

Room Numbering

Each of the buildings on campus has an identification number. The rooms are numbered according to the building and the level where they are located. Example: Room 10112 means Building 10, Floor 1, Room 12. Floor 0 or L means the basement levels.

www.sinclair.edu

Educational Support Services 512-5113 Building 10/Room 10421 Electronic College 512-2990 Building 14/Room 14318 Engineering & Industrial 512-2282 Building 3/Room 3142 Technologies English as a Second Language 512-5113 Building 10/Room 10421 Enrichment Center 512-5188 Building 12/Room 12331 Experience Based Education 512-2790 Building 6/Room 6130 Extended Learning & Human 512-2760 Building 6/Room 6141 Services Faculty (Part-time) Support Services 512-2782 Building 10/Room 10343 Fine & Performing Arts 512-2765 Building 10/Room 10343 Fine & Performing Arts 512-2544 Building 2/Room 2222 First Aid/Police 512-2700 Building 7/Room 7112 Food Service (Aramark) 512-5136 Grade reporting system 1-800-613-9516 Graduation Application 512-2737 Building 10/Room 10231 Honors/Phi Theta Kappa 512-2517 Building 8/Room 8025	www.sinciai	r.eau	
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Honors/Phi Theta Kappa 512-2517 Building 8/Room 8025			Duilding 10 /D 10001
Human Resources 512-2514 Building 7/ Room 7340	Human Resources	512-2517	Building 7/Room 7340

Sinclair: Always On Your Side.

Department/Service	Number	Location
Learning Center, Miami Valley		
Research Park	252-9787	1900 Founders Drive
Library/Learning Resources		
Center (L.R.C.)	512-2855	Building 7/Lower Level
Liberal Arts & Sciences	512-5134	Building 6/Room 6121
Lost & Found/Police	512-2700	Building 7/Room 7112
Maintenance (Service Control Center) Manual Communication	512-3090	Building 17
Language Laboratory	512-4559	Building 9/Room 9223
Mathematics Laboratory	512-2286	Building 1/Room 1315
Media Services	512-3011	Building 7/Lower Level
Modern Language Laboratory	512-2228	Building 2/Room 2321
New Directions	512-3064	Building 10/Room 10424
PACE	512-2962	Building 6/Room 6130
Parking Information	512-2397	Garage, Lot A
Part-time Faculty Support Services	512-2782	Building 16
Phi Theta Kappa	512-2517	Building 10, Room 10339
Physical Education & Athletics	512-2860	Building 8
Physics Laboratory	512-5126	Building 4/Room 4241
Police (Campus)	512-2700	Building 7/Room 7112
President of Sinclair	512-2525 512-5110	Building 7/Room 7311
Prevention Education Resource Center	312-3110	Building 10/Room 10316
Provost of Sinclair	512-5300	Building 6/Room 6112
Psychology Laboratory	512-5125	Building 4/Room 4212
Public Information Office	512-4636	Building 7/Room 7210
Registration & Student Records	512-2736	Building 10/Room 10231
Transcript Requests	012 2700	241141119 107 1100111 10201
Transfer Credit Evaluation		
	D. 512-2395	register@sinclair.edu
Service-Learning	512-2771	Building 6, Room 6130
Sinclair Center	512-3061	Building 12
Sinclair Central Advising	512-2201	Building 10/Room 10242
Sinclair Foundation	512-2510	Building 15
Sinclair Ohio Fellows Lead. Dev.	512-2509	Building 8/Room 8025
Sinclair Technical Careers	512-5188	Building 12/Room 12331
Opportunity Center	r10 0r00	D.::114: 0 /D 0007
Student Activities Student Center	512-2509	Building 8/Room 8025
Student Center Student Employment	512-2765	Building 8/Lower Level Building 10/Room 10343
Student Covernment	512-2878	Building 8/Room 8025
Student Support Services	512-3550	Building 11/Room 11342
Supported Education Program	512-5113	Building 10/Room 10421
Tartan Campus Store	512-BOOK	Building 7/Room 7110
Telephone Registration	512-5454	
Teleport I	512-2002	Building 11, 11346
Teleport II	512-5394	Building 13, Room 13223
Testing Center	512-3076	Building 10/Room 10445
Tutorial Services	512-2792	Building 10/Room 10444
Upward Bound Program	512-2331	Building 12/Room 12382
Veterans Assistance	512-2586	Building 10/Room 10324
Vice President for Administration	512-3050	Building 7/Room 7330
Vice President for Business	512-2512	Building 7/Room 7321
Operations	£19 9100	Duilding 14 /Doom 14901
Vice President for Information	512-3106	Building 14/Room 14301
Technology Vice President for Instruction	512-2522	Ruilding 6 / Poom 6149
Vice President for Instruction Vice President for Student Services	512-2522 512-2975	Building 6/Room 6142 Building 10/Room 10323
Withdrawal from Classes	512-2975	Building 10/Room 10231
Writing Center	512-5106	Building 3/Room 3221
	37) 512-2500	0

Sinclair Community College Bulletin (USPS 943-500), Volume 30, Issue No. 4, May 20, 2002

Published by

Web Address

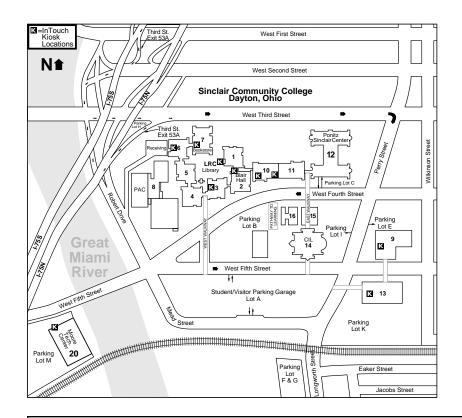
Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460, five times a year; monthly in February, April, November and semi-monthly in May.

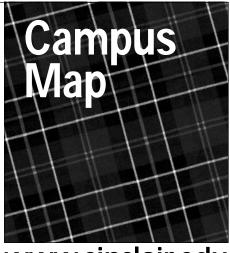
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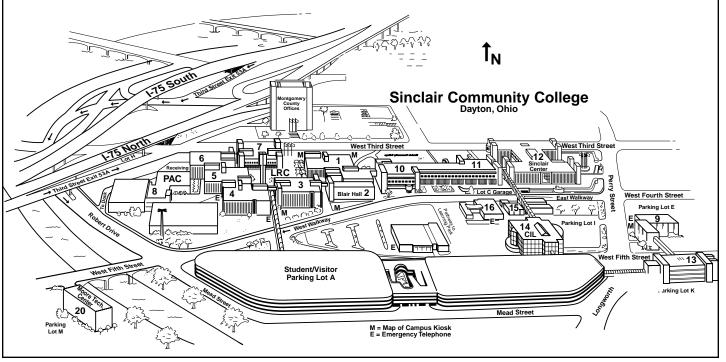


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InTouch Information Kiosks

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

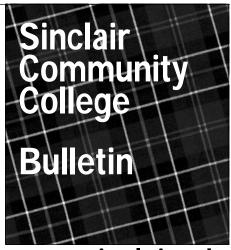
Building	Floor
2	Third, at walkway
3	First
4	First
6	First
7	First
LRC	Ground
9	First
10	Admissions, Second and Fourth
13	Second
20	Moore Tech. Ctr., Second Floor





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.



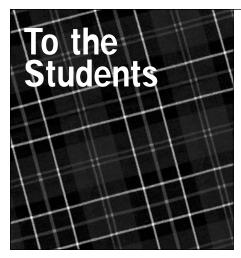
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Sinclair is meeting your needs... in every way.

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 non-disqualifying 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
230 enrolled at Sinclair in Fall 1999
20.7%
Transfer rates are not available because of FERPA regulations.

28 50/ of page completors that were not availed. Fall

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 report also 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

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Cover: Successful Sinclair students, staff, faculty, new Tartan Pride mascot Design: Sinclair Publications

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Sinclair Publications

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inside back cover



Note: Please refer to Quarterly Class Schedule/Bulletin for more detailed information pertaining to specific registration/payment dates, and so forth.

Sinclair Community College reserves the right to make changes to the published schedule.

Fall Quarter	Fal	П	Oι	เล	rt	er
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Labor Day
Fall Conference
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

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.)

2002-2003

September 2 (Mon.) September 11 (Wed.) September 12 (Thur.) September 16 (Mon.) October 14 (Mon.) November 11 (Mon.)

November 28 - December 1 (Thur.-Sun.)

December 8 (Sun.) December 18 (Wed.)

December 23 - 29 (Mon.-Sun.)

January 1 (Wed.)

Winter Quarter

Classes Begin Martin Luther King, Jr. Holiday Classes End

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

April 1 (Mon.) May 27 (Mon.)

June 15 (Sat.)

June 16 (Sun.)

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

March 31 (Mon.)

May 26 (Mon.)

June 14 (Sat.) June 15 (Sun.)

Spring Quarter

Classes Begin
Memorial Day Holiday
Commencement
Classes End

Summer Quarter

Classes Begin

First Five-Week Term	June 19 (Wed.)	June 18 (Wed.)
Seven-Week Term	June 19 (Wed.)	June 18 (Wed.)
Ten-Week Term	June 19 (Wed.)	June 18 (Wed.)
Second Five-Week Term	July 24 (Wed.)	July 23 (Wed.)
		-

Independence Day Holiday July 4 (Thurs.) July 4 (Fri.)

Classes End

First Five-Week Term	July 23 (Tues.)	July 22 (Tues.)
Seven-Week Term	August 6 (Tues.)	August 5 (Tues.)
Ten-Week Term	August 27 (Tues.)	August 26 (Tues.)
Second Five-Week Term	August 27 (Tues.)	August 26 (Tues.)

Note: The college reserves the right to make changes to the published schedule. **Professional Development/Learning Day (Campus and all offices closed)*



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.



www.sinclair.edu

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.
- 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.
- —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, when Sinclair 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 LaSalle Street, Suite 2400, Chicago, IL 60602-2504; (800) 621-7440; (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 Accreditation Commission 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.

Dayton, Ohio Innovations Celebrations



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.



1803 🛡 2003

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 innovation— finding 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.

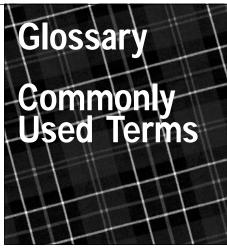
Career Planning & Placement Center (C.P.P.C.) - Office where career counseling and testing is performed. A career and employment library and job information is also kept there. The Placement Office arranges initial job interviews and conducts seminars on resume writing and interviewing techniques.

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.



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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 self-directed 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.

 ${\bf Curriculum}$ - The total program of courses required for a degree in a particular subject.

 \boldsymbol{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.

 ${f Major}$ - 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).

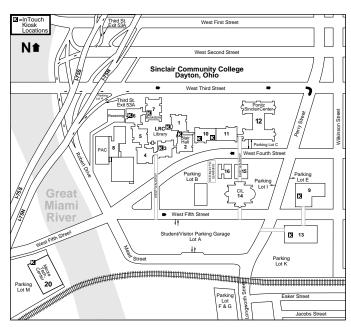
Teleport - Technology Enhanced Learning Environments Port - open lab for students and faculty with state-of-the-art computer equipment and software.

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.

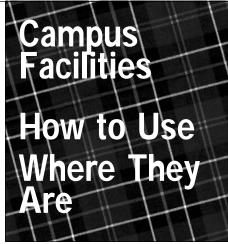
The college's modern day campus dates to its opening in 1972. At that time, the campus consisted of seven major structures, Buildings 1-7, the Automotive Technology building, and Building 9 at West Fifth and Perry streets. Since that time the Physical Activity Center, Building 8, underground and above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



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Parking

Lot B

Sinclair student parking is available at a nominal charge in the multi-level parking garage (Lot 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.
             7:00 a.m. - 10:00 p.m.
   Lot E
   Lot H
             7:30 a.m. - 10:00 p.m.
             7:00 a.m. - 6:00 p.m.
   Lot I
              7:00 a.m. -
   Lot K
                          5:00 p.m.
             6:00 p.m. -
   Lot M
                          8:00 p.m.
Friday
   Lot A
              6:30 a.m. - 6:00 p.m.
             Opens at 3:00 p.m. (Free Parking)
   Lot B
             7:00 a.m. - 6:00 p.m.
    Lot E
             7:30 a.m. -
    Lot H
                          6:00 p.m.
              7:00 a.m. -
                          6:00 p.m.
    Lot I
   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.
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• Motorcycle parking available in Lot A *only* in marked assigned area.

Opens at 3:00 p.m. (Free Parking)

Parking for the disabled is located in all student lots.

Normal hours of operation for Summer quarter are:

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Monday - Thursday - Summer Quarter

Lot A 6:30 a.m. - 9:30 p.m.

