An introductory course in Law Enforcement. Security functions including legal aspects, patrol duties, defense measures, firearms, first aid, and crowd control techniques. This 180 hour training program provides certification as a security officer by the Ohio Peace Officers Training Council, Office of Attorney General, State of Ohio.

## 101 Constitutional Law 3 Cr. Hrs.

Elements of Constitutional law of frequent concern in law enforcement. Utilizing the Constitution and pertinent Supreme Court rulings, the development of criminal law and its effect on law enforcement procedures from crime prevention to courtroom appearance is covered.

## 102 Criminal Law <br> 3 Cr. Hrs.

Current federal, state, and local laws and codes pertaining to arrest, search and seizure, and related topics.

## 104 Criminal Evidence \& Procedures <br> 3 Cr . Hrs.

Court systems and principles of constitutional, federal, state, and local laws, gathering of facts effectively and legally, presentation of evidence in admissible form, and the legal process from arrest through confinement and release.

## 105 Introduction to Law Enforcement \& Criminal Justice 3 Cr. Hrs.

History, development, philosophy and constitutional aspects of law enforcement in a democratic society. The agencies and processes involved in the administration of criminal justice.
107 Security Administration 3 Cr. Hrs. The historical, philosophical, and legal framework for security operations as well as detailed presentations of specific security programs and processes currently and historically used in providing security. Protection of governmental and proprietary systems, persons and facilities.
115 Police Operations 3 Cr. Hrs.
Line activities of law enforcement agencies with emphasis on the patrol functions and the prevention of crime: includes traffic, investigations, juvenile, vice and other specialized units.

## 117 Principles of Loss Prevention 3 Cr. Hrs.

Functional operations of various specialized areas of security such as theft and risk control, security surveys, and loss prevention programs and management in proprietary and governmental institutions.

## 125 Police Organization \& Administration

3 Cr. Hrs.
Principles of organization and management as applied to law enforcement agencies. Concepts of organizational behavior, administration of staff units.

## 130 Family Violence 3 Cr. Hrs.

Domestic violence and how all affected (the family, authorities, legal professions, and educators) can deal with it. Also offered as SOC 130; students may enroll in either course, but not both.

## 190 Law Enforcement Workshop R

 1-6 Cr. Hrs.Workshop topics are offered throughout the academic year in a variety of criminal justice subject areas and for varying lengths of time.

## 191 Enforcement Workshop II R

 1-6 Cr. Hrs.Workshops offered as part of a continuing education program for persons in, or interested in, the criminal justice system.

## 205 Criminal Investigation 3 Cr. Hrs.

Fundamentals of criminal investigation including theory of investigation, crime scene to courtroom, conduct at crime scenes, interviewing.

## 209 Computer Crime <br> 3 Cr. Hrs.

 Identifying computer security needs, preventing computer abuses, learning techniques for investigating computer crime, and how to improve computer security with advanced management and equipment methods.
## 215 Introduction to Forensic Sciences

 3 Cr. Hrs.Physicalevidence, collection, identification, preservation, and transportation, crime laboratory capability and limitations. Examination of physical evidence within resources of the investigator and demonstration of laboratory criminalistics to the extent supported by existing facilities.

## 217 Current Security Problems 3 Cr. Hrs.

 An analysis of security problem areas. Specific areas will be analyzed for further research by individual students depending upon interest.218 Crime Prevention 3 Cr. Hrs. Anticipating, recognizing, and appraising crime risks and initiating action to remove or reduce them. Prepares the student of law enforcement to assist the community with its security problems and to establish a crime prevention program within a police agency.

## 225 Intergroup Relations for Police Officers <br> 3 Cr. Hrs.

Police and community relations emphasizing the police officer's role. An understanding of conflict between groups and individuals. Application of human relations as an approach to resolving conflict and how to use it creatively.

## 235 Comparative Police Systems

3 Cr. Hrs.
Compares the various aspects of police systems in America and abroad. Emphasis on contemporary concepts within each major law enforcement agency.

## 247 Organized Crime in the United States 3 Cr. Hrs.

Organized crime theory, techniques, activity and depth of current national and local involvement.
270 Police Internship $\quad$ R 1-4 Cr. Hrs.
See EBE 270 Internship for course description.

## 280 Basic Police Academy

R
1-12 Cr. Hrs.
Training required by the state of Ohio for a police recruit to attain status as a sworn peace officer. The curriculum includes detailed instruction of 450 hours in those police functions deemed essential by the state of Ohio before an individual can be certified to perform police duties. Three hundred lecture, 150 practicum hours.

## 295 Seminar in Law Enforcement \&

 Administration of Criminal Justice R 3 Cr. Hrs.Identification and analysis of current issues and problems in law enforcement and the administration of criminal justice.

## Literature (LIT)

## 201 Survey of English Literature (to 1660) <br> 3 Cr. Hrs.

Chronological survey of major writers of English poetry, drama, and prose from the beginnings through 1660.

## 202 Survey of English Literature (1660-1832) <br> 3 Cr. Hrs.

Chronological survey of major writers of English poetry, drama, and prose from 1660 to 1832.

## 203 Survey of English Literature <br> (1832-Present) <br> 3 Cr. Hrs.

Chronological survey of major writers of English poetry, drama, and prose from 1832 through the modern era.
205 Modern Short Story 3 Cr. Hrs.
Literary techniques and thematic concerns of modern writers.

## 211 Survey of American Literature I (Pre-Modern) 3 Cr. Hrs.

Notable American authors from the colonial to the Civil War eras.

## 212 Middle American Literature II

3 Cr. Hrs.
Notable American authors from the Civil War era to the 1920's.

## 213 Modern American Literature

 3 Cr. Hrs.Notable American authors from the 1920's (Fitzgerald) until the present.

## 215 Introduction to Science Fiction

3 Cr. Hrs.
Literary values, themes, and techniques of science fiction.

## 217 Images of Women in Literature 3 Cr. Hrs.

Major images of women in literature, with emphasis on contemporary literature's role in both reflecting and shaping society's views of women.

## 219 Literature of Aviation <br> 3 Cr. Hrs.

An analysis of five works of fiction and nonfiction that reflect both the technological and the humanistic impact of aviation in the twentieth century.

## 227 Introduction to Shakespeare

## 3 Cr. Hrs.

Drama as theatrical art and as interpretation of fundamental human experience. Studies Shakespearean tragedy, history, and comedy.
230 Great Books of the Western World 3 Cr . Hrs.
A chronological survey of the major literary works and periods of Western culture beginning with the Greeks and progressing through the Middle Ages, the Renais-sance,Neo-Classicism and Enlightenment, Romanticism, Realism, and Modernism. Prerequisite: ENG 113

## 233 Native American Literature from

 Myth to Momaday 3 Cr. Hrs.Introduction to Native American literature providing an understanding of how traditional myth, song, legend and ceremony shape and inform the works of contemporary writers.
Prerequisite: ENG 111

## 234 Literature of Africa, Asia \& Latin America 3 Cr. Hrs.

Selected, thematic study of major literary works of Africa, Asia, and Latin America, emphasizing universal values and the commonality of experience.

## 236 African-American Literature

3 Cr. Hrs.
Overview of the African-American literary tradition with emphasis on early folk tales, Harlem Renaissance, Black Revolution, and contemporary social expression.
238 Appalachian Literature 3 Cr . Hrs.
Literary themes of selected contemporary writers identified with the Appalachian United States.

## 259 Introduction to Horror Fiction

3 Cr. Hrs.
Literary values, themes, and techniques of horror fiction.
267 Mythology in Literature 3 Cr. Hrs. Analysis of relationship between myths and literature using selected Jungian archetypes to show how religion, culture, and folk tales intertwine.

## 297 Special Topics

1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses as well as special topics within the discipline.

## Manual Communication (MAC)

101 Orientation to Deafness 3 Cr. Hrs. Overview of deaf individuals, their education and legal status from early civilizations to the present day, emphasizing the philosophical and political forces affecting the hearing impaired; types and causes of hearing loss and the process of language acquisition as impacted by deafness.

## 102 Interpreting for the Deaf I 3 Cr. Hrs.

An overview of the legislation impacting the education and legal rights of Deaf individuals. The course also includes an examination of the history of interpreting, the terminology of the field and the ethics of interpreting. The interpreting process and the national Certification of Interpreters will also be discussed. Introduction to collectivist and individualist cultures included.
Prerequisite: MAC 101, MAC 131

## 103 Interpreting for the Deaf II

3 Cr. Hrs.
An introduction to specialized areas of interpreting. The role and ethics of the interpreter will be examined as they relate to various settings. Specialized interpreting techniques will be discussed for serving Deaf-Blind and oral Deaf populations. Topics include an introduction to theatrical, mental health, education, and legal interpreting.
Prerequisite: MAC 102

## 111 Beginning American Sign Language I <br> 3 Cr. Hrs.

Introductory course in American Sign Language emphasizing basic signs in the context of straight English. Classroom work will stress practice within conversational context of communication.

## 112 Beginning American Sign

Language II 3 Cr. Hrs. A continuing study of ASL, building on the conversational skills presented in the introductory course of American Sign Language. Includes additional types of sentence structure and classroom work. Stresses practice of conversational ASL, both expressive and receptive. Continuing study of American Deaf culture.
Prerequisite: MAC 111

## 113 Beginning American Sign Language III <br> 3 Cr. Hrs.

A continuing study of ASL, increasing the conversational skills presented in the introductory courses of American Sign Language. Includes additional types of sentence structure in ASL. Expressive and receptive skill building is emphasized in classroom work. Further study of American Deaf culture.
Prerequisite: MAC 112

## 116 Community Resources for the Deaf <br> 3 Cr. Hrs.

A course familiarizing students with current local, state, and national human services resources and how these services can be made accessible to Deaf and Hard of Hearing individuals.

## 131 Intermediate American Sign Language I 4 Cr. Hrs

The first intermediate course in the study of ASL. Includes increasing conversational skills, additional types of sentence and discourse structure. Continued development of expressive and receptive skill. Study of relative issues within American deaf culture.
Prerequisite: MAC 113

## 132 Intermediate American Sign Language II <br> 4 Cr. Hrs.

The second intermediate course in American sign language, focusing on upper level grammatical features and functions. Develops the student's receptive and productive capabilities of these upper level features. Introduction to the interpreting process.
Prerequisite: MAC 131, ENG 111 or equivalent

## 133 Intermediate American Sign Language III <br> 4 Cr. Hrs.

The third intermediate course in American Sign Language, focusing on upper level grammatical features and functions. Develops the student's receptive and productive capabilities of these upper level features. Introduction to the interpreting process. Prerequisite: MAC 132

## 190 Manual Communication Workshop R

 0.5-6 Cr. Hrs.Various topics with attention focused upon specific aspects of ASL, as well as adapting interpreting skills to various specialized environments. Example of topics offered: Fingerspelling and Numbers, Deaf-Blind Interpreting; Legal Interpreting; and Theatrical Interpreting.

## 201 Interpreting I

4 Cr. Hrs.
An introduction to the principles and techniques of interpreting between English and ASL as both target and source languages. Classroom activities and testing includes basic interpreting role plays.
Prerequisite: MAC 132

## 202 Interpreting II

4 Cr. Hrs.
Students develop and demonstrate competence of the basic principles and techniques of the interpreting process, including interpreting of idiomatic cultural expressions and accommodating linguistic variation in the interpreting process.
Prerequisite: MAC 201

## 203 Interpreting III

4 Cr. Hrs.
Advanced principles and techniques of the interpreting process. Classroom activities and testing includes role plays incorporating advanced techniques and principles.
Prerequisite: MAC 202

## 204 Interpreting IV <br> 4 Cr. Hrs.

Students further develop and demonstrate mastery of advanced interpreting principles and techniques. Classroom activities include platform interpreting, team interpreting, and applications of the code of ethics to interpreting situations. Prerequisite: MAC 203
207 Role of the Interpreter 3 Cr. Hrs.
Role of the interpreter in various settings, interpreting process, physical factors, and language variations. The difference between interpreting, translating and transliterating will be examined in depth. Prerequisite: MAC 102, MAC 132

## 211 Medical/Technical/Legal Interpreting $\quad 4$ Cr. Hrs.

A study of interpreting in medical, mental health, educational, employment and legal settings and terminology/signs unique to each. Practice and performance of the vocabulary used in these settings. Prerequisite: MAC 103, MAC 231
212 Specialized Interpreting 4 Cr. Hrs. Introduction to American Sign Language vocabulary related to sexual behavior/ sexual abuse and drug use/abuse. Designed to increase student's comfort and skill level for interpreting medical, substance abuse treatment, counseling, and legal settings.
Prerequisite: MAC 232

## 231 Advanced American Sign Language I <br> 4 Cr. Hrs.

The first advanced course in the study of ASL. Includes introduction of complex grammatical features, discourse types, spatial mapping and targeted vocabulary. Classroom activities designed to enhance expressive and receptive mastery of these higher level features of ASL.
Prerequisite: MAC 133

## 232 Advanced American Sign Language II <br> 4 Cr. Hrs.

Additional practice of ASL communicative skills, vocabulary and grammatical features; emphasis on continued development of expressive and receptive interpreting skills.
Prerequisite: MAC 231

## 233 Advanced American Sign Language III <br> 4 Cr. Hrs.

The third advanced course in the study of ASL. Designed to achieve fluency of most basic and complex grammatical features of ASL. Activities include incorporating into sign production the necessary adjustments for registers, emotive components, and cultural background.
Prerequisite: MAC 232

## 236 Transliterating 4 Cr. Hrs.

A preparatory course for the Registry for the Interpreters for the Deaf Certificate of Transliteration exam. The Signing Exact EnglishSystem of manually coded English is introduced and conceptual accuracy is stressed for educational interpreting.
Prerequisite: MAC 133
261 MAC Practicum I 3 Cr. Hrs.
Students will be assigned to various college and community agencies and will spend 100 clock hours at the sites. These hours will include interpreter observations, actual interpreting and subsequently assuming the role of interpreter under appropriate supervision. Weekly seminars will be held.
Prerequisite: MAC 103, MAC 133, MAC 201, MAC 207

## 262 MAC Practicum II

3 Cr. Hrs.
This course will place the student in a Sinclair Community College setting or a human needs agency servicing the deaf. Each student will spend a total of 70 clock hours in this practicum.
Prerequisite: MAC 261, MAC 236

## 263 MAC Practicum III 3 Cr. Hrs.

The student will spend 100 clock hours in assigned settings and be given increased interpreting responsibilities under the mentorship of an interpreter. The student will be required to attend weekly round table discussions emphasizing interpreting experiences as encountered in assigned settings.
Prerequisite: MAC 262

## Management (MAN)

105 Introduction to Business 3 Cr. Hrs.
The American business system and basic principles of the free market system. Basic management, marketing, economic, and accounting principles.

## 110 Introduction to International Business <br> 3 Cr. Hrs.

Global dimensions of business; an overview of theories and institutions of trade, investment, and management emphasizing the managerial perspective on issues arising from international business and worldwide operations.

## 201 Introduction to Supervision

3 Cr. Hrs.
Strategies and techniques for current as well as prospective supervisors emphasizing assessment of skills required, analysis of situational factors, and development of creative approaches to effective supervising.

## 205 Principles of Management 3 Cr . Hrs.

Basic management functions are analyzed through the various theories of management including the Process School.
207 Total Quality Management 3 Cr. Hrs. Introduction to a managerial environment in which the student practices providing the customer with exceptional value, developing cross-functional organizational systems, and developing methods for continuous improvement.
Prerequisite: MAN 105 or MAN 205

## 209 Perspectives on Management

3 Cr. Hrs.
Examines the development of contemporary management as a discipline and a practice, in the context of social and cultural influences.
Prerequisite: MAN 205

210 Introduction to Project Management

3 Cr. Hrs.
Basic project management concepts and activities are analyzed through the various theories of management functions and resources.
216 Managing Operations 3 Cr. Hrs.
Design, planning, organization, and control of productive systems.
Prerequisite: CIS 119, MAT 122 or equivalent

## 225 Human Relations \& Organizational Behavior <br> 3 Cr. Hrs.

Applications of modern psychological and organizational behavior principles in the leadership, training, and motivation of today's worker in modern work surroundings including quality of work life. Prerequisite:MAN205.MAN225isequivalent to MAN 230, MAN 231 and MAN 232.

## 226 Human Relations Issues 3 Cr. Hrs.

 Application of Quality Management and organizational principles to human relations issues in the workplace with an emphasis on communication and performance improvement.Prerequisite: MAN 205

## 230 Motivational Concepts \& <br> Applications $\quad 1 \mathrm{Cr} . \mathrm{Hr}$.

Practical interactive application of current motivational principles. Emphasis is placed on behavior modification, work groups, and the use of gainsharing.
Prerequisite: Completion of MAN 230, 231 and 232 is equivalent to MAN 225.
231 Leadership in Work Groups 1 Cr. Hr. Practical applications of leadership, team principles and work group communications within multiple types of organizational environments including non-profit, competition based and the governmental sector. Emphasis is placed on the leader's roles in group development, decision making and communication methods.
Prerequisite: Completion of MAN 230, 231 and 232 is equivalent to MAN 225.
232 The Organizational System 1 Cr. Hr. Introduction to the developmental and improvement aspects of organizational structure and design. Emphasis is placed on the major components affecting the organizational system including: organizational cultures and change, Total Quality Management and Reengineering and International and cross-cultural organizational behavior.
Prerequisite: Completion of MAN 230, 231 and 232 is equivalent to MAN 225.

## 237 Human Resource Management 3 Cr. Hrs.

Contemporary approaches to personnel management environment using a diagnostic model of internal and external influences. Prerequisite: MAN 205

## 238 Human Resource Management Applications <br> 3 Cr. Hrs.

Case Method applied to contemporary human resource management concepts, such as methods of communication, motivation, performance reviews and other personnel issues to achieve a productive and efficient work climate.
Prerequisite: MAN 237

## 245 Office Management <br> 3 Cr. Hrs.

Skills and abilities needed to manage the automated office emphasizing technology, supervision, policies and procedures, productivity, training, and the planning, implementation, structure, and operations of office systems.
Prerequisite: MAN 205
251 Logistics Management 3 Cr. Hrs.
Emphasis on interrelated and independent systems, phases and techniques in logistics management, physical and automated systems comprising the logistics process, associated management techniques and skills, interrelationships and interdependencies of line/staff management and the various forces of the logistics system.

## Prerequisite: MAN 205

## 255 Management Information

Systems I
3 Cr. Hrs.
Management perspective of information systems activity from development through implementation.
Prerequisite: MAN 205

## 256 Information Systems Applications 3 Cr . Hrs.

Techniques for conducting a systems project; management concepts/tools applied in systems analysis/design.

## Prerequisite: MAN 255

260 Management Science I 3 Cr. Hrs. Application of quantitative methods used by managers and business owners to facilitate their decision making process. Various mathematical concepts are used. Computer application is also used to demonstrate the formulation of mathematical models, system design, and simulation.
Prerequisite: CIS 119, MAT 122 or equivalent
261 Management Science II 3 Cr. Hrs.
A continuation of MAN 260. Greater emphasis placed on problem solving and analysis.

## Prerequisite: MAN 260

## 263 The Business of Art: A Historical Perspective 3 Cr. Hrs.

An interdisciplinary course which tracks the historic evolution of the seemingly unnatural partnership between business and art. The course concentrates specifically on the creation, marketing and acquisition of art through the ages with emphasis on current day trends.

## 265 Introduction to E-Commerce

 3 Cr. Hrs.Electronic Commercebasics. A definition of e-commerce, and an explanation of how ecommerce differs from traditional commerce. The history, development and impact of e-commerce are covered. Discussion of the global impact of e-commerce, and how e-commerce relates to business practices. An overview of marketing, legal issues, accounting and the technology involved in e-commerce are all discussed.

## 270 Management Internship <br> R

1-9 Cr. Hrs.
See EBE 270 Internship for course description.

278 Management Capstone 3 Cr. Hrs. Assessment of achievement by business management degree students in attaining program outcomes by employing reflective learning through demonstration of management related principles of practices. Prerequisite: MAN 295

## 295 Management Seminar 3 Cr. Hrs.

Application of previously learned management theories through case study, readings, and discussion of contemporary issues. The course will center on the role of knowledge, values, and assumptions in administrative situations, especially their influence on individual's choice among possible ends and means; and on the skills, attitudes and personal qualities that enhance effectiveness of responsible individuals as they work with others in organizations.
Prerequisite: 15 credit hours in MAN and permission of instructor

## 296 Special Projects in Business R 1-6 Cr. Hrs.

Variations of experiential learning by way of group projects, independentstudy, and real world simulations.

## 297 Special Topics

R

## 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses can apply toward an associate degree in Business.

## Medical Assistant Technology (MAS)

101 Introduction to Medical Assisting 2 Cr . Hrs.

Overview of the health care industry including organization of ambulatory care practice groups, solo practice offices, hospitals, professional organizations, and federal health care programs; health care delivery trends and issues; role of the medical assistant in different work environments.
102 Medical Office Accounting
3 Cr. Hrs.
Principles of bookkeeping (automated and manual), patient financial accounting, collection techniques, employee payroll, banking procedures, medical supplies purchasing and inventory.
Prerequisite: MAS 101, HIM 121
103 Medical Law \& Ethics 2 Cr. Hrs.
Fundamentals of medical ethics and law in the medical office setting with special emphasis on patient confidentiality; phy-sician-patient relationship; implied, verbal and written consent; professional liability; malpractice, contracts, statutory reports, medicolegal issues; ethical issues of modern health care.
Prerequisite: MAS 101

## 104 Basic Clinical Assisting Procedures

 3 Cr. Hrs.Introduction to clinical assisting procedures in the medical office emphasizing patient preparation, medical history interviews, vital signs, positioning and draping, medical asepsis, assisting with physical exams, eye and ear assessment and procedure, and pediatric health fair. Prerequisite: MAS 103, HIM 122, ALH 142

## 105 Medical Office Management

3 Cr. Hrs.
Administrative duties in a physician's office, including scheduling, monitoring patientappointments, outpatient procedures, hospital admissions, medical and office equipment maintenance, storing supplies and pharmaceuticals, hiring, evaluating and managing office personnel.
Prerequisite: MAS 102, ENG 132

## 106 Medical Office Emergency

 Procedures 3 Cr. Hrs.Techniques required for patient assessment and treatment during medical office emergencies; role of the medical assistant in urgent situations with the physician present and also during the physician's absence; application of accident prevention principles and maintenance of emergency equipment/supplies in the medical office. One lecture, two lab (MAS 176) hours per week.
Prerequisite: ALH 140, MAS 103

120 Health Unit Coordinator I4 Cr. Hrs.
The role of the health unit coordinator as an allied health professional will be the focus of this course. A review of the history of the profession, the hospital environment, and management of the nursing unit will be covered.
Prerequisite: BIO 107, BIO 108, HIM 121

## 121 Health Unit Coordinator II 3 Cr. Hrs.

This course will reinforce the role of the professional health unit coordinator in the health care facility. Emphasis will be placed on the transcription of specific physician and nursing orders including medication, treatment, diagnostic, and therapeutic orders. In addition, there will be a required laboratory experience ( 20 hours) at a health care facility observing and working with an experienced health unit coordinator.
Prerequisite: MAS 120

## 172 Lab for MAS 102

Laboratory must be taken with MAS 102.
174 Lab for MAS 104
Laboratory must be taken with MAS 104.

## 175 Lab for MAS 105

Laboratory must be taken with MAS 105.

## 176 Lab for MAS 106

Laboratory must be taken with MAS 106.

## 201 Family Practice Clinical Assisting Procedures 3 Cr. Hrs.

Intermediate level clinical procedures performed in a family practice setting such as medical microbiology, minor office surgery, bandaging and dressing changes, administering therapeutic modalities, preparing and administering medications, pediatric immunizations and procedures, allergy procedures, and patient teaching. Two lecture, four lab hours (MAS 281) per week.
Prerequisite: MAS 104, MAS 106, MAT 106

## 202 Insurance \& Patient Records <br> 3 Cr. Hrs.

Fundamentals of private and public insurance programs, Workers' Compensation claims, Medicaid and Medicare claims; medical records administration, including creating, maintaining, protecting and preserving records. Two lecture, two lab (MAS 282) hours per week.
Prerequisite: MAS 105, HIM 122

## 203 Medical Assisting Directed Practice I <br> 2 Cr. Hrs.

Introduction to the ambulatory care clinical setting involving structured observation and participation in the administrative and clinical aspects of patient care under the supervision of a licensed physician or certified medical assistant; assisting with patient preparation, physical examinations, scheduling appointments, bookkeeping tasks and medical transcription. One lecture, six clinical (MAS 283) hours per week.
Prerequisite: MAS 104, MAS 105, MAS 106, COM 206

## 204 Medical Assisting Directed Practice II <br> 3 Cr. Hrs.

Intermediate experience in a physician's office involving structured observations and participation in the administrative and clinical aspects of patient care under the supervision of a licensed physician or certified medical assistant; assisting with minor office surgery, therapeutic modalities, administration of medications, insurance coding/claims, care of patient records and other office management skills. One lecture, ten clinical (MAS 284) hours per week.
Prerequisite: MAS 203

## 205 Medical Assisting Directed

## Practice III

5 Cr. Hrs.
Advanced experience in a physician's office involving structure observations and participation in the administrative and clinical aspects of patient care under the supervision of a licensed physician; assisting with specialized clinical procedures, performing electrocardiograms, venipunctures and basic laboratory tests and advanced office management skills. One lecture, twenty clinical (MAS 285) hours per week.
Prerequisite: MAS 204

## 206 Specialty Clinical Assisting

Procedures 4 Cr. Hrs. Techniques required to perform advanced/specialized procedure such as assisting with signoidoscopy, basic respiratory procedures, OB/GYN procedures, physical agents to promote tissue healing, and basic nutrition.
Prerequisite: MAS 201, ALH 201

## 207 Medical Laboratory Procedures

4 Cr. Hrs.
Techniques required to perform lab procedures in a medical office, including collection of specimens for testing/transport, venipuncture, hematology, clinical chemistry, urinalysis, cultures, quality control, laboratory safety. Two lecture, four lab (MAS 287) hours per week.
Prerequisite: MAS 104

208 Medical Assisting Seminar 2 Cr. Hrs.
Discussion of directed practice experiences through student presentations relative to the medical assistant profession.
Prerequisite: MAS 204

## 281 Lab for MAS 201

Laboratory must be taken with MAS 201.
282 Lab for MAS 202
Laboratory must be taken with MAS 202.
283 Lab for MAS 203
Laboratory must be taken with MAS 203.
284 Lab for MAS 204
Laboratory must be taken with MAS 204.

## 285 Lab for MAS 205

Laboratory must be taken with MAS 205.
286 Lab for MAS 206
Laboratory must be taken with MAS 206. 287 Lab for MAS 207
Laboratory must be taken with MAS 207.

## Mathematics (MAT)

## 101 Elementary Algebra 4 Cr. Hrs.

Fundamental operations with signed numbers, exponents, literal expressions, polynomials, first degree equations and inequalities, products of polynomials, introduction to graphing, factoring polynomials, algebraic fractions.
Prerequisite: DEV 108 or equivalent
102 Intermediate Algebra 5 Cr. Hrs. Sets, real numbers, polynomials, algebraic fractions, first degree equations and inequalities in one variable, radical expressions, complex numbers, quadratic equations and inequalities in one variable, graphs in the plane, systems of linear equations, relations and functions.
Prerequisite: MAT 101 or equivalent
105 Business Mathematics 4 Cr. Hrs. Arithmetic of decimals and fractions. Percentages, trade pricing, retail pricing, interest, annuities, loans, payroll, taxes, elementary statistics, and promissory notes. Prerequisite: DEV 085 or DEV 108 or MAT 101 or qualifying score on mathematics placement test

## 106 Allied Health Mathematics

4 Cr . Hrs.
Applications of fractions, decimals, and percentages, the metric system, the apothecary system, signed numbers, first-degree equations, literal equations, ratios and proportions, instrumentation, graphing and interpreting graphs, frequency distributions, central tendency, and scientific notation.
Prerequisite: DEV 085 or DEV 108 or MAT 101 or qualifying score on mathematics placement test

## 108 Mathematics \& the Modern World 3 Cr . Hrs.

Application of mathematics to modeling real world problems from the behavioral, computational, managerial, and social sciences including graph theory, linear programming, probability, descriptive and inferential statistics, game theory, geometric growth.
Prerequisite: MAT 102 or equivalent

## 109 Nursing Mathematics 3 Cr. Hrs.

Application of basic mathematics concepts to nursing situations, including fractions, decimals, percentages, measurement systems (metric, apothecary, household), intravenous drip rates, pediatric formulas, measurements of powders, capsules, liquids and tablets, reading and interpreting graphs.

## 110 Quantitative Reasoning 4 Cr. Hrs.

Discovery of fundamental concepts and skills of quantitative reasoning achieved by exploring real world data from various disciplines. Topics include orders of magnitudes, rates and percentages, basic probability and statistics, tables of data and tabular reasoning, and functions and graphs. Using a spreadsheet program and a calculator is an integral part of the course. Prerequisite: MAT 102 or sufficient score on the mathematics placement test

## 116 College Algebra 5 Cr. Hrs.

Relations and functions, linear systems, matrix algebra, determinants, conic sections, polynomial functions, exponential and logarithmic functions, sequences, series, and the binomial theorem. Scientific calculators required. Graphing calculator required in some sections.
Prerequisite: MAT 102 or equivalent

## 117 Trigonometry

4 Cr. Hrs.
Trigonometric functions of angles, solving right and oblique triangles, identities, vectors, trigonometric equations, radian measure, graphs of trigonometric functions, inverse trigonometric functions and complex numbers. Scientific calculator is required.