Lot B
Lot E
Lot H
Lot I
Lot I
Lot K
```

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 Lot H No student or part-time Lot I employee parking Lot K 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 employee parking Lot K

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 must return 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,	MonThurs.	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 n 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,	MonThurs.	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.

and assorted bevera	iges.		
Subshop	Building 3,	MonThurs.	7:30 a.m 8:00 p.m.
•	Third Floor	Friday	7:30 a.m 2:30 p.m.
		Saturday	Closed
Made to order deli s	andwiches, fresh soup	s, hot dogs, salads,	and assorted beverages.
Pizza Cart	Building 2 & 10	MonThurs.	7:30 a.m 8:00 p.m.
	Walkway,	Friday	7:30 a.m 2:30 p.m.
	Third Floor	Saturday	Closed
Freshly baked pizza	, hot dogs, prepared	salads, snacks, an	d assorted beverages.
Snack Bar	Building 13	MonThurs.	7:30 a.m 8:00 p.m.
	Fourth Floor	Friday	7:30 a.m 2:30 p.m.
		Saturday	Closed
Pizza, deli sandwi	ches, hot entrées, pi	epared salads and	d assorted beverages.
Espresso Cafe	Building 11	MonThurs.	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

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:

- 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.
- One individualized learning room for asynchronous learning
- 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 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.

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) 512-5113 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 & Community Services Laboratories, Room 12374
- Design Laboratories, Building 13
- Developmental Studies Laboratories, Rooms 6231, 6331
- Industrial Design & Graphics Technology Laboratory, Rooms 10446, 11441
- Educational Materials Center, Room 9108
- Electronics Engineering Technology Laboratory, Room 1230
- 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 Building 13, Second Floor, (937) 512-5394

Teleports (Technology Enhanced Learning Environments-Port) 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.

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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 Sinclair academic image and over 200 division specific software applications; Teleports also have Macintosh work stations 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 a six-lane swimming pool and diving well, four racquetball courts, gymnasium, aerobic and self defense room, weight room, saunas, a multi-purpose field house, plus other support areas including fully equipped men'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 the crucial 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

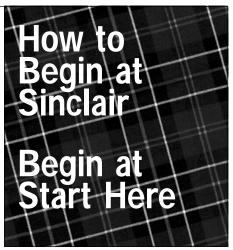
Non-Academic Quarter Hours

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.



www.sinclair.edu

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-l 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.

Turn the page to begin



If you are:	And your Goal is:	Step 1 Special Application Procedures	Step 2 Welcome
New, First-time in College – is 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: Office of Registration & Student Records Sinclair Community College 444 West Third Street Dayton, Ohio 45402-1460 Note: Hand carried copies are not considered official transcripts. 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. 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 Post- Secondary Enrollment Options (PSEO) at Sinclair while still attend- ing 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. When notified of eligibility, obtain a PSEO application for Sinclair from your high school guidance counselor. 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 Placement Testing	Step 3 Orientation	Step 5 Advising/Scheduling/Registration
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.	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.	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.)
Placement testing 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.	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).
Placement testing 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.	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 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 test- ing. Call (937) 512-2210.	Not required	Counselors at Sinclair Central (Room 10242) will help you schedule your classees. Note : If you are a student at another institution, check with your counselor at your home institution to determine course transferability.
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.	Not required	Counselors at Sinclair Central (Room 10242) will help you schedule your classes.
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.	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.	Counselors at Sinclair Central (Room 10242) will help students schedule their classes.
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.	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.	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.) • A limit in the number of credit hours that may be taken may be imposed. • Establish a timetable for GED completion.
Refer to special PSEO application procedures.	Once you become eligible and complete the PSEO application process, written notification about the mandatory PSEO Orientation will be sent to you.	 Scheduling and registration process will be explained at the mandatory PSEO orientation. Your high school guidance counselor will explain the equivalency of a given course at Sinclair in meeting high school graduation requirements. Sinclair academic counselors can advise students about academic programs at Sinclair.

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

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 to Sinclair 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) www.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. Submit all 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.
- ☐ 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.
- ☐ 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) 512-5113, 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 resident alien 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-time employment 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 part-time 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.

ŕ	Montgomery County residents	Other Ohio	Out-of-state residents & international residents
Students instructional			
fees	\$ 31.25	\$ 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*
Transcripts (each	ı Fee gree rtificate ı)	\$ \$ \$ \$ \$	10.00 20.00 10.00 5.00 2.00
Transcripts (sam Returned Check Laboratory fees	(penalty per che	eck) \$	7.00 10.00 asses.

* 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

Ohio law requires that all males who are not in compliance with 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 compliance will be assessed out-of-state fees and, if the fees are not 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 Sinclair Community College.** Social Security numbers should be shown on the face of the check to ensure 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-campus Sinclair Intouch Kiosk to print the fee bill.
- 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 use—reducing 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 first I.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 must be 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 second-year 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 Allen-Bradshaw 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 the student and family are expected 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:



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- 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 first-time 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.

N	Iinimum credit hours student must earn
Student registered for:	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 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, N, 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 credit hours 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 have a 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



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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:

caucinic counsciors may be reached at.				
Allied Health Technologies	Room 6120, (937) 512-3029			
Business Technologies	Room 6131, (937) 512-3054			
Engineering & Industrial				
Technologies	Room 3142, (937) 512-7922			
Extended Learning				
& Human Services	Room 6141, (937) 512-2760			
	Room 6222, (937) 512-2701			
Fine & Performing Arts	Room 2222, (937) 512-2544			
Liberal Arts & Sciences	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 who complete 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.

English Composition (9 quarter hours) ENG 111 (3) ENG 112 (3) ENG 113 (3)	Science	ce (coi	havioral ntinued)
ENG 113 (3)	PLS PSY	201 119	(3) (5)
Mathematics	PSY	121	(3)
(minimum of 3 quarter hours)	PSY PSY	122 205	(3) (4)
MAT 108 (3) MAT 116 (5)	PSY	206	(3)
MAT 117 (4)	PSY PSY	207 208	(3) (5)
MAT 122 (4)	PSY	217	(4)
MAT 151 (3) MAT 201 (5)	PSY PSY	223 225	(4) (4)
MAT 202 (5)	PSY	228	(4)
MAT 203 (5) MAT 204 (5)	PSY SOC	242 111	(4) (3)
MAT 215 (5)	SOC	112	(3)
MAT 216 (4) MAT 218 (5)	SOC SOC	120 145	(5) (3)
	SOC	160	(3)
Natural & Physical	SOC SOC	205 208	(4)
Sciences	SOC	215	(3) (4)
(minimum of 12 quarter hours;	SOC	226	(3)
3 courses from one sequence) AST 101 (4)	Arts &	ե Hur	nanities
AST 111/117 (4) AST 112/118 (4)		of 9 quar	ter hours from at least 2 areas)
AST 112/118 (4) AST 113/119 (4)	ART	101 102	(3)
BIO 111 (4)	ART ART	125	(3)
BIO 112 (4) BIO 113 (4)	ART	231	(3)
BIO 205 (4)	ART ART	232 233	(3) (3)
BIO 225 (4) BIO 235 (4)	ART	235	(3)
CHE 141 (4)	ART DAN	236 155	(3) (3)
CHE 142 (4) CHE 143 (4)	DAN	157	(3)
CHE 151 (5)	HIS HIS	101 102	(3) (3)
CHE 152 (5) CHE 153 (5)	HIS	103	(3)
CHE 201 (5)	HIS HIS	105 111	(3) (3)
CHE 202 (5) CHE 203 (5)	HIS	112	(3)
GLG 141 (4)	HIS HIS	113 214	(3) (3)
GLG 142 (4) GLG 143 (4)	HIS	215	(3)
GLG 144 (4)	HIS HIS	216 217	(3)
PHY 100 (4) PHY 104 (4)	HUM	125	(3)
PHY 141 (4)	HUM HUM	130 131	(3) (3)
PHY 142 (4) PHY 143 (4)	HUM	255	(3)
PHY 151/157 (4)	LIT LIT	201 202	(3)
PHY 152/158 (4) PHY 153/159 (4)	LIT	203	(3) (3)
PHY 201 (5)	LIT LIT	211 212	(3) (3)
PHY 202 (5) PHY 203 (5)	LIT	213	(3)
PHY 204 (4)	LIT LIT	217 227	(3) (3)
Social & Behavioral	LIT	230	(3)
	LIT MUS	234 115	(3) (3)
Science	MUS	131	(3)
(minimum of 9 quarter hours from at least 2 areas) ECO 201 (3)	MUS MUS	132 133	(3) (3)
ECO 202 (3)	PHI PHI	204 205	(3)
ECO 203 (3) GEO 101 (4)	PHI	205 206	(3)
GEO 102 (3)	REL	111	(3)
GEO 201 (3) GEO 202 (3)	REL REL	112 135	(3) (3)
PLS 101 (3)	REL	204	(3)
PLS 102 (3) PLS 103 (3)	THE THE	105 201	(3) (3)
PLS 104 (4)	THE	202	(3)
	THE	203	(3)

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 can be 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
- ...and others

- · Kettering University
- McGregor University
- Miami University
- Ohio State University
- University of Cincinnati
- University of Dayton
- University of Toledo
- Urbana University
- Wilberforce University
- Wittenberg University
- Wright State University

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.

- 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, students should contact the institution to which 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 at Sinclair as closely as possible around the requirements of their transfer institution. Furthermore, by speaking to courselors 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 at Sinclair 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 Points		Grade		Quality Points	
			S	Satisfactory	0
A Excelle	ent 4	90-100%	I	Incomplete	0
B Good	3	80-89	W	Withdrawal	0
C Averag	ge 2	70-79	P	Pass	0
D Passin	g 1	60-69	N	Progress	0
F Failure	0	0-59	Y	Proficiency Credit	t 0
Z Non-A	ttenda	nce 0-59	ΙP	In Progress	0
			X	Audit	0

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	В	9	
College Algebra	5	C	10	
General Psychology I	3	A	12	
Western Civilization I	3	В	9	
Physical Education	<u>1</u>	A	_4	
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

To be eligible for the Dean's List in any quarter, a student must complete six 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 attempted	Cumulative grade 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.

The student 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.
- 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.
- 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 ______.

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 least 2.0; 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", "B", 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 of a "portfolio" of prior learning 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, EBE-100 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 credit at Sinclair.
- 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 & 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

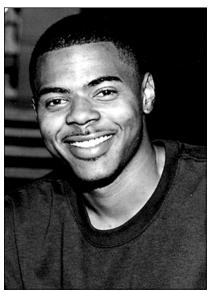
Children (and others who are not officially enrolled) are not permitted in classrooms or laboratories when classes are in session.

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

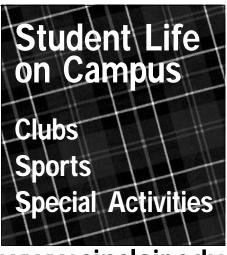
- Phi Theta Kappa (national honor society, membership by invitation)
- Psi Beta Club (psychology honor society)

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



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- 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

continued next page

- 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: Honors Scholars program, or individual Honors 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, HUM 195, 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-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. - 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 promotes leadership 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. sponsors Wellness Week, Student Appreciation Awards Ceremony, Commencement Graduation party, Winter festivities, Spring Fling, Holiday Giveaway baskets, Thanksgiving baskets, 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 Newspaper - 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, type-setting, 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.



www.sinclair.edu

Experienced Worker Program

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

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 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

Peer Counselor 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 Services, Building 10, Room 10324, (937) 512-2752 The African-American Male Initiative (A.A.M.I.), is a comprehensive program designed to assist and support African-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 in goal/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 student services 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
- Encourage high 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 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 or more credit hours) at special rates. Students with 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

Sinclair Community 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, Lower 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, OhioLlNK 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 Environments-Port) 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.

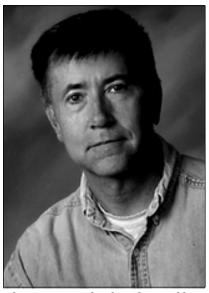
Two-year associate degree programs qualify for educational benefits. One-year certificate programs do not qualify.

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.
- 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://www.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.



www.sinclair.edu

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 at Sinclair. 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 no job 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 a job. If currently employed in a job related to the major, a student may use it as an internship, with appropriate departmental approval.

A Co-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. Co-op 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. Service-learning 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) 512-2790.

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)

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.

Southwestern 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.

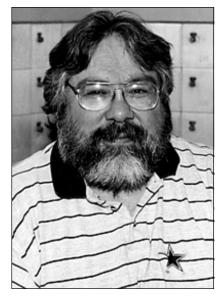
International Study Abroad

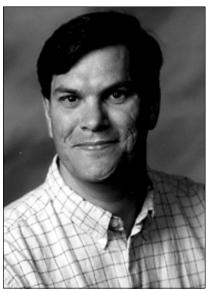
Studying abroad allows a student to become fully immersed in a foreign country's culture and every day life. The student becomes sensitized to perspectives that may be different than his or her own such as religious tolerance and practice, the role of women, foreign language competence, business practices, 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) 512-5306 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.





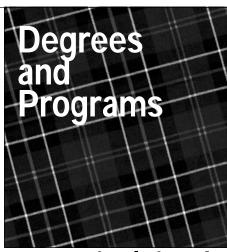
Professor Thomas M. Singer of the Industrial Design & Graphic Technology department researched a virtual office project at Sinclair that led to the award, Innovative Excellence in Teaching and Learning Technology. This project focused on the Internet as a communication tool with students and instant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

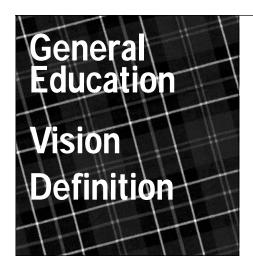
University parallel degree programs are designed for those who plan to transfer to four-year colleges and universities after completing course work at Sinclair. Most Liberal Arts & Sciences courses completed with a final grade of "C" or better will transfer with no loss of credit. Transferability of 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.



www.sinclair.edu

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	History of Photography
•	DAN 155	Dance History
•	DAN 157	Dance Appreciation
•	GEO 102	Introduction to Geography II
•	HIS 105	African-American History
•	HIS 111, 112, 113	Western Civilization I, II, III
•	HUM 125	The Human Image
•	HUM 140	Appalachian Folkways
•	HUM 205	Cultures of Ancient Greece & Rome
•	HUM 245	The Vietnam War:
		Narratives & Issues
•	HUM 255	People & Religion
•	MUS 115	Music Appreciation
•	PHI 205	Introduction to Philosophy
•	REL 111	Eastern Religions
•	REL 112	Western Religions
•	REL 135	American Religious Movements
•	THE 105	Introduction to Theatre

ART 232 Art of the Medieval & Renaissance Worlds
 ART 233 Art of the Modern World
 LIT 201, 202, 203 Survey of English Literature I, II, III Survey of American Literature I, II Introduction to Shakespeare

Students with a fairly substantial background in a discipline can

select a course from the following which are designed for majors

Art of the Ancient World

LIT 230 Great Books of the Western World
 MUS 131, 132, 133 Music Styles I, II, III

in the area:

ART 231

THE 201, 202, 203 History of Theatre I, II, III

Degree seeking students will participate in assessments of General Education prior to graduation.



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

Associate of Arts

Associate of Applied Science Associate of Science

A.T.S. - Associate of Technical Study Associate of Individualized Study

Career Programs (A.A.S.)

Architectural Technology Automotive Technology Aviation Technology

Option: Professional Pilot & Airway

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

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 (A.A. & A.S.)

Business Administration

Communication Arts

Dance

Engineering Science Liberal Arts & Sciences

Emphases: African-American Studies

Biology Chemistry Creative Writing **Elementary Education**

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 Performance Theatre Performance Theatre Technical

Music Education

Specialized Courses

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

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

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

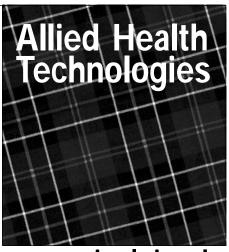
Medical Assistant Technology Jennifer Barr, Chairperson (937) 512-2973, Room 2122

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



www.sinclair.edu

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

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.

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 program begin. 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) 512-2210 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

(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.

Admis	ssion R	equirements:		
ALH	140	Basic Life Support		1
BIO	107	Human Biology		5
210	10.	or		ŭ
141.	142.143	Anatomy & Physiology		12
SOC	111	General Sociology I		3
boc	111	delicital boclology 1	TOTAL	9 or 16
				_
				Credit
Course	e & Titl	le		Hours
FIRST	QUAR	RTER		
ALH	104	Allied Health Informatics		2
DEH	103	Head & Neck Anatomy		4
DEH	105	Introduction to Dental Hyg	giene	2
DEH DEH	114	Exposure Control in Dentis		1
CHE		Bio-Chemistry	J	4
ENG	111	English Composition I		3
			TOTAL	16
SECO	ND QU	JARTER		
DEH	111	Pre-Clinical Dental Hygien	e I	4
DEH	155	Oral Pathology		4
DEH	157	Research Methodology		2
BIO	205	Microbiology		4
ENG	112	English Composition II		3
			TOTAL	17
THIR	D QUA	RTER		
DEH	112	Pre-Clinical Dental Hygien	e II	4
DEH	135	Dental Radiology		4
DEH	156	Dental Hygiene Research P		1
DEH	220	Medical Emergencies in the	e Dental Off	ice 2
DEH		Nutrition & Oral Health		3
ALH	220	Pathophysiology		4
			TOTAL	18
		ARTER		
DEH		Clinical Dental Hygiene I		5
DEH	215	Periodontics I		2
MAT		Elementary Algebra		4
PSY	119	General Psychology	0 1)	-
		(or PSY 121 & PSY 122 =		5
PIPPI		TED.	TOTAL	16
	QUAR			
DEH	125*	Dental Materials		3
DEH	211	Clinical Dental Hygiene II		7
DEH DEH	210 235	Drug Therapy in Dentistry	т	2
DEII	233	Community Dental Health	TOTAL	$\frac{3}{15}$
CIVTL		OTED	IOIAL	13
	I QUAI			7
DEH DEH	212 250	Clinical Dental Hygiene III Periodontics II		7 2
DEH	253	Pain Control in Dentistry		1
COM	211	Effective Speaking		3
COIVI	~11	Effective Speaking	TOTAL	$\frac{-3}{13}$
SEVE	NTH O	UARTER	1011111	10
DEH	213	Clinical Dental Hygiene IV		7
DEH	236	Community Dental Health		2
DEH	255	Dental Hygiene Practice		2
HUM		Humanities Elective*		3
			TOTAL	14
* See	page 52.			
1				

Dietetics & Nutritional Management Technology

(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.

man, or in person to banding 0, moon or 20.				
			Credit	
	e & Ti		Hours	
FIRST	「QUA	RTER		
DIT	109	Introduction to Dietetics	2	
DIT	112	Medical Terminology	2	
ALH	103	Introduction to Health Care Delive	ry 3	
MAT	101	Elementary Algebra	4	
CHE	120	Introduction to Chemistry	4	
		TOTAL	15	
SECO	ND Q	UARTER		
DIT	129	Human Nutrition	5	
DIT	137	Food Sanitation & Safety	3	
CHE	122	Introduction to Biochemistry	4	
BIS	119	Personal Computer Applications:	4	
DIS	119	Microsoft Works	3	
		TOTAL		
THE	D OII		13	
		ARTER	_	
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	
FOUR	TH G	UARTER		
PSY	119	General Psychology	5	
COM	206	Interpersonal Communication	3	
ENG	112	English Composition II	3	
		TOTAL		
FIFTH	I QUA	ARTER		
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		
DII	210	TOTAL		
CIVTI	I OII	ARTER	17	
	•		4	
DIT	222	Medical Nutrition Therapy II	4	
DIT	227	Dietetics Directed Practice II	4	
HUM	100	Humanities Elective*	3	
SOC	120	General Sociology	$\frac{5}{10}$	
		TOTAL	16	

continued next page

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	2
		TOTAL	16

Note: DIT 236 requirement may be fulfilled by DIT 118

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 are expected 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

	7		
ALH	103	Introduction to Health Care Delivery	3
HIM	121	Basic Medical Terminology	3
		TOTAL	6

	Credit
Course & Title	Hours
EIDCT OLLA DTED	

LIKSI	ı QUA	IV I EIV		
HIM	122	Specialized Medical Terminology	3	
BIO	107	Human Biology	5	
ALH	104	Allied Health Informatics	2	
BIS	M61	Introduction to Word	1	
BIS	M62	Intermediate Word	1	
HIM	110	Health Information Processing I	3	
		TOTAL	15	
SECOND QUARTER				

ALH	142	Pathology of Disease Processes	4
HIM	111	Health Information Processing II	3
HIM	260	ICD-9-CM Medical Office Coding	3
HIM	261	CPT Medical Office Coding	3
HIM	220	Health Information in Long Term Care	2
BIS	M41	Introduction to Excel	1
		TOTAL	16

THIRD QUARTER

HIM	265	Health Care Data in Reimb	oursement	3
HIM	135	Medicolegal Aspects of Hea	lth Care Records	3
BIS	M31	Introduction to Access		1
BIS	M32	Intermediate Access		1
ENG	111	English Composition I		
		or		
	131	Business Communications	I	3
ALH	201	Survey of Drug Therapy		2
		Portfolio Elective	_	3
			TOTAL	16

continued next column

FOUR	RTH Q	UARTER	
MAT	106	Allied Health Mathematics	4
		or	
	101	Elementary Algebra	
COM	206	Interpersonal Communication	
		or	
	211	Effective Speaking I	3
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
PSY	121	General Psychology I	3
		or	
SOC	111	General Sociology I	
BIS	M51	Introduction to Powerpoint	1
		TOTAL	14
FIFTH	I QUA	RTER	
HIM	236	Ambulatory Coding for Hospitals	3
HIM	250	Supervised Professional Practice I	3 2 3 t 3
HIM	244	Health Care Quality Improvement	3
HIM	245	Health Information Resource Managemen	t 3
HUM		Humanities Elective*	3
		TOTAL	14
SIXTI	H QUA	ARTER	
HIM	231	Inpatient ICD-9-CM Coding	5
HIM	251	Supervised Professional Practice II	5 3 3 3 14
HIM	225	Clinical Abstracting	3
HIM	235	Health Record Statistics	3
		TOTAL	14
SEVE	NTH (QUARTER	
HIM	218	Cancer Registry	1
HIM	278	HIM Capstone	3
HIM	204	Health Informatics	3 2 4
HIM	252	Supervised Professional Practice	
		General Education Elective	3
		TOTAL	13

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 GI	PA	ŷ ŷ G	

See page 52.

			redit
	se & Ti ΓQUA		ours
BIO	143	Anatomy & Physiology III	4
ENG	111	English Composition I	•
	131	Business Communication I	3
MAT	101	Elementary Algebra	Ū
		or	
	105	Business Mathematics	4
HIM	121	Medical Terminology	3
ALH	151	Introduction to Holistic Therapy TOTAL	$\frac{1}{15}$
SECO	ND Q	UARTER	
ENG	112	English Composition II	
		or	
	132	Business Communication II	3
PHI	206	Personal Ethics	3
COM		Interpersonal Communication	3
IMT	101	Integrative Medical Massage Therapy I	2
SOC	111	General Sociology or	
	145	Comparing Cultures	3
		TOTAL	14
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER	
IMT	103	Integrative Medical Massage Therapy II	5
IMT	107	Anatomy & Physiology for Massage Therapist I	5
ALH	152	Pain Management	4
	102	TOTAL	14
FOUR	RTH Q	UARTER	
IMT	205	Integrative Medical Massage Therapy III	5
IMT	210	Anatomy & Physiology for Massage Therapist II	5
BUO	105	Business Ownership Orientation	3
ALH	104	Allied Health Informatics	2
		TOTAL	15
FIFTH	I QUA		
IMT IMT	207 212	Integrative Medical Massage Therapy IV Anatomy & Physiology for	5
		Massage Therapist III	5
IMT	216	Business Practices for the	_
		Massage Therapist	$\frac{3}{10}$
SIXTI	H OUA	TOTAL ARTER	13
IMT	208	Integrative Medical Massage Therapy V	5
IMT	214	Anatomy & Physiology for	5
IMT	218	Massage Therapist IV Massage Therapy Practicum	4
11V11	210	TOTAL	$-\frac{4}{14}$
SEVE	NTH (QUARTER	17
IMT	220	Anatomy & Physiology Seminar	3
ALH	203	Health Care Wellness & Promotion	2
IMT	219	Massage Therapy Directed Practice	2
HUM		Humanities Elective*	3
IMT	221	Massage Therapy Seminar	$\frac{3}{10}$
* See	page 52	TOTAL 2.	13
	1 0		

Medical Assistant Technology

(103 Total Credit Hours)

Medial assistants are multi-skilled professionals who assist physicians with the administrative and clinical aspects of patient care. The Sinclair Community College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Programs (C.A.A.H.E.P.) on recommendation of the curriculum review board of the American Association of Medical Assistant's Endowment (A.A.M.A.E.). To enroll in medical assisting classes, an individual must be accepted into the Medical Assistant Technology program. A grade of "C" is required in all medical assisting 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 student will be required to complete 360 hours of non-paid directed practice during their second year of the program. The graduate is eligible to take the National Certification Examination to become a Certified Medical Assistant (C.M.A.).

Note: Professional C.P.R. is required prior to MAS 106 and must remain current throughout the program. A complete physical examination and specific immunizations are required at the student's expense, prior to enrolling in the directed practice component of the curriculum.

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.

T.		
Prereq	1111611	ΦC.
LICICY	uisi	LUB.

Prerec	quisite	s:	
ALH	103	Introduction to Health Care Delivery	3
MAS	101	Introduction to Medical Assisting	$-\frac{2}{5}$
		TOTĂL	5
			Credit
Cours	e & Ti	tle	Hours
FIRST	ΓQUA	RTER	
MAS	103	Medical Law & Ethics	2
HIM	121	Basic Medical Terminology	3
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
BIO	107	Human Biology	5
ENG	131	Business Communications I	3
		TOTAL	15
SECO	ND Q	UARTER	
MAS	102	Medical Office Accounting	3
HIM	122	Specialized Medical Terminology	3
ALH	104	Allied Health Informatics	2
ALH	142	Fundamentals of Disease Processes	4
ALH	106	Introduction of Basic Health Care Prac	
ENG	132	Business Communication II	3
		TOTAL	17
THIR	D QUA	ARTER	
MAS	104	Basic Clinical Assisting Procedures	3
MAS	105	Medical Office Management	3
HIM	132	Basic Medical Transcription	3
ALH	201	Survey of Drug Therapy	2
COM	206	Interpersonal Communication	3
		TOTAL	14
FOUR	Q HTS	UARTER	
MAT	106	Allied Health Mathematics	4
BIS	M41	Introduction to Excel	1
BIS	M51	Introduction to Powerpoint	1
PSY	121	General Psychology I	3
		General Education Elective	3
		TOTAL	12

continued next page

FIFTH	I QUA	RTER	
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 2 3
HIM	261	CPT Medical Office Coding	3
		TOTAL	17
SIXTI	H QUA	ARTER	
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	1
HUM		Humanities Elective*	3
		TOTAL	13
SEVE	NTH (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	4
		TOTAL	15
* See	page 52	2.	

* 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.

	70.7	Credit
e & T	îtle	Hours
$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
111	English Composition I	3
121	General Psychology I	3
107	Human Biology	5
101	Introduction to Mental Health Work	3
	TOTAL	14
ND (QUARTER	
103	Introduction to Heath Care Delivery	3
112	English Composition II	3
122	General Psychology II	3
105	Business Mathematics	4
111	General Sociology I	3
	TOTAL	16
	T QUA 111 121 107 101 OND Q 103 112 122 105	121 General Psychology I 107 Human Biology 101 Introduction to Mental Health Work TOTAL ND QUARTER 103 Introduction to Heath Care Delivery 112 English Composition II 122 General Psychology II 105 Business Mathematics

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Cradit

THIR	D QU	ARTER	
ALH	104	Allied Health Informatics	2
PSY	160	African-American Psychology	$ \begin{array}{r} 2 \\ 3 \\ 4 \\ 3 \\ \hline 15 \end{array} $
PSY	217	Abnormal Psychology	4
MHT	115	Social Casework	3
MHT	126	Introduction to Addictive Illnesses	3
		TOTAL	15
FOUF	RTH Q	UARTER	
MHT	201	Interviewing & Assessment	3
PSY	208	Life Span Development	5
COM	206	Interpersonal Communication	3
HUM		Humanities Elective*	5 3 3
		TOTAL	14
FIFTH	I QUA	ARTER	
MHT	211	Group Dynamics I	3
MHT	221	Activity Therapy	3
MHT	205	Psychosocial Interventions	3 3
MHT	202	Practicum in Mental Health I	5
		TOTAL	14
SIXTI	H QUA	ARTER	
MHT	212	Group Dynamics II	3
MHT		MHT Elective (see MHT advisor)	3 3
MHT	245	Mental Health & the Family	4
MHT	203	Practicum in Mental Healtȟ II	5
		TOTAL	15
SEVE	NTH Q	UARTER	
MHT	213	Group Dynamics III	3
SOC	205	Social Problems	4
		Career-related Elective	3
MHT	204	Practicum in Mental Health III	$\frac{3}{5}$
		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)

continued next page

- 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.

must	emam	current unoughout the program.	Credit
Cours	se & Ti	tla	Hours
	ΓQUA		Hours
ALH	103		2
BIO	141	Introduction to Health Care Delivery Principles of Anatomy & Physiology I	3 4
COM	206	Interpersonal Communication	3
ENG	111	English Composition I	3
PSY	119	General Psychology	5
101		TOTAL	18
SECO	ND Q	UARTER	
BIO	142	Principles of Anatomy & Physiology II	4
BIO	205	Microbiology	4
MAT	109	Nursing Mathematics	3
NSG	120	Human Response	3
NSG	121	Identifying Responses Through	
		Assessment	3
		TOTAL	17
		ARTER	
BIO	143	Principles of Anatomy & Physiology II	
NSG	122	Physiological Stressors	8
NSG	123	Promoting Healthy Responses Through	
		Psychomotor Interventions	3
FOLIE	TII ()	TOTAL	15
	-	UARTER	0
ALH NSG	219 220	General Pharmacology	3
NSG	220	Promoting Health Responses to Specific Stressors I	8
PSY	208	Life Span Human Development	5
131	۵00	TOTAL	$-\frac{3}{16}$
FIFT	I QUA		10
ALH	104	Allied Health Informatics	2
NSG	221	Promoting Healthy Responses to	~
1100	~~1	Psychosocial Stressors (1/2 qtr.)	4
NSG	222	Promoting Healthy Responses to	
		Specific Stressors III (1/2 qtr.)	4
		TOTAL	10
SIXTI	H QUA	RTER	
ENG	112	English Composition II	3
NSG	223	Promoting Healthy Responses	
		in Women (1/2 qtr.)	4.5
NSG	224	Promoting Healthy Responses to	
		Specific Stressors III (1/2 qtr.)	4
CDT 15		TOTAL	11.5
	NTH (UARTER	
ALH		Portfolio Elective	3
NSG	225	Promoting Healthy Responses in	4.5
NICC	000	the Child & Family (1/2 qtr.)	4.5
NSG	226	Promoting Healthy Responses to Interrela	
		Pathophysiological Stressors III (1/2 qt	11.5
EICH	ти Оі	TOTAL	11.3
	ınyı	JARTER Humanities Flective*	o
HUM NSG	220	Humanities Elective*	3
INSG	230	Directed Nursing Practice TOTAL	$-\frac{7}{10}$
* C^^	naga Fa		10
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	5
OTA	101	Introduction to OTA	3
		TOTAL.	11

		101.12			
Cours			Credit Hours		
FIRST	' QUA	RTER			
ALH	142	Fundamentals of Disease Processes	4		
ALH	160	Learning Communication for Health (Care		
		Professionals	1		
OTA	131	Therapeutic Self	9		
		TOTAL	14		
SECO	ND Q	UARTER			
ENG	111	English Composition I	3		
OTA	104	Applied Anatomy	2		
OTA	132	The Nature of Being Human	9		
HIM	121	Basic Medical Terminology	3		
		TOTAL	17		
THIR	THIRD QUARTER				
COM	206	Interpersonal Communication	3		
PSY	121	General Psychology I	3		
OTA	133	The Dysfunctional Human	9		

continued next page

TOTAL

15

FOUL	KIHQ	UARTER	
		Program Elective	3
BIS		BIS Electives	
ENG	112	English Composition II	3
PSY	122	General Psychology II	3
SOC	111	Sociology I	2 3 3 3
		TOTAL	14
FIFTE	H QUA	ARTER	
ALH	104		2
	215		4
OTA			9
0171	201	TOTAL	$\frac{-3}{15}$
CIVT	и оп		10
	-	ARTER	
HUM		Humanities Elective*	3
MAT	106	Allied Health Mathematics	4
OTA	232	Treatment Issues II	9
		TOTAL	16
SEVE	NTH	QUARTER	
OTA		•	3
OTA	233	Clinical Issues I	1
		TOTAL	4
FIGH	TH O	UARTER	
OTA	221		3
OTA	234	Clinical Issues II	1
JIA	£34	TOTAL	1
		IOIAL	4

^{*} See page 52.

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Physical Therapist Assistant

(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

142

РТА	106	Introduction to Physical Therapy TOTAL	$\frac{2}{10}$
Cours			Credit Hours
FIRST	' QUA	RTER	
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
		TOTAL	15

Anatomy & Physiology II

SECO	ND QU	J ARTER		
PTA	118	Movement Science II		5
PTA	120	Pathology & PT Clinical Pr	ractice	3
PSY	119	General Psychology		5
MAT	101	Elementary Algebra (or high	gher)	4
			TOTAL	17
THIR	D QUA	ARTER		
PTA	124	Clinical Procedures I		5
PTA	130	Therapeutic Exercise I		4
PTA	134	Tests & Measures		3
PHY	100	Introduction to Physics		4
		or		
	142	College Physics		
			TOTAL	16
FOUR	JQ HT	J ARTER		
PTA	221	Clinical Procedure II		2
PTA	223	Therapeutic Exercise II		4
ENG	111	English Composition I		3
PSY	208	Life Span Human Develop	ment	5
		-	TOTAL	14
FIFTH	I QUAI	RTER		
PTA	211	PTA Clinical Practicum I		3
PTA	226	Clinical Procedures III		5 2
PTA	230	Neuroscience for PTA		2
ENG	112	English Composition II		3
		_	TOTAL	13
SIXTI	I QUA	RTER		
PTA	212	PTA Clinical Practicum II		3
PTA	233	Rehabilitation Skills		5
COM	206	Interpersonal Communica	tion	3
		-	TOTAL	11
SEVE	NTH Q	UARTER		
PTA	213	PTA Clinical Practicum III		3
PTA	235	Practice Management		3 2
ALH	104	Allied Health Informatics		2
HUM		Humanities Elective*		3
			TOTAL	11
* C	maga E9			

^{*} 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 school physics within the past five years	4
Admi	ssion	Recommendation:	
BIO	107	Human Biology	5

4

4

BIO

			Credit
Cours	e & Tit	le	Hours
FIRST	QUA	RTER	
ALH	103	Introduction to Health Care Delivery	3
ALH	106	Introduction to Health Care Practice	2
ENG	111	English Composition I	3
MAT	101	Elementary Algebra	4
HIM	121	Basic Medical Terminology	3
		TOTAL	15
SECO	ND QU	JARTER	
RAT	121	Introduction to Radiography & Position	
BIO	131	Radiologic Anatomy & Physiology I	5
RAT	131	Patient Care in Radiography	2
ENG	112	English Composition II	3
THE	D 0114	TOTAL	14
	D QUA		
ALH	104	Allied Health Informatics	2
RAT	122	Radiographic Positioning	4
BIO	132	Radiologic Anatomy & Physiology II	5
RAT	111	Clinical Education I	4
FOLIE	ти от	TOTAL	15
	-	JARTER	-
RAT	123	Fluoroscopy in Radiography	5
PHY	106	Physics for Radiologic Technology	5
RAT	112	Clinical Education II TOTAL	$-\frac{4}{14}$
EIETL	LOUA	-	14
	I QUAI		9
RAT RAT	215 211	Pathology for Radiographers Clinical Education III	2
RAT	217	Special Procedures in Radiography	1
SOC	111	General Sociology I	3
COM	206	Interpersonal Communication	3
00111	200	TOTAL	13
SIXTI	H QUA		
RAT	212	Clinical Education IV	6
RAT	218	Advanced Radiographic Practice	2
RAT	219	Pharmacology for Radiography	1
RAT	222	Principles of Radiographic Technique	5
		TOTAL	14
SEVE	NTH Q	UARTER	
RAT	231	Sectional Anatomy	3
RAT	199	Computers in Medical Imaging	2
RAT	213	Clinical Education V	6
SOC	215	American Ethnic & Racial Groups	
		or	
	145	Comparing Cultures	3
		TOTAL	14
EIGH	-	ARTER	
RAT	226	Synopsis in Radiography	2
RAT	232	Radiation Biology	2
RAT	214	Clinical Education VI	4
HUM		Humanities Elective*	3
		TOTAL	11

^{*} See page 52.

Note: The student will be required to be certified in Basic Life Support (C.P.R. Professional Module, Course C) by the end of the third quarter.

Respiratory Care

(109 Total Credit Hours)

Respiratory care practitioners are responsible for the prevention, treatment, management, and rehabilitation of patients of all ages with deficiencies or abnormalities associated with the cardiopulmonary system.

associated with the cardiopulmonary system.

This program is accredited by the Committee on Accreditation for Respiratory Care. Upon completion of the program, a graduate is considered eligible and qualified to take the certification and registry examinations, and the specialty examinations for pediatrics/neonatology and pulmonary function technology offered by the National Board for Respiratory Care. Selective admission and additional program information may be obtained from the Allied Health counselors, Room 6120, (937) 512-3029, and from the department chairperson, Room 3340, (937) 512-2849.

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.

Required Prerequisite:

HIM	121	Basic Medical Terminology	3
C	0.70	a.	Credit
	e & Tit		Hours
			9
ALH MAT	106 106	Introduction to Health Care Delivery Allied Health Mathematics	2 4
ALH	104	Allied Health Informatics	2
BIO	141	Anatomy & Physiology I	4
ыо	171	TOTAL	$-\frac{4}{12}$
SECO	ND QI	UARTER	12
RET	110	Respiratory Therapeutics I	5
ENG	111	English Composition I	3
BIO	142	Anatomy & Physiology II	4
BIO	125	Respiratory Anatomy & Physiology	3
		TOTAL	<u> 15</u>
THIR	D QUA	ARTER	
RET	120	Respiratory Therapeutics II	4
BIO	143	Anatomy & Physiology III	4
ENG	112	English Composition II	3
HUM		Approved Humanities Elective	3
		TOTAL	14
		UARTER	
RET	140	Adjuncts to Respiratory Care	6
RET	130	Cardiopulmonary Disease Processes	4
RET	224	Cardiopulmonary Pharmacology	3
PSY		Psychology Elective	3
DIETT.	LOUA	TOTAL	16
	I QUA		
ALH	130	Electrocardiography for Health Care Provider	1
COM		Communication Arts Elective	$\frac{1}{3}$
ALH	103	Introduction to Health Care Delivery	3
RET	146	Clinical Practice	3
ICLI	140	TOTAL	$-\frac{3}{10}$
SIXTI	I OUA	ARTER	10
RET	230	Respiratory Critical Care I	8
RET	225	Respiratory Care Departmental	· ·
		Administration	2
ALH	220	Pathophysiology	4
		TOTAL	14
SEVE	NTH G	QUARTER	
RET	240	Respiratory Critical Care II	8
RET	250	Pediatrics & Neonatology	4
		TOTAL	12
		JARTER	-
RET	260	Assessment of Respiratory Function	3
RET	280	Correlations in Respiratory Care	7
RET	295	Respiratory Care Seminar	1
ALH	141	Emergency Cardiac Care	2
		TOTAL	13

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.

Cours	e & Tit	ام		Credit Hours
	ΓQUAI			Hours
BIO	161		iology I	5
COM	206	Surgical Anatomy & Phys. Interpersonal Communica	ition	
ENG		English Composition I	ition	3
ALH	103	Introduction to Health Car	re Delivery	3
HIM	121	Basic Medical Terminolog		3
111111	121	Basic Wiedicar Terminolog	TOTAL	$ \begin{array}{r} 3 \\ 3 \\ 3 \\ \hline 3 \\ \hline 17 \end{array} $
SECO	ND QU	J ARTER	101112	
BIO	162	Surgical Anatomy & Phys.	iology II	5
PSY	119	General Psychology	0.0	5
SUT	111	Surgical Technology Fund	lamentals	6
			TOTAL	16
THIR	D QUA	RTER		
ALH	104	Allied Health Informatics		2
BIO	205	Microbiology		4
SUT	112	Surgical Process		<u> </u>
			TOTAL	16
FOUR	PTH QU	J ARTER		
ALH	201	Survey of Drug Therapy		2
MAT	106	Allied Health Mathematic	S	4
SUT	211	Surgical Procedures I		10
			TOTAL	16
	I QUAI			
ALH	220	Pathophysiology		4
ENG	112	English Composition II		3
SUT	212	Surgical Procedures II		10
~			TOTAL	17
	H QUA			
SUT	213	Surgical Procedures III		11
ALH		Portfolio Elective	mom 4.t	2
OFF I		TA DEED	TOTAL	13
	•	UARTER		
SUT	220	Surgical Technology Role	Transition	10
HUM		Humanities Elective*	TOTAL	3
* 0	7.0		TOTAL	13

Certificate Programs

Medical Transcription

(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.

	_		Credit
Cours	e & Tit	t le	Hours
FIRST	'QUAI	RTER	
BIO	107	Human Biology	5
HIM	121	Basic Medical Terminology	3
BIS	102	Document Formatting	2
ALH	104	Allied Health Informatics	$\begin{array}{r} 2 \\ -3 \\ \hline 15 \end{array}$
ALH	103	Introduction to Health Care Delivery	3
		TOTAL	15
SECO	ND QU	UARTER	
ALH	142	Fundamentals of Human Disease	4
HIM	122	Specialized Medical Terminology	3
BIS	103	Advanced Document Formatting/	
		Skillbuilding	4
ENG	131	Business Communications I	3
		TOTAL	14
THIR	D QUA	ARTER	
HIM	132	Basic Medical Transcription	3
ENG	132	Business Communications II	3
ALH	201	Survey of Drug Therapy	2
BIS	M41	Introduction to Excel	1
BIS	M51	Introduction to Powerpoint	1
		TOTAL	10
FOUR	TH QU	JARTER	
HIM	202	Medical Surgical Transcript. Lab Practicu	ım 3
BUO	105	Business Ownership Orientation	3
		Portfolio Elective	$\frac{2}{8}$
		TOTAL	8

See page 52.

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.

		,	Cicuit	
Course & Title				
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	1	
		Health Care	1	
ALH	278	Supervisory Applications in Health Car	re3	
		TOTAL	13	

Dietary Management

(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.

Cour	Credit Hours		
DIT	110	Contemporary Nutrition	6
DIT	216	Food Preparation & Dietary Service	
		& Clinical Experience	6
DIT	118	Dietary Food Service Supervision	6

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.

Cours	Hours		
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.

	se & Ti Γ QUA	_	redit Iours
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	8
EMS	138	Paramedic IV: The Medical Patient	8
EMS	139	Paramedic V: Integration	7

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:

•			Credit
Cours	e & T	itle	Hours
FIRST	QUA	ARTER	
ENG	111	English Composition I	3
EMS	101	Paramedic Theory & Practice I*	$-\frac{8}{5}$
BIO	121	Anatomy & Physiology I	5
		TOTAL	16
SECO	ND G	UARTER	
ENG	112	English Composition II	3
EMS	102		8
BIO	122	Anatomy & Physiology II	5
		TOTAL	16
THIR	DQU	ARTER	
COM	206	Interpersonal Communication	3
EMS	103	Paramedic Theory & Practice III*	8
		TOTAL	11
FOUR	TH C	UARTER	
PSY	121	General Psychology I	3
EMS	104	Paramedic Theory and Practice IV*	8
		TOTAL	11
*Cours	ses req	uired for EMT-Paramedic Certification	

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.

C	ours	e & Ti	tle Hot							
FI	RST	QUA	RTER							
A	LH	125	Therapeutic Recreation	3						
Sl	ECO	ND Q	UARTER							
A	LH	135	Administration of Activities Programming	3						
THIRD QUARTER										
A	LH	155	Issues in Activity Programming	3						
			TOTAL	9						

Medical Office Coding Specialist

(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.

	O.		Čredit					
Course & Title								
Course & Title Hours FIRST QUARTER								
ALH	103	Introduction to Health Care Delivery	3					
BIO	107	Human Biology	<u> 5</u>					
		TOTAL	8					
SECOND QUARTER								
ALH	104	Allied Health Informatics	2					
HIM	121	Basic Medical Terminology	$\frac{3}{5}$					
		TOTAL	5					
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	3					
		TOTAL	12					
FOURTH QUARTER								
HIM	262	Advanced Medical Office Coding	4					

Multi-Skilling Health Care

(44 Total Credit Hours)

Coadit

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.

Course	. O T:4]	la.	Credit Hours						
Course & Title Hours FIRST QUARTER									
ALH	103	Introduction to Health Care Delivery	3						
BIO		Human Biology	5						
DIO	1017 100	Clusters	1-8						
		TOTAL	9-15						
SECOND QUARTER									
ALH	104	Allied Health Informatics	2						
ALH	140	Basic Life Support Training	1						
HIM	121	Basic Medical Terminology	3						
		Clusters	<u>1-8</u>						
		TOTAL	7-14						
THIRD QUARTER									
ENG	111	English Composition I							
		or							
0011	131	Business Communications I	3						
COM	206	Interpersonal Communication	3						
		Clusters	$\frac{1-8}{7.14}$						
CLUSTERS									
CLU21	EK2								
Diagno	stic Pro	cedures							
ALH	111	Clinical Phlebotomy	3						
ALH	107	Principles of EKG	3						
RAT	104	Radiological Principles for GMO	4						
Patient	Care								
ALH	120	Nurse Aide Training	6						
ALH	131	Patient Care Assistant							
		or							
	133	Pediatric Patient Care Assistant	6						
Health	Unit Co	ordinator							
MAS	120	Health Unit Coordinator I	4						
MAS	121	Health Unit Coordinator II	3						
HIM	122	Specialized Medical Terminology	3						
BIS	101	Personal Computer Keyboarding	2						
		TOTAL	22-24						

Pharmacy Technician

(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.

Cours	se & T		edit ours
FIRST	ΓQUA	ARTER	
ALH	122	Pharmacy Technician I	5
HIM	121	Basic Medical Terminology	5 3 5 3
BIO	107	Human Biology	5
ALH	103	Introduction to Health Care Delivery	3
		TOTAL	16
SECO	ND Q	UARTER	
ALH	123	Pharmacy Technician II	5
ALH	142	Fundamentals of Disease Processes	4
BIS	101	Personal Computer Keyboarding	2
MAT	106	Allied Health Mathematics	4
		TOTAL	15
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER	
ALH	124	Pharmacy Technician III	5
ALH	113	Venipuncture for the Health Care Provider	r 2
ALH	104	Allied Health Informatics	2
ALH	140	Basic Life Support Training	1
ENG	131	Business Communication I	3
		TOTAL	13

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

			Crean
Cours	se & T	Title	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
.	a. 1		

Note: Students interested in pursuing a baccalaureate degree in Addiction Studies from the University of Cincinnati via distance learning should contact the Mental Health Technology department at (937) 512-2845.

Specialized Courses 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.

			Credit
Cours	se & T	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.

			Crean
Cours	se & T	itle	Hours
ALH	107	Principles of Electrocardiography	3

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
Cours	se & T	itle	Hours
ALH	120	Nurse Aide Training	6

Therapeutic Recreation

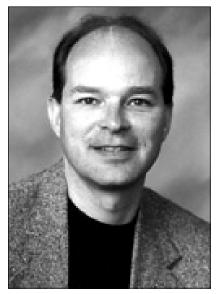
(3 Total Credit Hours)