## Prerequisite: MAT 116 or equivalent

## 121 Mathematics for Business Analysis 5 Cr . Hrs .

Applications of mathematics to business analysis. Polynomials, fractional forms, exponents, radicals, equations and inequalities, graphs and functions, systems of equations, matrices, linear programming, permutations and combinations, simple and compound interest and annuities. Prerequisite: MAT 101 or equivalent

## 122 Statistics I

4 Cr. Hrs.
Statistical techniques and methodology. Graphical and tabular presentation of data, probability, parameters, statistical distributions, sampling distributions, confidence intervals, and hypothesis testing. Prerequisite: MAT 116 or MAT 121 or equivalent

131 Technical Mathematics I 5 Cr. Hrs. Accuracy and precision with approximate numbers, functions, graphs, right triangle trigonometry, systems of linear equations, factoring, rational expressions, quadratic equations. Scientific calculator required. Prerequisite: MAT 101 or equivalent

## 132 Technical Mathematics II 5 Cr. Hrs.

Trigonometric functions of angles, vectors, solving oblique triangles, graphs of trigonometric functions, complex numbers, exponential and logarithmic functions, non-linear systems of equations, and higher order equations. Scientific calculator required.

## Prerequisite: MAT 131 or equivalent

## 133 Technical Mathematics III 5 Cr. Hrs.

 Conic sections, polar coordinates, derivatives of algebraic functions, applications of the derivative, integration, applications of integration. Scientific calculator required. Prerequisite: MAT 132 or equivalent
## 134 Technical Mathematics IV 5 Cr. Hrs.

 Integration techniques, graphs of trigonometric functions, derivatives of transcendental functions, determinants and matrices, inequalities, infinite series, and differential equations. Scientific calculator required.Prerequisite: MAT 133 or equivalent

## 151 Introduction to Mathematical Modeling $\quad 3$ Cr. Hrs.

Includes data analysis (linear and nonlinear methods), modeling with continuous functions, modeling with discrete mathematics (matrices and graph theory). Prerequisite: MAT 116 or equivalent

## 201 Calculus \& Analytic Geometry I

 5 Cr. Hrs.Begins four-quarter sequence of topics in analytic geometry and calculus. The Cartesian coordinate system, functions, limits and continuity of functions, the derivative and its applications, the integral and the fundamental theorem of calculus.
Prerequisite: MAT 112 or MAT 117 or MAT 133 or equivalent

## 202 Calculus \& Analytic Geometry II 5 Cr. Hrs.

Applications of the definite integral, derivatives and integrals of exponential and logarithmic functions, derivatives and integrals of trigonometric and hyperbolic functions and their inverses, techniques of integration, indeterminate forms, L'Hopital's Rule, improper integrals and conic sections.
Prerequisite: MAT 113 or MAT 134 or MAT 201 or equivalent

## 203 Calculus \& Analytic Geometry III <br> 5 Cr . Hrs.

Third of four-course sequence. Conic sections, infinite series, Taylor series, parametric equations, polar coordinates, vectors and vector valued functions, and solid analytic geometry.
Prerequisite: MAT 202 or equivalent

## 204 Calculus \& Analytic Geometry IV

5 Cr. Hrs.
Vector fields, partial derivatives with applications, multiple integrals with applications, Green's Theorem, Stoke's Theorem, Divergence Theorem, and topics in vector calculus.
Prerequisite: MAT 203 or equivalent

## 215 Differential Equations 5 Cr. Hrs.

Ordinary differential equations of first and second order including power series solutions, Laplace transforms, and applications. Prerequisite: MAT 203 or equivalent

## 216 Elements of Linear Algebra

4 Cr. Hrs.
Vectors in R n , systems of linear equations, matrices, linear transformations, dimension and rank, coordinate vectors, determinants, eigenvalues, eigevectors, abstract vector spaces.
Prerequisite: MAT 203 or equivalent

## 218 Calculus for Business \& Economics <br> 5 Cr. Hrs.

Functions and graphs, limits and continuity, the derivative, techniques of differentiation, applied problems in business and economics, exponential and logarithmic functions, techniques of integration, applications of integration, extreme values, Lagrange multipliers.
Prerequisite: MAT 116 or equivalent
220 Statistics II
4 Cr. Hrs.
Statistical inferences including estimation, confidence intervals, and tests of hypotheses for means, standard deviation, and proportions; analysis of variance; regression analysis;chi-square;business applications. Students will develop a basic competency in using a computer spreadsheet to perform statistical calculations.
Prerequisite: MAT 122
297 Special Topics
R
0.5-6 Cr. Hrs.

Varied content offerings of special interest with the discipline, but not covered within existing courses.

# Mechanical Engineering Technology (MET) 

101 Mechanics for Skilled Trades 3 Cr . Hrs.

Fundamentals of mechanics including concepts of force, work, energy, stress, friction and basic properties of materials. Analysis of simple mechanical machines. Prerequisite: DEV 108 or permission of instructor

## 102 Advanced Mechanics for Skilled Trades <br> 3 Cr . Hrs.

Fundamentals of mechanics as applied to the actual hardware and equipment used in production environment.
Prerequisite: MET 101

## 103 HVAC Installation Techniques

3 Cr. Hrs.
Basic practices required for new installation and replacement of HVAC equipment including an introduction to sheet metal skills, copper and black pipe plumbing and power connections. Hands-on skills and code requirements will be stressed along with good safety practices. Two lecture, two lab hours per week.

## 104 Introduction to Design Realization Process <br> 3 Cr. Hrs.

Fundamentals of the design realization process including measurements, calculations, dimensional analysis, effect of loads on materials and preparation of quality work.
Prerequisite: MAT 101 or equivalent

## 106 Survey of Commercial HVAC Systems <br> 3 Cr. Hrs.

Basic concepts and theory of heating, air conditioning, and refrigeration, including refrigeration cycles, fuels, air flow, psychrometrics, and basic distribution systems. Two lecture, two lab hours per week. Prerequisite: DEV 108 or equivalent

## 111 Basics of Heating \& Heating Systems $\quad 3$ Cr. Hrs.

 Introduction to the basic concepts of all heating systems found in light commercial applications for the experienced and inexperienced in HVAC. A comprehensive presentation of HVAC systems, including rooftop packaged systems, packaged low pressure boiler systems, and packaged unitary heaters. Innovations in high efficiency energy conservation and zone control will be discussed. Two lecture, two lab hours per week. Prerequisite: MET 106115 Boilers in HVAC Systems 3 Cr. Hrs. A reference course for experienced and inexperienced HVAC professionals. A comprehensive study of low pressure and high pressure hot water/steam generation, including the fundamentals of heat
generation in water based heating systems and gas fired radiant heating systems. Two lecture, two lab hours per week. Prerequisite: MET 106 or permission of department chairperson

## 120 HVAC Loads \& Distribution for Small Buildings $\quad 3$ Cr. Hrs.

A discussion and demonstration of the importance of proper distribution systems, both air and water; principles of balanced heat distribution including design considerations for light commercial applications. Loads will be calculated with constant temperature and climate control conditions as the goal. Two lecture, two lab hours per week.
Prerequisite: MET 106

## 125 HVAC Distribution Systems 3 Cr. Hrs.

Theory and practice of HVAC distribution systems including duct design, piping system design, fan selection and performance and pump selection and performance.
Prerequisite: MET 105 and MAT 101 or permission of chairperson

## 130 Basics of Cooling \& Cooling Systems $\quad 3$ Cr. Hrs.

Foundations in the applications of cooling principles in light commercial equipment. Designed for those with hands-on HVAC responsibilities. Major components include refrigerant flow through single and staged equipment, impact of air flow on the pressure temperature relationships, heat transfer fundamentals and mechanics of these systems. Two lecture, two lab hours per week.
Prerequisite: MET 106

## 135 Modern Refrigeration Practice 3 Cr. Hrs.

Theoretical and practical basis for design and application of refrigeration systems, including cycle analysis, load estimation, and equipment sizing. Two lecture, two lab hours per week.
Prerequisite: MET 106 and MAT 101 or permission of chairperson

## 145 HVAC Loads \& Psychometrics

3 Cr. Hrs.
Theory and practice in design of presentday air conditioning systems, including cooling load estimation, psychrometric analysis, and equipment sizing. Two lecture, two lab hours per week.
Prerequisite: MET 106 and MAT 101 or permission of chairperson

## 150 Testing, Adjusting \& Balancing in HVAC Systems <br> 2 Cr. Hrs.

Theory and practice of testing, adjusting and balancing (TAB) air and water in HVAC systems. Includes practiced procedures, data collection and report preparation as may be required by a client. Course will include hands-on balancing using current state-of-the-art equipment. One lecture, two lab hours per week.
Prerequisite: MET 111, MET 120, MET 130

151 Industrial Hydraulics I 3 Cr. Hrs. Basic principles of hydraulics, hydraulicfluids, reservoirs, plumps, cylinders, motors, piping, and accessories with application of hydraulic circuit layout and control including pressure, directional, and speed control, sequencing, flow division, and cushioning. Prerequisite: MAT 101 or equivalent
152 Industrial Hydraulics II $3 \mathbf{C r}$. Hrs. Hydraulic circuits, principles and operation of various hydraulic controls used in industrial plants. Further use of additional components such as servo valves. Sequence valves and regeneration are discussed. Prerequisite: MET 151
153 Industrial Hydraulics III 3 Cr. Hrs.
Principles and components of a hydraulic system with a focus on electrohydraulic systems, symbology, basic circuit layout and assembly of electrohydraulic systems. Two lecture, two lab hours per week.
Prerequisite: MET 152

## 157 HVAC Mechanical <br> Troubleshooting

3 Cr. Hrs.
Technical principles and procedures for the assembly and testing of HVAC systems and the solution of operating problems with such equipment. Two lecture, two lab hours per week.
Prerequisite: MET 111, MET 120, MET 130

## 158 Advanced Light Commercial HVAC Troubleshooting <br> 3 Cr. Hrs.

Building on the Basic Troubleshooting course, this course will take the student into some of the more complex problems the experienced technician and advanced student will encounter. This course is comprehensive in nature, and will cover advanced control, distribution, and mechanical problems. Two lecture, two lab hours per week.
Prerequisite: MET 111, MET 130 and one of the following: EER 115 or EET 119.

## 198 Personal Computer Applications in Engineering Technology

## 2 Cr. Hrs.

Applied computer tools to solve engineering technology problems emphasizing the integration of word processing, draw functions, spreadsheets, database, and engineering research skills using the internet. Application of an integrated approach to research papers, engineering technology analysis, technical laboratory reports and technical presentations. One lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent

## 203 Statics <br> 4 Cr. Hrs.

Various types of force systems, analysis of trusses, friction, center of gravity and moments of inertia.
Prerequisite: MET 198,MAT132,PHY131or equivalents

## 204 Dynamics with Kinematic Analysis 4 Cr. Hrs.

Kinematics and kinetics of rectilinear motion, curvilinear motion and rotation; plane motion, work, energy, power, impulse and momentum.
Prerequisite: MET 203

## 205 Fluid Mechanics

3 Cr. Hrs.
Essentials of fluid properties, fluid statics, fluids in motion, flow measurements, and losses through flow in pipes. Two lecture, two lab hours per week.
Prerequisite: MET 204, MAT 133 or equivalents

## 207 Strength of Materials 4 Cr. Hrs.

Stress and deformations, torsions, shear and moments in beams, stresses in beams, design of beams, beam deflections, combined stresses. Two lecture, four lab hours per week.

## Prerequisite: MET 203

## 211 Engineering Mechanics I 5 Cr. Hrs.

Designed for ESUP students and is calculus based. Vectorial treatment of forces and analysis of trusses, centroids, friction and moment of inertia.
Prerequisite: MAT 216, PHY 201 or equivalents

## 212 Engineering Mechanics II 5 Cr. Hrs.

Kinematics of particles and rigid bodies, acceleration, work-energy, impulse and momentum of particles and rigid bodies and mechanical vibration.
Prerequisite: MET 211
224 Industrial Ventilation 3 Cr. Hrs. Selection and design of ventilation systems for industrial applications. Two lecture, two lab hours per week.
Prerequisite: MET 125

## 225 Thermodynamics

4 Cr. Hrs.
The laws and application of the principles of thermodynamics as they apply to internal combustion engines, steam cycles and refrigeration.
Prerequisite: MET 205, MAT 133 or equivalents

## 228 Equipment Measurement \& Control 3 Cr. Hrs.

Basic theory and application of measurement, instrumentation and control as applied to engineering processes including HVAC. Course will cover pneumatic and electronicinstrumentations and control systems. Two lecture, two lab hours per week. Prerequisite: EET 119, MAT 131 or equivalents
229 Controls for HVAC System 4 Cr. Hrs.
Theory and design practice of control systems in use in the heating and air conditioning of residential, commercial, and industrial applications. Three lecture, two lab hours per week.
Prerequisite: MET 125, MET 145, MET 228

## 230 Elements of Machine Design

3 Cr. Hrs.
Use of statics, strength of materials and physics to analyze simple mechanisms and select or design appropriate components for mechanical devices.
Prerequisite: MET 203, CCT 205
231 Machine Design I 3 Cr. Hrs.
Design philosophies and considerations, statistical and economical considerations, failure criteria, static and dynamic stresses in machine parts and mechanical fabrication and processes. Two lecture, two lab hours per week.
Prerequisite: MET 207, MET 204

## 232 Computer Aided Machine Design Project <br> 3 Cr. Hrs.

Principles and design of bearings, brakes, clutches, cams, gears, springs, power units, friction and lubrication. Two lecture, two lab hours per week.
Prerequisite: MET 231

## 240 Advanced HVAC Applications

 3 Cr. Hrs.Theory and techniques for design of heating, ventilation, and air conditioning systems for modern office and commercial buildings. Lecture only. Assignments require lab time outside of class. Two lecture, two lab hours per week.
Prerequisite: MET 125, MET 145

## 242 Computer Applications in HVAC

 3 Cr. Hrs.Application of microcomputers to analysis and design of HVAC equipment and systems, including use of spreadsheets and of commercially available computer software; assignments require lab time outside of class.
Prerequisite: MET 125, MET 145, MET 198
244 HVAC Applications Project 3 Cr. Hrs. Application of design techniques including computer software to design of HVAC system for representative model office building. Lecture only. Assignments require lab time outside of class. Two lecture, two lab hours per week.
Prerequisite: MET 240, MET 242

## 260 Engineering Technology Applications with Computers

 3 Cr. Hrs.Computer solutions of engineering technology problems using MathCAD; algorithms, numerical analysis and matrix methods for problem solving of physical principles and engineering applications. Two lecture, two lab hours per week.
Prerequisite:IET 198,MAT133orequivalents

## 270 Mechanical Engineering Internship

R
1-12 Cr. Hrs.
See EBE 270 Internship for course description. Student must consult the department chairperson for the specific degree requirement.

## 281 Certified Manufacturing

 Technician ReviewR

$$
3 \text { Cr. Hrs. }
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Review of computational techniques, mathematical and physical concepts as applied to engineering and technology problems in areas of mechanics, light, electricity, and materials.
Prerequisite: MAT 132, PHY 131 or equivalents

## 282 Certified Manufacturing Engineer Review <br> $$
3 \mathrm{Cr} . \mathrm{Hrs} .
$$

Review of metrology, materials, manufacturing processes, methods, machining systems and economics.
Prerequisite: MET 281 or permission of instructor

## 297 Special Topics <br> R

1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a nontraditional format such as television, videotape, etc.
Prerequisite: DEV 085 or equivalent

## Mental Health Technology (MHT)

## 101 Introduction to Mental Health Work

## 1-3 Cr. Hrs.

History, vocabulary, current concepts concerning delivery of services. Roles for workers in the field. Necessary skills and values in helping process. Ethical issues and concerns of beginning helpers.
115 Social Casework
3 Cr . Hrs.
Basic principles and skills for the professional helping relationship. Professional and multi-cultural issues in clinical practice. Casework problem solving model is emphasized.
Prerequisite: MHT 101

## 120 Chemically Dependent Women

 $1 \mathrm{Cr} . \mathrm{Hr}$.Needs and issues pertaining to chemically dependent women. Engaging women in the treatment process. Treatment techniques which foster recovery.

## 121 Chemically Dependent Families

$1 \mathrm{Cr} . \mathrm{Hr}$.
Effects of addiction on the family unit. Addiction's impact on family communication patterns, codependency, coping skills, and the process of family recovery.

## 122 Appalachian Issues in CD Treatment

$1 \mathrm{Cr} . \mathrm{Hr}$.
Chemical dependency treatment for Appalachian clients. Cultural influences which impede and promote treatment success.

## 123 Street Drug Actions <br> 1 Cr. Hr.

Effect of street drugs on cognitive, affective and behavioral functioning as they impact the clinical treatment process.

## 124 Issues in Recovery from Addiction <br> 1 Cr. Hr.

Factors contributing to relapse following chemical dependency treatment. Successful approaches to aftercare programming.
126 Introduction to Addictive Illnesses
3 Cr. Hrs.
Addiction to harmful substances, particularly alcohol. Current knowledge: effects on individual and society. Myths, misconceptions, early identification, intervention, arresting the addictive process.

## 128 Family Dynamics of Addiction <br> 3 Cr. Hrs.

Impact of addiction on individual family members and overall family functioning, emphasizing the nature of co-dependency, its symptoms and treatment.

## 130 Treatment Techniques: Addiction 3 Cr . Hrs.

Treatment methods for alcohol/drug addictions. Individual, group, family counseling systems for residential and out-patient work.

## 132 Assessment of Chemical Dependency 3 Cr. Hrs.

Holistic assessment of chemical dependency, skill development, use of and interpretation of assessment instruments.

## 134 Chemical Dependency Treatment in Correctional Settings 3 Cr. Hrs.

 Effects of incarceration on behavior, attitude development, emotional life and cognitive functioning. Effective treatment techniques with incarcerated addicts.
## 135 Alcohol \& Drug Treatment for African-Americans

## 1-3 Cr. Hrs.

Culturally sensitive approaches to treatment. Gaining accurate background information. Obstacles to forming therapeutic relationship. Impact of advertising, crime, racism on treatment effectiveness.

## 136 Ethical Issues in Chemical Dependency Treatment \& Prevention <br> 3 Cr. Hrs.

Ethical responsibilities of practitioners in chemical dependency, covering the Federal Confidentiality Regulations, case law, codes of ethics, scope of practice, expectations of funding bodies and the demands of managed care.

## 137 Adolescent Substance Abuse 3 Cr. Hrs.

Assessment and treatment of adolescent substance abuse. Risk factors, prevalence, causation, interventions, resources, accompanying problems.

138 Dual Diagnosis: Substance Abuse \& Mental Illness $\quad 3$ Cr. Hrs. Chemical addiction in the mentally ill client. Unique challenges, special needs, and effective treatment models for this dual diagnosed population.

## 139 Substance Abuse Prevention

 3 Cr. Hrs.Theories, models, historical framework and terminology. Contemporary definition of prevention for both in-school and community based strategies and curricula. Assessment of risk and protective factors. Resources, funding, research and credentialing in Ohio.

## 140 Child \& Adolescent Mental Health

3 Cr. Hrs.
Etiology, assessment and treatment of emotional and behavioral problems of children and adolescents. Service planning and community resources.

## 151 Art as Therapy I <br> 3 Cr. Hrs.

Experiential discovery of personal creative processes using a variety of art media.
152 Art as Therapy II 3 Cr. Hrs.
Emphasizing clinical art therapy experiences with varied populations. Development of professional observation, assessment, and motivational skills.
Prerequisite: MHT 151

## 201 Interviewing \& Assessment

3 Cr. Hrs.
Observing, interviewing, assessing and report writing. Preparation for major clinical sequence. Two lecture, two lab hours per week.
Prerequisite: MHT 101, ALH 103

## 202 Practicum in Mental Health I

 5 Cr . Hrs.Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording. Prerequisite: MHT 201

## 203 Practicum in Mental Health II

5 Cr. Hrs.
Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording. Prerequisite: MHT 202

## 204 Practicum in Mental Health III

5 Cr . Hrs.
Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording.
Prerequisite: MHT 203

## 205 Psychosocial Interventions

3 Cr. Hrs.
Acquiring and applying advanced clinical interventions and treatment modalities for various client populations.
Prerequisite: MHT 115

## 206 Case Management Services for the Mentally III <br> 3 Cr. Hrs.

Philosophy, knowledge and skill components for effective case management emphasizing training content authorized by Ohio Department of Mental Health.

## 210 Chemical Dependency Counseling Certification <br> 3 Cr. Hrs.

Overview of requirements, procedures, skills and knowledge base required for certification by Ohio Chemical Dependency Credentialing Board.
211 Group Dynamics I 3 Cr. Hrs.
Introduction to interpersonal dynamics in groups. Awareness of group leadership skills and personal issues affecting participation. Laboratory groups promote personal growth while providing experiential awareness of phases and issues of group development. Two lecture, two lab (MHT 217) hours per week.
Prerequisite: MHT 115
212 Group Dynamics II 3 Cr. Hrs.
Presentation of history and development of group work, professional ethics, curative factors, stages of group development, theories of change and effective leadership characteristics. Two lecture, two lab (MHT 218) hours per week.
Prerequisite: MHT 211

## 213 Group Dynamics III <br> 3 Cr. Hrs.

Opportunities to practice group facilitation; skills in process planning and critical analysis of group dynamics; roles and issues in co-facilitation. Two lecture, two lab (MHT 219) hours per week.
Prerequisite: MHT 212

## 214 Emotional Health \& Healing

3 Cr. Hrs.
Human emotions and the need for appropriate energy release; defenses and blockages of energy resulting in psychological dysfunction; models of changes; personal, professional and ethical issues in treatment.

## 217 Lab for MHT 211

Laboratory must be taken with MHT 211.

## 218 Lab for MHT 212

Laboratory must be taken with MHT 212. 219 Lab for MHT 213
Laboratory must be taken with MHT 213.

## 221 Activity Therapy <br> 3 Cr. Hrs.

Theory and practice in therapeutic activities for mental health clients of all ages. Activity analysis, program and treatment planning, leadership techniques, application of the adventure based counseling model. Two lecture, two lab (MHT 226) hours per week.
Prerequisite: MHT 115
226 Lab for MHT 221
Laboratory must be taken with MHT 221.

## 245 Mental Health \& the Family R 3-4 Cr. Hrs.

Underlying dynamics and interactional patterns in family functioning and the impact of family dysfunction on individuals. Methodologies of clinical intervention, highlighting issues and trends facing contemporary families.
Prerequisite: MHT 205, ENG 112

## 296 Special Topics in Mental Health R 0.5-6 Cr. Hrs.

Opportunity to earn credit for workshops and short term courses on current topics in Mental Health and Human Services; such as continuing education needs of licensed practitioners, special interest needs of general public or technical developments in the field. Only six credit hours earned by Special Topics may be applied toward an associate degree in Mental Health.

## Marketing (MRK)

## 115 International Environment:

Culture \& Business $\quad 3$ Cr. Hrs.
An exploration of the social, political, cultural and business conditions in the international arena will be presented. Social and business practices in various environments are explored. Student participation through discussion and a team project will be included. Also offered as HUM 115; students may enroll in either course but not both.

## 201 Marketing I

3 Cr. Hrs.
The economic and social impact of the marketing concept stressing a managerial approach. Environments (social, economic, legal, etc.) and their influence on consumer behavior and decisions of the marketing manager. Consumer sovereignty is stressed.

## 202 Marketing II <br> 3 Cr. Hrs.

The marketing mix provides the focal point for analysis and discussion. The management process is integrated with materials on distribution, product, marketing communications, and pricing. Prerequisite: MRK 201

205 Direct Marketing
3 Cr. Hrs.
Introduction to the scope of direct marketing, including mail order, lead generation, circulation, loyalty programs, store traffic building, fundraising, pre-selling, post-selling and research.
Prerequisite: MRK 201

## 210 Computer Application in

 Marketing3 Cr. Hrs.
Analysis, discussion, and critiquing of specific marketing problems emphasizing quantitative analysis using personal computers to relate marketing theory and the practical application of marketing concepts; programming assignments require lab time outside of class.
Prerequisite: MRK 202, MRK 201, MAT 105

## 215 Advertising

3 Cr . Hrs.
A conceptual understanding of the role of advertising in society, the firm, and the media. Planning, understanding and implementing advertising in a communications role. (Students must have a previous understanding of the four P's).
Prerequisite: MRK 201 or departmental permission

## 225 Sales Fundamentals 3 Cr. Hrs.

Basic principles of sales and development of techniques for satisfying consumer needs through thoughtful personal selling. Direct participation by the student in simulated sales situations.
226 Sales Management 3 Cr. Hrs.
Discussion, case studies and role playing will be utilized to study the nature and scope of sales management and selection and training processes.
Prerequisite: MRK 225
230 International Marketing $\mathbf{3 C r}$. Hrs. Structure, organization, policies and constraints of multi-national business organizations and international trade in general with emphasis on the effect of environmental differences on marketing.
Prerequisite: MRK 202
235 Marketing Research 3 Cr. Hrs.
Principles of marketing research as they apply to the decision-making processes in management and marketing and the relationships between these processes.
Prerequisite: MRK 202

## 236 Consumer Behavior 3 Cr. Hrs.

Analysis of the concepts, theories, facts, and models associated with consumer behavior and the assessment of marketing and societal implications.
Prerequisite: MRK 105 or MRK 201

238 Industrial Marketing 3 Cr. Hrs.
Distinctions between industrial and consumer demand; general characteristics of industrial markets that affect planning by marketers; relationships among variables that influence buyer behavior; and adaptation of the marketing mix elements to reach the industrial customer.
Prerequisite: MRK 202
245 Principles of Retailing 3 Cr. Hrs. Functions and concepts for the retail organization. Development and implementation of policies and procedures in planning, pricing, display, layout, buying and services from a mid-management perspective. A consumer centered approach to examining problems of various types and sizes of stores.
Prerequisite: MRK 105 or MRK 201
246 Fashion Merchandising 3 Cr. Hrs. The social, economic and psychological factors influencing fashion and of concern to the retail assistant buyer or fashion coordinator. Terminology and basic elements of fashion, the environment of fashion and fashion leaders and cycles.
Prerequisite: MRK 245

## 247 Retail Buying \& Merchandising <br> 3 Cr. Hrs.

The functions of buying and selling to provide consumer satisfaction along with retail mathematics, stock turnover, budgeting, promotion, inventory evaluation, merchandising strategies, cost analysis and control.
Prerequisite: MRK 245

## 270 Marketing Internship

R
1-9 Cr. Hrs.
See EBE 270 Internship for course description.

## 295 Marketing Seminar 3 Cr. Hrs.

Cases and readings emphasizing current marketing principles and the environment of the firm. Marketing functions as part of a total marketing system which responds in degree to consumer's changing needs.
Prerequisite: 12 quarter hours of marketing courses

## 297 Special Topics in Marketing R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for nontraditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses can apply toward an associate degree in Business. Prerequisite: Permission of instructor

## Music (MUS)

105 Introduction to Music 3 Cr. Hrs. Fundamentals of music theory including notation, rhythm, scales, intervals, and chords.

## 106 Vocal Diction I <br> 2 Cr. Hrs.

Italian and English diction will be studied with emphasis on clarity, expressiveness, regard for correct pronunciation, and sound production as applied to singing and reading.

## 107 Vocal Diction II <br> 2 Cr. Hrs.

German diction will be studied with emphasis on the fundamentals of phonetics and sound production as applied to singing and reading. English will be continued. Prerequisite: MUS 106

## 108 Vocal Diction III <br> 2 Cr. Hrs.

French diction will be studied with emphasis on the fundamentals of phonetics and sound production as applied to singing and reading. German will be continued.
Prerequisite: MUS 107
111 Music Theory I 3 Cr. Hrs.
First level university parallel course. Notation, scales, modes, intervals, key, tonality, anatomy and organization of melody, harmonic anatomy, voice leading, ranges, transpositions.
Prerequisite: MUS 105

## 112 Music Theory II 3 Cr. Hrs.

Harmonic progression, modulation, resolution, harmonic function of seventh chords, history, types, inversions of secondary dominants.
Prerequisite: MUS 111

## 113 Music Theory III <br> 3 Cr. Hrs.

Form-design-analysis: Binary, rounded binary/incipientternary, ternary as surveyed from text, workbook, and anthology. Song form with trio, minuet-trio-minuet, suite, bar form, stollen, abgesang, lied. Secondary dominants applied.
Prerequisite: MUS 112

## 115 Music Appreciation 3 Cr. Hrs.

Acquaints student with basic parameters of music (melody, rhythm, harmony,form) through a survey from Gregorian Chant to jazz and current rock styles. No previous technical knowledge of music is required.
116 Music Major Piano Class I 1 Cr. Hr. Instruction in correct piano playing techniques. Combination of lecture and lab. Prerequisite: MUS 105

## 117 Music Major Piano Class II1 Cr. Hr.

Instruction in correct piano playing techniques and harmonizations. Appropriate piano repertoire is also studied. Combination of lecture and lab.
Prerequisite: MUS 116

118 Music Major Piano Class III 1 Cr. Hr. Instruction in correct piano playing techniques, major and minor scales, chords. Appropriate piano repertoire is also studied. Combination of lecture and lab. Prerequisite: MUS 117

## 121 Piano Class I

3 Cr. Hrs.
Correct techniques and basic music reading skills. Simple pieces and chords. No piano playing or musical experience required.

## 122 Piano Class II

3 Cr. Hrs.
Correct piano playing techniques. Nine major and three minor key, with active left hand accompaniment in pieces.
Prerequisite: MUS 121 or permission of instructor

## 123 Piano Class III 3 Cr. Hrs.

Correct piano playing techniques. Selected piano literature, sight reading, all major scales and ensemble playing is stressed.
Prerequisite: MUS 122 or permission of instructor

## 124 Handbell Choir Conducting 1 Cr. Hr.

 Major factors associated with direction of handbell ensembles, emphasizing organization of choirs, performance pedagogy, conducting techniques, repertoire selection, performance aspects, and care of equipment.
## 125 History of Rock Music 3 Cr. Hrs.

The reasons and conditions under which rock music took root; the personalities, events and music that shaped rock, and the conditions under which rock music continues to flourish today. An audiocassette class with periodic written exams.

## 126 Introduction to Sight Singing, <br> Dictation, Ear Training 3 Cr. Hrs.

Fundamentals of sight singing, dictation, ear training including hearing and notating rhythm and melody. Recommended to be take concurrently with MUS 105

## 131 Survey of Musical Styles I 3 Cr. Hrs.

The historical styles of Western music are explored in chronological sequence through an analysis of various musical compositions and musical forms from the Medieval, Renaissance and Baroque eras.
132 Survey of Musical Styles II 3 Cr. Hrs. The historical styles of Western music are explored in chronological sequence through an analysis of various musical compositions and musical forms from the Classical and early Romantic eras.
Prerequisite: MUS 131
133 Survey of Musical Styles III 3 Cr. Hrs. The historical styles of Western music are explored in chronological sequence through an analysis of various musical compositions and musical forms from the late Romantic and Modern eras.
Prerequisite: MUS 132

135 Percussion Methods 1 Cr. Hr. Students learn to identify and play the most common percussion instruments; read any percussion parts and know what substitutions to use if the correct instruments are not available. Combination of lecture and lab.
136 Choral Conducting 2 Cr. Hrs. Fundamentals of direction of choral groups with emphasis on basic baton technique, cueing meters, vocal exercises, and conducting terminology.
Prerequisite: MUS 111 or permission of instructor
141 Singing \& Dictation I 1 Cr. Hr. Course units are divided among rhythm, harmony and melody. Vocal and aural skills are applied to meter and modality/ tonality. Combination of lecture and lab. Prerequisite: MUS 126
142 Singing \& Dictation II $1 \mathbf{C r}$. Hr .
Two voice counterpoint, dyads, triads, seventh chords, four-voice harmony, structure of harmonic vocabulary. Combination of lecture and lab.
Prerequisite: MUS 141
143 Singing \& Dictation III 1 Cr. Hr. Chord usage and recognition, intervals/ compound intervals, accompanied melody, four-voice soprano and bass factors, harmonic structure, metrical quarter-beat values. Combination of lecture and lab. Prerequisite: MUS 142

## 145 Voice Class

3 Cr. Hrs.
Fundamentals of vocal production, song literature, interpretation, and performance skills are studied, either as a terminal course or to prepare students for possible private applied study. Combines lecture with group and individual singing.

## 148 History of Music in Worship I

## 3 Cr. Hrs.

Chronological survey, with documentation both written and aural, of music in the Christian church from the first century to the year 1400 .

## 149 History of Music in Worship II

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3 \text { Cr. Hrs. }
$$

Historical styles of music within the Christian church covering written and aural documentation 1400 to 1800 A.D.
Prerequisite: MUS 148

## 150 History of Music in Worship III

$$
3 \text { Cr. Hrs. }
$$

Analysis of changing musical styles incorporated into the Christian church from 1800 to the present.
Prerequisite: MUS 149
151 Guitar Class I
R
1 Cr . Hr.
Fundamental study of guitar playing techniques. Students must provide their own instruments. Electric guitars are not appropriate.

## 152 Guitar Class II

1 Cr. Hr.
Fundamental study of guitar playing including melodic line playing, scales, chords and various rhythmic patterns. Prerequisite: MUS 151

## 153 Guitar Class III

1 Cr. Hr.
Fundamental study of guitar playing including more advanced melodic line playing, bar chords, various scale patterns and ensemble playing.
Prerequisite:MUS 152orpermissionof instructor
154 Jazz Combo
1 Cr . Hr.
Open to college and community musicians who develop small jazz group performance skills. Concerts and appearances are scheduled during the academic year. Combination of lecture and lab.

## 155 Sinclair Singers

1 Cr . Hr .
Sinclair's show choir, this vocal and instrumental ensemble combines singing with movement, concentrating on the best of musical theatre, comedy, jazz and popular music. The Singers make many appearances on/off campus during the year.
158 Jazz Ensemble
R 1 Cr . Hr .
Open to college and community musicians who present jazz ensemble performances. Concerts and appearances are scheduled during the academic year. Combination of lecture and lab.

## 166 Chorale

## 1 Cr . Hr .

Select mixed chamber choir specializing in performance of vocal music of several stylistic periods. School and public performances required.

## 167 Applied Music: Jazz Piano R 1-4 Cr. Hrs.

Private instruction in Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or (2) two credits for one hour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice, or (3) four credits for two halfhour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

## 169 Applied Music: Organ

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

170 Applied Music: Piano R
1-4 Cr. Hrs.
Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 171 Applied Music: Voice

1-4 Cr. Hrs.
Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 172 Applied Music: Percussion R 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 173 Applied Music: Violin

1-4 Cr. Hrs.
Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 174 Applied Music: Viola

1-4 Cr. Hrs.
Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
177 Applied Music: Flute

## 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 178 Applied Music: Clarinet R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 179 Applied Music: Saxophone R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 180 Applied Music: Oboe <br> R <br> 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

181 Applied Music: Bassoon

## 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 182 Applied Music: Trumpet

## 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 183 Applied Music: Trombone R 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 184 Applied Music: French Horn R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 185 Applied Music: Baritone Horn R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 186 Applied Music: Tuba <br> R <br> 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 187 Applied Music: Guitar <br> R <br> 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 188 Applied Music: Electric Bass R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 189 Applied Music: Jazz Drumming R 1-4 Cr. Hrs.

 Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
## 190 Applied Music: Classical Guitar R 1-4 Cr. Hrs.

Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

192 Applied Music: Harpsichord R 1-4 Cr. Hrs. Applied Music is given on the basis of (1) one credit for one half-hour lesson per week for ten weeks and 45 minutes per day practice or (2) two credits for one halfhour lesson per week for ten weeks, board examination, student recital performance and 90 minutes per day of practice or (3) four credits for two half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.
194 Wind Symphony
R

## 1 Cr . Hr .

Concentration on instrumental problems and techniques. Development of wind ensemble repertoire. School and public performance will be a major part of the course activities. Combination of lecture and lab.

## 195 Concert Band

R

$$
1 \text { Cr. Hr. }
$$

Concentration on instrumental problems and techniques. Development of symphonicband repertoire. School and public performance will be a major part of the course activities. Combination of lecture and lab.
206 Voice Pedagogy I 1 Cr. Hr.
Historical and scientific background of voice, vocal mechanism, approaches to the art of teaching. Review and recommendation of materials; supervised practice teaching within the class.

## 207 Voice Pedagogy II <br> 1 Cr . Hr .

A continuation of MUS 206.
Prerequisite: MUS 206
208 Voice Pedagogy III 1 Cr. Hr.
A continuation of MUS 207.
Prerequisite: MUS 207
211 Music Theory IV 3 Cr. Hrs.
Second level university parallel course. Composition, continuous variations, theme and variations, borrowed chords, neapolitan and augmented sixth chords, extended and altered dominants, survey of chromaticism.
Prerequisite: MUS 113

## 212 Music Theory V <br> 3 Cr. Hrs.

Composition, sonata allegro, rondo, late Renaissance polyphony, two-voice eighteenth century counterpoint, fugue.
Prerequisite: MUS 211

## 213 Music Theory VI

3 Cr. Hrs.
Composition, compositional devices of the late nineteenth and early twentieth century, compositional devices of the contemporary period, modern twelve-tone set techniques.
Prerequisite: MUS 212

216 Music Major Piano Class IV 1 Cr. Hr. Music students are instructed in correct piano playing techniques, harmonization, improvisation, and accompanying. Appropriate piano repertoire is also studied. Combination of lecture and lab.
Prerequisite: MUS 118
217 Music Major Piano Class V1 Cr. Hr. Continuation of MUS 216.
Prerequisite: MUS 216
218 Music Major Piano Class VI 1 Cr. Hr. Continuation of MUS 217.
Prerequisite: MUS 217

## 225 Sinclair Concert Handbell Choir R

 $1 \mathrm{Cr} . \mathrm{Hr}$.Study and performance of handbell ensemble repertoire, ranging from classical to novelty, sacred to secular, and original to transcription, as well as aspects of the preparation of a program for performance. Combination of lecture and lab.

## 226 Brass Methods I

1 Cr . Hr .
Students are instructed in the art of playing and teaching the following brass instruments: trumpet, French horn, trombone, baritone horn or tuba. Combination of lecture and lab.
227 Brass Methods II
1 Cr . Hr.
Continuation of MUS 226.
Prerequisite: MUS 226
241 Singing \& Dictation IV $\mathbf{1 C r}$. Hr. Chromatic pitches, augmented and diminished intervals, seventh chords, harmonic structure and function, non-harmonic tones, modulation, secondary dominants and diminished/minor sevenths and diminished/diminished sevenths. Combination of lecture and lab. Prerequisite: MUS 143
242 Singing \& Dictation V 1 Cr. Hr. Borrowed chords, neapolitan and augmented sixth chords, extended and altered dominants, ninth-eleventh-thirteenth structures and inversions, survey of chromaticism. Combination of lecture and lab. Prerequisite: MUS 241

## 243 Singing \& Dictation VI 1 Cr. Hr.

Nontertian harmony, two-voice contrapuntal music, aural recognition of simultaneous events, improvisation, modern twelve-tone set aural recognition and application. Combination of lecture and lab. Prerequisite: MUS 242

## 245 Church Service Playing I 2 Cr. Hrs.

Ecumenical survey of church services and themusic/worshipordersinvolvedinawide variety of settings, ranging from free and unstructured tohighly liturgical, and involving student participation in each session.

246 Church Service Playing II 2 Cr. Hrs. Hands-on experience with additional church services, such as charismatic, Episcopal, and gospel, with keyboard skillssuch as improvisation and ensemble playing. Prerequisite: MUS 245

## 270 Music Internship

R
1-12 Cr. Hrs.
See EBE 270 Internship for course description.
275 Church Music Practicum 2 Cr. Hrs.
Fundamentals of worship, musician-clergy relationships, hymn festivals, formation of youth choirs, preparation of cantatas, seminar availabilities, and budgeting.
295 Music Practicum
R
1-3 Cr. Hrs.
Music major may receive credit for practical experiences such as performing in a musical, opera, musical organization, solo recital, etc. Arrangements must be made through the department chairperson.
296 Classical Guitar Ensemble R 1 Cr . Hr .
The performanceand study of selected Classical Guitar Ensemble literature. The literature covered will determine the size and performance level of the class. Public performance. Combination of lecture and lab.

## 298 Performance Class

R
1 Cr . Hr .
Performance repertoire from intermediate to advanced levels. Designed to anticipate and alleviate the public performance problems. Emphasizing all aspects of technique and music including sight-reading, memorization and control of nervousness (Piano-Section 01, Voice-Section 02).
299 Applied Music Practicum.
R
4 Cr. Hrs.
Private instruction one-hour per week on selected musical instrument. Recitals, board examinations, and registration in degree program not required. Organ-Section 01; Piano-Section 02; Voice-Section 03.

## Nursing (NSG)

## 120 Human Response 3 Cr. Hrs.

Discusses scope and practice of nursing profession and philosophy/framework of the Nursing program at Sinclair. Introduces human response, nursing process, critical thinking, decision making and collaborative judgment, and management principles. Provides a foundation in therapeutic communication, documentation, teaching/learning, and health promotion/disease prevention.
Prerequisite: ALH 103, ENG 111, BIO 141, PSY 119 and COM 206

## 121 Identifying Responses Through Assessment 3 Cr. Hrs.

Uses assessment techniques to identify normal/abnormal human responses to stressors. Applies diagnostic reasoning to assessment data to determine impact of stressors on the individual and family and the level of preventive care necessary.
Prerequisite: ALH 103, ENG 111, BIO 141, COM 206 and PSY 119.

## 122 Physiological Stressors 8 Cr. Hrs.

Introduces the concept of general responses to physiological and environmental stressors. Analyzes responses to changes in the immune mechanism, inflammation, wound healing, fluid and electrolytes, and cancer. Includes interventions to support or correct physiologic responses. Compares principles and issues of care in settings across the health care continuum.
Prerequisite: NSG 120, NSG 121, BIO 141, BIO 142, BIO 205 and MAT 109.

## 123 Promoting Healthy Responses Through Psychomotor Interventions <br> 3 Cr. Hrs.

Introduces a base of common nursing interventions that assist individuals responding to physiological stressors. Integrates critical thinking, nursing process, principles from nursing and the sciences, and resource management into the utilization of technical skills to provide a foundation for effective practice in settings across the health care continuum.
Prerequisite: NSG 120, NSG 121, BIO 141, BIO 142, BIO 205 and MAT 109.

## 130 Role Transition for LPNs10 Cr. Hrs.

Focuses on the transition of LPN to second year ADN student. Analyzes responses to stressors of the internal environment, protective mechanisms, and cellular growth. Integrates human response, health promotion/disease prevention, critical thinking, nursing process, and resource management into utilization of common nursing interventions. Compares principles and issues of care in settings across the health care continuum. Five lecture, fifteen clinical hours per week.
Prerequisite: BIO 211, COM 206, PSY 119, ENG 111 or equivalents

## 220 Promoting Healthy Responses to Specific Stressors I 8 Cr. Hrs.

 Analyzes specific stressors affecting physical integrity/infectious disease, perioperative experience, nutrition, bowel elimination, and physical regulation/metabolic function. Begins application of decision making, care management, and critical pathways across the health care continuum. Prerequisite: NSG 122, NSG 123, BIO 143
## 221 Promoting Healthy Responses to Psychosocial Stressors 4 Cr. Hrs.

Discusses nursing management based on responses to psychosocial stressors. Includes interventions based on mental health concepts that assist individuals to achieve a balance of emotional health at any point along the health care continuum.
Prerequisite: NSG 220, ALH 219, PSY 208

## 222 Promoting Healthy Responses to

 Specific Stressors II 4 Cr. Hrs.Analyzes human responses to specific stressors affecting circulation and oxygenation, including shock. Applies nursing process, diagnostic reasoning, and collaborative judgment to multidisciplinary care in a variety of settings across the health care continuum.
Prerequisite: NSG 220, ALH 219, PSY 208

## 223 Promoting Healthy Responses in Women <br> 4.5 Cr. Hrs.

Analyzes responses of the childbearing family during the maternity cycle. Utilizes the nursing process to promote and maintain women's health and provide care to women with interferences in reproductive health.
Prerequisite: NSG 221, NSG 222, ALH 104

## 224 Promoting Healthy Responses to

 Specific Stressors III 4 Cr. Hrs. Analyzes human responses to specific stressors affecting urinary elimination moving (musculo-skeletal), sensory, and neurological integrative functions. Applies nursing process, diagnostic reasoning, and collaborative judgment to participate in multidisciplinary care in a variety of settings across the health care continuum.Prerequisite: NSG 221, NSG 222, ALH 104

## 225 Promoting Healthy Responses in the Child \& Family 4.5 Cr . Hrs.

Uses nursing process to identify child/ family responses to hospitalization and illness. Analyzes responses to stressors affecting oxygenation, neuro-cognitive function, circulation, movement or causing trauma. Adapts interventions to developmental needs of child. Includes primary care and anticipatory guidance to prevent illness and injury.
Prerequisite: NSG 223, NSG 224, ENG 112

## 226 Promoting Healthy Responses to Interrelated Patho-Physiological Stressors 4 Cr. Hrs.

Applies critical thinking to utilize the theory and skills necessary to care for patient/families responding to life threatening complex stressors requiring continuous monitoring and interventions. Prerequisite: NSG 223, NSG 224, ENG 112

## 228 Physical Assessment 4 Cr. Hrs.

Enhances the nurse's skill in collecting and organizing data, performing basic and advanced physical assessment skills
by physiological systems and documenting the information. Reviews signs/ symptoms particular to each system in regard to normal/abnormal functions. Includes classroom instruction and college lab experience.

## 230 Directed Nursing Practice 7 Cr. Hrs.

Moves the individual from nursing student to beginning associate degree nurse through a directed nursing practice. Emphasizes professional development, nurse's role in health promotion and disease prevention, management of care for a group of patients, decision making, interpersonal relationships, responsibility and accountability.
Prerequisite: NSG 225, NSG 226
236 Intravenous Therapy 2 Cr. Hrs. Classroom instruction and college lab experience in: fluid and electrolytes, legal aspects, indications for intravenous therapy, central venous pressure monitoring, hyperalimentation, blood product infusion, "push" medication, infusion pumps, piggybacks, and heparin locks.
238 Basic EKG Interpretation 2 Cr. Hrs. Basic techniques of interpreting and analyzing the electrocardiogram. Reviews electrode placement, electrophysiology, cardiac monitoring, EKG format, and assessment of tachycardia, bradycardia, fibrillation, premature beat, and conduction disturbances.

## 240 Advanced EKG Interpretation R

 1.5 Cr. Hrs.An analysis of 12 lead EKG, recognition of injury and infarction patterns, in-depth examination and discussion of arthythmias and conduction defects. Problemsolving sessions and opportunities to study and interpret EKG tracings.
243 Emergency Nursing I 3 Cr. Hrs.
The content follows the Emergency Department Nurses Association (EDNA) Core Curriculum Guide and is designed as a review of emergency nursing. Emergency care of adults and children with physiological problems; cardiac medical, cardiac trauma; cardiac vascular; fluid, electrolyte and acid-base imbalances in shock; multiple trauma; neurological respiratory; thermal injuries; general medical and disaster planning.
244 Emergency Nursing II 3 Cr. Hrs. The content follows the Emergency Department Nurses Association (EDNA) Core Curriculum Guide and is designed as a review of emergency nursing. Emergency care of adults and children with physiological problems;abdominal;ENT; eye; general medical; genitourinary; OB / GYN; orthopedic; surface trauma; toxicological; abuse and neglect; crisis intervention/sexual assault; legal aspects and organization of case delivery.
Prerequisite: NUR 243

## 248 Concepts in Community Nursing 3 Cr. Hrs.

Actual or potential health problems within a community. Concepts related to nursing in the community. High risk individuals, families, and communities.

## 249 Obstetrics/Gynecology: Women's Health Care <br> 3 Cr. Hrs.

Review of anatomical, physiological, pathological, and technological obstetrical/gynecological information. Women as partners in personal health care as well as women's desire to understand and control their bodies. Contemporary issues; gynecological cancer; death and dying; problems of assault and battery; sexual dysfunction; and pre-menstrual tension syndromes.

## 260 Surgical Nursing

4 Cr. Hrs.
Provides an introduction to intraoperative nursing. Discusses the basic technical, communication, professional, and critical thinking skills required to perform the role of the circulating or scrub nurse in an operating room setting. Three lecture and two lab hours per week.
Prerequisite: NSG 224 or RN license
261 Critical Care Nursing I 3 Cr. Hrs. Follows the behavioral objectives established by the American Association for Critical Care Nurses. Reviews the psychosocial aspects of the critically ill patient and nursing/medical management for major critical diseases of the pulmonary and cardiovascular systems.

## 262 Critical Care Nursing II 3 Cr. Hrs.

 Follows the behavioral objectives of the American AssociationforCriticalCareNurses. Reviews psychosocial aspects of the critically ill and nursing/medical management for major critical care diseases of the renal, metabolic, neurological systems, "DIC", burns GI bleeding and hepatic crises.
## 281 RN Refresher

12 Cr. Hrs.
A refresher course on the evolving role of the nurse to provide an update on the delivery of professional nursing care. Concentrates on changes in pathophysiological status, diagnostic workup programs, treatment and pharmacological modalities, and nursing interventions guided by the nursing process. Clinical provides learning experiences in acute care,long-term care and/ or home health care settings.
291 Drug Therapy Update I 1 Cr. Hr. An update on the actions, side effects, interactions and nursing implications of selected topics of drug therapy. Topics presented change each quarter.

## 292 Drug Therapy Update II 1 Cr. Hr.

 Review and overview of the more widely used drugs in the nursing/medical management of major diseases and IV fluids. Participants will review and update their knowledge regarding the intended actions, side effects, interactions, and nursing applications.Discussion of a wide variety of topics related to current health practices. Topics are offered throughout the academic year for varying lengths of time. Topics are selected by needs assessment, health care facility requests, and current health care literature. Topics address three areas of professional development: personal, skills development, and manageria. These area are appropriate for the novice-toexpert health care provider.

## Occupational Therapy Assistant (OTA)

## 101 Introduction to Occupational Therapy Assistant 3 Cr . Hrs.

History, philosophy, ethics and definitions of occupational therapy; overview of occupational therapy practice areas; differences between occupational therapists and occupational therapy assistants; functions of professional and regulatory agencies; exploration of learning experiences within the OTA problem based curriculum. Two lecture, two lab (OTA 141) hours per week.
104 Applied Anatomy 2 Cr. Hrs.
Functional anatomy of neurological and musculoskeletal systems. Analysis of nervous systems, major joint and muscle groups involved in daily living tasks such as dressing, bathing, grooming, eating, cooking and housekeeping.
Prerequisite: BIO 121 or BIO 141

## 106 Professional Values \& Ethics

 3 Cr. Hrs.Identification of professional values and ethics, emphasizing effect of personal values on professional behavior: confidentiality issues, supervision, patient rights, sensitivity to cultural differences;overview of the treatment planning process. Two lecture, two lab (OTA 146) hours per week. Prerequisite: OTA 210

## 131 Therapeutic Self

9 Cr. Hrs.
Development of the self as an effective therapy tool, including exploration of values, ethics, and personal creativity; personal and cultural attitudes, sensitivity to cultural differences; group roles and stages of group development. Introduction to a community setting involving structured observations, documentation of observations with weekly verbal report to peers. Five lecture, six lab and three clinical hours per week.

## 132 The Nature of Being Human 9 Cr. Hrs.

A holistic view of normal development including perception, cognition, identity, leisure, creativity, sexuality, language, and psychosocial and spiritual development as well as the influence of culture and society on development. Continued experience in a community setting involving structured observations relating to developmental issues; documentation of observations with weekly verbal report to peers. Five lecture, six lab and five clinical hours per week.
Prerequisite: OTA 131

## 133 The Dysfunctional Human 10 Cr. Hrs.

The contrast of normal development and disability from conception to senescence including genetic, environmental and aging factors as well as frequently used diagnostic procedures, screening and evaluation techniques. Continued experience in a community setting involving structured observations relating to dysfunction issues; documentation of observations with weekly verbal report to peers. Five lecture, eight lab and seven clinical hours per week.
Prerequisite: OTA 132

## 141 Lab for OTA 101

Laboratory must be taken with OTA 101. 146 Lab for OTA 106
Laboratory must be taken with OTA 106.

## 151 Lab for OTA 131

Laboratory must be taken with OTA 131.

## 152 Lab for OTA 132

Laboratory must be taken with OTA 132. 153 Lab for OTA 133
Laboratory must be taken with OTA 133.

## 161 Clinical for OTA 131

Clinical must be taken with OTA 131.

## 162 Clinical for OTA 132

Clinical must be taken with OTA 132.

## 163 Clinical for OTA 133

Clinical must be taken with OTA 133.
201 Physical Dysfunction 4 Cr. Hrs.
Treatment modalities, screening and evaluation techniques for diseases and conditions commonly seen in physical disability clinics including gross/fine motor, perceptual motor, cognitive, strength and endurance problems. Two lecture, four lab (OTA 241) hours per week.
Prerequisite: ALH 220 or BIO 205

## 202 Psychosocial Dysfunction 3 Cr. Hrs.

Role of occupational therapy assistants in a variety of psychiatric settings and practice models emphasizing a functional approach and establishing therapeutic relationships between patient and therapist as well as psychosocial evaluation, treatment and documentation skills. Two lecture, twolab (OTA 242) hours per week. Prerequisite: OTA 203

## 204 OTA Seminar

2 Cr . Hrs.
Ethical and social issues affecting health care including identification of personal ethics, legal responsibility and liability, health legislation and reimbursement; overview of basic research techniques; preparation for national certification examination; development of resumes and interview skills.
Prerequisite: OTA 106

## 205 Assistive Technology for OTA <br> 2 Cr. Hrs.

Assistive technology used in the practice of occupational therapy for physically or cognitively disabled clients from childhood to senescence including adaptations for physical access and computer software;emphasis on current technology, clinical usage, evaluation of client needs and creative solutions to access problems. One lecture, two lab (OTA 245) hours per week.
Prerequisite: OTA 104
206 Therapeutic Leisure Skills 3 Cr. Hrs. Play and leisure's importance in maintaining health including exploration of personal and cultural attitudes, developmental nature of social interaction, leisure planning and adaptive activities with emphasis on use in clinical settings and age appropriate adaptations. Two lecture, two lab (OTA 246) hours per week
Prerequisite: OTA 203, OTA 210

## 210 Clinical Practicum I <br> R

## 2 Cr. Hrs.

Elective clinical experience to provide expanded opportunities to interact with a variety of diagnosis and clinical settings. Prerequisite: Signature of department chairperson.

## 211 Clinical Practicum II 2 Cr. Hrs.

 Intermediate experience in a different clinical setting involving structured observations, assisting with patient treatment under the direct supervision of a licensed occupational therapist or certified occupational therapy assistant and documentation of observations with weekly verbal report to peers. One lecture, eight clinical hours per week.Prerequisite: OTA 210

## 220 Clinical Affiliation I 3 Cr. Hrs.

First of two, eight-week assignments of advanced clinical experience under the supervision of a licensed occupational therapist or certified occupational therapy assistant which must be successfully completed before the student is eligible for certification examination. Forty contact hours per week in a clinical setting. Prerequisite: Signature of department chairperson

## 221 Clinical Affiliation II 3 Cr. Hrs.

 Advanced clinical experience under the supervision of a licensed occupational therapist or certified occupational therapy assistant which must be successfully completed before the student is eligible for certification examination. Forty contact hours per week for eight weeks in a clinical setting.
## Prerequisite: OTA 220

## 231 Treatment Issues I 9 Cr. Hrs.

Functional aspects of the diseases and conditions which are commonly referred to occupational therapy; focus on treatment modalities to increase levels of independence in activities of daily living; includes theory and application of basic skills in the management of the physical and psychosocial needs; role of occupational therapy assistants in a variety of settings and practice areas; establishing therapeutic relationships with clients and families, therapists, health care professionals; and adaptations for meeting physical and psychosocial needs. Five lecture, eight lab, eleven clinical hours per week.
Prerequisite: OTA 133

## 232 Professional Issues I 3 Cr. Hrs.

Issues of community wellness, low-techand high-tech adaptive technology needs of the client/consumer, OTA specialty areas, as well as reimbursement and ethical issues in an everchanging health care arena.
Prerequisite: OTA 231
233 Professional Issues II 3 Cr. Hrs.
Facilitation of problem solving during affiliation experiences including feedback on documentation, professional and ethical issues. Taken jointly with OTA 220 Clinical Affiliation I in a distance learning format. One lecture hour per week.
Prerequisite: OTA 232

## 234 Clinical Issues II <br> 1 Cr. Hr.

Facilitation of continued professional development while completing OTA 221 Clinical Affiliation II. Issues related to the transition from student to professional including development of resume and interview skills, identification of career goals and prospective employers, responsibilities to state and national professional organizations.
Prerequisite: OTA 233

## 241 Lab for OTA 201

Laboratory must be taken with OTA 201.

## 242 Lab for OTA 202

Laboratory must be taken with OTA 202.

## 245 Lab for OTA 205

Laboratory must be taken with OTA 205.
246 Lab for OTA 206
Laboratory must be taken with OTA 206.
251 Lab for OTA 231
Laboratory must be taken with OTA 231.

261 Clinical for OTA 231
Clinical must be taken with OTA 231 and OTA 251.
297 Special Topics in R 1-4 Cr. Hrs. Variable course content according to community and program needs for continuing education and state of the art techniques. Areas of special interest which would not fit or be appropriate for the regular OTA curriculum would also be presented.

## Physical Education (PED)

101 Beginning Swimming

R

## 1 Cr. Hr.

Elementary knowledge of swimming techniques and overcoming fear of water. Instruction in basic swimming strokes including front crawl plus elementary diving and water safety skills.
102 Intermediate Swimming
1 Cr . Hr.
Increases skill in basic swimming strokes, breast,sidestroke,backstroke,frontandback crawl plus diving and water safety skills.
105 Physical Fitness
R
1 Cr. Hr.
Provides exercise suited to individual needs and body types. Selected strength, endurance and flexibility activities. Increases understanding and appreciation of the values of physical activity and weight control.
106 Weight Training
1 Cr. Hr.
Develops muscle tone and muscle endurance through lifting (isotonic) exercises and includes philosophy, theory and programs designed for individual needs.

## 107 Flexibility Fitness

## 1 Cr. Hr.

A comprehensive flexibility program involving static and ballistic stretching exercises to improve the overall physical fitness level of the participant.

## 117 Badminton

Beginning skills, rules and regulations and strategy for both singles and doubles play. Skill development relates to the basic forehand and backhand swing plus the serve, clear and smash shots.

## 119 Golf

## 1 Cr . Hr.

Beginning skills, rules and regulations, equipment and supplies, safety factors plus courtesies. Includes basic swing along with chipping and putting.

## 125 Bowling

R

## 1 Cr . Hr .

Beginning skills, rules and regulations, and courtesies. Emphasis on the basic approach, delivery, follow through, plus scoring.