Option 1 is designed to meet the standards set by the Ohio Department of Health for extended care facilities.

			Credit
Cours	se & T	Hours	
ALH	125	Therapeutic Recreation	3

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



www.sinclair.edu

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 InTouch information kiosks. 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 four-year 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.

Credit Course & Title Hours				
FIRST QUAL		110415		
ACC 111	Principles of Accounting I	3		
ENG 111	English Composition I	3		
MAN 105	Introduction to Business	3		
MAT 116	College Algebra	5		
PSY/SOC——	Elective*	3		
	TOTAL	17		
SECOND Q	UARTER			
ACC 112	Principles of Accounting II	3		
ENG 112	English Composition II	3		
MAT 218	Calculus for Business & Economics	5		
PSY/SOC——	Elective*	3		
HUM ——	Humanities Elective*	3		
	TOTAL	17		
THIRD QUA	ARTER			
ACC 113	Principles of Accounting III	3		
ENG 113	English Composition III	3		
BIS 160	Introduction to Word, Powerpoint	& Excel 3		
PSY/SOC——	Elective*	3		
HUM ——	Humanities Elective*	3		
	TOTAL	15		
FOURTH QU	JARTER			
BIO/GLG/				
PHY/CHE	Natural Science Sequence*	4		
ECO 201	Principles of Economics I	3		
COM 211 MAT 122	Effective Speaking I	3		
	Statistics I Humanities Elective*	4		
HUM ——	TOTAL	$\frac{3}{17}$		
FIFTH QUA		17		
BIO/GLG/	NIEN			
PHY/CHE	Natural Science Sequence*	4		
ECO 202	Principles of Economics II	3		
	General Education Elective*	9		
	TOTAL	$\frac{-3}{16}$		
SIXTH QUA		10		
BIO/GLG/	IV I LIIV			
PHY/CHE	Natural Science Sequence*	4		
ECO 203	Principles of Economics III	3		
	General Education Elective*	9		
	TOTAL	$\frac{-3}{16}$		
_	101.12			

^{*} See counselor.

Career Degree 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.

Accou	Credit				
Cours	Course & Title				
	ΓQUA				
ENG	111	English Composition I			
Lita		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 & Exc	$ \begin{array}{c} 3 \\ 3 \\ 3 \\ \hline 17 \end{array} $		
MAN	105	Introduction to Business	3		
		TOTAL	17		
SECO	NDQ	UARTER			
ENG	112	English Composition II			
		or			
	132	Business Communications II	3		
MAT		Statistics I	$ \begin{array}{r} 4 \\ 3 \\ 3 \\ \hline 3 \\ 16 \end{array} $		
ACC		Principles of Accounting II	3		
MAN		Principles of Management	3		
ECO	201	Principles of Economics I	3		
THE	D 011	TOTAL	16		
		ARTER			
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 3 <u>3</u>		
HUM		Humanities Elective*	3		
MAN	255	Business Systems & Procedures	3		
		TOTAL	18		

continued next page

FOUR	TH QU	J ARTER	
ACC	201	Intermediate Accounting I	3
ACC	211	Cost Accounting I	3
ACC		Federal Taxes I	3 3 3
LAW	101	Business Law I	3
ECO		Principles of Economics III	3
ACC	270	Accounting Internship	
		or	
		Business Administration Elective	3
		TOTAL	18
FIFTH	I QUAI	RTER	
ACC	202	Intermediate Accounting II	3
ACC	212	Cost Accounting II	3
ACC	222	Federal Taxes II	3 3 3
ACC		Microcomputer Accounting Systems	3
LAW	102	Business Law II	3
ACC	270	Accounting Internship	
		or	
		Business Administration Elective	3
		TOTAL	18
SIXTI	I QUA	RTER	
ACC	203	Intermediate Accounting III	3
ACC	235	Auditing Theory & Practice	3
FIN	215	Corporation Finance	3 3 3
MRK	201	Marketing I	
ACC	270	Accounting Internship	3
		or	
		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.

Cours	Course & Title Ho		
FIRST	'QUAF	RTER	
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
BIS	105	Introduction to Computers	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	
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	1	
MAN		Management Elective		
MDIZ		Or Manhatin a Flantina	0	
MRK		Marketing Elective	$\frac{3}{17}$	
THE		TOTAL	17	
	D QUA			
ENG	132	Business Communications II		
	110	or	0	
A 00	112	English Composition II	3	
ACC	111	Principles of Accounting I	3	
BIS	M51	Introduction to PowerPoint	1	
BIS	M52	Intermediate PowerPoint	1	
BIS BIS	114	Filing Applications	2 1	
BIS	M63	Advanced Word		
BIS	M64	Expert Word Introduction to Dockton Publishing	1 1	
BIS	M21 M22	Introduction to Desktop Publishing	1	
DIS	IVILL	Intermediate Desktop Publishing General Education Elective*	3	
		TOTAL	$\frac{-3}{17}$	
EOLID	ти от	JARTER	11	
BIS	115		2	
BIS	M31	Workplace Technology Introduction to Access	1	
BIS	M32	Intermediate Access	1	
BIS	M53	Advanced PowerPoint	1	
BIS	103	Advanced Document Formatting/	1	
DIO	103	Skillbuilding	4	
MAN	245	Office Management	3	
CIS	130	Introduction to Web Development	3	
HUM	100	Humanities Elective*	3	
110111		TOTAL	18	
FIFTH	QUAF		10	
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	
CIS	162	MS Office Installation & Troubleshooting	3	
CID	102	TOTAL	$\frac{-3}{16}$	
SIXTE	I QUAI	RTER		
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		
		TOTAL	$\frac{3}{14}$	
* See 1	page 52.	1011		

^{*} See page 52.

Credit

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.

~			Credit
	e & Ti		Hours
FIRST	$\Gamma \mathbf{QUA}$		
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		Principles of Management	3
COM		Interpersonal Communication	Ů
COM	200	or	
	285	Business & Professional Communication	on 3
MAT	105	Business Mathematics	711 3 4
LAW	103	Business Law I	
LAW	101		$\frac{3}{18}$
araa	NID O	TOTAL	10
	-	UARTER	
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	Î
MAN	11112	Management Elective	3
1V17 11 V		or	3
MRK		Marketing Elective	
IVIICIX		TOTAL	
THID	D OII		17
	-	ARTER	
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
FOUR	TH Q	UARTER	
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		3
פומ	103	Advanced Document Formatting/	4
MANT	945	Skillbuilding	4
MAN	245	Office Management	3
HUM		Humanities Elective*	$\frac{3}{17}$
		TOTAL	17

continued next column

FIFTH	I QUAI	RTER	
BIS	215	Office Applications Practicum/Seminar	4
BIS	201	Customer Service	3
BIS	M43	Advanced Excel	1
BIS	M44	Expert Excel	1
ACC	115	Personal Computer Applications in	
		Accounting	3
ACC	221	Federal Taxes I	3
BIS	207	Telecommunications	2
		TOTAL	17
SIXTI	I QUA	RTER	
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	3
		General Education Elective*	3
		TOTAL	17

^{*} See page 52.

Business Information Systems Legal Office Option

(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. 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.

una ic	Credit			
Course & Title Hou				
FIRST	QUA	RTER		
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	
		TOTAL	18	
SECO	NDQ	UARTER		
ENG	131	Business Communications I		
		or		
	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	1	
MAN		Management Elective		
		or	_	
MRK		Marketing Elective	3	
		TOTAL	16	

THIRD QUARTER				
ENG	132	Business Communications II		
		or		
	112	English Composition II	3	
ACC	111	Principles of Accounting I	3	
BIS	M51	Introduction to PowerPoint	1	
BIS	M52	Intermediate PowerPoint	1	
LAP	105**	Paralegal Principles	5	
BIS	M63	Advanced Word	1	
BIS	M64	Expert Word	1	
CIS	130	Introduction to Web Development	3	
		TOTAL	18	
FOUR	TH QU	J ARTER		
BIS	115	Workplace Technology	2	
BIS	M31	Introduction to Access	1	
BIS	M32	Intermediate Access	1	
LAP	220	Law Office Ethics	3	
BIS	114	Filing Applications	2	
MAN	245	Office Management	3	
		General Education Elective*	2 3 3	
HUM		Humanities Elective*	3	
		TOTAL	18	
FIFTH	i QUAI	RTER		
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	
CIS	162	MS Office Installation & Troubleshooting	3	
LAP	114	Legal Technology Resources	3	
		TOTAL	17	
SIXTI	H QUA			
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	3 2 2	
BIS	207	Telecommunications	2	
210	~01	1 diccommunications	~	
RIS	270	Office Technology Applications Internship	3	
BIS	270	Office Technology Applications Internship TOTAL	$-\frac{3}{16}$	

^{**} Requires signature of LAP chairperson.

Business Information Systems Medical Office Option

(106 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. 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.

Credit			
	se & Ti ΓQUA		
BIS	•		
BIS	101	Personal Computer Keyboarding 2 Introduction to Word 1	
BIS	M61 M70	Introduction to the Internet	
	M71	Introduction to the internet 1 Intermediate Internet 1	
		Principles of Management 3	
MAN			
COM	206	Interpersonal Communication	
	005	or	
MATE	285	Business & Professional Communication 3	
MAT	105	Business Mathematics 4	
BIS	136	Introduction to Medical Terminology 4	
CECO	NID O	TOTAL 19	
	-	UARTER	
ENG	131	Business Communications I	
		or	
	111	English Composition I 3	
ECO	105	General Economics	
		or	
	201	Principles of Economics I 3	
BIS	137	Intermediate Medical Terminology 4	
BIS	102	Document Formatting 2	
BIS	M62	Intermediate Word 1	
BIS	M41	Introduction to Excel 1	
BIS	M42	Intermediate Excel	
MAN		Management Elective	
		or	
MRK		Marketing Elective3	
		$\frac{18}{18}$	
THIR	D QUA	ARTER	
ENG	132	Business Communications II	
LIVO	102	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	1114	Filing Applications 2	
BIS	M63	Advanced Word 1	
BIS	M64	Expert Word 1	
BIS	138	Advanced Medical Terminology 4	
DIS	130	TOTAL 19	
FOLIE	ти О	101112 10	
		UARTER	
BIS	115	Workplace Technology 2	
BIS	M31	Introduction to Access 1	
BIS	M32	Intermediate Access 1	
BIS	250	Medical Transcription Skills 2	
BIS	251	Medical Transcription I 4	
HIM	260	ICD-9-CM Medical Office Coding 3	
MAN	245	Office Management 3	
HUM		Humanities Elective* <u>3</u>	
		TOTAL 19	
FIFTH	I QUA	RTER	
BIS	215	Office Applications Practicum/Seminar 4	
BIS	252	Medical Transcription II 4	
BIS	116	Medical Office Procedures 4	
HIM	261	CPT Medical Office Coding 3	
BIS	207	Telecommunications 2	
		$\overline{17}$	
SIXTI	H QUA		
BIS	201	Customer Service 3	
BIS	202	Online Customer Service 3	
BIS	117	Electronic Files Management 2	
BIS	270	Office Technology Applications Internship 3	
מום	£10	General Education Elective* 3	
		TOTAL 14	
* C-	no=- "		
see	page 52	.	

^{*} See page 52.

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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 first-line 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.

Cours	e & Tit		ean ours
FIRST	QUA	RTER	
MAN	105	Introduction to Business	3
MAN		Introduction to Supervision	3
ACC	111	Principles of Accounting I	3 3
ENG	111	English Composition I	Ū
Liva	111	or	
	131	Business Communications I	3
MAT	116	College Algebra	3
IVIAI	110	or	
	121	Mathematics for Business Analysis	5
	121	TOTAL	$\frac{-3}{17}$
SECO	ND OI	UARTER	11
MAN	-		9
		Principles of Management	3 3
ACC	112	Principles of Accounting II	
BIS	160	Introduction to Word, PowerPoint & Exce	91 3
ENG	112	English Composition II	
	100	or	0
3.6.4.00	132	Business Communications II	3
MAT	122	Statistics I	4
		TOTAL	16
	D QUA	ARTER	
MAN	225	Human Relations & Organizational	
		Behavior	3
MRK	201	Marketing I	3
ACC	113	Principles of Accounting III	3
ECO	105	General Economics	
		or	
	201	Principles of Economics I	3
COM	211	Effective Speaking I	3
		TOTAL	
FOUR	TH QI	U ARTER	
MAN	216	Managing Operations	3
MRK	202	Marketing II	3
PUR	201	Purchasing Principles	3 3 3 3 3
HUM		Humanities Elective*	3
		General Education Elective*	3
		TOTAL	15

FIFTH QUARTER

MAN	255	Business Systems & Procedures	3
MAN		Management Elective**	3
MAN	295	Management Seminar	3
LAW	101	Business Law I	3
MAN	110	Introduction to International Business	3
		General Education Elective*	3
		TOTAL	18
SIXTI	I QUA	ARTER	
MAN	270	Management Internship	
		or	
		Business Electives	9
MAN	278	Management Capstone	3
		Business Elective	3
		General Education Elective*	3

TOTAL

Credit

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	10

Credit Course & Title Hours FIRST QUARTER

BIS	160	Introduction to Word, PowerPoint & Excel	
	101	or	0
	161	Intermediate Word, PowerPoint & Excel	3
CIS	107	Introduction to Operating Systems	
		or	
	108	Introduction to Windows 2000 Professional	3
CIS	110	Program Logic & Design	3
ENG	111	English Composition I	
		or	
	131	Business Communications I	3
MAT	116	College Algebra	
		or	
	121	Mathematics for Business Analysis	5
		TOTAL	17

^{*} See page 52.

^{**} Must not include MAN 270.

SECO	ND Q	UARTER	Web Development	
CIS	111	Introduction to Computer Programming 3	Choose 24 credit hours: CIS 129 HTML/JavaScript 3)
CIS COM	225 206	Systems Software Troubleshooting 3 Interpersonal Communication 3	CIS 129 HTML/JavaScript 3)
ENG	112	English Composition II	136 Introduction to HTML	
		or	and	
	132	Business Communications II 3	137 Introduction to JavaScript 4 CIS 130 Introduction to Web Development	
MAT	122	Statistics I TOTAL 16	CIS 130 Introduction to Web Development 3 CIS 131 Intermediate Web Development 3) }
титр	ח חוו	ARTER	CIS 131 Intermediate Web Development 3 CIS 134 Macromedia Flash 3	3
ACC	111	Principles of Accounting I 3	CIS 138 Advanced Macromedia Flash	}
CIS	265	Database Management 3	CIS 138 Advanced Macromedia Flash CIS 141 Active Server Pages CIS 143 Cold Fusion	}
		or	CIS 143 Cold Fusion 3 CIS 144 PERL/CGI 3) }
	266	Client Server Database 4	CIS 144 PERL/CGI 3 CIS 147 Visual Basic I 3 CIS 148 Visual Basic II 3	3
CIS		CIS Concentration * 3	CIS 148 Visual Basic II	}
CIS	230	Computer Networks * 3	CIS 223 XML 3	3
COM	225	Small Group Communication 3	CIS 224 Web Server Administration & Security 4 CIS 229 Advanced JavaScript 3	ł ł
HUM		Humanities Elective $\frac{3}{18-19}$	CIS 233 C++ Programming I	ż
FOLIE	TH O	UARTER	CIS 234 C++ Programming II	3
CIS	· · · · · · · · · · · · · · · · · · ·	CIS Concentration 3	CIS 280 Java I	
CIS	210	Systems Analysis & Design 3	CIS 281 Java II 4 CIS 284 Client/Server Web Tools 3	
CIS		CIS Concentration 3	CIS 285 Web Application Development with Java 4	4
CIS LAW	101	CIS Concentration 3 Business Law I 3	VIS 117 Web Page Design 3	3
MAN	205	Principles of Management 3	VIS 146 Digital Illustration 3 VIS 147 Digital Imaging 3	}
		TOTAL 18	VIS 147 Digital Imaging 3 VIS 115 Digital Graphics I 3	j ₹
FIFTH	I QUA		VIS 116 Digital Graphics II 3	3
	070	Internet Elective ** 3	VIS 265 3D Digital Graphics 3	3
CIS	270	CIS Internship or		
		Business/CIS Elective 3	User Support	
CIS		CIS Concentration 3	Required courses BIS 201 Customer Service	
CIS		CIS Concentration 3	or	
ECO	201	Principles of Economics I3 TOTAL15	202 Online Customer Service 3	3
SIXTI	H QUA		CIS 164 Introduction to User Support	3
CIS	270	CIS Internship	CIS 166 User Support Tools CIS 238 PC Installation Management	} ₹
		or	CIS 238 PC Installation Management 3 COM 287 Effective Listening 3	, 3
CIC		Business/CIS Elective 3	CIS 162 MS Office Troubleshooting & Problem Solving 3	3
CIS CIS	278	CIS Concentration 3 CIS Capstone 4	CIS 264 A+ Certification	
MRK	201	Marketing I 3	PSY 126 Stress Management 3	5
CIS		CIS Concentration 3	Software Development	
		TOTAL 16	BIS M81*Microsoft Project 1	l
		ecting the Network Engineer Concentration must	old 112 object offented contespis	3
cou	-	IS 241 in place of CIS 230 and one CIS concentration	or CIS 113* Object-oriented Design 4	1
			*Required	E
	rnet Ele		The student must select two of the following threads, one of	
	e 3 cred 170 Intr	oduction to Internet 1	which must be an Object-oriented thread. In addition, the	
		rmediate Internet 1	student must select a sufficient number of courses from the "Programming Electives" list to total 24 credit hours for this	
		ML/JavaScript 3	concentration area.	
1.	or	1 I ITEM I		
13	36 Intro	oduction to HTML	(Object-oriented) Visual Basic Thread	,
13		oduction to JavaScript 4	CIS 147 Visual Basic Programming I CIS 148 Visual Basic Programming II	3
CIS 1	30 Intro	oduction to Web Development 3	(Object-oriented) Java Thread	-
		romedia Flash 3	CIS 280 Java I	
		Page Design 3 Ital Imaging 3	CIS 281 Java II 4	ł
		entration	(Object-oriented) C++ Thread	
Studer	nts mus	t develop an area of concentration by selecting	CIS 233 C++ Programming I	
24 cred	iit hour	s from one of the following:	CIS 234 C++ Programming II	3

Cobol Th	read	
CIS 221	Cobol I	3
CIS 222	Cobol II	3
	gramming Thread	_
CIS 284	Client/Server Web Tools	3
005	or	
285	Web Application Development with Java	4
CIS 223		3
144	or Perl/CGI	3
144	Peri/CGI	ა
Program	ming Options Elective	
	Data Structures in Java	4
	Visual C++ Programming	
	Web Client/Server Tools	3 3 4
	Web Application Development with Java	4
Network	Manager	
	4 credit hours:	
	MCSE 2000 Professional	4
	MCSE 2000 Server	4
CIS 273	MCSE 2000 Infrastructure	4
CIS 274	MCSE 2000 Directory Services Administration	4
CIS 275	MCSE 2000 Designing Directory Services	4 3
CIS 276	MCSE Internet Explorer 5.0	
CIS 260	MCSE Exchange 5.5	4
Natwork	Engineer	
Required		
	Cisco Networking Fundamentals	7
CIS 242	Cisco Router Fundamentals	7
	Cisco Routing in LANs	7
CIS 244	Cisco Routing in WANs	7
	0	
Finar	ncial Management	

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 resource needs of commercial banks, savings and loans, credit unions and other financial institutions. Students in the Financial Management program develop skills in coordinating multiple activities and decision making. Student's critical thinking skills are enhanced through knowledge gained from financial and monetary policy activities. Emphasis is on operations, credit analysis, financial statement review and global economic 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, branch managers and other supervisory positions include banks, savings and loans, credit unions and other financial institutions.

Cours	Credit Hours		
FIRST	Γ QUA	RTER	
ENG	111	English Composition I	3
ACC	111	Principles of Accounting I	3
BIS	M61	Introduction to Word	1
BIS	M41	Introduction to Excel	1
BIS	M31	Introduction to Access	1
FIN	105	Introduction to Financial Institutions	3
ECO	201	Principles of Economics I	3
		TOTAL	15

SECO	ND QU	JARTER		
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		
	116	College Algebra		4
ECO	202	Principles of Economics II		3
		r	TOTAL	16-17
THIRI	D QUA	RTER		
ACC	113	Principles of Accounting II	T	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		3
LAW	101	Dusiness Law 1	TOTAL	$\frac{-3}{18}$
EOLID	ти от	ADTED	IOIAL	10
		ARTER		0
PSY	122	General Psychology II		3
MAN	205	Principles of Management		3
FIN	200	Consumer Credit		3
COM	225	Small Group Communicati	ion	
	000	or		0
1 (DI)	206	Interpersonal Communicat	tion	3
MRK	201	Marketing I	mom A I	3
			TOTAL	15
	QUAI	RTER		
MAN	225	Human Relationships & O	rganizational	
		Behavior		3
LAW	102	Business Law II		
		or		
	103	Consumer Law		3
FIN	246	Principles of Investment		3
MRK	202	Marketing II		$\frac{3}{3}$
		Business Electives		
FIN		Finance Electives		3
			TOTAL	18
SIXTH	I QUA	RTER		
FIN	215	Corporate Finance		3
FIN	270	Internship		3
HUM		Humanities Elective*		3
FIN		Finance Electives		3 3 3
		Business Electives		3
			TOTAL	15
				_0

^{*} 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.

Cours	se & Ti	Credit tle Hours	
FIRST	QUA	RTER	
HMT	107	Sanitation & Safety 3	
HMT		Survey of the Food Industry 3	
MAT		Business Mathematics 4	
HUM	100	Humanities Elective* 3	
PSY	105	Survey of Psychology	
		or	
	121	General Psychology I3	
		TOTAL 16	
SECO	ND Q	UARTER	
HMT	112	Basic Food Preparation 2	
HMT	113	Lab for HMT 112 3	
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 Law3	
		TOTAL 17	
THIR	\mathbf{D} $\mathbf{Q}\mathbf{U}$	ARTER	
HMT	114	Advanced Food Preparation 2	
HMT	115	Lab for HMT 114 3	
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 Elective3	
		TOTAL 17	
FOUR		UARTER	
ECO	105	General Economics or	
	201	-	
HMT	215	Food & Labor Cost Controls 3	
HMT	201	Principles of Economics I 3 Food & Labor Cost Controls 3 Food Service Equipment & Design Maint. 3	
HMT	291	Food Service Internship I 3	
BIS	119	Personal Computer Applications:	
		Microsoft Works	
	160	or Introduction to Word. PowerPoint & Excel 3	
		or	
	M61	Introduction to Word 1	
	M51	Introduction to PowerPoint 1	
	M41	Introduction to Excel 1	
PIPPI	TOTIA	TOTAL 15	
	I QUA		
HMT	110	Menu Planning & Dining Service 3	
HMT	225	Organization & Administration of	
T 13 477	000	Hospitality Industry 3	
HMT	292	Food Service Internship II 3 Marketing I 3	
MRK	201		
		Business Elective 3	
CITATE	1 0114	TOTAL 15	
	H QUA		
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	Marketing in the Hospitality Industry Food Service Internship III 3 Food Service Seminar 3 Hospitality Management Elective 3	
HMT		Hospitality Management Elective 3	

15

TOTAL

* See page 52.

Hospitality Management Culinary Arts Option

(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.

0			Credit
Cours	e & Tit	le	Hours
	QUAF		
HMT	107	Sanitation & Safety	3
HMT	105	Survey of Food Industry	3
MAT	105	Business Mathematics	4
HUM	100	Humanities Elective*	3
BIS	160	Introduction to Word, PowerPoint & Excel	3
210	100	TOTAL	16
SECO	ND QI	JARTER	10
HMT	112	Basic Food Preparation	2
HMT	113	Lab for HMT 112	3
HMT	108	Introduction to Foods & Nutrition	3 3
HMT	110	Menu Planning & Dining Services	3
ENG	111	English Composition I	ŭ
		or	
	131	Business Communications I	3
COM	211	Interpersonal Communication	3
		TOTAL	17
THIR	D QUA	RTER	
HMT	114	Advanced Food Preparation	2
HMT	115	Lab for HMT 114	3
HMT	201	Food Service Equipment & Design Mai	
HMT	226	Purchasing for the Hospitality Industry	
ENG	112	English Composition II	,
		or	
	132	Business Communications II	3
		General Education Elective	3
		TOTAL	17
FOUR	TH QU	J ARTER	
HMT	206	Garde Manger	5
HMT	236	Lab for HMT 206	
HMT	291	Food Service Internship I	3
MAN	205	Principles of Management	3
ACC	111	Principles of Accounting I	3
ECO	105	General Economics I	
		or	
	201	Principles of Economics	3
		TOTAL	17

FIFTE	i QUAI	RTER	
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
SIXTI	H QUA	RTER	
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.

TETTI OLIA DEED

Labor Studies

(99 Total Credit Hours)

The increasing complexity and changing scope or industrial organizations today requires the personnel involved in union-management 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 first-line supervisors, personnel technicians, company chief negotiators, and personnel policy writing technicians.

	, 1	C	redit
Cours	e & Ti	tle H	ours
	ΓQUA		
ACC	111	Principles of Accounting I	3
ENG	131	Business Communications I	3
LAS	105	Introduction to Organized Labor in Ame	rica 3
MAT	105	Business Mathematics	4
LAS	125	Perceptions of Productivity	3
		TOTAL	16
SECO	ND Q	UARTER	
BIS	105	Introduction to Computers	3
ECO	105	General Economics	3 3 3 3 -3 -18
ENG	132	Business Communications II	3
MAN	205	Principles of Management	3
PSY	121	General Psychology I	3
LAS	135	Union Leadership Skills	3
		TOTAL	18
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U} A$	ARTER	
PLS	101	American Federal Government I	3
PSY	122	General Psychology II	3
SOC	111	General Sociology I	3
LAS	201	Negotiating Labor Management Contract	s 3
LAS	211	Labor Relations	$\begin{array}{r} 3 \\ 3 \\ 3 \\ 3 \\ \hline 3 \\ \hline 3 \\ \hline 15 \\ \end{array}$
		TOTAL	15
FOUR	TH Q	UARTER	
LAS	215	Labor Law	3
LAS	245	Consumer Education	3
PLS	104	Urban Government	3
SOC	112	General Sociology II	3 3 3 3
COM	211	Effective Speaking I	3
PSY	225	Social Psychology	4
		TOTAL	19

continued next column

LAS 202 Administering Labor Management Contracts LAS 225 Perceptions of Productivity or 265 Comparative Labor Movements LAS 255 Public Employee Labor Relations PSY 228 Psychology in the Workplace LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies LAS 270 Labor Studies Internship				
or 265 Comparative Labor Movements LAS 255 Public Employee Labor Relations PSY 228 Psychology in the Workplace LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies	LAS	202	Administering Labor Management Contracts	3
265 Comparative Labor Movements LAS 255 Public Employee Labor Relations PSY 228 Psychology in the Workplace LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies	LAS	225	Perceptions of Productivity	
LAS 255 Public Employee Labor Relations PSY 228 Psychology in the Workplace LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies			or	
PSY 228 Psychology in the Workplace LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies		265	Comparative Labor Movements	3
LAS 212 Collective Bargaining TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies	LAS	255		3
TOTAL SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies	PSY	228	Psychology in the Workplace	4
SIXTH QUARTER LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies	LAS	212	Collective Bargaining	3
LAS 203 Arbitrating Disputes in L-M Contracts LAS 235 Seminar in Labor Studies			TOTAL	16
LAS 235 Seminar in Labor Studies	SIXT	H QUA	ARTER	
	LAS	203	Arbitrating Disputes in L-M Contracts	3
LAS 270 Labor Studies Internship	LAS	235	Seminar in Labor Studies	3
	LAS	270	Labor Studies Internship	

Business Electives

Humanities Electives*

TOTAL

HUM

| FIFTH QUARTER

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 packet available in the Legal Assisting office, Room 5141. The goals of the program include: 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 which enhances opportunities for employment of the graduates 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.

1110111	лары.		Credit
Cours	e & Ti	itle	Hours
FIRST	ΓQUA	ARTER	
ACC	111	Principles of Accounting I	3
ENG	111	English Composition I	3
LAP	105	Paralegal Principles	$ \begin{array}{r} 3 \\ 5 \\ 3 \\ \underline{3} \\ 17 \end{array} $
PLS	101	American Federal Government I	3
COM	206	Interpersonal Communication	3
		TOTAL	17
SECO	ND Q	UARTER	
ACC	112	Principles of Accounting II	3
PLS	102	American Federal Government II	3 3 3
ENG	112	English Composition II	3
LAP	111	Legal Research & Writing I	4
LAP	121	Litigation I	$-\frac{4}{3}$
		TOTAL	16
THIR	D QU	ARTER	
LAP	112	Legal Research & Writing II	4
LAP	115	Contract Law & the U.C.C.	3
BIS	160	Introduction to Word, PowerPoint &	Excel
		or	
	223	Using Word Perfect**	2
ENG	199	Writing Style & Sentence Structure	3
LAP	122	Litigation II	3
		TOTAL	16
		continue	d next page

^{*} See page 52.

FOUF	RTH Q	UARTER	
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	4
		or	
	116	College Algebra	5
		TOTAL	16-17
FIFTH	I QUA	RTER	
ECO	201	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)	6
		TOTAL	17
SIXTI	H QUA	ARTER	
LAP		Electives (see advisor's list)	6
LAP	215	Family Law	3
LAP	292	Internship II	2
PSY	121	General Psychology I	3
		or	
SOC	111	General Sociology	
		Elective (Career Related, see advisor's lis	
		TOTAL	

^{*} See page 52.

Logistics Management

(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.

Cours	se & Ti	-	Credit Hours
FIRST	ΓQUA	ARTER	
ENG	111	English Composition I or	
	131	Business Communications I	3
MAT	121	Mathematics for Business Analysis	
		or	
	116	College Algebra I	5
ACC	111	Principles of Accounting I	3
ECO	201	Principles of Economics I	3 3
BIS	160	Introduction to Word, PowerPoint & Exce	
		TOTAL	17
SECO	ND Q	UARTER	
ENG	112	English Composition II	
		or	
	132	Business Communications II	3
MAT	122	Statistics I	4
ACC	112	Principles of Accounting II	3
ECO	202	Principles of Economics II	3
MAN	205	Principles of Management	3

THIR	D QU	ARTER
ENG	113	English

ENG	113	English Composition III	
		or	_
		General Education Elective*	3
ACC	113	Principles of Accounting III	3
TRA	120	Transportation Logistics	3
PUR	201	Purchasing Principles	3 3 3 3
MAN	251	Logistics Management _	3
		TOTAL	15
FOUR	TH QU	UARTER	
MRK	201	Marketing I	3
LAW	101	Business Law I	3
MAN	270	Management Internship	
		or	
		Business Electives	6
TRA	215	Export/Import Distribution Management _	3
		TOTAL	15
FIFTH	I QUA	RTER	
COM	211	Effective Speaking I	3
LAW	102	Business Law II	3 3 3 3 3
MAN	216	Managing Operations	3
MAN	225	Human Relations & Organizational Behavior	3
MRK	202	Marketing II	3
TRA	230	Transportation Regulations	3
		TOTAL	18
SIXTI	I QUA	RTER	
PUR		Purchasing Elective (Recommend PUR 220) 3
HUM		Humanities Elective*	
MAN	255	Business Systems & Procedures	3
PUR	215	Inventory & Production Control	3 3 3
MAN	260	Management Science I	3
		-	

^{*} See page 52.

MAN 278

Marketing Management

Management Capstone

TOTAL

(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.

Cours		itle	Credit Hours
FIRST	「QUA	ARTER	
ACC	111	Principles of Accounting I	3
ENG	111	English Composition I	
		or	
	131	Business Communications I	3
MAN	105	Introduction to Business	3
MAT	116	College Algebra	
		or	
	121	Mathematics for Business Analysis TOTAL	$\frac{5}{14}$

continued next page

TOTAL

^{**} Other BIS courses may be substituted to equal three (3) credit hours.

SECO	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		
		TOT	$^{\prime}$ AL $\overline{}$ 16		
THIR	D QUA	RTER			
ACC	113	Principles of Accounting III	3		
MRK	202	Marketing II			
MRK	225	Sales Fundamentals	3		
PSY/SO	C	Elective	3 3 3 3		
COM	211	Effective Speaking I	3		
BIS	105	Introduction to Computers	3		
		TOT	'AL 18		
FOUR	JQ HT	J ARTER			
ECO	201	Principles of Economics I	3		
MRK	215	Principles of Advertising	3 3 3		
MRK	245	Principles of Retailing	3		
MRK		Elective	3		
BUO	105	Business Ownership Orientation	n <u>3</u>		
		TOT	'AL 15		
FIFTH	I QUAI	RTER			
ECO	202	Principles of Economics II	3		
MRK	235	Marketing Research	3		
MRK		Elective	3		
PLS	104	Urban Government	3		
PSY/SO		Elective	3		
MRK	270	Marketing Internship**			
		or			
		Business Elective	3		
		TOT	'AL 18		
SIXTI	H QUA				
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		
		TOT	'AL 15		
* See	page 52.				

Mid-Management Retailing

(97 Total Credit Hours)

The current rapid and extensive growth in retail organizations promises excellent employment opportunities for graduates in retail management and merchandising. The degree enables 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	Hours		
FIRST	QUA:	RTER	
ACC	111	Principles of Accounting I	3
MAN	105	Introduction to Business	3
MAT	105	Business Mathematics	4
		General Education Elective*	6
		TOTAL	16
		continued ne	xt column

SECO	ND QU	J ARTER	
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	15
THIR	D QUA	RTER	
ACC	113	Principles of Accounting III	3
ENG	132	Business Communications II	
MRK	202	Marketing II	3
MRK	245	Principles of Retailing	3
HUM		Humanities Elective*	3 3 3
MRK	$\overline{215}$	Advertising	3
		TOTAL	18
FOUR	и нтя	JARTER	10
MAN	205	Principles of Management	3
MRK	270	Marketing Internship	4
MRK	236	Consumer Behavior	3
COM	200	Communication Arts Elective	3
MRK	$\overline{225}$	Sales Fundamentals	3
.,,,,,,,,		TOTAL	16
FIFT	I QUAI		
ECO	225	Consumer & Commercial Credit	3
MRK	270	Marketing Internship	4
PSY	105	Introduction to Psychology	3
PLS	104	Urban Government	3
	247	Retail Buying & Merchandising	3
IVIIVIX	~11	TOTAL	<u> </u>
SIXTI	H QUA		10
MRK	246	Fashion Merchandising	3
MAN	225	Human Relations & Organizational	J
IVIAII	220	Behavior	3
MRK	270	Marketing Internship	4
MRK	295	Marketing Seminar	3
BIS	105	Introduction to Computers	$\frac{3}{3}$
טוט	100	TOTAL	<u> </u>
* Soo	naga 59	- 	10
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.

Cours	o Ti	-	reun Hours
FIRST	「QUA	RTER	
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	s 3
MAT	105	Business Mathematics	4
BIS	105	Introduction to Computers	3
		TOTAL	18
		continued ne	xt page

SECO	ND QU	JARTER	
ENG	131	Business Communications I	3
		or	
	111	English Composition I	
ECO	105	General Economics	
		or	
	201	Principles of Economics I	3
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	1
HUM		Humanities Elective*	3
THE		TOTAL	17
	D QUA		
ENG	132	Business Communications II	
	110	or Frankish Commonition II	0
A CC	112	English Composition II	3
ACC	111	Principles of Accounting I	3
BIS	M63	Advanced Word	1
BIS BIS	M51 M52	Introduction to PowerPoint Intermediate PowerPoint	1 1
BIS	117	Electronic Files Management	2
BIS	117	Workplace Technology	2
CIS	107	Introduction to Operating Systems	3
BIS	M21	Introduction to Desktop Publishing	1
BIS	M22	Intermediate Desktop Publishing	1
DIO	11122	TOTAL	18
FOUR	ΤΗ ΩΙ	ARTER	
CIS	130	Introduction to Web Development	3
CIS	108	Windows NT Workstation	3
BIS	M53	Advanced PowerPoint	1
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
BIS	M81	Introduction to MS Project	1
BIS	M82	Intermediate MS Project	1
MAN		Management Elective	
		or	_
MRK		Marketing Elective	3
ACC	115	Personal Computer Applications in	0
		Accounting TOTAL	17
CICTU	QUAF		17
	QUAI		9
CIS MAN	245	CIS Elective Office Management	3 3
BIS	M64	Expert Word	1
BIS	201	Customer Service	3
BIS	M43	Advanced Excel	1
BIS	M44	Expert Excel	1
BIS	207	Telecommunications	2
		General Education Elective*	3
		TOTAL	17
SIXTH	I QUAI	RTER	
CIS	265	Database Management Systems	3
BIS	M33	Advanced Access	1
BIS	M34	Expert Access	1
BIS	172	Integrated Solutions	2
BIS	202	Online Customer Service	3
BIS	270	Personal Computer Applications Internship	3
CIS	162	MS Office Installation & Troubleshooting	3
* 6		TOTAL	16
* See	page 52.		

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.

0		8	Credit
Cours	e & Ti	tle	Hours
FIRST	QUA	RTER	
ECO	201	Principles of Economics I	3
ENG	111	English Composition I	· ·
		or	
	131	Business Communications I	3
BIS	160	Introduction to Word, Powerpo	
MAT	121	Mathematics for Business Analy	
		or	
	116	College Algebra	5
PUR	201	Purchasing Principles	3
		TOT	AL 17
SECO	ND Q	UARTER	
ACC	111	Principles of Accounting I	3
ECO	202	Principles of Economics II	3
ENG	112	English Composition II	
		or	
	132	Business Communications II	3
MAT	122	Statistics I	4
PUR	202	Advanced Purchasing	3
		TOT	
THIR	D QUA	ARTER	
ACC	112	Principles of Accounting II	3
ENG	113	English Composition III	
		or	
		General Education Elective*	3
LAW	101	Business Law I	3
MAN	205	Principles of Management	3
PUR	220	Supplier Relationships	3
PUR	225	Negotiation Techniques	3
		TOT	AL 18
FOUR	TH Q	UARTER	
ACC	113	Principles of Accounting III	3
COM	211	Effective Speaking I	3
LAW	102	Business Law II	3
MRK	201	Marketing I	3
PUR	215	Inventory & Production Contro	l 3
HUM		Humanities Elective*	3
		TOT	AL 18
FIFTH	I QUA	RTER	
MAN	216	Managing Operations	3
MRK	202	Marketing II	3
MAN	225	Human Relations & Organization	onal
		Behavior	3
PUR	295	Purchasing Problems	3
TRA	120	Transportation Logistics	3
		TOT	

1 QUA	KIEK	
270	Purchasing Internship	
	or	
	Business Electives (see advisor's list)	6
	Business Elective	
	or	
	Industrial Engineering Technology Elective	3
	General Education Elective*	3
260	Management Science I	3
278	Management Capstone	3
	TOTAL	18
page 52.		
	270 260 278	or Business Electives (see advisor's list) Business Elective or Industrial Engineering Technology Elective General Education Elective* Management Science I Management Capstone TOTAL

Procurement & Materials Management

Production & Inventory Control Option

(101 Total Credit Hours)

CIVTH OHADTED

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.

Credit				
Course & Title Hours				
	QUA			
BIS	160	Introduction to Word, PowerPoint & Excel 3		
ENG	111	English Composition I		
LING	111	or		
	131	Business Communications I 3		
LAW	101			
MAN		Business Law I 3 Principles of Management 3		
MAT		Mathematics for Business Analysis		
.,,,,	1~1	or		
	116			
	110	College Algebra I5 TOTAL 17		
SECO	ND O	UARTER		
ACC	111	Principles of Accounting I 3		
ENG	112	English Composition II		
Liva	112	or		
	132	-		
ECO	201	Principles of Economics I 3		
MAT	122	Business Communications II 3 Principles of Economics I 3 Statistics I 4		
PUR	201	Purchasing Principles 3		
		TOTAL 16		
THIR	D QUA	ARTER		
ACC	112			
TRA		Principles of Accounting II 3 Transportation Logistics 3		
PUR	202	Advanced Purchasing 3		
ENG	113	English Composition III		
21.0	110	or		
ECO	202	General Education Elective* 3 Principles of Economics II 3 Supplier Relationships		
PUR	220	Supplier Relationships 3		
		TOTAL 18		

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	17
FIFTH	I QUAI	RTER	
IET	236	Material Requirements Planning	3
MAN	225	Human Relations & Organizational	-
		Behavior	3
MRK	202	Marketing II	3
PUR	295	Purchasing Problems	3
COM	211	Effective Speaking I	<u>3</u> 15
		TOTAL	15
SIXTE	H QUA	RTER	
IET	237	Capacity Planning & Control	3
MAN	260	Management Science I	3
MAN		Management Capstone	3
PUR	270	Purchasing Internship	
		or	
		Business Electives	6
HUM		Humanities Elective*	3
		TOTAL	18

See page 52.

Procurement & Materials Management Transportation Option

(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 contributes to a dual career opportunity in transportation or as an entry level person in purchasing. Employment opportunities are as transportation negotiators in large firms with knowledge of tariffs, claims and rates. Insmaller firms, positions exist for buyers specializing in transportation of goods.

specializing in transportation of goods.				
		Cr	edit	
Cours	e & Tit	tle Ho	ours	
FIRST	[QUA]	RTER		
ACC	111	Principles of Accounting I	3	
BIS	160	Introduction to Word, PowerPoint & Exce	l 3	
MAN	205	Principles of Management		
PUR	201	Purchasing Principles	3	
TRA	120	Transportation Logistics	3	
ENG	111	English Composition I		
		or		
	131	Business Communications I	3	
		TOTAL	18	
SECO	ND Q	UARTER		
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	3	
		TOTAL	17	

continued next page

THIR	D QUA	ARTER	
ACC	113	Principles of Accounting III	3
1100	110	General Education Elective*	3
ECO	201	Principles of Economics I	3 3 4
PUR	202	Advanced Purchasing	3
MAT	122	Statistics I	4
.,,,,,,,,	122	TOTAL	16
FOLIE	TH O	UARTER	10
COM	211	Effective Speaking I	3
ECO		Principles of Economics II	3 3 3 3
MAN		Introduction to International Business	3
MRK		Marketing I	ა ე
TRA		Transportation Management Internship	3
IIIA	210	or	
		Business Electives	6
		TOTAL	18
FIFTE	I QUA		10
MAN	216	Managing Operations	3
MRK		Marketing II	3
PUR		Supplier Relationships	3 3 3
PUR		Purchasing Problems	3
TRA	215	Export-Import Distribution Management	3 3
INA	۵13	TOTAL.	<u></u> 15
CIVTI	TOTIA	10112	13
	H QUA		
HUM		Humanities Elective*	3
MAN		Management Science I	3 3 3 3
MAN		Management Capstone	3
TRA	210	Transportation Claims Procedures	3
TRA	230	Transportation Regulations	3
		General Education Elective*	3 18
		TOTAL	18
* See	page 52		

Real Estate/Property Management

(98-99 Total Credit Hours)

Students acquire a variety of skills in 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.

			Credit		
Cours	Course & Title				
FIRST	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER			
ACC	111	Principles of Accounting I	3		
ENG	111	English Composition I	3		
MAN	105	Introduction to Business	3		
RES	121	Real Estate Abstracting I	3		
RES	201	Principles & Practices	4		
		TOTAL	16		
SECO	ND G	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		

		or	
	116	College Algebra 4	-5
RES	203	Real Estate Finance	2
		TOTAL 15-	16
FOUF	JQ HTS	J ARTER	
BIS	160	Introduction to Word, PowerPoint & Excel	3
PSY	121	General Psychology I	
MRK	201	Marketing I	3 2 3
RES	204	Real Estate Appraisal I	2
LAW	101	Business Law I	3
		TOTAL	14
FIFTH	I QUAI	RTER	
RES	205	Real Estate Appraisal II	3
RES	210	Real Estate Practice Seminar	3
RES	221	Property Management	3
RES	270	Real Estate Internship	
		or	
		Business Elective	3
MRK	202	Marketing II	3
SOC	111	General Sociology I	3
		TOTAL	18
SIXTI	H QUA	RTER	
ECO	215	Corporation Finance	3
COM	211	Effective Speaking I	3 3
RES	215	Real Estate Investing	3
RES	278	Real Estate Capstone	1
MAN	225	Human Relations & Organizational Behavior	3
HUM		Humanities Elective*	3
			$\frac{3}{16}$
* See	page 52.		
	_		

Principles of Accounting III

Principles of Economics II

Business Mathematics

Principles of Management I

3

3

3

Travel & Tourism (100 Total Credit Hours)

THIRD QUARTER

113

202

205

105

ACC

ECO

MAN

MAT

Travel & Tourism students gain a knowledge of the basic theory of travel and skills of travel professionals. Students complete practical exercises that simulate 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.

~			Credit
Cours	se & Ti	itle	Hours
FIRST	ΓQUA	ARTER	
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	4
BIS	160	Introduction to Word, PowerPoint & E or	xcel
	119	PC Applications-MS Works**	3
		TOTAL	16

SECO	ND Q	UARTER	
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	2 3 3 3
TNT	131	Destinations II	3
		TOTAL	17
THIR	D QUA	ARTER	
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 2 3 3 2 3
		TOTAL	17
FOUR	TH Q	UARTER	
TNT	224	Advanced Computer I	2
TNT	250	Travel Sales Practicum	2 3 3 3 3
COM	206	Interpersonal Communication	3
MAN	105	Introduction to Business or MAN 205	3
		Foreign Language Elective	3
PSY	105	Survey of Psychology or PSY 121	3
		TOTAL	17
FIFTH	I QUA	RTER	
TNT	106	Employment Guidelines for the	
		Travel Industry	1
TNT	201	Tourism for the Travel Industry	3
TNT	215	Managing a Travel Agency	3 3 2 3 3
TNT	225	Advanced Computer II	2
		Career Elective ***	3
TNT	270	Internship	3
		Foreign Language Elective	3
		TOTAL	18
SIXTI	H QUA	ARTER	
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	3
		General Education Elective	3
		TOTAL	15

^{*} See page 52.

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.

			Credit
Cours	e & Tit	t le	Hours
FIRST	QUA	RTER	
MAN	105	Introduction to Business	3
MAN	205	Principles of Management	3
BIS	160	Introduction to Word, PowerPoint & Exce	el 3
ENG	131	Business Communications I	3
MAT	121	Mathematics for Business Analysis	5
		TOŤAL	17
SECO	ND QI	UARTER	
MAN	225	Human Relations & Organizational	
		Behavior	3
MAN	216	Managing Operations	
		or	
	245	Office Management	3
ENG	132	Business Communications II	3
ECO	105	General Economics	
		or	
	201	Principles of Economics	3
COM	211	Effective Speaking I	3
MRK	201	Marketing I	3
		TOTAL	18
THIR	D QUA	ARTER	
MAN	201	Introduction to Supervision	
		or	
	226	Human Relations Problems	3
MAN	295	Management Seminar	3
MRK	202	Marketing II	3
COM	285	Business & Professional Communication	n
		or	
		Humanities Elective*	3
		Business Elective	3
		TOTAL	15

^{*} 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.

Course & Title Hot				
. QUP	ARIER			
111	Principles of Accounting I	3		
160	Introduction to Word, PowerPoint & Excel	3		
112	Basic Food Preparation	4		
131	Business Communications I	3		
105	Introduction to Business	3		
	TOTAL	16		
	111 160 112 131	T QUARTER 111 Principles of Accounting I 160 Introduction to Word, PowerPoint & Excel 112 Basic Food Preparation 131 Business Communications I 105 Introduction to Business		

^{**} 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

SECOND QUARTER 3 ACC 112 Principles of Accounting II 3 HMT 205 Food Service Sanitation & Safety **Advanced Food Preparation HMT** 114 4 MAN 205 **Principles of Management** 3 **HMT Hospitality Management Elective** 3 16 TOTAL THIRD QUARTER HMT 201 Food Service Equipment & Design 3 Maintenance 215 HMT Food & Labor Cost Controls 3 **HMT** 225 Organization & Administration of **Food Service** 3 Purchasing for the Hospitality Industry **HMT** 226 3 Menu Planning & Dining Service 3 HMT 110 **Business Elective TOTAL** 18

Information Processing

(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 as Microsoft Word, 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
Cours	se & Ti	tle	Hours
FIRS	ΓQUA	RTER	
ENG	131	Business Communications I	
		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
		TOTAL	14
SECO		UARTER	
ENG	132	Business Communications II	
		or	
	112	English Composition II	3
BIS	102	Document Formatting	2
COM		Interpersonal Communication	3
BIS	M70	Introduction to the Internet	1
BIS		Intermediate Internet	1
BIS	114	Filing Applications	2
BIS		Advanced Word	1
BIS	M64	Expert Word	1
THE	D OIL	TOTAL	14
		ARTER	
BIS	103	Advanced Document Formatting/	
	3.644	Skillbuilding	4
DIG	M41	Introduction to Excel	1
BIS	M42	Intermediate Excel	1
BIS	M21	Introduction to Desktop Publishing	1
BIS	M22	Intermediate Desktop Publishing	1
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	201	Customer Service	3
EOLIE	ти О	TOTAL	13
BIS	202	UARTER Online Customer Service	9
			3
BIS BIS	117 115	Electronic Files Management	2 2
BIS	M11	Workplace Technology	1
BIS	135	Pretranscription Skills	3
BIS	135 M31	Machine Transcription Introduction to Access	ა 1
BIS	M32	Intermediate Access	1
מומ	10196	TOTAL	$-\frac{1}{13}$
		IOIAL	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			
FIRS	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	16			
SECC	ND Q	UARTER				
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				
		TOTAL	18			
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U} A$	ARTER				
BIS	105	Introduction to Computers	3			
ECO	105	General Economics	3			
LAS	135	Union Leadership Skills	3			
PSY	122	General Psychology II	3			
HUM		Humanities Elective *	3			
		TOTAL	15			

^{*} 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				
FIRST	'QUAI	RTER		
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	
		TOTAL	15	
SECO	ND QI	J ARTER		
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	1	
		TOTAL	13	
THIR	D QUA	ARTER		
BIS	M63	Advanced Word	1	
BIS	M64	Expert Word	1	
BIS	138	Advanced Medical Terminology	4	
BIS	250	Medical Transcription Skills	2	
BIS	251	Introduction to Medical Transcription TOTAL	$-\frac{4}{12}$	

continued next page

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.	17

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.

knowledge with personal computer techniques.					
			Credit		
FIRST	QUA	RTER			
BIS	M15	Introduction to Windows	1		
ACC	111	Principles of Accounting I	3		
ENG	131	Business Communications I			
		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	1		
		TOTAL	17		
SECO	ND Q	UARTER			
BIS	M41	Introduction to Excel	1		
BIS	M42	Intermediate Excel	1		
BIS	M31	Introduction to Access	1		
BIS	M32	Intermediate Access	1		
BIS	M51	Introduction to PowerPoint	1		
BIS	M52	Intermediate PowerPoint	1		
BIS	M63	Advanced Word	1		
ACC	115	Personal Computer Applications in			
		Accounting	3		
BIS	115	Workplace Technology	2 3		
COM		Communication Arts Elective	3		
CIS	107	Introduction to Operating Systems	3		
		TOTAL	18		
THIR	D QUA	ARTER			
BIS	M33	Advanced Access	1		
BIS	M43	Advanced Excel	1		
BIS	M53	Advanced PowerPoint	1		
BIS	172	Integrated Solutions	2		
BIS	207	Telecommunications	2 2		
CIS	130	Web Page Development	3		
CIS	162	MS Office Troubleshooting	3		
CIS		CIS Elective	3		

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.

cinpio	j	one y to ver par emassing positions.	redit		
Cours	Course & Title Hou				
FIRST	QUA	RTER			
MAT	121	Mathematics for Business Analysis	5		
BIS	160	Introduction to Word, PowerPoint & Excel	3		
MAN	105	Introduction to Business	3		
LAW	101	Business Law I	3		
PUR	201	Purchasing Principles	3		
		TOTAL	17		
SECO	ND Q	UARTER			
MAT	122	Statistics I	4		
ENG	111	English Composition I			
		or			
	131	Business Communications I	3		
MAN	205	Principles of Management	3		
PUR	202	Advanced Purchasing	3		
PUR		Purchasing Elective	3		
		TOTAL	16		
THIR	\mathbf{D} $\mathbf{Q}\mathbf{U}$	ARTER			
ENG	112	English Composition II			
		or			
	132	Business Communications II	3		
COM		Communication Arts Elective	3		
MAN	216	Managing Operations	3		
PUR	215	Inventory & Production Control	3		
PUR	295	Purchasing Problems	3		
		TOTAL	15		

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.

			Crean
Course & Title			Hours
BIS	M15	Introduction to Windows	1
BIS	101	Personal Computer Keyboarding	2
BIS	M41	Introduction to Excel	1
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
BIS	201	Customer Service	3
BIS	202	Online Customer Service	3
COM	206	Interpersonal Communication	3
		TOTAL	15

Fast Track 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.

Course & Title			Hours
FIRST	CQU	ARTER	
CIS	210	Computer Systems Analysis	3
COM	225	Small Group Communication	3
CIS	233	Programming in "C"	$\frac{3}{9}$
		TOTAL	9
SECO	ND	QUARTER	
CIS	234	Object-oriented Programming in C++	3
CIS	112	Object-oriented Concepts	3
CIS	265	Database Management Systems	3
		TOTAL	9
THIR	$\mathbf{D} \mathbf{Q}$	UARTER - Enterprise Option	
CIS	225	Systems Software	3
CIS	280	Java Programming I	4
CIS	236	Visual C++	3
		TOTAL	10
OR W	eb E	Development Option	
CIS	130	Introduction to Web Development	3
CIS	280		4
CIS	284	Web Client/Server Tools	3
		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.

	e & Ti		ırs
FIRST	l' QUA	RTER	
CIS	107	Introduction to Operating Systems	3
BIS	160	Introduction to Word, PowerPoint & Excel	3
		or	
	161	Intermediate Word, PowerPoint & Excel	
COM	206	Interpersonal Communication	3
CIS	110	Program Design & Logic	3
BIS	201	Customer Service	3
		TOTAL	15

SECOND QUARTER				
BIS	M31	Introduction to Access	1	
BIS	M32	Intermediate Access	1	
CIS	162	MS Office Troubleshooting &		
		Problem Solving	3	