## 126 Volleyball



## $1 \mathrm{Cr} . \mathrm{Hr}$.

Develops basic skills including the various serves, spikes, sets, team strategy, rules and regulations, and skill techniques.

## 127 Basketball

## R

## 1 Cr. Hr.

Develops fundamental skills and techniques of basketball such as shooting, passing, dribbling and team strategy. Terminology, rules and basic drills.
131 Beginning Tennis
R
$1 \mathrm{Cr} . \mathrm{Hr}$.
Basic techniques and fundamental skills of tennis such as basic strokes (forehand, backhand, and serve), playing strategy, terminology, scoring, and rules.

## 132 Intermediate Tennis

R
1 Cr . Hr .
Intermediate skill techniques plus playing strategy for both singles and doubles related to shot selection and placement.

## 133 Advanced Tennis

R
$1 \mathrm{Cr} . \mathrm{Hr}$.
Develops advanced skill techniques related to actual game strategy and the psychological aspect of the competition.
134 Snow Ski Conditioning
R

## 1 Cr. Hr.

A general conditioning and/or fitness class designed specifically for skiers that develops cardiovascular endurance, muscle strength, and flexibility.
136 Beginning Yoga
R
$1 \mathrm{Cr} . \mathrm{Hr}$.
Introduction and practical application of basic yoga methods including a historical and philosophical review.
137 Intermediate Yoga
R
$1 \mathrm{Cr} . \mathrm{Hr}$.
Intermediate skills regarding positions and methods of yoga.
Prerequisite: PED 136 or equivalent skills

## 142 Beginning Pilates

R

## $1 \mathrm{Cr} . \mathrm{Hr}$.

Pilates strengthens muscles, improves posture and balance, provides flexibility, and focuses on training the mind and body to work together toward the goal of overall health/fitness.
144 Advanced Jogging/Fitness R
2 Cr. Hrs.
Develops knowledge and procedure(s) for obtaining advanced jogging/fitness. Detailed, individually suited formulated running and exercise program.
148 Beginning Social Dance

## $1 \mathrm{Cr} . \mathrm{Hr}$.

Basic skills of social dancing including ballroom dances, such as the foxtrot, waltz, swing, cha-cha and rumba, along with additional musical knowledge.

## 149 Intermediate Social Dance R

 1 Cr . Hr . Improves knowledge and skill related to the popular ballroom dance steps, developing grace and self-confidence.
## 151 Beginning Square Dance

Develops basic skills of square dancing while responding to a caller's voice. Fifty basic movements are taught.
152 Intermediate Square Dance $\quad$ R
1 Cr . Hr .
Develops seventy-five basic skills associated with modern square dance.
Prerequisite: PED 151 or equivalent skills
153 Water Aerobics
1 Cr . Hr .
A fitness concept comprised of a series of exercises performed in the water with music. Swimming ability is not required.

## 154 Aerobic Conditioning

R
1 Cr . Hr .
A program of fitness composed of exercise routines performed with music. Aerobics allows the individual to increase cardiovascular endurance, flexibility, and strength through selected dance routines.

## 161 Beginning Racquetball

$1 \mathrm{Cr} . \mathrm{Hr}$
A basic understanding of the rules and regulations, equipment and supplies, safety factors, fundamental skill techniques and strategy. Emphasis on positioning, stance, grip, basic strokes, and serving.
162 Intermediate Racquetball
$1 \mathrm{Cr} . \mathrm{Hr}$.
Develops intermediate skills and techniques. Emphasis on shot selection, placement, strategy and overall consistency.
163 Advanced Racquetball
Advanced skills and techniques. Emphasis on shot selection, placement, strategy, and the psychological aspect of the game.

## 165 Country Western Dance

R 1 Cr . Hr . Develops the fundamental skills and techniques required for the style and fluidity of movement related to Country Western dancing. Basic movement patterns ofsteps, turns, and breaks at the beginning level.

## 166 Fitness Walking

## 1 Cr . Hr .

Stresses techniques of power walking, physiological involvement, proper stretching exercises, diet and nutrition and mobile meditation related to cardiovascular improvement.

## 167 Lifetime Fitness

1 Cr . Hr .
To provide students the opportunity to experience a variety of lifetime physical activities/exercises that will maintain or improve their quality of life.
168 Advanced Weight Training R 2 Cr . Hrs. Advanced weight training methods in resistive weight training, including body building, power lifting, and lifting related to specific goals; individually suited.
170 Tai Chi
R
1 Cr . Hr .
The ancient art of Tai Chi Chuan was developed out of the Taoist traditions in China. The Taoists were interested in the rhythms of nature. Since people are a part of nature, they devised movements and breathing techniques that would bring people into harmony with their environment. Tai Chi can be done for health, meditation or martial arts, but today it is mostly practiced for its health benefits, which are well documented by various scientific studies.

## 171 Beginning Self Defense

$$
1 \mathrm{Cr} . \mathrm{Hr} .
$$

Development of fundamental skills and techniques associated with the martial arts, which represent a combination of Karate, Judo and Aikido.

## 172 Intermediate Self Defense R 1 Cr . Hr .

Development of the intermediate skills related to the martial arts.

## 174 Practical Aspects of Self Defense for Women R 1 Cr . Hr .

A personal self-defense class involving a basic collection of knowledge and skill related to prevention, non-physical responses, and physical responses. Current research and analysis of the dynamics of sexual assault.

## 176 Core Conditioning

R
1 Cr . Hr .
Core conditioning strengthens and stablilizes the deepest of the trunk muscles, improves posture and increases flexibility and balance by maintaining mobility and stability.

## 193 Physical Fitness Evaluation R

 1 Cr . Hr .Evaluation of basic physical fitness level in cardio-respiratory endurance, flexibility, strength, and body composition on an individual basis in order to enhance selection of physical activities as well as the desirable level to best meet personal needs.

## 199 Computer Applications in Physical Education <br> 2 Cr . Hrs.

Provides student with fundamental knowledge of computer functions, terminology and programming; includes computer application in physical education and athletics.

## 200 First Aid \& Safety 2 Cr. Hrs.

Prevention and care of injuries occurring from accidents in the home, school, and community. Successful completion of the class will result in the student obtaining Red Cross certification in community first aid and CPR.
203 Advanced Swimming R 1 Cr . Hr .
Advanced skill development in the basic swimming strokes; breast, side, back, front, and back crawl. Additional work will be done in underwater areas, diving and survival skills.

## 204 Advanced Aerobic Conditioning R 2 Cr . Hrs .

A fitness concept made up of exercise routines done with music; increases endurance, flexibility, and strength beyond beginning level.

## 208 Cardiopulmonary Resuscitation R

 1 Cr . Hr.Basic life support for cardiac arrest, artificial respiration and artificial circulation. Red Cross CPR certification upon successful completion of the course.

## 209 Beginning Scuba Diving

## 2 Cr. Hrs.

Nationally certified PADI open-water scuba course. Diving physics and physiology, safe use of diving equipment, communications, safety rules and problem management, general diving skills required for certification. Open-water certification available at additional cost.

## 210 Intermediate Bowling

R

## $1 \mathrm{Cr} . \mathrm{Hr}$.

Fundamentals of bowling are reviewed with emphasis on teaching intermediate techniques in the following areas: approach, delivery, pin-aim or spot-aim method and spare making.
Prerequisite: PED 125 or equivalent skills

## 211 Intermediate Volleyball

R

## $1 \mathrm{Cr} . \mathrm{Hr}$.

Basic skills of volleyball are reviewed and practiced with emphasis on intermediate techniques. Drills, practice procedures, and team strategy are discussed.

## 212 Advanced Volleyball

$$
1 \mathrm{Cr} . \mathrm{Hr} .
$$

Intermediate skills will be reviewed and practiced with emphasis on body mechanics. The development of advanced offensive and defensive team strategy necessary for competitive play will be stressed.

215 Basketball Officiating 2 Cr. Hrs. Basketball officiating includes basic knowledge about rules, regulations and officiating techniques. Materials will be supplied by O.H.S.A.A. and students passing the final exam will be certified to officiate in Ohio.

## 216 Football Officiating 2 Cr. Hrs.

Basic information about rules, regulations and officiating techniques. Materials will be supplied by O.H.S.A.A. Students passing the final exam will be certified to officiate in Ohio.

## 217 Baseball Officiating 2 Cr. Hrs.

Basic information about rules, regulations and umpiring techniques in baseball. Materials supplied by O.H.S.A.A. Students passing the final exam will be certified to officiate in Ohio.

## 219 Standard First Aid \& Cardiopulmonary Resuscitation 3 Cr. Hrs.

Basic principles related to personal safety, accident prevention, treatment and cardiopulmonary resuscitation. National Red Cross Certification will be issued upon successful completion of the class.
224 Intermediate Golf
R
1 Cr . Hr.
Basic fundamentals are reviewed with emphasis on intermediate skills. Grip, stance and swing, chipping and putting are reviewed and shot selection and strategy are emphasized.

## 229 Advanced Open Water Scuba Diving

R
2 Cr. Hrs.
Recommended for diving enthusiasts who want to further their diving skills with various challenging and interesting open water dives.
Prerequisite: PED 209, current scuba certification or permission of instructor

## 231 Rescue Diving

R
2 Cr. Hrs.
Prepares the student to better manage realistic rescue situations in addition to developing an increased awareness of dive safety and the anticipation and prevention of potential diving problems. One lecture, two lab hours per week.
Prerequisite: PED 209, PED 229

## 234 Concepts of Total Fitness R

3 Cr. Hrs.
Orientation to concepts of total fitness with emphasis on evaluation and maintenance; development of lifetime concept of fitness reflecting a positive health lifestyle.
235 Introduction to Physical Education 3 Cr. Hrs.
The profession of physical education, its history, basic principles, relation to growth and mental health. Professional opportunities in health, physical education, and recreation.

## 236 Personal \& Community Health

3 Cr. Hrs.
Enables the student to build a philosophy of health. Basic health principles and theories are applied to both personal and community health problems on a local and national level.

## 237 Organization \& Administration of Intramurals <br> 2 Cr. Hrs.

Philosophy and program development for the intramural program. Includes promotion, awards, officiating, rules and organization for competition.

## 238 Physical Education for the <br> Elementary School <br> 3 Cr. Hrs.

Designed to acquaint students with a variety of teaching techniques; to review current programs and practices in elementary physical education and to plan physical education classes for elementary students.
239 Athletic Injuries
3 Cr. Hrs.
Application of principles involved in prevention, care and treatment of athletic injuries.
245 Coaching Baseball 2 Cr. Hrs.
Theory, skills, strategies and methods of coaching baseball.
246 Coaching Basketball 2 Cr. Hrs.
Theory, skills, strategies and methods of coaching basketball.

## 247 Coaching Football 2 Cr. Hrs.

Coaching philosophy, skill development, drills, strategies, organizational format, scheduling, budget, scouting, plus other related information.

## 248 Coaching Soccer 2 Cr. Hrs.

Coaching philosophy, skill development, drills, strategies, organizational format, scheduling, budget, scouting, plus other related information.

## 253 Advanced Water Aerobics R

2 Cr. Hrs.
An advanced fitness concept comprised of a series of exercises performed in the water with music.
270 Physical Education Internship R 1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 297 Special Topics In Physical Education

R
1-3 Cr. Hrs.
Opportunity for students to receive credit for both non-traditional and traditional courses, workshops or special interest topics in the discipline of physical education.

## Philosophy (PHI)

204 Great Books: Philosophy 3 Cr. Hrs. Introduction to selected great books in the history of Western Philosophy. Three eras will be introduced (ancient/medieval, modern, and contemporary) and studied within their respective historical contexts and as an exercise in critical thinking.

## 205 Introduction to Philosophy

3 Cr. Hrs.
Basic nature of philosophy, its relationship to physical and social sciences and theology and its value to the individual.

## 206 Personal Ethics

3 Cr. Hrs.
Historical inquiry into the major concepts and attitudes of moral and ethical theory in Western society, emphasizing the role of human responsibility and the conditions for making ethical judgements.

## 207 Logic

3 Cr. Hrs.
Principle elements in deductive and inductive logic. Analysis of three acts of the intellect and the laws of reasoning. Application of principles to specific cases.

## 209 Business Ethics 3 Cr. Hrs.

Evaluates the moral values, standards and practices of contemporary business through case studies.

## 297 Special Topics

## R

1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in philosophy.

## Physics (PHY)

100 Introduction to Physics 4 Cr. Hrs. A survey of motion, forces, energy, heat, gas laws, kinetic theory, electricity, and magnetism. Three lecture, three lab hours per week (PHY 110).
Prerequisite: DEV 108 or equivalent

## 104 Sound, Light \& Modern Physics

## 4 Cr. Hrs.

Survey of sound, music, light, color, atomic and nuclear physics and relativity for non-science majors. Three lecture, three lab hours per week (PHY 119).
Prerequisite: PHY 100
106 Physics for Radiologic Technology
5 Cr. Hrs.
Concepts of electrical energy, electromagnetic energy, production of x-radiation, interaction with matter, and the x-ray tube, circuitry and special equipment. Four lecture, two lab hours per week (PHY 107).

## 107 Lab for PHY 106

Laboratory must be taken with PHY 106.

## 110 Lab for PHY 100

Laboratory must be taken with PHY 100.

## 119 Lab for PHY 104

Laboratory must be taken with PHY 104.

## 131 Technical Physics I 4 Cr. Hrs.

Non-calculus mechanics including kinematics, dynamics, statics, work, energy, power, complex motions and fluids. Three lecture, three lab hours per week. Prerequisite: MAT 132 or equivalent

## 132 Technical Physics II 4 Cr. Hrs.

Non-calculus properties of matter, heat, thermodynamics, waves, sound and light. Three lecture, three lab hours per week. Prerequisite: PHY 131

## 133 Technical Physics III 4 Cr. Hrs.

A non-calculus course in electricity including electrostatics, electric fields, D.C. electric circuits, capacitance, magnetism, electro-magnetic induction, and alternating current. Three lecture, three lab hours per week.
Prerequisite: PHY 131

## 141 College Physics I

4 Cr. Hrs.
Algebra-based university parallel sequence in mechanics including vectors, statics, kinematics, dynamics, work and energy, momentum, and circular motion. Three lecture, three lab hours per week Prerequisite: MAT 116 or equivalent

## 142 College Physics II

4 Cr . Hrs.
Algebra-based university parallel sequence in properties of matter, hydrostatics and fluid dynamics, heat and thermodynamics, periodic motion, waves, and sound. Three lecture, three lab hours per week.
Prerequisite: PHY 141

## 143 College Physics III 4 Cr. Hrs.

 Algebra-based university parallel sequence in electrostatics, D.C. and A.C. circuits, electromagnetism, and optics. Three lecture, three lab hours per week.
## Prerequisite: PHY 141

## 151 Mechanical Universe I 3 Cr. Hrs.

Principles of mechanics with emphasis on historical development of physics as well as the role of mathematics in physics; motion, Newton's laws, conservation laws. Prerequisite: MAT 116 or equivalent

## 152 Mechanical Universe II 3 Cr. Hrs.

Gravity, electricity, magnetism and the theory of relativity emphasizing historical development of physics as well as the role of mathematics in physics.
Prerequisite: PHY 151
153 Mechanical Universe III 3 Cr. Hrs. Vibrations, waves, optics, thermal and quantum physics emphasizing historical development of physics as well as the role of mathematics in physics.
Prerequisite: PHY 152

157 Physics Laboratory I 1 Cr. Hr. Additional laboratory experiences to supplement an introductory physics course dealing with mechanics. Note: Corequisite PHY 151 or permission of instructor
158 Physics Laboratory II 1 Cr. Hr. Additional laboratory experience to supplement an introductory physics course dealing with electricity and magnetism. Note: Corequisite PHY 152 or equivalent.
159 Physics Laboratory III 1 Cr. Hr.
Additional laboratory experiences to supplement an introductory physics course dealing with vibrations and waves, optics, thermodynamics and quantum mechanics. Note: Corequisite PHY 153 or equivalent.

## 201 General Physics I

6 Cr. Hrs.
Fundamentals of mechanics including kinematics, dynamics, work and energy, momentum using calculus as appropriate. Five lecture, three lab hours per week (PHY 207). Note: Corequisite MAT 201. Prerequisite: MAT 201 or equivalent

## 202 General Physics II <br> 6 Cr. Hrs.

Oscillations, gravity, fluids, waves, sound, thermodynamics and kinetic theory, geometrical and wave optics, using calculus as appropriate. Five lecture, three lab (PHY 208) per week. Note: Corequisite MAT202. Prerequisite: PHY 201
203 General Physics III 6 Cr. Hrs.
Electrostatics, D.C. conduction and circuits, magnetism, electromagnetic induction, quantum mechanics and special relativity. Calculus used extensively. Five lecture, three lab (PHY 209) per week. Note: Corequisite MAT 203.
Prerequisite: PHY 202

## 204 General Physics IV 4 Cr. Hrs.

Geometrical and wave optics, relativity and quantum physics, incorporating calculus as appropriate. Three lecture, two lab hours per week.
Prerequisite: PHY 202

## 207 Lab for PHY 201

Laboratory must be taken with PHY 201.

## 208 Lab for PHY 202

Laboratory must be taken with PHY 202.

## 209 Lab for PHY 203

Laboratory must be taken with PHY 203.

## 245 Concepts in Physics 5 Cr. Hrs.

Basic concepts and applications including position, motion, forces, electricity, magnetism, and light using the inquiry learning environment, which emphasizes science process skills, integrated with mathematics. Elementary education majors only. Four hours of lecture, three hours of lab per week.
Prerequisite: MAT 110, ENG 112, ASE 145

270 Physics Internship

## 2-12 Cr. Hrs.

Designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgment of that learning with internship credit upon submission of a portfolio to an evaluation committee. Younger students with limited experience will participate in selected nonclassroom experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and/or projects are submitted each quarter.
295 Independent Study in Physics R 1-3 Cr. Hrs.
Investigates areas of special interest under the direction of physics faculty. Course may be repeated once but not to exceed six credit hours. Open to second year students with 3.0GPA in physics and mathematics.

## 297 Special Topics

## R

1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in physics. Objectives will vary with the particular content area.

## Plastics Technology (PLA)

## 106 Introduction to Plastics

 Technology4 Cr. Hrs. Introduction to the plastics industry. Plastics terminology, materials and product development including an overview of basic processing methods with an emphasis on safe operating procedures.

## 150 Plastics Processing Equipment Fundamentals <br> 4 Cr. Hrs.

Applied study of equipmentoperating principles, including applied hydraulics, pneumatics and basic electrical theory as related to plastic processing machinery.Equipment suppliers, basic troubleshooting and safety procedures are also reviewed.
Prerequisite: PLA 106

## 208 Plastics Materials Processing I 4 Cr. Hrs.

An overview of different plastics materials and the application of various processing methods such as compression, extrusion, injection, thermoforming, molding and fabrication to produce products. Three lecture, two lab hours per week.
Prerequisite: PLA 150

210 Plastics Materials Testing 4 Cr. Hrs. Utilize material resource information in the application of testing methods and procedures to determine pertinent product properties for raw stock through compounded material to final finished product. Three lecture, two lab hours per week. Prerequisite: PLA 208 or permission of instructor
220 Extrusion (Process II) 4 Cr. Hrs.
Detailed examination of the extrusion and blow molding machines and processes through a combination of lecture and laboratory sessions emphasizing processing fundamentals. Experience with the basics of extruder operation and process trouble shooting techniques in preparation for extrusion certification. Three lecture, two lab hours per week.
Prerequisite: PLA 208 or permission of instructor

## 225 Injection Molding (Process II) 4 Cr. Hrs.

Detailed examination of the injection molding machine and process through a combination of lecture and laboratory sessions emphasizing processing fundamentals. Experience with injection molding machine operation and process trouble shooting techniques in preparation for molder certification. Three lecture, two lab hours per week.
Prerequisite: PLA 208 or permission of instructor

## Political Science (PLS)

## 101 American Federal Government I

 3 Cr. Hrs.American political system at the national level, process of government, democratic theory and development of the Constitution, citizen participation through voting, interest groups and political parties.

## 102 American Federal Government II 3 Cr. Hrs.

American political system at national level, structure and functions of legislative, executive and judicial branches. Issues of civil liberties and equal rights.

## 103 State Government 3 Cr. Hrs.

Organization and operation of state governments, evolution of constitutions, elections, political parties, the three branches of government, and finances and taxation.
104 Urban Government 3 Cr. Hrs.
Organization, powers, functions, and problems of cities and metropolitan areas (particularly in Ohio), modern trends in budgeting and finance.

## 200 Political Life, Systems \& Issues 3 Cr. Hrs.

Basic political and government concepts and systems, including ideologies and political systems; current political issues in Asia, Africa, Europe, Latin America, along with United States interests and policy options.
201 International Relations 3 Cr. Hrs. Principles and techniques of international politics emphasizing different world perspectives.

## 205 Model United Nations/

International Issues 1-3 Cr. Hrs.
History and structure of the United Nations with an in-depth look at selected current world issues; participation in model U.N. simulations, and opportunity to attend Dayton Model United Nations Conference.
270 Political Science Internship R 1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 297 Special Topics <br> R

1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in political science.

## Printing Technologies (PRT)

101 Graphic Arts Processes I 3 Cr. Hrs. Development and evaluation of printing processes including letterpress, gravure, flexographic, offset, silk screen, the kinds of work for which they are designed. two lecture and four lab hours per week.
102 Graphic Arts Processes II 4 Cr. Hrs.
An expansion of the specific technology relating to PRT 101. Solving print related problems and estimating. Two lecture, four lab hours per week.
Prerequisite: GRA 101 or PRT 101

## 120 Screen Printing I <br> 3 Cr. Hrs.

An introduction to producing a textile print, from preparing camera ready art to printing the finished product.

## 121 Screen Printing II 3 Cr. Hrs.

Process and techniques for producing multiple color textile prints, from preparing camera ready art to printing the finished product. One lecture, four lab hours per week.
Prerequisite: PRT 120

205 Printing Estimating I 3 Cr. Hrs. Combines the fundamental concepts of mathematics with applications in the areas of the printing industry. Topics included are fractions, decimals, ratio, proportion, percentage, the British and metric systems of measurement, angular measurement, graphs and charts, and paper stock.

## 211 Prepress Basics <br> 3 Cr. Hrs.

An introduction to the traditional and digital prepress techniques and processes, including; process camera operation, special uses of films, darkroom techniques, line and halftone negatives, proofs and basic stripping procedures. One lecture, four lab hours per week.
Prerequisite: PRT 101

## 221 Offset Presswork I 3 Cr. Hrs.

A study of basic offset printing. Characteristics and operations of the duplicator size presses. A study of various types of dampening systems. Understand the required adjustments necessary for quality printing. Prerequisite: PRT 101

## 222 Offset Presswork II <br> 3 Cr. Hrs.

Techniques of operation and control, study of various moistening systems, comparison of wet and dry forms of lithography. Understanding the required adjustments necessary for top quality printing. Use of pressroom and quality control equipment.
Prerequisite: PRT 221
270 Graphic Arts Internship
R
1-9 Cr. Hrs.
See EBE 270 Internship for course description.

## 271 Digital Prepress I 3 Cr. Hrs.

Fundamentals of digital prepress and the techniques used to prepare page layouts and designs for printing.
Prerequisite: VIS 148

## 272 Digital Prepress

3 Cr. Hrs.
Advanced digital prepress and color separation techniques used to prepare page layouts and designs for printing.
Prerequisite: PRT 271

## 278 Printing Technologies Capstone

3 Cr. Hrs.
Management of live job from initial client contact to finished printed product using skills and techniques learned in prior printing technology courses as well as resources available in the Design department. One lecture, four lab hours per week.
Prerequisite: PRT 272

## Psychology (PSY)

105 Survey of Psychology 3 Cr. Hrs. An overview of the field of psychology and covers biological, social, and psychological factors influencing human behavior. Appropriate for some technical programs. NOT accepted as general psychology requirement by many Sinclair and university parallel programs. See PSY 119 or PSY 121-122 as alternatives.

## 117 Psychology of Deafness 3 Cr. Hrs.

 Primary psychological issues in the development and functioning of hearing impaired persons; resources for promoting psychological growth. Topics include: intellectual functioning, personality issues, personal/social adjustment issues, family dynamics.
## 119 General Psychology 5 Cr. Hrs.

 Accelerated university parallel course covering the same content as PSY 121 and 122. Students should have good reading and comprehension skills.121 General Psychology I 3 Cr. Hrs. Covers history and methods, physiology and behavior, sensation/perception,learning/memory, consciousness, personality and social psychology. Many SinclairCommunity College and university parallel programs will not accept PSY 121 without subsequent completion of PSY 122.
122 General Psychology II 3 Cr. Hrs. Developmental psychology, thinking/intelligence, motivation and emotion, stress, abnormal behavior and therapies.
Prerequisite: PSY 121
126 Stress Management 3 Cr. Hrs. Opportunity for experimental learning through personal application of diverse theories governing ways to cope with distress and covering: self esteem, self disclosure, assertiveness, type A behavior, personality factors,holistichealth, relaxationtechniques and communication patterns.
130 Effective Parenting 3 Cr. Hrs.
Applies techniques available for interacting with children and covers communication techniques, value clarification, parental expectations, learning principles, disciplinary techniques, family dynamics, sexuality, and family problem solving.

## 135 Living with Loss, Death, \& Grief

3 Cr. Hrs.
Integrates multi-dimensional aspects of living with loss and grief and covers experiences of loss, grief, imperatives for care givers, cultural and religious differences in beliefs and practices, children's comprehension, experiences and adjustments to loss, legal and ethical issues.

140 Psychology of Interaction \& Human Potential

3 Cr. Hrs.
Techniques for personal growth, helping relationships, and more effective human interactions and covers congruent personality, modes of communication, determination of individual needs and purpose, assertiveness, conflict resolution, active listening, reality therapy, and human encounter. This course is offered as part of the Adult ReEntry program.

## 141 Love \& Personal Growth 3 Cr. Hrs.

Research and theory concerning scientific definitions of love, and the development of love throughout the life cycle with special focus being given to communication styles, lifestyles, values, and morality.

## 142 Self-Esteem Building Life Skills <br> 3 Cr. Hrs.

Theory and techniques to develop effective interpersonal relationships. Overview of self-esteem skills; application and evaluation of skills associated with solution options for interpersonal problems. A road map for success in building personal self-esteem, managing interpersonal relationships, and developing life skills to help achieve life goals.

## 145 Patterns of Human Relationships 3 Cr. Hrs.

Theoretical perspectives of traditional and nontraditional styles of relating and covers how our psychological development affects choices of partners, effects of culture and historical age on relating, love/ romance, power, jealousy, loneliness and fairness, equity theory, therapeutic intervention and sexuality.

## 160 African-American Psychology 3 Cr . Hrs.

Multi-disciplinary study of the theories, cultural themes and the psychological constructs used to further understanding of the thoughts, feelings and behaviors of African-Americans.

## 205 Child Development 4 Cr. Hrs.

 Research and theory concerning the physical, cognitive, social and moral development of children from conception to puberty and covers the impact of biological and prenatal factors, environmental issues appropriate to this age range.Prerequisite: PSY 119 or PSY 122
206 Adolescent \& Adult Psychology
3 Cr. Hrs.
Research and theory concerning the physical, cognitive, social and moral development from adolescence to old age, focusing on developmental tasks and issues such as education, marriage, family, work, leisure, and facing death.
Prerequisite: PSY 119 or PSY 122

207 Psychology of Aging 3 Cr. Hrs.
Research and theory concerning the physical, cognitive, and social issues of aging. Prerequisite: PSY 119 or PSY 122

## 208 Life Span Human Development

5 Cr. Hrs.
Research and theory concerning the physical, cognitive, social, and moral development of a person from conception to death and covers conception, prenatal, and child development issues, definition and tasks of adolescence, adult life crisis, marriage, family, work, leisure and facing death.
Prerequisite: PSY 119 or PSY 122

## 217 Abnormal Psychology 4 Cr. Hrs.

Overview of the current theory and research concerning the causes, symptoms, and treatment of various behavioral disorders. Current mental health resources are examined.
Prerequisite: PSY 119 or PSY 122

## 218 Principles of Counseling 4 Cr. Hrs.

Techniques and theories of counseling with an emphasis on the development of basic interviewing and counseling skills. Prerequisite: PSY 119 or PSY 122

## 223 Cognitive Psychology 4 Cr. Hrs.

In depth review of research and theories relating to human mental functioning including learning, memory, attention, perception, language, thinking, creativity, problem solving, neurology and cognitive development.
Prerequisite: PSY 119 or PSY 122
225 Social Psychology 4 Cr. Hrs. Interaction between individual and social environment and covers self-concept formation, attitudes, attribution, group structure and processes, prejudice, aggression and violence, penal reform, advertising and propaganda, and other social concerns.
Prerequisite: PSY 119 or PSY 122

## 228 Psychology in the Workplace

4 Cr . Hrs.
Application of psychology to four areas within business and industry: personnel, organizational behavior, human factors engineering and consumer behavior, and covershiring, testing, worker evaluations, job satisfaction, communication and conflict and change within an organization, physical variables in the work environment and in the design of products, advertising and selling.

## 229 Work Group Dynamics 3 Cr. Hrs.

 Research and theory from a psychological perspective regarding the nature of work teams and the social and interpersonal processes which operate within groups in manufacturing and engineering workplaces; experiential focus through applications of work group theory and methods.
## 235 Research Methods for Social Sciences <br> 4 Cr. Hrs.

Research methods used in the social sciences and covers variables, control of variables, selection of subjects, gathering of data, analysis of results and reading and writing research reports.
Prerequisite: PSY 119 or PSY 122

## 236 Behavioral Science Statistics 4 Cr. Hrs.

Basic statistical techniques for those planning a social science major and covers frequency distribution, measures of central tendency and distribution, linear and rank order correlation, hypothesis testing, tests of significance and analysis of variance.
Prerequisite: PSY 235
242 Educational Psychology 4 Cr. Hrs. Principles of learning and development applied in educational settings. Presents research evidence to develop and provide effective learning experiences in various educational environments.
Prerequisite: PSY 119 or PSY 122
270 Psychology Internship R 1-6 Cr. Hrs.
Involvement in a field related experience outside the classroom setting, in which the learning outcome in the form of evaluation will be determined by the supervising Psychology instructor.
Prerequisite: PSY 119 or PSY 122
295 Independent Study in Psychology R 1-4 Cr. Hrs.
Students who have an identified interest in an area of psychology to explore that area in depth under faculty direction. May be repeated but not to exceed a total of six credit hours.

## 297 Special Topics

R
1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses, workshops and special interest topics in the discipline of psychology.

## Physical Therapist Assistant (PTA)

## 105 Principles of Physical Therapist Assistant <br> 3 Cr. Hrs.

Purpose, philosophy, history and development of the physical therapy profession, including the function of the American Physical Therapy Association. Physical therapist assistant duties, functions, legal responsibilities and limitations, including medical ethics and patient records.

## 106 Introduction to Physical Therapy

 2 Cr. Hrs.Purpose, philosophy, history and development of the Physical Therapy profession. PTA duties, essential functions, legal and ethical responsibilities and professional behaviors. Function of regulatory agencies, licensing bodies and professional associations.

## 110 Fundamentals of PTA Practice

 3 Cr. Hrs.Scope and practice of the PTA. Introduction to human response, critical thinking, decision making and collaborative practice. Foundation therapeutic communication and documentation with emphasis on medical terminology for the PTA.
Prerequisite: PTA 106

## 115 Medical Terminology for PTA <br> 2 Cr. Hrs.

Structure of medical words including spelling and definitions, common prefixes, suffixes and root words; anatomical body parts, diseases, operations, which are emphasized by analysis of the terms and structure of the words.
116 Movement Science I 5 Cr. Hrs. Clinical kinesiology with emphasis on integration of anatomy, physiology, physics and geometry in relationship to human movement. Three lecture, four lab hours per week.
Prerequisite: BIO 142, chairperson signature

## 117 Lab for PTA 116

Laboratory must be taken with PTA 116. 118 Movement Science II 5 Cr. Hrs. Continuation of clinical kinesiology with emphasis on the effect of movement on posture, gait analysis, transfer techniques and body mechanics. Three lecture, four lab hours per week.
Prerequisite: PTA 116, chairperson signature

## 119 Lab for PTA 118

Laboratory must be taken with PTA 118.
120 Pathology \& Clinical Practice 3 Cr. Hrs.
Study of disease and pathology in body systems;psychological pathology signs and symptoms; pharmacology; diagnostic tests and values. Recognize and manage physiological response in body systems related to physical therapy interventions in commonly treated pathological conditions.
Prerequisite:PTA116 or chairperson signature

## 121 Physical Therapist Assistant Procedures I <br> 6 Cr. Hrs.

Basic physiology and theory of heat, cold, hydrotherapy and massage; body mechanics, burns, isolation technique, and traction. Three lecture, six lab hours per week (PTA126).
Prerequisite: PTA 105, PTA 115

## 122 Physical Therapist Assistant Procedures II <br> 6 Cr. Hrs.

Theory and therapeutic application of modalities such as low and high frequency currents, bio-feedback, TENS, Jobst extremity pump and diathermy. Three lecture, six lab hours per week (PTA 127). Prerequisite: PTA 121

## 123 Physical Therapist Assistant Procedures III <br> 5 Cr. Hrs.

Theory and practice of therapeutic exercises used in physical therapy. Principles of muscle testing, goniometry, joint range of motion, flexibility, coordination, strengthening and endurance exercise programs. Exercises for specific joints, diseases, and medical conditions. Three lecture, four lab hours per week (PTA 128).
Prerequisite: PTA 122

## 124 Clinical Procedures I 5 Cr. Hrs.

Physiology and clinical rationale for use and application of passive and mechanical physical agents with emphasis on application of the treatment plan, documentation of progress and attainment of treatment goals.
Prerequisite: PTA 116
125 Lab for PTA 124
Laboratory must be taken with PTA 124.
126 Lab for PTA 121
Laboratory must be taken with PTA 121.

## 127 Lab for PTA 122

Laboratory must be taken with PTA 122. 128 Lab for PTA 123
Laboratory must be taken with PTA 123.
130 Clinical Procedures II 4 Cr. Hrs.
Introduction to injuries and diseases of the nervous, muscular, skeletal, and cardiopulmonary systems commonly treated in P.T. practice and the theory and clinical rationale for use and application of therapeutic exercises and functional activities to treat these specific disorders. Emphasis will be placed on case studies and patient teaching in a variety of settings and across age groups.
Prerequisite: PTA 118

## 131 Lab for PTA 130

Laboratory must be taken with PTA 120.

## 134 Tests \& Measures 3 Cr. Hrs.

Application of standardized tests and measures including goniometry, manual muscle testing, cardiovascular and pulmonary response, balance and endurance. Understanding diagnostic procedures and tests. One lecture, six lab hours per week.
Prerequisite: PTA 118 or PTA 124
135 Anatomy \& Kinesiology 6 Cr. Hrs. Advanced anatomy designed specifically for the physical therapist assistant student. Bone and muscular structure in detail as well as locomotion, work and force. Three lecture, six lab hours per week (PTA 136). Prerequisite: PTA 105, BIO 122

## 136 Lab for PTA 135

Laboratory must be taken with PTA 135.
137 Lab for PTA 134
Laboratory must be taken with PTA 134. 211 Clinical Practicum I 3 Cr. Hrs. Introductory experience in the clinical setting under supervision of a P.T. or PTA clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions.
Prerequisite: PTA 221, PTA 223
212 Clinical Practicum II 3 Cr. Hrs. Intermediate experience in the clinical setting under supervision of a P.T. or PTA clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions.
Prerequisite: PTA 211
213 Clinical Practicum III 3 Cr. Hrs.
Advanced experience in the clinical setting under supervision of a P.T. or PTA clinical instructor. Application of entry level performance including communication skills, problem solving, critical thinking and safety in therapeutic interventions.
Prerequisite: PTA 212
221 Clinical Procedures III 2 Cr. Hrs.
Physiology and clinical rationale for use and application of athermal and deep thermal physical agents. One lecture, two lab hours per week.
Prerequisite: PTA 124

## 222 Lab for PTA 221

Laboratory must be taken with PTA 221.
223 Therapeutic Exercise II 4 Cr. Hrs. Advanced theory and rationale for use of therapeutic exercises and functional activities, recognition and treatment of orthopedic conditions, complex and specialized diagnoses across the life span (cardiovascular, pulmonary, obstetric, and endocrine disorders) as seen in PT practice. Two lecture, four lab (PTA 224) per week.
Prerequisite: PTA 130
224 Lab for PTA 223
Laboratory must be taken with PTA 223.

## 226 Clinical Procedures III 5 Cr. Hrs.

Theory and clinical rationale for use and application of massage, soft tissue and joint mobilization with emphasis on functional outcomes and patient education. Three lecture, four lab hours per week. Prerequisite: PTA 221

## 228 Lab for PTA 226

Laboratory must be taken with PTA 226.

## 230 Neuroscience for the PTA

2 Cr. Hrs.
Structure and function of the nervous system including interaction of the component parts. Changes in system across the life span and impact on human movement. Prerequisite: PTA 225

## 231 Rehabilitation Procedures I

5 Cr. Hrs.
Basic rehabilitation skills relating to posture principles, gait patterns, transfer techniques, wheelchair features, and activities of daily living. Three lecture, four lab hours per week (PTA 236).
Prerequisite: PTA 122

## 232 Rehabilitation Procedures II

5 Cr. Hrs.
Rehabilitation for spinal cord injuries, amputees, cerebrovascular accidents, pediatrics, head trauma, cardiac and neurological problems. Care and usage of orthotics and prosthetics. Three lecture, four lab hours per week (PTA 237).
Prerequisite: PTA 231

## 233 Rehabilitation Skills 5 Cr. Hrs.

Therapeutic interventions for neurological, cardiovascular and pediatric pathologies. Wheelchair, orthotic and prosthetic use. Three lecture, four lab hours per week. Prerequisite: PTA 230

## 234 Lab for PTA 233

Laboratory must be taken with PTA 233.
235 Practice Management 3 Cr. Hrs.
Study of management concepts, administrative skills and professional issues in the operation of a P.T. practice. Comprehensive review of curricular content.
Prerequisite: PTA 226

## 236 Lab for PTA 231

Laboratory must be taken with PTA 231. 237 Lab for PTA 232
Laboratory must be taken with PTA 232.

## 240 Clinical Procedures Review

1 Cr. Hr.
Comprehensive review of curricular content with required competency of technical skills.
Prerequisite: PTA 221 or PTA 223

## Purchasing (PUR)

201 Purchasing Principles 3 Cr. Hrs. The contribution of the purchasing organization within the firm; development of sources of supply; purchasing procedures, policies, and techniques. Basic functions of procurement and materials management common to manufacturing, service, and government organizations.

202 Advanced Purchasing 3 Cr. Hrs. In-depth approaches to actual situations encountered by purchasing personnel: quality, pricing, types of contracts, international purchasing, and the more challenging aspects of government purchasing. Prerequisite: PUR 201, MAT 116 or equivalents
206 Seminar in Purchasing 3 Cr. Hrs. Methods and tools unique to planning, evaluating, and controlling a proactive purchasing department;selection and management of purchasing personnel and their professional development; purchasing research and purchase timing alternatives.
Prerequisite: PUR 202

## 210 Just-in-Time Inventory Techniques

 3 Cr. Hrs.Development of Just-in-Time manufacturing applications in the United States through present day set up and operation of JIT systems, total quality control, continuous improvement, and a comparison of JIT with materials requirements planning; supplier/transportation partnerships and functional integration.
Prerequisite: PUR 201 or MAN 251

## 215 Inventory \& Production Control

$$
3 \text { Cr. Hrs. }
$$

The role of inventory and production control in modern industrial management with emphasis on data processing, MRP centralized control, standardization, obsolescence control and other modern techniques.
Prerequisite: PUR 201,MAT101 or equivalent
220 Supplier Relationships 3 Cr. Hrs. Overview of determining vendor capability by sourcing/certification, and state-of-the-art approaches to supply chain management and auditing; role and impact of supplier relationships.
225 Negotiation Techniques 3 Cr. Hrs. Psychology and techniques of conducting purchasing negotiations; mock negotiations using case studies. Principles apply to situations in real life. Class is open to non-purchasing students.

## 270 Purchasing Internship <br> R

1-9 Cr. Hrs.
See EBE 270 Internship for course description.

## 297 Special Topics

R
0.5-6 Cr. Hrs.

Special interest content within the discipline as well as instruction delivered in a nontraditional format such as TV or videotape.

# Quality Engineering Technology (QET) 

100 Tooling \& Machining Metrology 2 Cr . Hrs.
Various measurement techniques involving shop measuring instruments; correct use and care of basic inspection instruments; interpretation of blueprints as well as evaluation of machined products related to engineering needs. One lecture, two lab hours per week.

## 101 Survey of Total Quality Management $\quad 3$ Cr. Hrs.

 Basic principles, concepts, and philosophy of total quality. Statistical concept of variability of the seven basic concepts. Two lecture, two lab hours per week. Prerequisite: DEV 108 or equivalent
## 105 Introduction to Packaging Engineering Technology 3 Cr. Hrs.

 Functions of commercial, industrial, and military packaging: aesthetic, technical, cost, and environmental factors in package selection and design.Prerequisite: DEV 064 or equivalent

## 111 Metrology I

3 Cr. Hrs.
Precision, accuracy, standards, calibration and records as applied to the principles of measurements. Correct use and care of basic inspection equipment. Two lecture, two lab hours per week.
Prerequisite: DEV 065, DEV 108 or equivalents

## 112 Metrology II

3 Cr. Hrs.
Various measurement instruments including electrical and pneumatic gauges, optical comparator and other specialty instruments. Two lecture, two lab hours per week.
Prerequisite: QET 111
113 Coordinate Measurement 3 Cr. Hrs. Introduction to calibration, roundness measurements and coordinate measurement. Two lecture, two lab hours per week. Prerequisite: DRT 106, QET 112,MAT 131 or equivalent

## 114 Advanced Coordinate

 Measurement3 Cr . Hrs.
Operating techniques for computer-aided Servo driven coordinate measurement machine. Twolecture, twolab hours per week. Prerequisite: QET 113

## 117 Advanced Quality \& Inspection

3 Cr. Hrs.
Advanced concepts of dimensional metrology, including calibration, coefficient of thermal expansion, functional gauging, Geometric Dimensioning and Tolerancing (GD\&T) as applied to gauging and fixturing, inspection plans, statistical process control, and problem analysis. Ad-
vanced measuring tools will be introduced. Two lecture and two lab hours per week.
Prerequisite: QET 112 or equivalent
120 Process Metrology 3 Cr. Hrs.
Fundamental methods, standards, processes and procedures for measurement and non-destructive testing based upon physical principles and standards of length, time, temperature, pressure and electricity. Two lecture, two lab hours per week.
Prerequisite: DEV 065, DEV 108 or equivalents

## 123 Eddy Current Testing 2 Cr. Hrs.

 Introduction to non-destructive testing pertaining to eddy current testing with applications as outlined in ASNT-TC -1A of the American Society for Non-Destructive Testing (ASNT) requirements. One lecture, two lab hours per week.Prerequisite: QET 120
124 Industrial Radiography 3 Cr. Hrs. Radiographics techniques including $x$ ray, gamma and dark room procedures, as well as radiographic interpretations are introduced. Two lecture, twolab hours per week.
Prerequisite: QET 120
125 Ultrasonic Testing 3 Cr. Hrs.
Review of fundamentals of sound and wave propagation, basis of ultrasonic testing including principles and operations of test equipment. Two lecture, two lab hours per week.
Prerequisite: QET 120

## 126 Liquid Penetrant \& Magnetic Particle Testing <br> 3 Cr. Hrs.

Introduction to non-destructive testing methods utilizing liquid penetrant and magnetic particle testing with laboratory applications as outlined in ASNT-TC-1A of the American Society for Non-Destructive Testing (SNT) requirements. Two lecture, two lab hours per week.
Prerequisite: QET 120

## 131 Fundamentals of Metallurgy \& Materials Science $\quad 3$ Cr. Hrs.

A review of the elements of chemistry and physics as they apply to the properties and characteristics of engineering materials. Mechanical and physical properties of metals, and plastics. Two lecture, two lab hours per week.
Prerequisite: INT 141 or MAT 101 or equivalent

## 132 Metallurgy <br> 3 Cr. Hrs.

Terminology and designations of materials and relation between the nature of materials and their properties. Altering of properties for design and testing materials for selection. Two lecture, two lab hours per week.
Prerequisite: MET 104, PHY 131, CHE 131

133 Non-Metallic Materials 3 Cr. Hrs. Terminology and designations related to non-metallic materials and the relationship between the nature of the materials and their properties. Thermoplastics, thermosetting, composites and glasses are included.
Prerequisite: CHE 131,MET 104,MAT132 or equivalents

## 134 Packaging Materials 2 Cr. Hrs.

 Extensive laboratory testing of packaging materials including paper, corrugated, paperboard, and films versus appropriate ASTM and TAPPI standards. Examples of packaging applications of the materials. One lecture, two lab hours per week.Prerequisite: QET 131, QET 132 or QET 133
190 Quality Engineering Workshop R 0.5-3 Cr. Hrs.

Various topics related to quality engineering technology.

## 200 Certified Quality Technician/ Mechanical Inspector Review $R$ <br> $$
3 \text { Cr. Hrs. }
$$

Review of the requirements and topics to become certified as an American Society for Quality Control Quality Technician or Mechanical Inspector.

## 201 Statistical Process Control 3 Cr. Hrs.

 Control charts, statistical sampling and process capability theories and applications. Two lecture, two lab hours per week. Prerequisite: QET101,MAT131 orequivalent
## 202 Advanced Statistical Quality Control <br> 3 Cr. Hrs.

Applications of statistical quality control methods including hypothesis testing, confidence limits, and linear regression analysis. Twolecture and twolab hours per week. Prerequisite: QET 202,MAT111orequivalent
203 Design of Experiments 3 Cr. Hrs.
Fundamental concepts in the design of experiment and analysis. Single factor experiments, factorial experiments, experiments of evaluation and of comparison, and sequential experiments. Two lecture and two lab hours per week.
Prerequisite: QET 202

## 211 Reliability I

3 Cr. Hrs.
Reliability program management techniques including FMEA's fault tree analysis, stress-strength analysis, Monte Carlo simulation, as well as reliability block diagrams including series, parallel and standby configurations. Two lecture, two lab hours per week.
Prerequisite: QET 201,MAT132 orequivalent

## 212 Reliability II <br> 3 Cr. Hrs.

Reliability prediction, testing and failure distributions including exponential, normal and Weibull. Two lecture, two lab hours per week.
Prerequisite: QET 211

## 215 Certified Reliability Engineering Review <br> 3 Cr. Hrs.

Review of the requirements and topics to become certified as an American Society for Quality Control Reliability Engineer with emphasis on previous preparation.

## 221 Quality Assurance <br> 3 Cr. Hrs.

Quality costs, manufacturing control, vendor control, product liability, and manufacturing breakthrough. Two lecture, two lab hours per week.
Prerequisite: QET 201

## 223 ISO/QS 9000 Quality Systems

 3 Cr. Hrs.Review of the ISO 9000 and QS 9000 standards, requirements, and implementation strategies.
224 ISO/QS Documentation 3 Cr. Hrs.
Practice in the defining and writing of quality procedures that meets ISO 9001 requirements. Extensive use of word processing templates designed for the writing of procedures. Includes discussion and linkage to the other three levels of documentation. Two lecture, two lab hours per week.
Prerequisite: QET 223, MET 198

## 225 Certified Quality Engineering Review

Review of the requirements and topics to become certified as an American Society for Quality Control Engineer with emphasis on previous preparation.

## 231 ISO/QS 9000 Internal Auditor 3 Cr. Hrs.

Needs, requirements and practice in the development and implementation of an internal auditing program in an ISO 9000 compliant organization.
Prerequisite: QET 223

## 235 Certified Quality Auditor Review

 3 Cr . Hrs.Audit function, nature of audits, evaluation of corrective action, preparation for the ASQC CQA exam.

## 245 Certified Quality Manager Review 3 Cr. Hrs.

Review of the requirements and topics to become certified as an American Society for Quality Control Manager with emphasis on previous preparation.
250 Packaging Systems 3 Cr. Hrs. Application of the total systems analysis concept to packaging. Identification of all elements in the decision process for package design, including product fragility, severity of the distribution system, material handling and transportation, production costs, product liability, and environmental impact.

## Prerequisite: PHY 131, QET 134, QET 212

## 252 Packaging Development 3 Cr. Hrs.

Principles of container design. Engineering design concepts including human factors and consumer psychology; quality control, economics and specification development for glass, metal, paper, plastic, and composite packaging. Two lecture, two lab hours per week.
Prerequisite: QET 105, QET 134, QET 212

## 254 Packaging Shock \& Vibration

 3 Cr. Hrs.Physics of shock, vibration, and compression as they relate to product damage in handling and shipment. Mechanical properties of cushioning and dampening materials, lowest-cost protective shipping container design. Standardized performance testing for product fragility and protective package effectiveness. Two lecture, two lab hours per week.
Prerequisite: QET 212, QET 250

## 265 Certified Software Quality <br> Engineer Refresher 3 Cr. Hrs.

 Review of the requirements and topics to become certified as an American Society for Quality Software Quality Engineer with emphasis on previous preparation. Prerequisite: Permission of instructor
## 270 Quality Control Internship

R
1-12 Cr. Hrs.
See EBE 270 Internship for course description. Students must consult the department chairperson for specific degree requirements.
295 Quality Control Seminar 3 Cr. Hrs. A problem solving seminar in which a student plans a quality system. Also review previous ASQ Certification Exams. Prerequisite: QET 202, QET 211, QET 221, MET 198

## 297 Special Topics

R
1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom seminar setting or in a nontraditional format such as television, videotape, etc.

## M30 Introduction to Materials \&

 Manufacturing Processes 1 Cr . Hr .Explore and analyze the way products are made and linked to the selection of the appropriate material. Application of an established taxonomy of manufacturing process to various products.

## Radiologic Technology (RAT)

## 104 Radiographic Principles for General Machine Operators <br> 4 Cr. Hrs.

Introduction to radiographic imaging principles including basic patient positioning, radiation biology, safety and physics, image production and film processing.
Prerequisite: BIO 107, HIM 121

## 105 Lab for RAT 104

Laboratory must be taken with RAT 104. 111 Clinical Education I 4 Cr. Hrs.
Orientation to hospital and radiology organization, radiographic proceduresinvolved with the skeletal system, respiratory tract, and abdomen; introduction to competency performances, film analysis and presentation. Sixteen clinical hours.
Prerequisite: RAT 121
112 Clinical Education II 4 Cr. Hrs. Radiographic positioning of gastrointestinal, biliary, and urographic procedures. 16 clinical hours.
Prerequisite: RAT 111

## 121 Introduction to Radiography \& Positioning <br> 4 Cr. Hrs.

Orientation to the field of radiography, history, x-ray production, image production, positioning upper extremities and chest. Three lecture, two lab hours (RAT 127) per week.

122 Radiographic Positioning 4 Cr. Hrs.
Radiographic positioning of the lower extremities and axial skeleton; patient interactions and film analysis. Three lecture, two lab hours (RAT 128) per week.
Prerequisite: RAT 121

## 123 Fluoroscopy in Radiography

5 Cr . Hrs.
Positioning and procedures involved in gastrointestinal, genitourinary systems; fluoroscopy; use of contrast medias, reactions and technical considerations. Four lecture, two lab hours (RAT129) per week. Prerequisite: RAT 122

## 127 Lab for RAT 121

Laboratory must be taken with RAT 121. 128 Lab for RAT 122
Laboratory must be taken with RAT 122.

## 129 Lab for RAT 123

Laboratory must be taken with RAT 123. 131 Patient Care in Radiography

2 Cr. Hrs.
Legal and professional aspects, infection control, patient safety and assessment techniques related to care of the patient in radiography department. One lecture, two lab hours (RAT 137) per week.

## 137 Lab for RAT 131

Laboratory must be taken with RAT 131.

## 199 Computers in Medical Imaging

 2 Cr. Hrs.Overview of computers in medical imaging including hardware, software, peripheral devices. Its use in CT, MRI, digital imaging, computer-aided diagnosis, plus information and image management (PACS).
Prerequisite: RAT 123 or permission of chairperson

## 211 Clinical Education III 4 Cr. Hrs.

Continuation of clinical exposure to procedures involved with the gastrointestinal, genitourinary, skeletal, and respiratory systems with emphasis in disease.
Prerequisite: RAT 112
212 Clinical Education IV 6 Cr. Hrs.
Continuation of clinical exposure to procedures involved with the gastrointestinal, henitourinary, skeletal, and respiratory systems with emphasis in pediatrics, alternative rotations, formulating technique and film critique.
Prerequisite: RAT 112

## 213 Clinical Education V 6 Cr. Hrs.

Clinical exposure to sub-specialties and other career opportunities; continuation of routine and special radiographic procedures; film analysis and presentation. 24 clinical hours.
Prerequisite: RAT 212
214 Clinical Education VI 4 Cr. Hrs. Total exposure to the hospital environment and performance of all functions performed by radiographers; completion of final evaluations, and orientation to angiography and C.T. technology.
Prerequisite: RAT 213

## 215 Pathology for Radiographers

## 2 Cr. Hrs.

Radiographic appearance of diseases and technique adjustments for both additive and destructive pathologies.
Prerequisite: RAT 123

## 217 Special Procedures in Radiographic

$1 \mathrm{Cr} . \mathrm{Hr}$.
Procedures, supplies, and protocols involved with sub-specialty radiographic exams and angiography.
Prerequisite: RAT 123

## 218 Advanced Radiographic Practice

 2 Cr . Hrs.Specialty practice considerations related to geriatrics, pediatrics, mobile, surgical and trauma radiography, and mammography. Prerequisite: RAT 123

## 219 Pharmacology for Radiographers

1 Cr. Hr .
General pharmacological principles as they pertain to the practice of radiography. Emphasis placed on major drug classes prescribed medically as well as those having specific indications in radiology.
Prerequisite: RAT 123

## 222 Principles of Radiographic <br> Technique <br> 5 Cr . Hrs.

Principles of exposure formulation, image quality factors and variables, quality assurance and testing, film and image processing. Four lecture, two lab hours (RAT 227) per week.

Prerequisite: RAT 123
226 Synopsis in Radiography 2 Cr. Hrs.
Testing and preparation for the national registry examination. Synthesizing current knowledge in radiologic technology applicable to fluoroscopic, general and mobile radiography.

## 227 Lab for RAT 222

Laboratory must be taken with RAT 222.

## 231 Sectional Anatomy 3 Cr. Hrs.

Human gross anatomy analyzing structures in the transverse (axial), sagittal, and coronal planes, with applications in modern medical imaging. Two lecture, two lab (RAT 237) hours per week.
Prerequisite: BIO 132

## 232 Radiation Biology 2 Cr. Hrs.

Fundamental principles of molecular and cellular effects of $x$-ray interaction, health physics and radiation protection.
Prerequisite: RAT 222

## 237 Lab for RAT 231

Laboratory must be taken with RAT 231.
240 Computed Tomography Practicum R 2-6 Cr. Hrs.
Variable credit clinical experience performing actual patient exams involving computed tomography.
Prerequisite: RAT 199, RAT 231

## 241 Principles of Computed

Tomography 4 Cr. Hrs.
Basic instrumentation and application concepts including computer and x-ray unit components and their application to protocols for acquiring sectional images of various body systems.
Prerequisite: RAT 199, RAT 231

## 243 Principles of Magnetic Resonance Imaging <br> 4 Cr. Hrs.

Basic physics concepts involving the generation and construction of human planar M.R. images.

## 244 Magnetic Resonance Imaging Applications <br> 4 Cr. Hrs.

Magnetic resonance imaging procedures including patient preparation, positioning, filming protocol, instrumentation and archiving.
Prerequisite: RAT 243

## 245 Magnetic Resonance Imaging

 PracticumVariable credit clinical experience performing actual patient exams involving magnetic resonance imaging.
Prerequisite: RAT 199, RAT 231

## 246 Advanced Patient Care in <br> Radiography <br> 3 Cr. Hrs.

Patient care issues encountered during clinical practice, including medical asepsis, critical care concepts, medical emergencies, pharmacology, and medical-legal considerations.

## 247 Mammographic Principles 3 Cr. Hrs.

Comprehensive overview of mammography concepts, including patient care and education; breast anatomy, physiology, epidemiology, and pathology; positioning techniques; interventional procedures; and mammographic findings.

## 248 Mammographic Equipment \& <br> Applications <br> 2 Cr. Hrs.

Mammographic equipment concepts including x-ray tube considerations, imaging media and processing, quality assurance testing and exposure principles.

## 249 Mammographic Practicum <br> R

2 Cr. Hrs.
Clinical experience in mammography facility performing all functions including routine and special mammographic procedures, quality assurance testing and image analysis.

## 250 Quality Management in Radiography <br> 3 Cr. Hrs.

Fundamental and advanced quality management practices in the medical imaging sciences to include film, film processors, imaging equipment and accessories. One lecture and four lab hours per week.

## 261 Radiography Practicum <br> R <br> 2-8 Cr. Hrs.

Clinical experience involving a variety of patient procedures. Experiences include, but are not limited to, fluoroscopy, mobile and general radiography. Eight to forty clinic/practicum hours per week.

## 265 Seminar in Radiology

## 1-3 Cr. Hrs.

Current issues and developments in radiologic technology. Case studies of selected topics.

## Religious Studies (REL)

111 Eastern Religions 3 Cr. Hrs.
An introduction to Far Eastern religious traditions, focusing on Hinduism, Buddhism, Confucianism, and Taoism.

## 112 Western Religions <br> 3 Cr. Hrs.

An introduction to religions originating in the Near East, focusing on Judaism, Christianity, and Islam.

## 135 American Religious Movements 3 Cr. Hrs. <br> What makes certain religious movements uniquely American.

## 204 Great Books: The Bible and Western Culture 3 Cr. Hrs.

An exploration of how and why the Bible is viewed as a "great book." Both the Old and New Testaments will be explored in their respective historical contexts. Connections with and influences upon Literature Art, Politics, Economics, Medicine, Music, Women's Issues, and Religion itself are examined.

## 297 Special Topics

1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a nontraditional format such as television, videotape, etc.

## Real Estate (RES)

## 121 Real Estate Abstracting I 3 Cr. Hrs.

Recorded documents affecting real estate, terms used in abstracting and the function of public offices in the abstracting process.

## 122 Real Estate Abstracting II 3 Cr. Hrs.

Liens, mortgages, foreclosure, divorce, wills and estates proceedings are examined as they relate to real property and the abstracting process.

## 201 Real Estate Principles \& Practices 4 Cr . Hrs.

Areas encompassed in the real estate sales industry. The market, investment and brokerage areas and contractual and property rights which concern both the real estate practitioner and investor consumer.