CIS	164	Introduction to User Support	3	
COM	287	Effective Listening	3	
MAN	210	Introduction to Project Management	3	
		TŌTAL	14	
THIR	D QUA	ARTER		
BIS	M70	Introduction to Internet	1	
BIS	M71	Intermediate Internet	1	
CIS	264	A+ Certification	3	
CIS	230	Computer Networks	3	
CIS	238	PC Installation Management	3	
BIS	202	Online Customer Service	3	
		TOTAL	14	

Java Enterprise Development

(23-29 Total Credit Hours)

Credit

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.

~			Credit
	se & Ti		Hours
FIRS	T QUA	RTER	
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
SEC	OND Q	UARTER	
CIS	283		4
		or	
	280	Java I	8
		and	
	281	Java II	
CIS	285	Web Application Development with Java	4
		TOTAL	8 - 12
THIE	RD QU	ARTER	
CIS	286	Enterprise Java	4
		±	
CIS	288	Java Enterprise Development Final Project	$\frac{5}{9}$
		TOTAL	9

Credit

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			
FIRS	T QUA	RTER	
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	1
BIS	M32	Intermediate Access	1
		TOTAL	10
SEC	OND Q	UARTER	
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	1
BIS	M34	Expert Access	1
BIS	172	Integrated Solutions	2
		TOTAL	11

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.

			Credit	
Cours	Course & Title			
FIRST	ΓQUA	RTER		
ENG	111	English Composition I	3	
BIS	M70	Introduction to Internet	1	
BIS	M71	Intermediate Internet	1	
CIS	129	HTML/JavaScript	3	
VIS	117	Web Page Design	3	
		TOTAL	11	
SECO	ND Q	UARTER		
BIS	160	Introduction to Word, PowerPoint & Exc	el 3	
CIS	130	Introduction to Web Development	3	
VIS	147	Digital Imaging	3	
VIS	115	Digital Graphics I	3	
		TOTAL	12	
THIR	D QUA	ARTER		
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

netwo	orkea e	environ	a 11.
Cours	se & Ti	itle	Credit Hours
FIRS	ΓQUA	RTER	
CIS	129	Introduction to HTML/JavaScript	3-4
		or	
	136	HTML	
		and	
	137	JavaScript	
CIS	130	Introduction to Web Development	3
CIS	265	Database Management Systems	3 - 4
		or	
	266	Client/Server Database	
		TOTAL	9-11
SECC	ND Q	UARTER – Visual Basic Track	
CIS	131	Intermediate Web Development	3
CIS	147	Visual Basic	3
CIS	284	Client/Server Web Tools	$\frac{3}{-\frac{3}{9}}$
		TOTAL	9
OR -	Java T	rack	
CIS	131	Intermediate Web Development	3
CIS	280	Java I	4
CIS	285	Web Application Development with Java	a <u>4</u>
		TOTAL	11
THIR	D QU	ARTER	
CIS	224	Web Server Administrator & Security	4
CIS	223	XML	
CIS	143	Cold Fusion	3
CIS	144	Perl/CGI	$ \begin{array}{r} 3 \\ \hline 3 \\ \hline 13 \end{array} $
		TOTAL	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

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

Microsoft Word, PowerPoint, & Excel BIS 160 BIS 161

BIS 161 BIS 162

Microsoft Word, PowerPoint, Excel & Access

Access BIS 172

CIS Software Used in Specific Courses

Windows / DOS /Unix CIS 107 CIS 225

Windows 2000 Professional

CIS 108

BIS 223

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 CIS 131

Macromedia Flash CIS 134 CIS 138

MCSE Program Windows 2000

COBOL

CIS 221 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

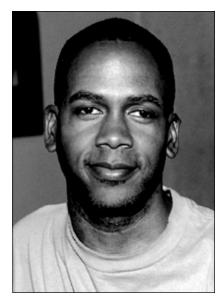
Visual C++ or C# CIS 233 CIS 234 CIS 236

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

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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

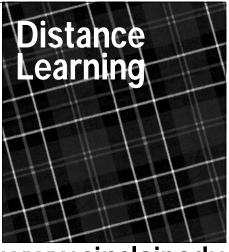
Distance Services Coordinator (937) 512-2041, Room 14321

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.

Dawn Singh

Web Course Facilitator (937) 512-2478, Room 14223

John Tomoser

Coordinator, Off-Campus Sites (937) 512-3262, Room 14223

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 independent study 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-release Center (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 "TM") 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

Credit

Delivery

Note: Courses in the "Natural and Physical Sciences" section having required labs must be taken on campus.

Course No.		Hours	Mode
1.	English (9 credi	t hours - TM & AA de	gree)
	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 3 DL COM 211 3 DL COM 225 3 I

3. Computer Competency (3 credit hours, choose one - AA degree only)

CIS 111	3	I
BIS 160	3	DL
CHE 152	5	I
MAT 220	4	I

4. Mathematics (3-5 credit hours, choose one mathematics course to fulfill the Transfer Module)

matics course to fulfill	the Transfer Mo	auie)
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	I

5. Natural & Physical Sciences (4-5 credit hours, courses must be taken as a sequence; 12 credit hours fulfill the Transfer Module)

ransiei wiodule)		
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	I
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	Ī
OR		
GLG 141/147 (lab) TM	4	I
GLG 142/148 (lab) TM	$\overline{4}$	Ī
GLG 143/149 (lab) TM	$\overline{4}$	Ī
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	$\overline{4}$	Ī
PHY 143 (no lab) TM	4	Ī
OR	-	-
PHY 201/207 (lab) TM	6	I
PHY 202/208 (lab) TM	6	Ī
PHY 203/209 (lab) TM	6	Ī
1111 200/ 20/ (100) 1111	U	

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 2	201 TM	3	DL
ECO 2	202 TM	3	DL
ECO 2	203 TM	3	DL
GEO 1	.01 TM	3	I
GEO 1	.02 TM	3	I
GEO 2	201 TM	3	I
GEO 2	202 TM	3	I
PLS 1	.01 TM	3	I
PLS 1	.02 TM	3	I
PLS 1	.03 TM	3	I
PLS 1	.04 TM	3	I
PLS 2	200 TM	3	I
PLS 2	201 TM	3	Ţ

	Credit	Delivery
Course No.	Hours	Mode
PLS 202 TM	3	I
PSY 119 TM	5	DL
PSY 121 TM	3	DL
PSY 122 TM	3	DL
PSY 205 TM	3	DL
PSY 206 TM	3	DL
PSY 207 TM	3	DL
PSY 208 TM	5	DL
PSY 217 TM	4	DL
PSY 225 TM	4	I
SOC 111 TM	3	DL
SOC 112 TM	3	DL
SOC 120 TM	5	I
SOC 145 TM	3	DL
SOC 160 TM	3	I
SOC 205 TM	4	DL
SOC 208 TM	3	I
SOC 215 TM	4	DL
SOC 226 TM	3	I

7. Arts & Humanities (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.)

(Choose courses from	i at least two area	is listed below.)
ART 101/102 TM	6	DL
ART 231 TM	3	I
ART 232 TM	3	I
ART 233 TM	3	I
ART 235 TM	3	DL
ART 236 TM	3	DL
DAN 155 TM	3 3 3 3 3	I
DAN 157 TM	3	I
HIS 101 TM	3	DL
HIS 102 TM	3	DL
HIS 103 TM	3	DL
HIS 105 TM	4	I
HIS 111 TM	3	DL
HIS 112 TM	3	DL
HIS 113 TM	3	DL
HUM 125 TM	3	DL
HUM 130 TM	3	DL
HUM 131 TM	3	I
HUM 255 TM	3 3	I
LIT 201 TM	3	I
LIT 202 TM	3 3 3 3 3	I
LIT 203 TM	3	I
LIT 211 TM	3	I
LIT 212 TM	3	I
LIT 213 TM	3	I
LIT 217 TM	3	I
LIT 227 TM	3	I
LIT 230 TM	3	I
LIT 234 TM	3	I
MUS 115 TM	3	I
MUS 131 TM	3	I
MUS 132 TM	3	I
MUS 133 TM	3	I
PHI 205 TM	3 3 3 3 3 3 3 3 3 3	I
PHI 206 TM	3	I
REL 111 TM	3	I
REL 112 TM	3	I

continued next column

Credit	Delivery
Hours	Mode
3	I
3	DL
3	I
3	I
3	I
	Hours 3 3 3

8. Multicultural (3 credit hours) *

ΙT	217 TM	3	I
ΙT	234 TM	3	I
SY	225 TM	4	I
OC	145 TM	3	DL
OC	215 TM	4	DL
	IT SY OC	IT 217 TM IT 234 TM SY 225 TM OC 145 TM OC 215 TM	IT 234 TM 3 SY 225 TM 4 OC 145 TM 3

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

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.

gies divisio	ni, Room 0131, (337) 312-30	Credit	Delivery
Course No	& Title	Hours	Mode
FIRST QU		Hours	Wiode
ACC 111	Principles of Accounting I	3	DL
ENG 111	English Composition I		DL
MAN 105	Introduction to Business	3 3 5	DL
MAT 116	College Algebra	5	I
PSY/SOC	Elective*	3	DL
101/000	TOTAL	$\frac{3}{17}$	22
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 17	DL
	TOTAL	17	
THIRD QU	J ARTER		
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 (
AST/PHY		4	DL
ECO 201	Principles of Economics I	3	DL
COM 211	Effective Speaking I	3	Ĩ
MAT 122	Statistics I	4	I
HUM	Humanities Elective*	3	DL
EIEEH OH	TOTAL	17	
FIFTH QU			Di
AST/PHY	Natural Science Sequence II		DL
ECO 202	Principles of Economics II	3 *9	DL DL
	General Education Electives TOTAL	16	DL
SIXTH QU		10	
AST/PHY		Γ* <i>1</i>	DL
ECO 203	Natural Science Sequence III Principles of Economics III	1* 4 3	DL
ECO 203	General Education Elective*		DL/I
	TOTAL	16	DL/1

^{*} 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.

110110	, 6166111	C		Delivery
Cou	rse & T		lours	Mode
		ARTER		
BIS	M61		1	DL
BIS	M62		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	DL
BIS	M32	Intermediate Access	1	DL
		TOTAL	10	
SEC	OND	QUARTER		
BIS	M21	Introduction to Desktop Publishir	ng 1	DL
BIS	M22	Intermediate Desktop Publishing	1	
BIS	M53	Advanced PowerPoint	1	DL
BIS	M63	Advanced Word	1	DL
BIS	M64	Expert Word	1	DL
BIS	M43	Advanced Excel	1	DL
BIS	M44	Expert Excel	1	DL
BIS	M33	Advanced Access	1	DL
BIS	M34	Expert Access	1	DL
BIS	172	Integrated Solutions	2	DL
		TOTAL.	11	

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.

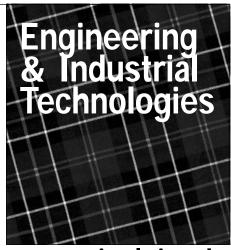
How to Succeed in Distance Learning

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 additional hours each week in study for each hour of in-class time. This means a time commitment of at least nine hours per week of in-class and study time for the typical 3 credit hour course.	Is convenient for students who like to work according to their own pace and schedule, but the time commitment necessary to succeed is the same or more as for traditional in-class courses.
Structure	
Regular class attendance keeps students on track with their course work.	Students must have the self- discipline to keep up with their work throughout the quarter.
Support	
Traditional classes are inherently learning communities in which students can benefit from peer support and in-class discussions. Students also have ready access to their instructors if they have questions.	On-line courses have some level of community activity, but video/audio/print/CD-ROM formats do not. D.L. instructors are accessible via e-mail or 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 & Graphic Technology.



www.sinclair.edu

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 particular Engineering Technology program to earn a degree. Some courses have prerequisites. Others must be taken in special sequences. Many require completion of a year sequence in technical mathematics and technical physics. A student entering these programs from highschool should have completed 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 Franciscan University Miami University

Engineering Science Engineering Science Manufacturing Engineering **Engineering Management**

Ohio Northern Univ. Mechanical Engineering **Electrical Engineering** Civil Engineering

> **Biomedical Engineering** Computer Engineering **Electrical Engineering Human Factors Engineering** Mechanical Engineering Materials Science/Engineering **Engineering Physics**

Section II + Engineering & Industrial Technologies University of Cincinnati College of Applied

Science

Wright State University

Architectural Technology Construction Management

Electronics & Computer Engineering Technology

Mechanical Engineering Technology Open Learning Fire Science Tech.

University of Dayton **Electronics & Computer Engineering** Technology

Industrial Engineering Technology Manufacturing Engineering Tech. Mechanical Engineering Technology **Electronics Engineering Technology** Automotive Technology

DeVry Institute of Tech. Ferris State University University of S. Colorado Indiana State University Miami Univ.-Middletown

Automotive Technology Automotive Technology Electronics & Computer Engineering

Technology Mechanical Engineering Technology **Purdue University** 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. Automotive Technology

Edison Community 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 which Sinclair 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 Career Technology Courses University of Toledo **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

Engineering Science

(104 Total Credit Hours)

•		, ,	Credit
Cours	se & Tit	tle	Hours
FIRST	ΓQUA	RTER	
DRT	196	Technical Graphics Communication	3
ENG	111	English Composition I	3
MAT	201	Calculus & Analytic Geometry I	5
PHY	201	General Physics I	6
		TOTAL	17
SECO	ND Q	UARTER	
ENG	112	English Composition II	3
IET	198	Computer Program Apps. in Technolog	gy 2
MAT	202	Calculus & Analytic Geometry II	5
PHY	202	General Physics II	6
SOC		Social Science Elective	3
		TOTAL	19
THIR	D QUA	ARTER	
CHE	151	General Chemistry I	5
ENG	113	English Composition III	3
MAT	203	Calculus & Analytic Geometry III	5
PHY	203	General Physics III	6
		TOTAL	19

FOUR	TH QU	J ARTER		
CHE	152	General Chemistry II		5
COM	211	Effective Speaking I		3
DRT	198	Introduction to CAD Cond	epts	2
MAT	216	Elements of Linear Algebr		3
MET	260	Engineering Technology A		
		with Computers	• •	3
		•	TOTAL	16
FIFTH	I QUAI	RTER		
MET	211	Engineering Mechanics I		5
MAT	215	Differential Equations		5
SOC		Social Science Elective		3
HUM		Humanities Elective*		3
			TOTAL	16
SIXTI	I QUA	RTER		
MET	212	Engineering Mechanics II		5
SOC		Social Science Elective		3
HUM		Humanities Elective*		6
EGR		Engineering Elective		3
		5 5	TOTAL	17
* 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.

FR	Hours
rchitectural Drafting	3
onstruction Methods & Materials	4
troduction to Surveying	3
terpersonal Communication	3
echnical Mathematics I	5
TOTAL	18
	troduction to Surveying terpersonal Communication echnical Mathematics I

SECC	ND Q	UARTER	
ARC	102	Architectural Detail Drafting	5
CCT	105	Properties of Construction Materials	
ENG	121	Technical Composition I	3 3
MAT	132	Technical Mathematics II	5
MET	198	P. C. Applications in Engineering	
		Technology _	2
		TOTAL	18
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}_{A}$	ARTER	
ARC	103	Architectural 3-D Drafting	3
ARC	107	Architectural Building Codes	3
ARC	116	Architectural History & Preservation	3 3 3
ENG	122	Technical Composition II	3
PHY	131	Technical Physics I	4
DRT	198	Introduction to Computer Aided Drafting _	2
		TOTAL	18
FOUF	RTH Q	UARTER	
ARC	117	Architectural Restoration & Rehabilitation	3
CCT	216	Construction Estimating	4
DRT	199	Computer Aided Drafting II	3
MET	203	Statics _	4
		TOTAL	14
FIFTH	I QUA	RTER	
ARC	211	Building Systems Drafting	5
ARC	240	Architectural Computer Aided Drafting I	4
MET	207	Strength of Materials	4
SOC		Social Science Elective	3
		TOTAL	16
SIXT	H QUA	ARTER	
ARC	241	Architectural Computer Aided Drafting II	4
ARC	278	Architectural Capstone	4
CCT	206	Structural Analysis II	4
		Technical Elective	3
HUM		Humanities Elective*	3
		TOTAL	18
* See	page 52	2.	

Automation & Control Technology (109-111 Total Credit Hours)

(10)		otal orcalt floars)		_
_		•		Credit
	se & Ti			Hours
FIRST	ΓQUA	RTER		
EER	126	D.C. Circuits		4
EGR	100	Fundamental Mechanical Sl	kills	3
EGR	128	Robotics in CIM systems		4
IET	198	Computer Programming A	pplications	
		in Engineering Technology		2
MAT	131	Technical Mathematics I		5
		,	ΓΟΤΑL	18
SECO	ND Q	UARTER		
EER	127	A.C. Circuits		4
EGR	252	KAREL Robot Programmin	g	3
ENG	121	Technical Composition I	O	3
HUM		Humanities Elective*		
		or		
EGR	132	Connecting Technology & O	Our Lives	3
MAT	132	Technical Mathematics II		5
			ΓΟΤΑL	$-\frac{5}{18}$
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER		
EER	128	Discrete Electronics		4
EER	139	Electrical Machinery		4
EGR	220	Machine Vision		3
EGR	257	Handling Tool/Teach Pend	ant	
		Programming/TPP		3
ENG	122	Technical Composition II		3
		•	ΓΟΤΑL	17

continued next page

FOURTH QUARTER				
EER	136	Digital Electronics	3	
EER	166	Industrial Machine Wiring & Standards	3	
EET	281	Programmable Logic Controllers	3	
EGR	217	Fluid Power & Control	3	
EGR	244	Automation & Control Devices	3	
EGR	261	Engineering Problem Solving		
		Using C & C++	4	
		TOTAL	19	
FIFTH	I QUAI	RTER		
COM		Communication Elective	3	
EGR	251	Robot Controller Diagnostics		
EGR	254	KAREL Advanced Programming	3 3 3	
EGR	255	Machine Communication Protocols	3	
EGR	115	Human Factors Engineering		
		or		
	206	Engineering Technology Economics		
		or		
	208	Engineering Computer Graphics		
		or		
	249	Robotic Application Programming		
		or		
	262	Advanced "C" Programming		
		Engineering Applications		
		or		
	270	Engineering Internship	3	
		or	_	
MAT	133	Technical Mathematics III	5	
PHY	131	Technical Physics I	4	
		TOTAL	19-21	
	H QUA	RTER		
EGR	215	Control Systems	3	
EGR	250	Robot Mechanical Unit Repair	3	
EGR	256	Automated Data Acquisition Systems	3	
EGR	278	Automated Manufacturing Project	3	
		General Education Elective		
		or	_	
ENG	113	English Composition III	3	
SOC		Social Science Elective	3	
		TOTAL	18	
** 0				

^{**} See page 52.

Automotive Technology

(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.

Cours			S
FIRS	ΓQUA	ARTER	
AUT	125	Electrical & Electronic Systems 7	7
AUT	165	Brake Systems 5	j
INT	141	Applied Shop Mathematics 3	3
AUT	102	Dealership Principles for A.S.E.P./C.A.P.	3
EGR	160	Succeeding in Engineering Technology1	Ĺ
		TOTAL 15-18	3

SECO		OTIA	DTED
SECU	עמ	$\mathbf{W}\mathbf{U}B$	KRIEK

AUT	115	Fuel & Emission Systems	7
AUT	108	Engine Systems	5
COM	206	Interpersonal Communication	3
		General Education Elective	3
		TOTAL	18
THIR	D QUA	ARTER	
AUT	142	Manual Transmissions & Drive Line	5
AUT	146	Heating & Air Conditioning	5
INT	111	Tool & Manufacturing Processes I	5 3 3
ENG	121	Technical Composition I	3
MET	198	PC Applications in Engineering Technology	$\frac{2}{18}$
		TOTAL	18
FOUR	TH QU	J ARTER	
AUT	241	Automatic Transmissions	7
AUT	210	Steering, Suspension & Alignment	5
AUT	111	Automotive Management I	3
PSY	229	Work Group Dynamics	5 3 3
		TOTAL	18
FIFTH	I QUAI	RTER	
AUT	245	Performance & Driveability	1-7
ECO	201	Principles of Economics I	3
ENG	122	Technical Composition II	3
SRM	211	Industrial Safety I	3
		TOTAL	$\begin{array}{r} 3 \\ -\frac{3}{17} \end{array}$
SIXTE	I QUA	ARTER	
AUT	215	Automotive Service Operations	10
HUM		Humanities Elective*	3
EGR		Engineering Elective	3
		TOTAL	16
* C -	E9		

^{*} See page 52.

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				
FIRST	「QUA	ARTER		
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	

Credit

^{**} AUT 102 is for General Motors A.S.E.P. and Chrysler C.A.P. students only.

ana a			
	-	UARTER	
AVT	111	Navigation Science I	3
AVT	245	Aviation Law	3
MAT	132	Technical Mathematics II	5
HUM		Humanities Elective*	3
		TOTAL	14
THIR	D QU	ARTER	
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	3
		TOTAL	16
FOUR	TH O	UARTER	
AVT	· · · · · · · ·	AVT Track I/II/III Elective	3-4
E/IT		Elective	3-4
AVT	248		3
AVT		Aircraft Structures & Systems	3
	201	Aerospace Materials	ა 3
AVT	211	Navigation Science II	
		TOTAL	15-16
	i QUA	ARTER	
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
SIXTI	H QUA	ARTER	
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	~00	AVT Track I/II/III Elective	3-4
1111		TOTAL	15-17
A 37T T	Track T	Cechnical Electives:	10 17
Track			
		und School Primary Flight	
AVI 1	10 G10 90 Drin	nary Flight	
		und School Instrument	
AVIZ	LU IIISU	rument Flight Training	
Track	II Mai	ntenance	
		craft Maintenance	
		craft Pneumatics & Hydraulics	
AVT 9	28 Aire	craft Engines	
		art 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

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.

Stude	its iiius	t pass.	Credit		
Course 9 Title					
Course & Title 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	<i>y B</i>	4		
		TOTAL	17		
SECO	ND QU	JARTER			
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		
THIR	D QUA	ARTER			
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		
FOUR	TH QU	J ARTER			
AVT	250	Commercial Pilot Ground School	3		
AVT	253/263	Commercial Flight	5		
AVT	248	Aircraft Structures & Systems	3		
AVT	201	Aerospace Materials	3		
AVT	211	Navigation Science II	3		
		TOTAL	17		
FIFTH	I QUAI	RTER			
AVT	255	Multi-Engine Operations	3		
AVT	242	Aircraft Accident Investigation	3		
AVT	256/266		3		
AVT	240	Human Factors in Aviation	3		
SOC		Social Science Elective	3		
AVT	206	Aerodynamics	3		
	200	TOTAL	18		
SIXTI	H QUA	RTFR			
COM	206	Interpersonal Communication	3		
AVT		Instructor Ground	4		
AVT	259/269		4		
AVT	205	Aviation Management	3		
AVT	270	Aviation Internship	3		
A 1 1	£10	TOTAL	<u>3</u>		
		IOIAL	17		

^{**} See page 52.

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.

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 5 TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology 2 2
DRT 196 Technical Graphics Communication ARC 105 Construction Methods & Materials 4 CCT 201 Introduction to Surveying 3 COM 206 Interpersonal Communication 3 MAT 131 Technical Mathematics I 5 TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology 2
ARC 105 Construction Methods & Materials CCT 201 Introduction to Surveying 3 COM 206 Interpersonal Communication 3 MAT 131 Technical Mathematics I
CCT 201 Introduction to Surveying 3 COM 206 Interpersonal Communication 3 MAT 131 Technical Mathematics I 5 TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology 2
COM 206 Interpersonal Communication 3 MAT 131 Technical Mathematics I 5 TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology 2
MAT 131 Technical Mathematics I 5 TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology 2
TOTAL 18 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 5 MET 198 P. C. Applications in Engineering Technology2
ARC 101 Architectural Drafting 3 CCT 105 Properties of Construction Materials 3 CCT 226 Heavy Highway Construction 3 MAT 132 Technical Mathematics II 5 MET 198 P. C. Applications in Engineering Technology2
ARC 101 Architectural Drafting 3 CCT 105 Properties of Construction Materials 3 CCT 226 Heavy Highway Construction 3 MAT 132 Technical Mathematics II 5 MET 198 P. C. Applications in Engineering Technology2
CCT 105 Properties of Construction Materials 3 CCT 226 Heavy Highway Construction 3 MAT 132 Technical Mathematics II 5 MET 198 P. C. Applications in Engineering Technology2
CCT 226 Heavy Highway Construction 3 MAT 132 Technical Mathematics II 5 MET 198 P. C. Applications in Engineering Technology2
MAT 132 Technical Mathematics II 5 MET 198 P. C. Applications in Engineering Technology2
MET 198 P. C. Applications in Engineering Technology2
Technology <u>2</u>
TOTAL 16
THIRD QUARTER
ARC 116 Architectural History & Preservation 3
CCT 202 Construction Surveying 5
CCT 202 Construction Surveying 5 DRT 198 Introduction to CAD Concepts 2
ENG 121 Technical Composition I 3
PHY 131 Technical Physics I 4
TOTAL 17
FOURTH QUARTER
CCT 216 Construction Estimating 4
DRT 199 Advanced Computer Aided Drafting 3
ENG 122 Technical Composition II 3
MET 203 Statics 4
PHY 132 Technical Physics II 4
TOTAL 18
FIFTH QUARTER
CCT 246 Topographic Mapping 4
MET 207 Strength of Materials 4
MAT 133 Technical Mathematics III 5
SOC Social Science Elective*
TOTAL 16
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
TOTAL 18

See page 52.

Civil Engineering Technology Construction Management Option

(105 Total Credit Hours)

Credit

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.

neid of construction.					
	~			Credit	
		e & Tit		Hours	
	FIRST	'QUAF	RTER		
	DRT	196	Technical Graphic Communication	3	
	ARC	105	Construction Methods & Materials	4	
	CCT	201	Introduction to Surveying	3	
	COM	206	Interpersonal Communication	3	
	MAT	131	Technical Mathematics I	5	
	1717 1 1	101	TOTAL	$-\frac{3}{18}$	
	CECO	ND OI		10	
		-	JARTER		
	ARC	101	Architectural Drafting	3	
	CCT	105	Properties of Construction Materials	3	
	CCT	226	Heavy Highway Construction	3	
	MAT	132	Technical Mathematics II	5	
	MET	198	P. C. Applications in Engineering		
			Technology	2	
			TOTAL	16	
	THIR	D QUA	RTER		
	CCT	202	Construction Surveying	5	
	CCT	256	Construction Management	3	
	DRT	198	Introduction to Computer Aided	Ū	
	DIVI	150	Drafting Concepts	2	
	ENG	121	Technical Composition I	3	
	PHY	131	Technical Physics I		
	PHI	131	TOTAL	$-\frac{4}{17}$	
	FOLID			17	
			JARTER		
	CCT	203	Subdivision Design	4	
	CCT	216	Construction Estimating	4	
	DRT	199	Advanced Computer Aided Drafting	3	
	ENG	122	Technical Composition II	3	
	MET	203	Statics	4	
			TOTAL	18	
	FIFTH	QUAF	RTER		
	MET	207	Strength of Materials	4	
	CCT	246	Topographic Mapping	4	
	CCT	258	Project Management Techniques	3	
	SRM	231	OSHA Construction Standards	4	
	SOC	۵31	Social Science Elective*	3	
	SOC				
	~~~		TOTAL	18	
		I QUAI	RTER		
	CCT	206	Reinforced Concrete Design	4	
	CCT	245	Soil Mechanics	4	
	CCT	270	Civil Engineering Technology Internsh		
	CCT	278	Civil Construction Capstone	4	
	HUM		Humanities Elective*	3	
			TOTAL	18	
	. ~				