## 202 Real Estate Law

4 Cr. Hrs.
The legal phases of a realty transaction. Examined are types of estates in land, coownership, mortgages, Ohio license law and landlord-tenant law.
203 Real Estate Finance 2 Cr. Hrs.
The institutions, methods, instruments and procedures involved in the financing of real estate. Nature of mortgage market and effects of government monetary or fiscal policies are considered.

204 Real Estate Appraisal I 2 Cr. Hrs. Methodology of appraising urban property, three basic techniques of appraising and the theory underlying these techniques.
205 Real Estate Appraisal II 3 Cr. Hrs. Income capitalization in appraising income producing property and functions which influence value of non-residential property. Prerequisite: RES 204

## 210 Real Estate Practice Seminar 3 Cr. Hrs.

Apply knowledge and practice skills acquired in real estate courses concerning principles, law finance, and appraisal through the use of case studies, simulations, and role playing.
Prerequisite: RES 202, RES 203, RES 204, RES 201
215 Real Estate Investing 3 Cr. Hrs.
An analytical approach to investment in real estate. Financing, tax considerations, appraisal, internal rate of return, acquisitions and exchanges. Highlighted are problems requiring investment analysis.

## 221 Property Management <br> 3 Cr. Hrs.

 Management of residential, business, and commercial properties. Topics presented are merchandising, public relations, leasing, accounting and insurance.
## 270 Real Estate Internship

R
1-9 Cr. Hrs.
See EBE 270 Internship for course description.
278 Real Estate Capstone 1 Cr. Hr.
Revisit knowledge and skills acquired in real estate abstracting, commercial appraisal, investing, and property management through development and submission of research papers.
Prerequisite: RES 122, RES 202, RES 203,
RES 205, RES 221, RES 121, RES 201, RES 204, RES 210
297 Special Topics
R
1-6 Cr. Hrs.
Provides opportunities to receive credit for special interest topics within the discipline.

## Respiratory Care (RET)

110 Respiratory Therapeutics I 5 Cr. Hrs. History, organization, credential systems and job functions of the respiratory care profession; respiratory care theory and procedures including terminology, applied principles of physics, vital signs, ambulation and body mechanics, universal precautions, oxygen appliances and other techniques required for entry into the clinical setting. Four lecture, one lab (RET 111) hours per week.
Prerequisite: ALH 106

## 111 Lab for RET 110

Laboratory must be taken with RET 110.

118 Cardiopulmonary Rehabilitation
1 Cr . Hr .
Basic principles of patient selection, program components, goals, sequencing, equipment, outcomes, and reimbursement of cardiac and pulmonary rehabilitation programs.
Prerequisite: DEV 065

## 120 Respiratory Therapeutics II

4 Cr . Hrs.
Theory, application and skill development of procedures required for clinical practice including oxygenation, delivery and monitoring, humidity and aerosol therapy, incentive spirometry, suctioning, bronchopulmonary hygiene, and intermittent positive pressure breathing. Five lecture, six lab hours per week.
Prerequisite: RET 110

## 121 Lab for RET 120

Laboratory must be taken with RET 120.

## 130 Cardiopulmonary Disease

Processes
4 Cr. Hrs.
Diseases and disorders affecting the cardiopulmonary systems emphasizing diagnosis, selection and implementation of therapeutic modalities, and the role of the respiratory care practitioner in treatment. Four lecture, twelveclinicalhours perweek. Prerequisite: RET 120

## 140 Adjuncts to Respiratory Care

6 Cr. Hrs.
Theory and application of procedures and diagnostic tests utilized in their treatment of critically ill patients including airway care, chest $x$-rays, arterial blood gas punctures and equipment, cleaning and sterilization of equipment, principles of fluidics, home care, pulmonary rehabilitation and an introduction to mechanical ventilation.
Prerequisite: RET 120

## 141 Lab for RET 140

Laboratory must be taken with RET 140.

## 142 Clinical for RET 140

Clinical must be taken with RET 140.
146 Clinical Practice 3 Cr. Hrs.
Continued clinical practice of routine respiratory care procedures and introduction to respiratory care specialty areas of airway care, home care, pulmonary rehabilitation and critical care.
Prerequisite: RET 140

## 224 Cardiopulmonary Pharmacology

 3 Cr. Hrs.Actions, effects, dosages, and indications for drug classes commonly used to treat pulmonary and cardiovascular diseases. Prerequisite: RET 120

## 225 Respiratory Care Department Administration 2 Cr. Hrs.

Basic principles of management and leadership, legal issues and ethical dilemmas, health care systems, health promotion and health education, professionalism, health care trends, and other aspects and interrelationships pertinent to effective management of a respiratory care department. Prerequisite: RET 140

## 230 Respiratory Critical Care I 8 Cr. Hrs.

Ventilator selection, support techniques, monitoring, discontinuance, therapeutic application, clinical application of blood gases. Four lecture, three lab, and twelve clinical hours per week.
Prerequisite: RET 140

## 231 Lab for RET 230

Laboratory must be taken with RET 230.

## 232 Clinical for RET 230

Clinical must be taken with RET 230.
240 Respiratory Critical Care II 8 Cr. Hrs.
Advanced respiratory care of critically ill patients focusing on medical and surgical conditions that require intensive cardiopulmonary monitoring and therapeutic care. Four lecture, three lab, and twelve clinical hours per week.
Prerequisite: RET 230

## 241 Lab for RET 240

Laboratory must be taken with RET 240.

## 242 Clinical for RET 240

Clinical must be taken with RET 240.
250 Pediatrics \& Neonatology 4 Cr. Hrs.
Development of fetus, anticipation of high-risk pregnancies and evaluation and care of the newborn infant emphasizing neonatal and pediatric pulmonary physiology and disease. Two lecture, three lab, and four clinical hours per week.
Prerequisite: RET 230

## 251 Lab for RET 250

Laboratory must be taken with RET 250.

## 252 Clinical for RET 250

Clinical must be taken with RET 250.

## 260 Assessment of Pulmonary Function <br> 3 Cr. Hrs.

Advance pulmonary physiology and pathology as it relates to pulmonary function testing interpretation emphasizing performance of testing protocols, interpretation of results, equipment maintenance and quality assurance, computer applications, special procedures, and preparation for the national board examination for certification as pulmonary function technologist. 2.5 lecture, 1.5 lab hours per week.
Prerequisite: RET 240

## 261 Lab for RET 260

Laboratory must be taken with RET 260.

## 280 Correlations in Respiratory Care 7 Cr. Hrs.

Correlation of respiratory care theory, principles and procedures to the patient care setting emphasizing evaluation and implementation of appropriate patient care plans; mock national board examinations. Two lecture, twenty-five directed practice hours per week.
Prerequisite: RET 240

## 282 Lab for RET 280

Laboratory must be taken with RET 280.

## 295 Respiratory Care Seminar

 R1 Cr. Hr.
Respiratory care procedures, equipment physiology, pathology, patient care, and other topics relevant to the discipline.

## 297 Special Topics

R
0.2-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses as well as special interest topics within the discipline. Repeatable for credit as topics/issues change. Approved for Continuing Respiratory Care Education (CRCE) credit.
M01 Durable Medical Equipment R 2 Cr . Hrs.
Assembly and application of durable medical equipment, and appropriate use of universal precautions, body mechanics and environmental safety in the home care setting.
Prerequisite: High school graduate or GED: signature of chairperson

## M02 Driver Safety for Home Care Oxygen <br> R 1 Cr. Hr.

Safety issues pertinent to the delivery and use of liquid and cylinder oxygen in the home care setting.
Prerequisite: High school graduate or GED: signature of chairperson

## M03 Driver Safety for Hazardous Materials

Driver safety issues pertinent to transporting hazardous materials and the commercial driver license (CDL) hazmat examination.
Prerequisite: High school graduate or GED: signature of chairperson
M04 Guidelines for Oxygen Safety R 2.5 Cr. Hrs.

Application of federal regulations for oxygen safety, storage, labeling, tracking, and transfilling.
Prerequisite: High school graduate or GED: signature of chairperson

M05 Home Care Oxygen Systems R 1 Cr. Hr. Application and troubleshooting of oxygen delivery systems in the home care setting.
Prerequisite: High school graduate or GED: signature of chairperson

## M06 Clinical for Home Medical Equipment Technicians

Hands-on experience with durable medical equipment and common home care oxygen equipment in the industry.
Prerequisite: High school graduate or GED: signature of chairperson

## Russian (RUS)

100 Conversational Russian 3 Cr. Hrs. Understanding and speaking in conversational settings, using knowledge of Rus-sian-speaking cultures

## Sociology (SOC)

## 111 General Sociology I 3 Cr. Hrs.

Contemporary American society with a special focus on culture, socialization, groups and organization, role and status, deviancy stratification, age, gender and race.
112 General Sociology II 3 Cr. Hrs. Further analysis of contemporary American society, focusing on the family, education, religion, government, economics, collective behavior, social change, population and urbanization.
Prerequisite: SOC 111
114 Courtship \& Marriage 3 Cr. Hrs. Courtship, dating and marriage; realities surrounding affectional relationships and marital conflict. Budget planning, buying insurance, writing a will, and purchasing a home. Divorce, remarriage and stepparenthood.
Prerequisite: SOC 111 or SOC 120
115 Today's Changing Family 4 Cr. Hrs. The developmental stages of the family life cycle from the childless couple through death or divorce, family issues and problems.
Prerequisite: SOC 111 or SOC 120
117 Popular Culture 3 Cr. Hrs.
Exploration of popular culture in the last half of this century with projected trends; examination of influence of popular culture on the development of a unique American society and culture through media, music, sports, entertainment.

## 120 General Sociology 5 Cr. Hrs.

Analysis of contemporary American society with review of major sociological theories, research methods, culture, socialization, groups, social structure, social institutions, deviancy, social inequalities, social processes, and social change. Not open to students with SOC 111.

## 125 Drug Implications 3 Cr. Hrs.

Use, misuse and abuse of the most common drugs, emphasizing extent, effects, prevention and treatment.

## 130 Family Violence

3 Cr. Hrs.
The nature of family violence: child abuse, abuse of elderly parents, sexual abuse, incest, marital rape, marital violence, effects of family violence, and societal reactions to family violence. Also offered as LEP 130; students may enroll in either course, but not both.
Prerequisite: SOC 111 or SOC 120
145 Comparing Cultures 3 Cr. Hrs. Cultural anthropology, including cultural evolution, similarities and differences among world cultures, comparative analysis of family organization, religious beliefs, educational systems, economics and governmental systems.
160 Social Patterns in Aging 3 Cr. Hrs. Orientation to the biological, sociological, and psychological dimensions of the aging process, and society's response to its older members and their social problems. Prerequisite: SOC 111 or SOC 120

## 205 Social Problems

4 Cr. Hrs.
Causes, treatment and prevention of such societal problems as mental illness, inadequate health care, alcohol and drug abuse, violence, crime, delinquency, inequality, aging, family breakdown and environmental concerns.
Prerequisite: SOC 111 or SOC 120

## 208 Sociology of American Cities

 3 Cr. Hrs.Evolution and growth of cities, emphasizing affluence and poverty, racial and ethnic pluralism, physical and moral decay of inner cities, and their effects on urban residents.
Prerequisite: SOC 111 or SOC 120

## 209 Futuristics: Life Experiences in the Future <br> 3 Cr. Hrs.

Future trends regarding scientific, technological and social developments that will change lifestyles. Emphasis on exploring a variety of possible futures and ways in which individuals produce or influence future direction.
Prerequisite: SOC 111 or SOC 120

210 Rural Communities
3 Cr. Hrs.
Examines the significance of rural communities in American history, and seeks to develop an appreciation for its diversity and complexity. Analyzes the drastic economic transition occurring in rural America today and the social impact of these changes on the individuals, families, and communities.

## 214 Applied Population Demography

 3 Cr. Hrs.Introduction to the study of human populations and the process that governs their change, fertility, migration and mortality. Application of demographic data to social and economic issues through computer applications for demographic research. Prerequisite: SOC 111 or SOC 120

## 215 Cultural Diversity <br> 4 Cr. Hrs.

Exploration of American diversity in terms of the dynamics of intergroup relations from past to present. Groups included in the exploration: racial, ethnic, social class, gender, religious, age, disability, and sexual preference.
Prerequisite: SOC 111 or SOC 120
216 Human Sexuality I 3 Cr. Hrs.
The interrelatedness of the biological, psychological, religious and sociological factors in influencing attitudes toward sexuality.

## 217 Human Sexuality II 3 Cr. Hrs.

This course focuses on male and female anatomy, physiology, conception, contraception, sexually transmitted diseases and sexual violence.
Prerequisite: SOC 216

## 225 Juvenile Delinquency 3 Cr. Hrs.

 Extent, theories, treatment and prevention of juvenile delinquency.Prerequisite: SOC 111 or SOC 120

## 226 Criminology

3 Cr. Hrs.
Nature and extent of conventional, organized and white collar crime in modern society, contributing causes, and methods used in control.
Prerequisite: SOC 111 or SOC 120

## 227 Probation \& Parole 3 Cr. Hrs.

Techniques of case management of probationers and parolers, focusing on legal precedents, pre-sentenceinvestigation, researches abnormal criminal personality types and approaches in working with such persons. Prerequisite: SOC 226

## 235 African-American Family 3 Cr. Hrs.

This course presents a critical and analytical examination of the African-American experience in white America from the early 1600 s up through today. The course's central theme is viewing the AfricanAmerican family as a varied and complex social system within the African-American community, which is in turn highly interdependent with the wider multicultual American community.

240 Controversial Social Issues 3 Cr. Hrs. This course will address itself to a critical analysis of opposing viewpoints which surround some of today's most hotly debated, controversial, and explosive social issues as abortion, prayer in school, nuclear deterrence, etc.
Prerequisite: SOC 111 or SOC 120
270 Sociology Internship
R
1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 295 Independent Study <br> R

## 1-3 Cr. Hrs.

Examines social conditions, problems and issues which are of interest to the student under the direction of a faculty member. May be repeated for a total of six (6) credit hours.

## 297 Special Topics <br> R <br> 1-6 Cr. Hrs.

Studies selected topics related to current American social issues, trends or problems. These topics may be offered through regular class schedules, television, newspaper or mini-workshops.

## Spanish (SPA)

100 Conversational Spanish 3 Cr. Hrs.
Understanding and speaking in conversational settings, using knowledge of Spanish-speaking cultures. May not be taken for credit if the student has completed SPA 101 or any other first or secondyear Spanish course.

## 101 Elementary Spanish I 4 Cr. Hrs.

Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
102 Elementary Spanish II 4 Cr. Hrs. Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
Prerequisite: SPA 101
103 Elementary Spanish III 4 Cr. Hrs. Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
Prerequisite: SPA 102
201 Intermediate Spanish I 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 103
202 Intermediate Spanish II 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 103

203 Intermediate Spanish III 4 Cr. Hrs. Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 202

## 297 Special Topics

R
1-12 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses such as courses by television and newspaper as well as special interest topics in the discipline.

## Safety Engineering Technology (SRM)

## 101 Introduction to Safety Engineering Technology 3 Cr. Hrs.

Overview of the basic elements of an industrial risk management program; evolution of risk management; the development of legal/moral precepts that lead to major occupational safety health and environmental reform.

## 110 OSHA Compliance 3 Cr. Hrs.

Selected OSHA standards, relating to confined space, hazard communication and occupational health and environmental control. Two lecture, two lab hours per week.

## 151 OSHA 1910.120 Hazardous Waste Operations 5 Cr . Hrs.

Training required to work on a hazardous waste site with emphasis on personnel safety, site hazards, toxicology, personal protective equipment, decontamination, site characterization, and site control. Four lecture, three lab hours per week.

## 152 OSHA 1910.120 Hazardous Waste Operations Refresher $1 \mathbf{C r}$. Hr .

Provide classroom and practical application to assure the student has maintained pertinent knowledge, skills and information required to handle hazardous material/wastes emergencies. Required for entering and/or working on a hazardous waste site. Emphasis on personnel safety, site hazards, toxicology, personal protective equipment, decontamination, site characterization and site control

## 153 Introduction to Transportation Safety <br> 1 Cr . Hr .

Rules, interpretations, record keeping and standards required by U.S.D.O.T. (49 CFR 172 Subpart H) for the transportation of Hazardous Materials.

## 211 Industrial Safety I 3 Cr. Hrs.

A comprehensive approach to factors involved in developing safe practices and conditions. How to set up safety organizations and conduct safety education and training.

212 Industrial Safety II
3 Cr. Hrs. Economic and engineering aspects of protection and personal protection equipment recognition. Industrial waste disposal and the analysis of a safety program.
Prerequisite: SRM 211
215 Industrial Hygiene 3 Cr. Hrs.
Fundamental measurement of fumes, particulate matter, gases, polluted water, noise and radiation. Comparison of these variables with safety standards. Prediction of costs and engineering problems encountered with various manufacturing methods with reference to the environment. Prerequisite: CHE 131

## 217 Industrial Toxicology 3 Cr. Hrs.

Routes of entry of poisons into the human body; target organs, methods used to assess health risks; manifestations of toxicity; dose-response evaluations; Subpart Z 'Toxic and Hazardous Materials' of OSHA 1910. Two lecture, two lab hours per week. Prerequisite: BIO 107

## 219 Industrial Hygiene <br> Instrumentation

3 Cr. Hrs.
Use of industrial hygiene instruments employed in the measurement of parameters which may present a health hazard to humans. Twolecture, twolab hours per week. Prerequisite: SRM 215

## 221 Safety Management I 4 Cr. Hrs.

 Occupational safety and health management concepts and programs to minimize accidents in business and industry.
## 222 Safety Management II 4 Cr. Hrs.

Elements of a hazard control program including accidentinvestigation, incidentrates, behavior and workers with disabilities.
Prerequisite: SRM 221

## 230 Occupational Safety \& Health 4 Cr. Hrs.

Study of requirements of Occupational Safety and Health Act emphasizing standards governing general industry production type operations.

## 231 OSHA Construction Standards

4 Cr. Hrs.
Rules, interpretations, recordkeeping and standards required by OSHA ( 29 CFR Part 1926) for the construction industry to ensure employees a safe, healthful work place.

## 232 Construction Worksite Safety

 3 Cr. Hrs.A comprehensive approach to develop and supervise safe conditions, practices, and compliance atconstruction worksites. Two lecture and two lab hours per week.
Prerequisite: SRM 231
270 Safety Risk Management Internship

## R

278 Safety Risk Management Capstone

3 Cr. Hrs.
Assessment of achievement by Safety \& Risk Management degree students in attaining program outcomes by employing reflective learning through demonstration of occupational safety, health, and environmental related principles and practices. Two lecture, two lab hours per week.

## 295 Seminars for Safety Risk Manager R <br> 1-4 Cr. Hrs.

Current issues relating to responsibilities of safety risk manager for applying new Occupational Safety and Health Administration standards, Workers Compensation, statutes such as hazardous waste, product liability and court decision.
297 Special Topics
R
0.5-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; brief descriptions of topics will be given when the course is offered.

## Surgical Technology (SUT)

## 111 Surgical Technology Fundamentals

6 Cr. Hrs.
Discusses the framework and environment for the practice of Surgical Technology. Introduces the use of therapeutic communication, group process, and critical thinking in perioperative care. Focuses on safety through preoperative preparation, asepsis, and an overview of anesthesia. Four lecture, four clinical hours per week.
Prerequisite: COM 206, ALH 103, HIM 121, ENG 111 and one of the following: BIO 121 or BIO 161.

## 112 Surgical Process 10 Cr. Hrs.

Establishes the techniques for preparing the operating room, instruments, supplies, and the equipment to be used during a surgical procedure. Applies these techniques to basic abdominal surgeries. Five lecture, sixteen directed practice hours per week.
Prerequisite: BIO 162, PSY 119, SUT 111
211 Surgical Procedures I 10 Cr. Hrs. Discusses specific surgical procedures of the gastrointestinal, urinary, and reproductive systems. Adapts surgical care concepts to geriatric and pediatric patients. Correlates intraoperative procedures with postoperative care. Five lecture, sixteen directed practice hours per week. Prerequisite: BIO 205, SUT 112, ALH 104

See EBE 270 Internship for course description.

212 Surgical Procedures II 10 Cr. Hrs. Discusses ophthalmic, ear/nose/throat, head and neck, oral, plastic, and vascular surgical procedures. Explains the role of the scrub technologist when intraoperative emergencies occur. Five lecture, sixteen directed practice hours per week.
Prerequisite: ALH 201, MAT 106, SUT 211
213 Surgical Procedures III 11 Cr. Hrs. Discusses specific orthopedic, neurological, and thoracic surgical procedures. Examines immediate post-anesthesia care. Prerequisite: ALH 220, ENG 112, SUT 212

## 220 Surgical Technology Role <br> Transition 10 Cr. Hrs.

Focuses on role transition to beginning Surgical Technology practitioner. Emphasizes a common systematic approach to all surgeries. Introduces Surgical Technologist's role on specialty teams, as second circulator, in ambulatory surgery centers, and in pediatrics. Five lecture, twenty-five directed practice hours per week.
Prerequisite: SUT 213, ALH elective

## 297 Special Topics

Provides the opportunity to receive credit for career-related courses, workshops, or customized learning experiences. Topics include current practices and special interest topics in perioperative health care.

## Social Work (SWK)

206 Introduction to Social Welfare
4 Cr. Hrs.
Philosophy, structure, and function of social welfare including the scope, tasks, principles and problems of social welfare field. Introduction to professional Social Work, its historical development, value base, and perspective on social problems.

## 211 Introduction to Social Work Practice 3 Cr. Hrs.

Foundation sequence of generalist social work practice theory. Beginning theoretical concepts and practical application for intervention methods, including data collecting, problem assessment.
Prerequisite: SOC 111 or SOC 120

## 212 Theory \& Method in Social Work Practice 3 Cr. Hrs.

Second half of the foundation course for generalist social work practice theory. Intervention methods including data analysis, evaluation, termination process, interviewing skills.
Prerequisite: SWK 211

## 213 Community Volunteer Service

 3 Cr. Hrs.Planned visits to social welfare agencies to observe social work programs. Learning experiences from the visits are shared through classroom discussions and specific assignments.
Prerequisite: SOC 111 or 120 and SWK 211 and 212

## Theatre (THE)

105 Introduction to Theatre I 3 Cr. Hrs. Theatre as an art form presented from the historical, literary and production points of view (Greeks to present).

## 106 Stagecraft

3 Cr. Hrs.
Theories and techniques of designing, building, and painting stage settings, organization and operation of production crews. Basic lighting techniques for Blair Hall Theatre will be presented. THE 107 must be taken concurrently.

## 107 Laboratory for Theatre 106

Laboratory must be taken with THE 106.

## 111 Acting I

3 Cr. Hrs.
Basic acting techniques with emphasis on stage improvement and voice, and principles and theories of sensory, imaginative, emotional and pantomimic responsiveness. One lecture,four lab hours per week.

## 112 Acting II

3 Cr. Hrs.
Various theories concerned with the preparation of roles and the special performance characteristics of tragedy, comedy, melodrama and farce. One lecture, four lab hours per week.
Prerequisite: THE 111

## 113 Acting III

3 Cr. Hrs.
Emphasis and application of the Stanislavski system through interactive scene work of contemporary literature.
Prerequisite: THE 112

## 114 Lessac Voice \& Body Technique 3 Cr . Hrs.

Training in the Lessac voice and body technique for actors, singers, broadcasters, and public speakers. A practical and dynamic vocal and physical technique.

## 115 Stage Lighting Technology

3 Cr. Hrs.
The creative principles and procedures in design and execution of lighting for proscenium and non-proscenium productions, and examination and operation of lighting instruments and equipment located in the college theatre. THE 117 must be taken concurrently.

116 Stage Lighting Design 3 Cr. Hrs. Creative principles and procedures in the design of lighting for theatrical productions. Emphasis will be given to the coordination of visual and aesthetic aspects of lighting design. Onelecture,four labhoursperweek. Prerequisite: THE 115

## 117 Laboratory for Theatre 115

Laboratory must be taken with THE 115.
125 Stage Costume
3 Cr. Hrs.
A practical course in costume design and execution,surveyofhistoricfashion, research sources, wardrobe organization, costume plot and construction of garments for the stage. One lecture, four lab hours per week.

## 126 Stage Make-up <br> 3 Cr. Hrs.

A basic approach in facial adaptation from youth to old age. The use of beards and hair, three-dimensional builds and prosthetics will be studied. There will be a brief exposure into techniques for film and television. One lecture, four lab hours per week.

## 127 Unarmed Combat <br> 3 Cr. Hrs.

Basics of theatrical violence and fighting styles with emphasis on integration of technical skills and characterization. One lecture, four lab hours per week.

## 137 Elizabethan Weapons 3 Cr. Hrs.

Basic fundamentals of theatrical sword play using the single rapier and court sword. Topics include cuts and thrusts, parries, disarms, footwork, movement patterns, wounds and kills and movement prior to attack.

## 147 Medieval Weapons <br> 3 Cr. Hrs.

 Theatrical use of the two-handed broad sword, sword and shield, and quarterstaff including cuts, thrust, parries, disarms, footwork, and wounds and kills.165 Children's Theatre
R
3 Cr . Hrs.
Dramatic composition and practical production procedures for child audiences. One lecture, four lab hours per week.
166 Creative Dramatics 3 Cr. Hrs.
Designed to teach the student and the teacher of early childhood education how to bring out creativity in children through the use of theatre games. One lecture, four lab hours per week.

## 198 Applied Theatre Technology R 1 Cr . Hr .

Provides the student who is interested in theatre the opportunity to acquire credit for production experience. This experience takes place on Sinclair Theatre and Dance productions, with arrangements for area of assignment made through the department technical director.

201 History of Theatre I 3 Cr. Hrs. The world of theatre from its origins, including the Egyptian, Greek, Roman and Medieval periods. Sixth century B.C. to 1000 A.D.
202 History of Theatre II 3 Cr. Hrs. The world of theatre from 1000 A.D. through the English Restoration. A close look at the architecture, costuming, acting, and plays of the Italian Renaissance, French Neoclassic, Golden Age of Spain and the Elizabethan and Restoration periods.

## 203 History of Theatre III 3 Cr. Hrs.

The world of the theatre from 1700 A.D. to the present day. A close look at 18th century English Neoclassical drama, French Revolutionary drama, melodrama, early and contemporary American drama, and the theatre of Realism.

## 205 History of the American Theatre

3 Cr . Hrs .
History of the American theatre from 18th century through the present.

## 206 Script Analysis

R
3 Cr . Hrs.
Principles of textual analysis, with emphasis on careful, in-depth reading, and methods of systematic identification of all facets of each literary work. One lecture, four lab hours per week.

## 211 Advanced Acting I 3 Cr. Hrs.

A continuation of THE 113. The study of character development. Explores the concepts of Stanislavski, applies character development to scene work, reviews 20th century acting styles and literature.
Prerequisite: THE 113
212 Advanced Acting II 3 Cr. Hrs. Introduces the student to various period styles of acting. Classical Greek, Elizabethan, Restoration, French (Moliere), comedia del arte and Melodrama are studied.
Prerequisite: THE 211

## 213 Auditions

2 Cr. Hrs.
Student will learn to prepare for the audition. Selection of head shot, resume preparation, and scene selection will be the focus of the class.
Prerequisite: THE 206

## 215 Acting Shakespeare 3 Cr. Hrs.

Script and character analysis and the performance of selected Shakespearean scenes, monologues, and soliloquies. THE 212 is recommended prior to taking THE 215. One lecture, four lab hours per week.

## 216 Pantomime

3 Cr. Hrs.
A close study of the art of silent acting.

218 Musical Theatre Performance R 3 Cr. Hrs.
To learn the historical background of American theatrical form and its continuing development up to the present day, identifying specific productions which set new standards. THE 212 is suggested prior to taking THE 218. One lecture, four lab hours per week.

## 227 Advanced Unarmed Combat 3 Cr. Hrs.

Advanced unarmed combat techniques requiring special emphasis on safety and body control including falling through windows, down stairs, falling from heights and team work.
Prerequisite: THE 127

## 235 Scene Design \& Set Construction 3 Cr. Hrs.

Explicitly deals with the planning, designing and construction of scenery for theatrical production. Emphasis on coordination of visual and aesthetic aspects of stagecraft. One lecture, four lab hours per week. Prerequisite: THE 106, THE 115

## 237 Advanced Elizabethan Weapons

3 Cr. Hrs.
Theatrical use of the rapier in conjunction with the dagger, cloak and buckler, including use of the dagger as an offensive theatrical weapon. Topics include cuts, thrusts, parries, disarms, footwork, wounds and kills.
Prerequisite: THE 137

## 240 Stage Management 3 Cr. Hrs.

Through a system of readings, exercises, written assignments and hands-on activities, the student will learn the importance and the process of stage management. One lecture, four lab hours per week.

## 245 Directing

3 Cr. Hrs.
The total conceptof play direction. Thebases, principles, and procedures of play direction. One lecture, four lab hours per week. Prerequisite: THE 111

## 247 Advanced Medieval Weapons

3 Cr. Hrs.
Theatrical use of the katana, the samurai sword of medieval Japan. Topics include etiquette, eight directional cutting, drawing the sword, removing blood from the blade and sheathing the sword.
Prerequisite: THE 147
255 Theatre Workshop
R
3 Cr. Hrs.
A laboratory course designed to concentrate on special topics, newly selected each year, meeting the special needs of the students. Topics such a one-act play production, acting, Shakespeare, improvisation and others will be considered. One lecture, four lab hours per week.