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.

			credit	
Course & Title Hours				
FIRST	CQUA	RTER		
EET	114	Basic Electronic Measurements	3	
EET	121	Electronics Workshop	3	
MET	198	P.C. Applications For Engineering		
		Technology	2	
MAT	131	Technical Mathematics I	5	
ENG	121	Technical Composition I	3	
		TOTAL	16	
	-	UARTER		
EET	116	Electronics Schematics & Layout	3	
EET	150	Electrical Circuits & Instruments I	4	
MAT	132	Technical Mathematics II	5	
ENG	122	Technical Composition II	3	
SOC		Social Science Elective	3	
		TOTAL	18	
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U} A$	ARTER		
EET	155	Electrical Circuits & Instruments II	4	
EET	259	Programming for Electronics Technolog	y 3	
MAT	133	Technical Mathematics III	5	
PHY	131	Technical Physics I	4	
HUM		Humanities Ĕlective**	3	
		TOTAL	19	
FOUR	TH Q	UARTER		
EET	201	Electronics I	4	
EET	205	Electrical Circuits & Instruments III	3	
EET	231	Digital Logic & Circuits	4	
PHY	132	Technical Physics II	4	
COM	206	Interpersonal Communication	3	
		TOTAL	18	
FIFTH	I QUA	RTER		
EET	202	Electronics II	3	
EET	207	Linear Integrated Circuits	4	
EET	251	Digital Systems I	4	
EET	261	Microprocessor/Microcontroller System	s 4	
EET		EET Elective***	3	
		TOTAL	18	
SIXTI	H QUA	ARTER		
EET	252	Digital Systems II	4	
EET	262	Microprocessor Applications	4	
EET	278	Electronics Project	4	
EET		EET Elective***	3	
		General Education Elective	3	
		TOTAL	18	