278 Theatre Capstone R

## 1 Cr . Hr.

A course designed for the graduating theatre major which emphasizes a demonstration of acquired skills and abilities. Prerequisite: THE 206

## 298 Theatre Practicum: Technical R 1-6 Cr. Hrs.

Provides the student who is interested in technical theatre the opportunity to acquire credit for practical experience in production. For experience off campus, arrangements for supervision must be made through the department chairperson.

## 299 Theatre Practicum: Performance R 1-6 Cr. Hrs.

Provides the student who is interested in the performance aspect of production to receive credit for practical experience. If the experience takes place off-campus, arrangements must be made through the department chairperson.

## Transportation Management (TRA)

## 205 Transportation Pricing 3 Cr. Hrs.

Fundamental tariffs, rules and rate theory affecting the transportation industry. Discussion of the transportation pricing systems, including its transportation publications known as classifications, procedures, practices, documents, regulation, computerization, and jargon.
Prerequisite: TRA 115, TRA 120 or TRA 105

## 210 Transportation Claims <br> Management

3 Cr. Hrs.
Basis of carrier liability, including current regulations covering freight charge billings and resolution of claims. Resolving undercharge/overcharge claims.
Prerequisite: TRA 115, TRA 120 or TRA 105

## 215 Export-Import Distribution <br> Management

3 Cr. Hrs.
Problems involved in the distribution of goods to points outside the United States, ocean, air and land transportation problems. Prerequisite: TRA 115, TRA 120 or TRA 105
220 Air Cargo Operations 3 Cr. Hrs. Work-center (s) management procedures involved in air cargo movement as related to terminal operations, cargo documentation, storage and handling, palletization, load planning, and aircraft loading.
Prerequisite: AVA 105, TRA 115, TRA 120 or TRA 105

## 230 Transportation Regulations

3 Cr. Hrs.
Evaluation of the effect of economic and social regulatory controls on the management and operations of transportation carriers.
Prerequisite: MAN 205, TRA 120

## 231 Computerization in Distribution 3 Cr . Hrs.

Orientation to the use of electronic data systems in the transportation industry with emphasis on operational activities of the distribution function.

## 270 Transportation Management Internship <br> R 1-7 Cr. Hrs.

See EBE 270 Internship for course description.

## 297 Special Topics

Special interest content within the discipline as well as instruction delivered in a non-traditional format such as TV or videotape.

## Travel \& Tourism (TNT)

## 100 Introduction to Travel \& Tourism

 3 Cr . Hrs.Overview of terminology, concepts, and specialized fields that comprise the travel and tourism industry including job opportunities.
Prerequisite:DEV 065,085,110orequivalents

## 102 Travel Sales \& Telephone <br> Techniques <br> 1 Cr . Hr .

Methods and standards for effective travel industry sales practices.
Prerequisite: TNT 100

## 104 Tariff \& Ticketing: North America 3 Cr. Hrs.

Airline tariff interpretation, fare calculation/rating, transportation taxes, rules, and procedures for ticketing.
Prerequisite: TNT 112, MAT 105, TNT 100

## 106 Employment Guidelines for Travel Industry <br> 1 Cr . Hr.

Job search techniques applied to travel and tourism industry including resume preparation, application and interviewing for a job.
Prerequisite: TNT 100

## 108 Accommodations, Cars, Tours \& Rail <br> 2 Cr . Hrs.

Study of research and reservation process for accommodations, car rentals, tours, and rail transportation.
Prerequisite: TNT 100

## 109 Cruise Line Sales <br> 2 Cr. Hrs.

Study of research, reservation and sales process for the cruise industry worldwide. Prerequisite: TNT 100

## 112 Domestic Air Travel 3 Cr. Hrs.

Survey of the domestic airline industry, domestic airline and city codes, airline terminology, aircraft types, major reference guides, reservation ethics and map location of major North American airports.
Prerequisite:DEV 065,085,110orequivalents

114 International Travel 3 Cr. Hrs.
Survey of the international airline industry, including international airline codes, fares, ticketing, and foreign documentation requirements. Map location of major cities and airport codes in Europe, South America, Middle East, Africa, South Pacific.
Prerequisite: TNT 104, TNT 112
122 Airline Computer I 3 Cr. Hrs. Airline reservation system focusing on availability, space confirmation, and passenger record building. Two lecture, two lab hours per week.
Prerequisite: TNT 100, TNT 112 and one of BIS 160, BIS 119 orBIS M41, M51,M61,M70 or equivalent

## 123 Airline Computer II 2 Cr. Hrs.

Airline computer reservation system, including fare quotes and itinerary pricing; creating modifying, and searching for applicable fares.
Prerequisite: TNT 104, TNT 122
130 Destinations I
3 Cr. Hrs.
Tourist destinations in North America, Central and South America, the Caribbean and Bermuda, and the methods of selling these destinations.

## 131 Destinations II 3 Cr. Hrs.

Study of tourist destinations in Europe, Africa, the Middle East, Asia and the Pacific, and the methods of selling these destinations.

## 201 Tourism for the Travel Industry 3 Cr . Hrs.

Problems, issues, and trends in the travel industry.
Prerequisite: TNT 114, TNT 122

## 202 Marketing for the Travel Industry

 3 Cr. Hrs.Overview of an annual plan for a travel agency which includes units on advertising, marketing, sales, personnel, facilities, and otheroperationalincomes and expenditures. Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122

## 210 Management of Travel Sales Personnel 3 Cr. Hrs.

 Supervisory techniques for travel agency staff emphasizing communication, selection, and professional development.Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122

## 215 Managing a Travel Agency 3 Cr .

 Hrs.Managerial and financial aspects of agency operations, including internal flow and impact of external factors on successful management.
Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122

## 224 Advanced Airline Computer I <br> 2 Cr. Hrs.

Airline reservation system including hotel accommodations, cars, and client profiles. One lecture, two lab hours per week. Prerequisite: TNT 108, TNT 123

## 225 Advanced Airline Computer II

Application of airline computer reservation system beyond airline, car, airfares, hotel, and client profiles. Airline computer reference systems and other travel reservation capabilities. One lecture, two lab hours per week.
Prerequisite: TNT 123, TNT 114
250 Travel Sales Practicum 3 Cr. Hrs. Study and application of advanced salestechniques which apply to the travel industry.
Prerequisite: TNT 100, 102, 104, 108, 109,
112, 114, 122, 123, 131, MRK 201
270 TNT Internship
R
1-6 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare reports and/or projects. Prerequisite: EBE departmental approval

## 278 Travel \& Tourism Capstone

## 3 Cr. Hrs.

Assessment of achievement by Travel \& Tourism degree students in attaining program outcomes by employing reflective learning through demonstration of related principles and practices.

## 297 Special Topics <br> 1-3 Cr. Hrs.

Topics within the program but not covered within existing courses; opportunities for non-traditional learning. One to three lecture hours per week.
120 Transportation Logistics 3 Cr. Hrs. Overview of all modes of transportation in a national and international interlocking network, emphasizing interdependent relationship between the users, providers, and government.

## Visual Communications (VIS)

## 100 Design Survey <br> 3 Cr. Hrs.

Overview and orientation to the visual communications and printing industries including principles and practices of design. Prerequisite: DEV 110 or equivalent

## 101 VIS Tech Prep Seminar I

A preparatory course designed as an overview of interactive media technology.
Prerequisite: Acceptance into the Tech Prep program
102 VIS Tech Prep Seminar II
1 Cr. Hr.
An overview of interactive media technology components an issues in designing and producing interactive media.
Prerequisite: Acceptance into the Tech Prep program
103 VIS Tech Prep Seminar III R
1 Cr . Hr.
An overview of interactive media technology components an issues in designing and producing interactive media. Prerequisite: Acceptance into the Tech Prep program
104 Computer Basics 3 Cr. Hrs.
Introduction to MacIntosh computers and operating systems. Overview of graphic and multimedia design software. Analysis of digital design trends and processes.
106 Design Basics: 2D 3 Cr. Hrs. Introduction to 2D design fundamentals applied to visual communications, printing and the arts. two lecture, four lab hours per week.

## 107 Design Basics: 3D 3 Cr. Hrs.

Introduction to 3D design fundamentals applied to visual communications, printing and the arts. two lecture, four lab hours per week.
Prerequisite: VIS 106

## 108 Typography

3 Cr. Hrs.
Introduction to typography as an element and tool of visual communication. The concept of type as image is emphasized. two lecture, four lab hours per week.

## 109 Design Drawing 3 Cr. Hrs.

Introduction to marker rendering and other design drawing techniques as applied to visual communications and printing. Two lecture, four lab hours per week.
Prerequisite: ART 111 or IND 131

## 115 Digital Graphics I

3 Cr. Hrs.
Introduction to digital video editing software and the development of digital video for multimedia graphics.
Prerequisite: VIS 104
116 Digital Graphics II 3 Cr. Hrs.
Introduction to 2Danimation software and the development of animations for presentations and multimedia applications. One lecture, four lab hours per week.
Prerequisite: VIS 104
117 Web Page Design 3 Cr. Hrs. Web page design using HTML-based software. Design basics and a hands-on approach emphasized. Participants will develop their own web page by the end of the course.
Prerequisite: Complete one of the following: VIS 104, CIS 107, OIS M70

## 146 Digital Illustration <br> 3 Cr. Hrs.

Computer illustration techniques using vector based software.
Prerequisite: VIS 104

## 147 Digital Imaging 3 Cr. Hrs.

Computer imaging and photo manipulation using raster based software.
Prerequisite: VIS 104

## 148 Digital Page Layout 3 Cr. Hrs.

Introduction to computer page layout and composition using desktop publishing software.
Prerequisite: VIS 108 or VIS 146 and VIS 147

## 206 Design Principles I 4 Cr. Hrs.

First of a two-part series exploring advanced elements and principles of design; introduction to design symbology. Two lecture, four lab hours per week.
Prerequisite: VIS 148
207 Design Principles II 3 Cr. Hrs. Second of a two-part series exploring advanced elements and principles of design: introduction to identity systems. One lecture, four lab hours per week.
Prerequisite: VIS 206

## 236 Design Applications I 4 Cr. Hrs.

Application of symbology created in Design Principles I to the development and examination of signage system. Two lecture, four lab hours per week.
Prerequisite: VIS 148
237 Design Applications II 3 Cr. Hrs. Application of identity systems created in Design Principles II; development and examination of a comprehensive marketing concept. One lecture, four lab hours per week.
Prerequisite: VIS 236

265 3D Digital Graphics I 3 Cr. Hrs. Fundamentals of 3D graphics software and the development of print, presentation and multimedia graphics. One lecture, four lab hours per week.
Prerequisite: VIS 116

## 266 3D Digital Graphics II 3 Cr. Hrs.

 Advanced 3D animation techniques and the development of animations for presentations, broadcast and multimedia applications. One lecture, four lab hours per week. Prerequisite: VIS 265270 Visual Communications Internship R 1-12 Cr. Hrs.
See EBE 270 Internship for course description.

## 276 Visual Communications Portfolio Development 3 Cr. Hrs.

 Each second year student will develop a portfolio from portfolio projects, work experience, freelance, etc. Through lecture, demonstration, class handouts and guest speakers the student will have the exposure and guidelines necessary to build a unique and individualized portfolio.Prerequisite: VIS 237 or IND 232

## 278 Visual Communications Capstone <br> 3 Cr. Hrs.

Comprehensive application of all skills and techniques learned in prior visual communications classes and resources available in the design department. One lecture, four lab hours per week.
Prerequisite: VIS 207, VIS 237

## 297 Special Topics

## R

1-6 Cr. Hrs.
Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV. Students may apply only six credit hours of Special Topics courses toward an associate degree in design .

# Management of Volunteer Programs (VOL) 

190 Volunteer Seminars

0.5-3 Cr. Hrs.

The volunteer seminars will encompass topics offered as part of a continuing education program for persons interested in volunteer management. Seminars will be planned, scheduled, and offered throughout the year in a variety of volunteer management subject areas and for varying lengths of time.

Before graduating with honors in Visual Communications, Kelly Vogelsong served as student assistant in Publications, gaining actual production experience. Upon graduation, she continued her work in Publications as a regular employee, working on award winning projects.


Postsecondary Education Opportunity says education makes a difference. Median yearly earnings noted in 2000 were for high school graduates, \$28,807; for a graduate holding an associate degree, earnings were $\$ 35,389$.



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Kay Cornelius (1997)
Associate Professor, Mathematics
B.S., Michigan State University
M.Ed., Wright State University

Jane G. Corbly (1971)
Professor, English
B.A., M.A., George Peabody College for Teachers

## Steven Cornelius (1989)

Professor, Chairperson, Hospitality Management
A.S., Sinclair Commmunity College
A.S., Cincinnati Technical College
B.A., Capital University

Gordon Cowperthwaite (1978)
Professor, Experience Based Education
B.A., Antioch College
M.A., Goddard College

Ph.D., Union Institute
Mary A. Cox (1989)
Professor, Nursing
B.S.N., Wright State University
M.S., Ohio State University
(R.N.)

Cynthia Cully (1995)
Assistant Professor, Design
B.F.A., University of Dayton

Mark Curry (2000)
Assistant Professor, Civil Engineering Technology
A.S., Sinclair Community College
B.A., Urbana University

Lori C. Cutright (1992)
Professor, Physics
B.S., St. Joseph's College
M.S., Indiana University

Marika Dalley (1999)
Assistant Professor, Architectural Technology
B.S., Ohio State University
M.A., University of Kansas

## Ribhi Daoud (2000)

Assistant Professor, Economics
B.A., M.A., California State Sacramento

Ph.D., Walden University
Ronald L. Dapore (1998)
Assistant Professor, Tooling \&
Machining Technology
B.R.E., Grace Bible College

Gloria Daughtry (1983)
Professor, Nursing
B.S.N., Tuskegee Institute
M.S.N., Mississippi University for Women
(R.N.)
R. Edward Davis (1978)

Professor, English
B.A., Concord College
M.A., West Virginia University

John Deal (2000)
Instructor, Emergency Medical Services
B.S., Purdue University

William Deighton (1980)
Professor, Mechanical Engineering Technology
B.S., Lafayette College
M.S., Pennsylvania State University

## Roxann DeLaet (1992)

Professor, Nursing
B.S.N., University of Akron
M.S., Wright State University
(R.N.)

Linda Denney (1983)
Professor, Computer Information Systems
B.S., B.S.Ed., Miami University
M.B.A., Wright State University

Lynn Disbrow (1993)
Associate Professor, Communication Arts
B.A., Indiana University, South Bend
M.A., Emerson College

Ph.D., Wayne State University
Tillie Dorje-Chang (1994)
Assistant Professor, Electrical \&
Electronics Repair
B.S., C.I.S., DeVry Institute of Technology
M.S., Wright State University

Diane Drummer (2000)
Assistant Professor, Child \& Family Education
B.S., Ohio University
M.Ed., University of Cincinnati

Mary E. Dudash-White (1985)
Professor, Health Information Management
B.S., Ohio State University
M.A., Wright State University
(R.R.A.)

Isabelita P. Duncan (1986)
Professor, Nursing
B.S.N., University of Santo Tomas
M.S.N., Indiana University
(R.N., C.S., C.N.R.N.)

Charli Dunford (1977)
Professor, Design
Certificate, Cincinnati Academy of Design
Norma J. Dycus (1976)
Professor, Physical Education
A.B., MacMurray College
M.S.T., University of Illinois

Beatriz Dykes (1979)
Professor, Chairperson, Dietetics \& Nutritional Management
B.S., University of Philippines
M.N.Ed., University of Cincinnati

Ph.D., University of Dayton
(R.D., L.D.)

Mark Echtner (1995)
Associate Professor, Art
B.F.A., University of Wisconsin at Milwaukee
M.F.A., Miami University

Pamela G. Edwards (1988)
Professor, Chairperson, Dental Hygiene
A.A.S., Sinclair Community College
B.S.Ed., M.S.Ed., University of Dayton
(R.D.H.)

James Eller (1997)
Associate Professor, Mechanical Engineering Technology
B.A., Antioch University

Michael Erbe (1991)
Professor, Biology
B.S., Marietta College
M.A.T., Rhode Island College

Marlyce Erickson (1997)
Associate Professor, Developmental Studies
B.S.Ed., Concordia College
M.S.Ed., Southern Illinois University

## Dorie Farrell (1999)

Assistant Professor, Sociology
B.S., M.S., University of Dayton
(L.P.C., L.S.W.)

Donald L. Filbrun (1995)
Associate Professor, Tooling \& Machining Technology
B.S., Eastern Kentucky University
M.S., Wright State University

## Kyle Fisk (1991)

Associate Professor, Design
A.A.S., Sinclair Community College
B.A., Wright State University
M.Des., University of Cincinnati

## Dona Fletcher (1989)

Professor, Chairperson, Sociology
B.A., M.A., Fisk University

## Sandra Foltz (1990)

Professor, Nursing
B.S.N., University of Cincinnati
M.S.N., Andrews University
(R.N.)

Patricia Ann Fox (1978)
Professor, Dance
B.F.A., Cincinnati College Conservatory of Music
Dana Frierson (1996)
Assistant Professor, English
B.A., M.A., University of Dayton

## Solomon Fulero (1981)

Professor, Chairperson, Psychology
B.A., University of Maryland
M.A., Ph.D., J.D., University of Oregon

Michael Garblik (1983)
Professor, Automotive Technology
B.S., Bowling Green State University
M.Ed., University of Dayton

## Virginia Garrett (1992)

Associate Professor, Developmental Studies
A.B., Randolph Macon Women's College M.A., Case Western Reserve University

## Connie Garrison (1996)

Associate Professor, Criminal Justice
A.A.S., Sinclair Community College
B.S., Wright State University
J.D., University of Dayton

Judy Gerhard (1995)
Associate Professor, Political Science
Diploma, Miami Valley Hospital School of Nursing
M.P.A., University of Dayton

John Getrost (1990)
Associate Professor, Design
Diploma, Dayton Art Institute
Albert R. Giambrone (1972)
Professor, Chairperson, Mathematics
B.S., University of Dayton
M.S., Ohio State University

Joseph A. Giardullo (1988)
Professor, Nursing
B.S.N., M.S.N., Wright State University (R.N.)

Anita Gilkey (2000)
Instructor, Quality Engineering
Technology
A.T.S., Sinclair Community College
B.S., Wilberforce University

## Harry Gene Gilliat (1999)

Regular Adjunct, Electromechanical
Engineering Technology with Robotics
B.S., University of Dayton

Patricia Gillilan (1999)
Assistant Professor, Computer Information Systems
B.A., M.S., Florida State University

Gloria Goldman (1980)
Professor, Chairperson, Nursing
B.S.N., Louisiana State University
M.Ed., Loyola University of the South
M.S., Wright State University

Ph.D., University of Dayton
(R.N.)

Mary E. Govan (1987)
Professor, Chairperson, Accounting
B.A., University of Dayton
M.B.A., Wright State University
(Certified Public Accountant)
John E. Graham (1973)
Professor, Child \& Family Education
B.A., Wright State University

Daniel Greene (1989)
Associate Professor, Music
B.M., M.M., Bowling Green State University
Myra Grinner (1997)
Instructor, Communication Arts
B.A., Wright State University
M.S., Central Michigan University

## Rena Haas (2000)

Assistant Professor, Dental Hygiene, Allied Health Technologies
B.S., M.S., Ohio State University

George Hageman (1987)
Associate Professor, Art
B.S.Ed., M.A., Bowling Green State University
M.F.A., Ohio State University

James D. Halderman (1975)
Professor, Automotive Technology
B.S.Ed., Ohio Northern University
M.Ed., Miami University

Carolyn J. Hannah (1998)
Assistant Professor, Computer Information Systems
B.S., M.S., Wright State University

Steven D. Harper (2001)
Professor, Chairperson,
Electromechanical Engineering with
Robotics, Aviation Technology
B.S., Ohio State University
M.S., Wright State University

Crystal Harris (1992)
Associate Professor, Developmental Studies
B.A., Howard University
M.A., University of Dayton

Kevin Harris (2000)
Assistant Professor, Art
B.A., Hampton University
M.F.A., University of Cincinnati

Susan Harris (1995)
Associate Professor, Mathematics
B.A., Grinnell College
M.S., Wright State University

Michael C. Harvey (1981)
Professor, Automotive Technology
B.S., Western Michigan University

Sheranita Hemphill (1989)
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A.A.S., Sinclair Community College
B.S., M.S.Ed., University of Dayton
(R.D.H.)

Victoria Hennessy (1989)
Professor, Biology
A.A., College of San Mateo
B.A., M.A., San Francisco University

Vicki Henriksen-Stalbird (1999)
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Anne Henry (1994)
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B.S., M.S., Wright State University

Teresa Hieronymus (1991)
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B.A., M.A., University of Dayton

Patrick B. Hodges (1977)
Professor, Chairperson, Physical Education/Athletics
B.S., Manchester College
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Ph.D., Ohio State University
Jane Hofverberg (1992)
Professor, Occupational Therapy Assistant
B.S., Virginia Commonwealth University
(O.T.R./L.)

## Steven Holliday (1997)

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B.S., Capital University
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Rob Hoopes (2000)
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B.A., University of Akron
M.A., Gallaudet University
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William J. Hoover (1972)
Professor, Accounting
B.S., Miami University
M.B.A., University of Dayton
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James Houdeshell (1978)
Professor, Quality Engineering Technology
B.S., Rose-Hulman Institute
M.S., Wright State University
M.S., University of Dayton
(Professional Engineer)
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B.A., Valparaiso University
M.S., University of Wisconsin

Catharine A. Huber (1980)
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## Shirley Ivory (1992)

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B.S., University of Dayton
M.S., Wright State University

Surinder Jain (1983)
Professor, Chairperson, Electronics \&
Computer Engineering Technology
B.S., M.S., Punjabi University (India)

Post M.S. Diploma, Punjabi University (India)

## Bobby James (1998)

Associate Professor, Industrial Design \& Graphic Technology
B.S., Bowling Green State University

Wanda Jelus (1990)
Professor, Nursing
B.S.N., University of Cincinnati
M.S., Wright State University
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Beth Johnson (1999)
Assistant Professor, Industrial
Engineering Technology
B.S., University of Dayton

James T. Johnson (1976)
Professor, Chemistry
B.S., Southampton College of Long Island
M.S., University of Dayton

June K. Johnson (1974)
Professor, Nursing
B.S., University of Cincinnati
M.S., Wright State University
(R.N.)

Linda O. Johnson (1992)
Professor, Nursing
B.S.N., University of Virginia
M.S., University of Oklahoma
(R.N.)

Richard F. Jones (1977)
Professor, Chairperson, Chemistry
B.S., Marietta College

Ph.D., Purdue University
Bruce L. Jordan (1973)
Professor, Music
B.M.Ed., Miami University
M.M., Indiana University

Rick Jurus (1988)
Associate Professor, Art
B.F.A., Youngstown State University
M.F.A., Ohio State University

Barbara J. Kabat (1973)
Professor, Psychology
B.A., Seton Hill College
M.A., University of Dayton

Gary M. Kaiser (1979)
Professor, Respiratory Care
A.A.S., Sinclair Community College
B.S., University of Dayton
(R.R.T.)

## Harmit Kaur (1984)

Professor, Electronics \& Computer
Engineering Technology
B.S.E.E., Birla Institute of Technology \& Science (India)
M.S.E.E., University of Roorkee (India)

Ellen Keeler (1993)
Associate Professor, Mathematics
B.S., University of South Carolina
M.S., Wright State University

Robert M. Keener (1972)
Professor, Marketing
A.A.S., Sinclair Community College
B.S., Wright State University
M.S., Ohio State University

Janette R. Kelly (1998)
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Health Information Management
B.S., Ohio State University
M.B.A., Xavier University

Cynthia Kennedy (1980)
Professor, Psychology
B.S., M.A., University of Dayton

Joseph Keyes (1990)
Professor, Biology
B.A., Temple University
M.A., Western State College

Mohsen Khani (1997)
Associate Professor, Geography B.S., M.A., Western Michigan University

## Kenneth E. Kimble (1975)

Professor, Economics
A.A.S., Sinclair Community College
B.S., University of Dayton
M.Ed., University of Cincinnati (P.A.)

Barbara A. King (1973)
Professor, Child \& Family Education
B.A., Wilberforce University
G. Scott King (1987)

Professor, Management
B.S., Purdue University
M.A., Central Michigan University
M.B.A., Wright State University

Jerome M. Kinskey (1966)
Professor, Management
B.S., Franciscan University
M.B.A., Xavier University

William G. Klopfenstein (1977)
Professor, Biology
B.S.Ed., M.A., Bowling Green State University
Ph.D., Ohio State University
Mary J. Koehler (1972)
Professor, Nursing
B.S.N., University of Dayton
M.S., Wright State University
(R.N., Certified Gerontological Nurse)

Kenneth H. Kohlenberg (1987)
Professor, Music
B.S., University of Michigan
B.M., M.M., Michigan State University
D.M.A., University of North Texas

## Eric Kraus (1998)

Assistant Professor, Developmental Studies
B.S., M.S., Wright State University

William Krebs (1978)
Professor, Civil Engineering Technology B.C.E., J.D., University of Dayton

Ophelia Krewedl (1970)
Associate Professor, Nursing
B.S.N., University of Dayton
M.S., Wright State University
(R.N.)

Terry Krogman (1995)
Associate Professor, Automotive Technology
B.S., University of Toledo
M.Ed., University of Dayton

Judy L. Kronenberger (1998)
Assistant Professor, Medical Assistant Technology
A.S., Sinclair Community College
B.A., Antioch University

Vickie Lair (2000)
Assistant Professor, Mathematics
B.S., South Dakota State University
M.A., University of Nebraska-Lincoln

Paul Larmeu (1980)
Professor, Spanish
B.A., M.A., Ohio University

Ernestine Lassiter (1996)
Assistant Professor, Nursing
A.D.N., Sinclair Community College
B.S.N., M.S.N., Andrews University

Frank Leibold (1994)
Associate Professor, Hospitality
Management
B.A., Athenaeum of Ohio

Teresa Little (1993)
Associate Professor, Art
B.F.A., Wright State University
M.F.A., Cranbrook Academy of Art

Peter Maggiacomo (1995)
Professor, Computer Information Systems
A.T., B.T., University of Dayton
M.A., Webster University
W. Terry Maiwurm (1982)

Professor, Experience Based Education B.S.Ed., Ashland University

## Anthony Mann (1983)

Professor, Computer Information Systems
A.A.S., Sinclair Community College
B.A., M.B.A., University of Dayton

Carolyn Mann (1980)
Professor, Experience Based Education
B.S., M.B.A., Wright State University

## Russell Marcks (1990)

Professor, Mechanical, Quality
Engineering Technology, Engineering
Science University Parallel
B.S., University of Wisconsin-Platteville
M.S., University of Kansas
(Professional Engineer)
Thomas Martin (1989)
Professor, History
B.A., M.A., Wright State University

Ph.D., Miami University
Laurel Mayer (1989)
Professor, Acting Chairperson, Humanities
B.A., San Jose State University
M.A., University of Maryland

Ph.D., Miami University

Helen E. McCann (1977)
Professor, Child \& Family Education B.S.Ed., Central State University

David F. McCormick (1973)
Professor, Biology
B.S.Ed., M.A., Bowling Green State University
Anne McCrea (1998)
Assistant Professor, Psychology
B.S., Pennsylvania State University
M.S., Ph.D., University of Florida

## Kenneth McDowell (1994)

Professor, Biology
B.A., B.S., M.S., Ph.D., University of Illinois
Thomas A. McElfresh (1986)
Professor, Mental Health Technology
A.A.S., Sinclair Community College
B.A., University of Toledo

Psy.D., Wright State University
Lynden McIntyre (1989)
Professor, Electronics \& Computer
Engineering Technology
A.S., Northwestern Michigan College
B.S., M.A., Central Michigan University

Benjamin F. McKeever (1977)
Professor, Developmental Studies B.S., Ohio University

Kenneth Melendez (1997)
Associate Professor, Computer Information Systems
B.S., M.S., New Mexico State University

Ph.D., Oklahoma State University
Mildred Melendez (1978)
Professor, English
B.F.A., New Mexico State University
M.A., Oklahoma State University

Ph.D., Indiana University of Pennsylvania
J. Susan Merrell (1993)

Associate Professor, Chairperson,
Business Information Systems
B.S., Miami University
M.S., University of Dayton

Sue Messersmith (1976)
Professor, Architectural Technology
B.S., B.A., Miami University
(Registered Architect)
Marcia E. Miller (1988)
Professor, Nursing
B.S.N., University of Cincinnati
M.S.N., University of Texas, El Paso
(R.N., C.S.)

Kathleen Mills (1994)
Associate Professor, Nursing
A.A.S., Sinclair Community College
B.S.N., Columbia Union College
M.S., Ohio State University
(R.N.)

Gary L. Mitchner (1972)
Professor, Chairperson, English
B.A., Wilmington College
M.A., University of Michigan

Denise Moore (1973)
Professor, Chairperson, Radiologic Technology
B.S., M.S., University of Dayton
(A.R.R.T.)

Connie W. Mullins (1987)
Professor, Nursing
A.D., Kettering College of Medical Arts
B.S., M.S., Wright State University

Jaclynn K. Myers (1999)
Assistant Professor, Business Information Systems
B.S., M.S.Ed., Wright State University

Susan C. Myers (1972)
Professor, Mathematics
B.A., Muskingum College
M.S., Miami University

Jane Myong (1992)
Professor, Chemistry, Geology, Geography
B.S., University of California at Irvine
M.S., Ph.D., University of California at Santa Barbara
Carol Nancarrow (1996)
Associate Professor, English
B.A., Baylor University
M.A., Wright State University

Kunthavi Natarajan (2000)
Associate Professor, Biology
B.S., M.S., University of Madras

Ph.D., University of Iowa
Paula L. Neal (1972)
Professor, Business Information Systems B.S., M.A., Eastern Kentucky University

Ruth Nerderman (1984)
Professor, Nursing
B.S.N., Ohio University
M.A., Ball State University
(R.N., C.E.N.)

Linda L. O'Keefe (1979)
Professor, Physical Education
B.S., M.S., University of Dayton

Constance O'Neill (1973)
Professor, Business Information Systems
B.S., M.S., University of Dayton

Tina Partin (1993)
Associate Professor, Nursing
A.D.N., Kettering College of Medical Arts
B.S.N., Columbia Union College
M.S.N., Wright State University

Elaine Papadakis (1996)
Associate Professor, Psychology
B.A., M.A., St. Mary's University

Linda Pastore (2000)
Assistant Professor, Experience Based Education
B.S., Bloomsburg University
M.S., West Chester University

## Harold Pearson (1990)

Professor, Electromechanical
Engineering Technology with Robotics
B.S., M.S., University of Cincinnati

Nila L. Peavy (1995)
Associate Professor, Physical Education
B.S., M.Ed., University of Pittsburgh

Roger F. Penn (1975)
Professor, Chemistry
B.S.Ed., Bowling Green State University
M.S.T., Cornell University

Ph.D., Ohio State University

John Pfetzing (1976)
Professor, Mathematics
B.S., M.Ed., Miami University

Ph.D., Ohio State University
Anthony Ponder (1991)
Associate Professor, Mathematics
B.S., Ohio State University
M.Ed., Wright State University

Thomas M. Preisser (1973)
Professor, Humanities, Government, and
Modern Languages
B.A., Stanford University
M.A., Northwestern University

Ph.D., College of William \& Mary
James C. Puthoff (1967)
Professor, Accounting
B.S., M.B.A., University of Dayton

Paul A. Rab (1972)
Professor, Biology
B.S., M.S., Ph.D., Ohio State University

Eric Ramsey (1997)
Associate Professor, Psychology
B.A., M.A., University of Dayton

Robin Razor (1998)
Assistant Professor, Nursing
A.S., Sinclair Community College
B.S., Wright State University

Deanna Reas (1989)
Professor, Psychology
B.A., Berea College
M.S., Ohio University

Robert E. Reas (1968)
Professor, Accounting
B.B.A., M.B.A., University of Cincinnati
(Certified Public Accountant)

## Nicholas Reeder (1998)

Associate Professor, Electronics \&
Computer Engineering Technology
B.S.E., Princeton University

Ph.D., University of Minnesota
Shari Rethman (1998)
Assistant Professor, Chairperson, Design
B.S. Des, M.S. Arch., University of Cincinnati
(I.I.D.A., N.C.I.D.Q.)

Nancy Rhodenamel (1998)
Associate Professor, Nursing
B.S.N., Wright State University
M.S.N, Andrews University

Daniel R. Ricica (2000)
Assistant Professor, Chairperson, Management, Marketing, Purchasing, Transportation
B.A., M.A., The McGregor School, Antioch University
Gordon L. Robinson (1978)
Professor, Counselor, Business Technologies
A.B., Defiance College
M.Ed., College of William \& Mary
(N.C.C.) (L.P.C.)

Amanda Romero (1998)
Assistant Professor, Design
A.A.S., Sinclair Community College
B.S., Wright State University
M.Des., University of Cincinnati

## Ellen Rosengarten (1974)

Professor, Sociology
B.A., Kent State University
M.A., University of Akron

Arthur Ross (1990)
Professor, Chairperson, Physics
B.S., M.S., Bowling Green State University
Annette Ross-Gray (1996)
Associate Professor, Criminal Justice
B.S., Central State University
M.S.Ed., University of Dayton

Katherine Rowell (1996)
Associate Professor, Sociology
B.A., M.A., Wright State University

Ph.D., Ohio State University
Vann Rucker (1996)
Associate Professor, Coordinator, Credit
for Lifelong Learning Program
B.S., Central State University
M.Ed., University of Cincinnati
L.N.H.A., Ohio State University

Robert Ruckman (1981)
Professor, Chairperson, Music
B.M., M.M., The Juilliard School
D.M.A., University of Cincinnati

Harry L. Ruth, Jr. (1987)
Professor, Mathematics
B.S., Miami University
M.S., Ohio State University

Marigrace Ryan (1993)
Associate Professor, Biology
B.S., Marian College
M.S., University of Cincinnati

Timothy Ryan (1990)
Professor, Design
B.S., Central State University
M.S., Wright State University

Julie Saluke (1991)
Program Coordinator, Travel \& Tourism Institute of Certified Travel Agents
Billie Sanders (2000)
Assistant Professor, Physical Education
A.A., Sinclair Comunity College
B.S., University of Dayton
M.S., Miami University

Patricia A. Santoianni (1990)
Professor, Computer Information Systems
B.S., M.S., University of Dayton

Nicholas Scambilis (1997)
Associate Professor, Chairperson, Fire
Science Technology, Safety Risk
Management, Environmental
Engineering Technology
B.S., Washington University St. Louis
M.S., University of Oklahoma

Ph.D., University of Missouri (Registered Professional Engineer, OH)

## Nora Scheafer (1998)

Associate Professor, Dietetics \&
Nutritional Management
B.S., Colorado State University
M.Ed., University of Cincinnati

## Lynn Seery (1994)

Associate Professor, Quality Engineering Technology
B.S., University of Toledo
M.B.A., University of Toledo
(C.Q.A., C.Q.E., C.Q.M.)

Bonnie Shane (1989)
Professor, Legal Assisting
B.A., Kent State University
J.D., University of Baltimore

Kenneth Shanley (1975)
Professor, Marketing
A.A.S., Mohawk Valley College
B.S., M.B.A., Wright State University
D.B.A., Western Colorado University

## Robert Sherman (2000)

Assistant Professor, Computer
Information Systems
B.S.Ed., University of Dayton
M.Ed., Miami University

James W. Shimko (1996)
Associate Professor, Accounting
B.M., M.B.A, Youngstown State University
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Kathleen Shipley (1994)
Associate Professor, Nursing
A.A.S., Sinclair Community College
B.A., Wright State University
M.S.N., University of Cincinnati
(R.N.)

Thomas M. Singer (1987)
Professor, Industrial Design \& Graphic Technology
A.A.S., William Rainey Harper College,
B.S.I.T., Southern Illinois University
M.A., Wright State University
(C. Mfg. T.)

Judith Skyllingstad (1987)
Professor, Disabilities Intervention Services
B.S., M.S.Ed., University of Cincinnati

Ed.D., University of Louisville
Marc Allen Smith (1993)
Associate Professor, Biology
A.A.S., Community College of the Air Force
B.S., Park College
M.S.A., Central Michigan University
M.S., Wright State University

Michael Smith (1993)
Associate Professor, Developmental Studies
B.S., Wright State University
M.S., University of Dayton

Robert Smith (1991)
Professor, History
B.A., University of Toledo
M.A., Ohio State University

Ph.D., University of Toledo
Joseph Snow (1993)
Assistant Professor, Aviation Technology
B.A., Mercer University
M. Div., Southeastern Baptist

Theological Seminary
M.A.Ed., Wake Forest University

Charles W. Sowerbrower (1999)
Assistant Professor, Chairperson,
Emergency Medical Services
B.S., M.E.d., West Chester University

John Stachler (1981)
Professor, Radiologic Technology
B.S.R.T., Greensboro College
(A.R.R.T.)

Billie J. Stacy (1972)
Professor, Developmental Studies
B.S.Ed., University of Dayton
M.S., Wright State University

Yvonne Stebbins (1968)
Professor, French, Humanities, Japanese
B.A., Miami University
M.A., University of Dayton

Ph.D., Miami University
Jack Steinmetz (1987)
Professor, Electronics \& Computer Engineering Technology
A.S., Sinclair Community College
B.A., Bellarmine College
B.E.E., University of Dayton
M.E., Wright State University

Robert D. Stone (2000)
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B.E.E.T., DeVry Institute
M.A., Central Michigan University

## David Stott (1998)

Assistant Professor, Mathematics M.S., B.S., Ohio University

David Stover (1990)
Professor, Automotive Technology
B.S., Florida International University
M.Ed., University of Dayton

William J. Struhar (1972)
Professor, Psychology, Coordinator, UDLP
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Sally Struthers (1991)
Professor, Chairperson, Art
B.A., Wright State University
M.A., Ph.D., Ohio State University

Susan L. Sutton (1992)
Professor, Mental Health Technology
B.S., Ohio University
M.S.S.W., University of Wisconsin
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Michael Taylor (1995)
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Computer Information Systems
B.A., Bridgewater State College
M.S., Wright State University

## Fred Thomas (1983)

Professor, Physics
B.S., Michigan State University
M.S., Purdue University

Ph.D., Indiana University
Cheryl M. Thompson (1998)
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B.S., M.S., Wright State University

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B.A., University of Texas at Austin
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A.A.S., Forest Park Community College
B.A., Maryville College
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Ed.S., University of Sarasota

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B.A., Berea College

Ed.D., University of Cincinnati
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B.A., M.A., University of Dayton Ph.D., Ohio State University
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Real Estate, Business Ownership
B.S., M.B.A., Wright State University

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Professor, Radiologic Technology
A.A.S., Sinclair Community College
B.S., St. Joseph's College
M.S., University of Dayton
(A.R.R.T.)

Neil J. Vanderpool (1999)
Assistant Professor, Chairperson, Theatre, Dance
B.A., B.A., Brigham Young University
M.F.A., University of Oregon

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Professor, Chairperson, Mental Health Technology
B.A., University of Dayton
M.S.W., Ohio State University
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B.S., Ed., M.A., Wright State University

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C.E., University of Cincinnati
M.B.A., Wright State University
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A.A.S., Sinclair Community College
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B.S., Ohio State University
M.B.A., Wright State University
(R.R.A.)

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Professor, History
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M.A., Purdue University

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M.A., College of William \& Mary

Ph.D., West Virginia University

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M.Ed., Wright State University

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Physical Therapist Assistant
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M.Ed., Xavier University
(C.P.S.)

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Professor, Developmental Studies
B.S., West Chester University
M.Ed., University of Pittsburgh
M.S., University of Dayton

Ed.D., Pennsylvania State University
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B.S.Ed., Southwestern University
M.S., University of Houston

Thomas Wilson (1985)
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B.A., Wittenberg University
M.A.T., Northwestern University
M.A., Stanford University

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B.S., M.S., Michigan State University

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Management, Environmental
Engineering Technology
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M.S., University of Cincinnati

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B.S., Wright State University
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A.S., Sinclair Community College
B.S., Antioch University

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M.A., Ball State University
(C.A.M., S.P.H.R.)

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B.S., M.B.A., Wright State University

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Communication Arts
A.A., Sinclair Community College
B.S., University of Wyoming
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Associate Professor, Respiratory Care
A.A.S., Sinclair Community College
B.S., University of Dayton
(R.R.T., R.P.F.T.)

Kent Zimmerman (1982)
Professor, Communication Arts
B.A., Manchester College
M.A., Ohio University

## President Emeritus

David H. Ponitz (1975-1997)
B.A., M.A., University of Michigan

Ed.D., Harvard University

## Professor Emeritus Awards

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Professor Robert J. Buehler (1985)
Allied Health Technologies
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Liberal Arts \& Sciences
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Business Technologies
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Business Technologies
Professor Jane Teeven (1987)
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Professor Mark G. Treat (1987)
Business Technologies
Professor Erwin C. Vernon (1988)
Business Technologies
Professor Russell L. Moubray (1989)
Engineering \& Industrial Technologies
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Allied Health Technologies
Professor John C. Elder (1990)
Extended Learning \& Human Services
Professor Russell F. Jerd (1990)
Engineering \& Industrial Technologies
Professor John Hickey (1991)
Liberal Arts \& Sciences
Professor James Walden (1991)
Business Technologies
Professor Joseph Polanski (1992)
Extended Learning \& Human Services
Professor Vernon Watson (1992)
Engineering \& Industrial Technologies
Professor Ellen Beck (1993)
Liberal Arts \& Sciences
Professor Irving L. Schwartz (1993)
Liberal Arts \& Sciences
Professor John E. Burke (1994)
Business Technologies
Professor Edwina H. Byrd (1994)
Liberal Arts \& Sciences

Professor Richard I. Erbaugh (1995)
Engineering \& Industrial Technologies
Professor Robert L. Henn (1995)
Liberal Arts \& Sciences
Professor Ralph D. Rust (1996)
Business Technologies
Professor John W. Snyder (1996)
Liberal Arts \& Sciences
Professor Curtis Barnes (1997)
Fine \& Performing Arts
Professor Jean I. Cook (1997)
Extended Learning \& Human Services
Professor Percy O. Vera (1998)
Business Technologies
Professor Conrade C. Hinds (1999)
Liberal Arts \& Sciences
Professor Eleanor S. Young (1999)
Extended Learning \& Human Services
Professor Robert W. MacClennan (2000)
Fine \& Performing Arts
Professor W. Lee Shadle (2000)
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Professor Mellow D. Bradley (2001)
Experience Based Education
Professor Mary L. Navarro (2001)
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General Motors
Ed Jacob
Treasurer
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James Kurek
Director of Financial Planning and Analysis
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Divisional Controller
Globe Motors
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Specialist, Corporate Policy and
Accounting Research
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Academic Counselor
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## Design

Printing Technologies
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Dayton Daily News
Cynthia Cully
Design, Sinclair Community College
Tim Davis
Vice President
Montgomery County Printing Services
Charli Dunford
Design, Sinclair Community College
Kyle Fisk
Design, Sinclair Community College
John Getrost
Design, Sinclair Community College
Sue McCallister
Prime Printing
Sindy Moore
Central Printing
Dick Pollitt
Miami Valley Career Technology Center
Amanda Romero
Design, Sinclair Community College
Tim Ryan
Design, Sinclair Community College

## Clarence Walls

Dean, Fine \& Performing Arts
Sinclair Community College

## Visual Communications

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Designer
William Bogan
Ohio University
Rachel Botting
Real Art
Cynthia Cully
Design, Sinclair Community College
Joanne Cunningham
Counselor, Fine \& Performing Arts
Sinclair Community College


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Design, Sinclair Community College
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Mary Tyler
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Sinclair Community College

## Architectural Technology

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Principal Architect
Architects Associated, Incorporated

## Karen Planet

Architect
Earl Reeder Architect
Ed Rapp
Architect
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Alan Scherr
Principal Architect
Alan Scherr Architects
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## Automotive Technology

## Keith Booth

Automotive Instructor
Miami Valley Career Technology Center
James Brown
Technician
Montgomery County Engineers

## Adam Pietrzak

Instructor
General Motors Training Center Satellite (Sinclair)
Jimm Horvath
Executive Director
Dayton Area Auto Dealers Association

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Manager, Equipment
Miami Valley Regional Transit Authority

## Business Information <br> Systems/Medical Office Specialist

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Business Instructor
Warren County Career Center
Fran Coy
Administrative Assistant
Medical Imaging Department
Miami Valley Hospital
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Children's Medical Center
Candy Henry
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Manager, Office Operations
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## Carolyn James

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## Sharon Kiser

Director of Volunteer Resources
Grandview/Southview Hospitals

## Liz Kramer

Registered Nurse Practitioner
Wright Health Associates

## Norma Kamerer

Medical Office Senior Instructor
Miami Valley Career Technology Center

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Lead Transcriptionist
Greene Memorial Hospital
Mary Beth Seevers
Administrator and Transcriptionist
Dan Young
Business Manager
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## Business Information Systems

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Legal Department
LexisNexis
Pam Boyd
Marketing Specialist
IBM
Joyce Brown
Technician, Water Revenue
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Carolyn Cartwright
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Valerie Doll
Director, Workforce Education Center
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Software Integration Consultant
LexisNexis
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Ohio Department of Rehabilitation and Corrections
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Training Consultant
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Dayton Power \& Light
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Senior Staffing Manager
OfficeTeam
Fifth Third Center
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Instructor, Office Technology Specialist
Greene County Career Center
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## Gloria Shafer

Contract Administrator Chair
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P.M.I. Food Group

Barb Temple
Retired NCR
Evelyn Williams
Executive Secretary
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Crown Personnel

## Career Planning \& <br> Placement Center

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President, Wise Construction
Sandra Brubaker
Coordinator
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Specialist, Career Development
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T.R. Morton

Chief Executive Officer
International Reactor Corporation
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President \& Chief Executive Officer
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Workforce Training Manager
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Student Representative
Ohio Fellows Leadership Program
Elvin Taylor
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Premier Health Partners
Jackie Woods
Student Representative
Sinclair Community College
Dan Worl
President
SUNNEX, Incorporated

## Civil Engineering <br> Technology

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Hickey Builders
Creigee Coleman
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City of Dayton
Mike Eckley
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Shook Construction Company

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## Eugenio Sejas

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Tri-Star Compact
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T.A.S.C.

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Web Developer/Server Administrator Johnstone Downey Klein, Incorporated
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## DTMA Manpower \& Training

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Machine Products Corporation
Robert Bremner
President
Bremner \& Associates

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Select Tool \& Die Corporation
Antonette Flohre
Consultant
Strategies Plus
Bruce Hackett
Vice President
Estee Mold \& Die, Incorporated
Paul Harper
President
C.T.M., Incorporated

David Harry
Vice President
Gem City Engineering Company
David Smith
President
Dayton Wire Burner

## Dental Hygiene

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David Collins
Dean, Allied Health Technologies
Sinclair Community College
Robert Davis
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Private Practice
Pamela Edwards
Chairperson, Dental Hygiene
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Patricia Jackson
Registered Dental Hygienist
Private Practice
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Periodontist
Private Practice

## Sally Lahmon

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Glenn Jividen, Jr.
Periodontist
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Private Practice
Vannah Nantz
Dentist
Private Practice

## Dietetics \& Nutritional Management

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Consulting Dietitian
Julie Bates
Consulting Dietitian
Bobby Beavers
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Development \& Veterans Assistance,
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Susan Brinkmeier
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Franciscan Medical Center
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Children's Medical Center
Vandadean Rucker
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Sinclair Community College
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Sinclair Community College
Jeff Singleton
Administrator
Friends Care Center
Phil Williams
Director, Dietary Service
Children's Medical Center

## Disabilities Intervention Services

## Deborah Dulaney

Administrator
Stillwater Center

## Pete Emmons

Training and Quality Assurance
Montgomery Developmental Center
David Henkaline
Staff Development
Resident Home Association
Terry McHugh
Montgomery County Board of Mental Retardation and Developmental Disabilities
Mike O'Neill
Program Coordinator
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Sylvia Orr
Special Education
Dayton City Schools
Tom Pfister
Montgomery County Board of Mental Retardation and Developmental Disabilities
Karen Schmitt
School Psychologist
Beavercreek Public Schools

## Early Childhood Education

(Child \& Family Education)
Carrie Allen
Graduate Teacher,
Miami Valley Headstart
Vicky Gulley
Childcare Clearinghouse
Tracy Hill
Teacher
Wee Haven Children's Center
Sue Koverman
Part-time Instructor
Sinclair Community College
Lou Ann Molar
Director
Wee Haven Children's Center
Robbie Partain
Miami Valley Headstart
Donna Ruhland
Coordinator
Early Start Services
Deborah Shirley
Nancy Snyder
Education Specialist
Council on Rural Service
Nancy Sutton
Director, University of Dayton Children's Center

## Marilyn Thomas

Executive Director
Miami Valley Child Development Centers, Incorporated
James Uphoff
Retired Professor
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## Darnice Wilkinson

Miami Valley Child Development Centers, Incorporated

## Electrical \& Electronic

Repair Technology
Len Hayes
Delphi Chassis Systems
Roy Jackson
Manufacturing Engineer
Crown Cork \& Seal Company
Loren Marshall
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Corey Pearson
Dayton Power \& Light Company
William A. Wolfe
Systems Technician
Network Services, Ameritech

# Electromechanical Engineering Technology 

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Electronics Teacher
Patterson Co-op High School
Steve Antenen
President
Antenen Research

## Dean Beachler

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Process Equipment
Greg Brackett
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Vacuum Instrument Corporation

## Ann Centers

Coordinator, Technical Training
The Truck \& Bus Group, GMC

## Frank Dulin

Controls Technician
Gem City Engineering
Craig Edlin
Branch Manager
Allen Bradley Company

## Kenneth Fisher

GM FANUC Robotics
Gene Gilliat
Service Manufacturing Engineer
Delco Production, GMC
Chris Heitkamp
Development Engineer
E.G.\& G. Mound

Craig Hill
Delphi Chassis Systems
Tim Hinger
Hewett Soap Company, Incorporated

## Ed Leonard

United Auto Workers, Local 696
Delphi Chassis Systems
Doug Mahoney
Supervisor, Physical Plant
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## Bill Newlin

Training Director
Dayton Electrical JATC
Allen Poe
Manager of Manufacturing
Rixan Associates
James Rhoades
Manager of Manufacturing
Motoman Corporate Headquarters
Tom Routson
Controls Technician
Gem City Engineering
Ed Simms
SIMC Training Systems

## Bo Williams

Motoman Corporate Headquarters
J.W. Winkler

Product Support Manager
Monarch Marking, Incorporated
Joe Zwissler
Service Manager
Woodhull Corporation

# Electronics \& Computer Engineering <br> Technology 

Evelyn Beachy
Software Engineer/Manager
Spectra Precision
Steve Brandt
Electronics Technology Department
Miami Valley Career Technology Center
Etham Erdas
Group Leader
Laser Mike
Len Hayes
Delphi Chassis Systems
Amin Ismail
Professor, Electrical Engineering Technology
University of Dayton
Roy Jackson
Crown Cork \& Seal Company
David Look
Senior Research Physicist, Research Center
Wright State University
Brian McNicholl
Deputy Director
DLA Product Testing Center
Ryan Patterson, Jr.
District Manager
FANUC Robotics North America, Incorporated

## Emergency Medical Services

## Thomas Achor

Chief
Miami Township Fire Department
Michele Baldwin
EMS Coordinator
Greene Memorial Hospital
Daniel Becker
Professor, Allied Health Technologies
Sinclair Community College

## Robert Bobbitt

Fire Chief
Miamisburg Fire Department
Mark Bowden
EMS Coordinator
Middletown Regional Hospital
Anne Boyd
Adjunct, Emergency Medical Services
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## James Brown

Department of Emergency Medicine
Wright State School of Medicine
Chris Carnes
EMS Coordinator
Charles Chinn
Firefighter/EMT-P
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David Collins
Dean, Allied Health Technologies
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Lisa Faulkner
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Grandview Hospital
Richard Fletcher
Firefighter/EMT-P
Huber Heights Fire Department
Bobbie Gearhardt
EMS Coordinator
Kettering Memorial Hospital
Mike Grunkemeyer
Firefighter/EMT-P
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Phyllis Harover
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Glenda Klint
EMS Coordinator
Good Samaritan Hospital
Brian Kuntz
EMS Coordinator
Kettering Medical Center
Sycamore Medical Center
John Larch
EMS Coordinator
Children's Medical Center
Thomas Long
EMS Coordinator
Miami Valley Hospital
Angie Mickie
EMS Coordinator
Greene Memorial Hospital
Ray Mueller
EMS Coordinator
Middletown Regional Hospital
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Alcohol, Drug Addiction \& Mental
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Deb Myers
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Medical Director, Care Flight
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## Engineering Science University Parallel

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Osama Ettouney
Chairperson, Manufacturing Engineering
Miami University
Albert Giambrone
Chairperson, Mathematics
Sinclair Community College
Glen Johnson
Chairperson, Mechanical \& Aerospace Engineering
University of Dayton
Richard Jones
Chairperson, Chemistry
Sinclair Community College
Mohammad Karim
Chairperson, Electrical Engineering
University of Dayton
Garth Motschenbacher
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Joseph Saliba
Chairperson, Civil Engineering
University of Dayton
Tony Saliba
Chairperson, Chemical Engineering
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## Environmental Engineering Technology \& Safety Risk Management

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Warren Brown
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DMAX Team
Ralph Froehlich
President
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David Harlow
Battalion Chief
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Ronald Lester
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James Lopez
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Mike Morris
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Gary Tucker
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Monte Williams
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## Experience Based Education

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## Ray Burton

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Emery Worldwide
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Capital University
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Dallas Moore, Sr.
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Shawn McDowel
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Fire Science
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Chief
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Miami Valley Fire/EMS Alliance

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E.G.\& G. Mound

Bill Hoover
Captain
Trotwood Fire Department
Paul Hutsonpillar
Chief
Trotwood Fire Department
Michael Ludwick
Chief
Bethel Township Fire Department
Thomas Mills
Retired Assistant Chief
Brookville Fire Department

## John Moore

Assistant Chief
Dayton Fire Department
Gary Nesslage
Chief
Germantown Fire Department
James Nickel
Chief
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## Don Pohl

Retired
Craig Rauch
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Bill Ring
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Randy Staley
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## Charles Wiltrout

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## Joan Ditonto

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## Hospitality <br> Management

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Evans Bakery
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Blue Moon Cafe
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## Industrial Design \& Graphic Design Technology

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Price Brothers

## Industrial Engineering <br> Technology

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Le Blond-Makino
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Bill Lewis
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## Industrial/Retail Security

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## Institutional \& <br> Community Based Corrections

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Dayton Human Rehabilitation
Richard Buford
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James Cannon
Judge
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## Labor Studies

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John Caldwell
Business Manager
Laborer's International Union

## Ken Delaney

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International Brotherhood of Electrical
Workers, Local 82
Dodie Ditmer
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William Fannin
International Representative
United Auto Workers, Region 2-A
Mike Fisher
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I.U.E., Local 755, Delphi

Joe Hasenjager
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Len Hayes
United Auto Workers, Local 696
Dennis Henry
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Eldon House
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James Keeney
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Bruce Pence
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Tom Ritchie
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## Law Enforcement

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John Huber
Lieutenant
Dayton Police Department
Greg Johnson
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Mike Kemper
Kettering Police Department
Ronald Labatzky
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Sinclair Community College
Roy McGill
Chief
Germantown Police Department
Butch Morningstar
National City Bank
James O'Dell
Director of Police
Kettering Police Department
Robert Rockwood
Chief
Franklin Police Department

## Pat Shade

Patrolman
Dayton Police Department
Donald Sprude
Major
Montgomery County Jail
John Thomas
Safety Director
Dayton Police Department

Dave Vore
Sheriff
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## Pat Welsh

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Kathleen Little
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Michael Merz
U.S. Magistrate Judge
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## Manual <br> Communication

(Sign Language for the Hearing Impaired)
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University of Dayton
Wendy Bell
Manual Communication
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Lori Bond
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Dayton City Schools Special Education
Karen Gay
Representative, Deaf Community
Cerita Ethridge
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## Management

Frieda R. Bennett
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Sinclair Community College
Harry Bumgarner
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Tim Hissong
Director
Brethren's Home

## Ronald Labatzky

Chief of Police
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Beth Loehr
President
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## James Mattice

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## Marketing

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Peter A. Granson
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Reynolds \& Reynolds
Jimm Horvath
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Sinclair Community College

## Don Kemper

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WHIO-TV

## Bill Kunzler

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Dave Neer
Miami Valley International Trade
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Tom Norwalk
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Miami Valley Marketing Group
Daniel Ricica
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## Mechanical <br> Engineering <br> Technology

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Montgomery County Waste Disposal
Frank Detmer, Jr.
Detmer \& Sons, Incorporated
Thomas H. Ferdelman
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Heapy Engineering
Jeff Gilley
Bryantt-Habegger
Robert Heywood
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Production Control Units, Incorporated
Frank Mauro
Harm \& Ring
Greg McAfee
McAfee Heating \& Air Conditioning
Larry McMillan
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## Medical Assistant Technology

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Avis Hiller
Lab Technician, Medical Assistant Technology
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Jan Kelly
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Sinclair Community College
Judy Kronenberger
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Doctors' Urgent Care Office
Pam Stoermer
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Kimberly Thomas
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South Dayton Surgeons, Incorporated

## Mental Health <br> Technology

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St. Joseph Children's Treatment Center
Michele Davis
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Carol Hillberg
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## Edward Lampton

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William Lawson
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## Arlene Mason

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## Susan Sutton

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## Paul VanMarter

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Annette Young
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## Nursing

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Visiting Nurse Association
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Kevin Leonard
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# Physical Therapist <br> Assistant 

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## Ray Lindemann

Physical Therapist
Lindemann Physical Therapy

## Bob Marcione

Physical Therapist Department
Veterans Administration Medical Center

## Colleen Whittington

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Gene Demeter
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Hilltop Basic Resources
Jack D. Kerr
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## Radiologic Technology

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Sandee Chubner
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## Mark Combs

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Lori Cummins
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## Bob Hogue

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## Jacqui Rose

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## John Stachler

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## Real Estate/Property Management

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## Nick Popadyn

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## Ralph Mantica

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## Steve Tawney

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Montgomery County
Dennis Duchene
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Arthur Andersen
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Dennis Baker
Flowserve Corporation
Robert Cammerer
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Marcus Combs
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Thomas D'Amico
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Dave Dysinger
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## Harry Elliot

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Angelia Erbaugh
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Jim Galloway
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Delphi Chassis Division

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Rod Huemmer
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Harold Jones
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Ed Leonard
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## Keith Long

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William Reese
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John Routson
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Russ Speelman
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NCR Corporation


The campus is a blend of modern architecture and green space, and easy to get around thanks to underground corridors and third floor walkways.

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[^0]:    * See page 52.

[^1]:    * See page 52.

[^2]:    *Courses required for EMT-Paramedic Certification

[^3]:    * See page 52.

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[^5]:    * See page 52.

[^6]:    * Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology.

[^7]:    * See page 52.