^{*} Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology.

continued next column

** See page 52.

#### ***Approved EET electives:

•	•		Credit
Cours	se & T	litle	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.

equipped laboratories taught by quantied faculty.				
			Credit	
Cours	e & Ti	tle	Hours	
<b>FIRST</b>	<b>QUA</b>	RTER		
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	5	
		TOTAL	17	
SECO	ND Q	UARTER		
EET	150	Electrical Circuits & Instruments I	4	
EET	116	<b>Electronics Schematics &amp; Layouts</b>	3	
ENG	122	Technical Composition II	3	
MAT	132	Technical Mathematics II	3 5	
SOC		Social Science Elective	3	
		TOTAL	18	
THIR	D QU	ARTER		
MET	198	P.C. Applications for Engineering		
		Technology	2	
EET	155	Electrical Circuits & Instruments II	4	
EET	259	Programming for Electronics Techn	ology 3	
MAT	133	Technical Mathematics III	5	
PHY	131	Technical Physics I	4	
		TOTAL	18	
FOUR	TH Q	UARTER		
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	18	
FIFTH	I QUA	RTER		
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	3	
		TOTAL	17	

continued next page

#### SIXTH QUARTER

CCI	221	Communication Systems II	ა
EET	261	Microprocessors/Microcontrollers Systems	4
EET	285	Digital Communication	3
EET	287	Telecommunications Project	6
		TOTAL	16

See page 52.

# **Environmental Engineering** 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.

Course & Title Hour				
<b>FIRST</b>	QUAI	RTER		
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	
		TOTAL	18	
SECO	ND QI	UARTER		
MET	198	P.C. Applications in Engineering		
		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	3	
		TOTAL	19	
THIR	D QUA	ARTER		
MAT	133	Technical Mathematics III	5	
EVT	200	Waste Management/Pollution Prevention	on 3 3	
HUM	135	Environmental Ethics	3	
CHE	134	Environmental Chemistry	4	
COM	211	Effective Speaking	3	
		TOTAL	18	
FOUR	TH QU	U <b>ARTER</b>		
MAT	122	Statistics	4	
PHY	131	Technical Physics	4	
SRM	151	OSHA 1910.120 Hazardous Waste Op.	5	
		Track Electives	<u>3-5</u>	
		TOTAL	16-18	
FIFTH	I QUAI	RTER		
EVT	106	Air Pollution	3	
EVT	107	Water Management Technology	3	
EVT	210	Environmental Site Assessment	4	
EVT	260	Hazardous Waste Storage, Treat & Disp		
		Track Electives	<u>3-5</u>	
		TOTAL	16-18	

SIXTH QUARTER			
EVT	240	Groundwater/Fluid Mechanics	4
EVT		Capstone	3
EVT		Remediation	3
EVT	180	Solid Waste Management	3
		or	
	270	Internship	3
		Track Electives	<u>3-5</u>
		TOTAL	17-19
Track	Elective	es - Chemical	
	h Qua		
CHE	201	Organic Chemistry I	5
	Quarte		ŭ
CHE		Organic Chemistry II	5
Sixth	Quart		
CHE		Organic Chemistry III	5
		es – Industrial Hygiene	
SRM	h Qua		3
		Industrial Hygiene	3
SRM	Quarto 217		3
	Quart	Industrial Toxicology	3
SRM	219	Industrial Hygiene Instrumentation	3
SICIVI	213	mustriai rrygiene mstrumentation	3
Track	Elective	es – Hazardous Material Management	
	h Qua		
EVT	215	Asbestos Management	3
	Quarte		
EVT		Lead Management	3
	Quart		
EVT		Confined Space Management	2
SRM	152	OSHA 1910.120 Hazardous Waste	1
		Operations & Emergency Response Ref	resher

# 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 Fire Science Technology and Fire Administration.

0.	,		Credit
Cours	e & T	'itle	Hours
<b>FIRST</b>	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
FST	101	Introduction to Fire Science	4
FST	102	Fire Protection Organization	4
MAT	131	Technical Mathematics I	5
<b>ENG</b>	111	English Composition I	3
EGR	164	Survey of Engineering Careers	1
		TOTAL	17
SECO	ND (	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	4
		TOTAL	18

Credit

THIRD QUARTER				
FST	103	Fire Prevention Fund. Codes & Ordinances	s 4	
FST	117	Fire Protection Systems II	3	
PHY	131	Technical Physics I	4	
CHE	131	Technical Chemistry I	4	
ARC	107	Architectural Building Codes	3	
		TOTAL	18	
FOUR	RTH Q	UARTER		
FST	201	Fire Hydraulics	5	
PHY	132	Technical Physics II	4	
<b>ENG</b>	112	English Composition II	3	
SRM	221	Safety Management I	4	
		TOTAL	16	
FIFTH	I QUA	ARTER		
FST	204	Water Suppression Systems I	4	
COM		Effective Speaking I	3	
SRM	230	Occupational Safety & Health	4	
HUM		Humanities Elective*	3	
PLS	101	American Government	3	
		TOTAL	3 3 17	
SIXTI	H QUA	ARTER		
FST	210	Water Suppression Systems II	4	
FST	278	Capstone	3	
SRM	151	OSHA 1910.120 Hazardous Waste Operations	5	
FST	218	Fire Safety Plans Review	3	
FST	270	Internship	3	
		TOTAL	18	

^{*} See page 52.

# Fire Science Technology Fire Administration Option

(106 Total Credit Hours)

C	O T	241 -		Credit
	se & Ti			Hours
	ΓQUA	RTER		
FST	193	Firefighter Level IC		7
MAT		Intermediate Algebra		5
ENG	121	Technical Composition I		5 3 3
ACC	111	Principles of Accounting		3
MET	198	P.C. Applications in Engir	neering	
		Technology		2
			TOTAL	20
SECC	ND Q	UARTER		
FST	251	Fire Officer I		8
CHE	131	Technical Chemistry		4
	122			3
FST		FST Elective		3
			TOTAL	$\begin{array}{r} 3 \\ -3 \\ \hline 18 \end{array}$
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER		
FST	252			4
MAN	205	Principles of Management	t	3
COM	211			$ \begin{array}{r}   3 \\   3 \\   5 \\   \hline   3 \\   \hline   18 \end{array} $
MAT	116	College Algebra		5
FST		FST Elective		3
			TOTAL	18
FOUF	RTH Q	UARTER		
FST	253	Fire Officer III		4
MAT	122	Statistics		4
	201			3
PLS	103	State Government		3
<b>FST</b>		FST Elective		$ \begin{array}{r}     3 \\     3 \\     \hline     3 \\     \hline     17 \end{array} $
			TOTAL	17

FIFT	FIFTH QUARTER			
FST	254	Fire Officer IV	4	
PLS	104	Urban Government	3	
FST		FST Electives	8	
		TOTAL	15	
SIXT	H QUA	ARTER		
PSY/		Electives	6	
SOC				
HUM		Elective*	3	
FST		FST Electives	9	
		TOTAL	18	
FST I	ELECT	IVES		
Choo	se 26 cı	redit hours from the following:		
FST	102	Fire Protection Organization	4	
FST	115	Fire Apparatus & Equipment	3 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	4	
FST	208	Incident Command System II	4	
FST	209	Fire Safety Instructor	3	
SRM	151	Hazardous Waste Operations	5	
* See	page 5	2.		

# 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 computer-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
Cours	Course & Title		
<b>FIRST</b>	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
DRT	115	Design Processes	2
DRT	196	<b>Technical Graphics Communication</b>	3
INT	109	Fund. Tool & Manufacturing Processes	4
MAT	131	Technical Mathematics	5
MET	198	P.C. Application in Engineering	
		Technology	2
		TOTAL	16
SECO	ND (	QUARTER	
COM	206	Interpersonal Communication	3
DRT	198	Introduction to Computer Aided	
		Drafting Concepts	2
DRT	217	Introduction to Geometric	
		Dimensioning & Tolerancing	3
INT	113	Fundamentals of CNC	3
MAT	132	Tech Mathematics II	5
		TOTAL	16
THIR	D QU	JARTER	
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	4
		TOTAL	17

#### **FOURTH QUARTER** DRT 200 **Engineering Technology Graphics** 5 DRT 245 Software Integration for Design Analysis 5 Technical Composition II 3 **ENG** 122 **MET** 203 **Statics** 4 **TOTAL** 17 FIFTH QUARTER DRT 260 Rapid Prototyping Manufacturing 3 Unigraphics I DRT 265 5 122 **Technical Composition II** 3 **ENG** Strength of Materials **MET** 207 4 SOC Social Science Elective** 3 **TOTAL** 18 SIXTH QUARTER Design Graphics Capstone DRT 278 4 230 **Elements of Machine Design** MET 3 PHY 132 Technical Physics II 4 DRT 270 **Industrial Design Internship** 3 Humanities Elective** **HUM TOTAL** 17 Accredited by the National Association of Industrial Technology ** See page 52. *** MET 198 should be taken the first half of the quarter and DRT

# **Industrial Engineering Technology**

*** DRT 198 can be taken the first half of the quarter and DRT 199

#### (108 Total Credit Hours)

198 the second half; or

the second half.

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
Course & Ti	itle Hours
FIRST QUA	RTER
DRT 196	Technical Graphics Communication 3
ENG 111	English Composition I 3
IET 101	Work Methods Analysis & Improvement 3
IET 125	Introduction to World Class Manufacturing 3
MAT 131	Technical Mathematics I 5 TOTAL 17
	TOTAL 17
SECOND Q	UARTER
ENG 121	Technical Composition I 3
IET 115	Survey of Production & Inventory Control 2
IET 126	Supervision & Work Teams 3
IET 111	Work Measurement 4
MAT 132	Technical Mathematics II 5
MET 198	PC Applications in Engineering Technology 2 TOTAL 19
	TOTAL 19
THIRD QU.	ARTER
IET 135	Manufacturing Cost Analysis 3
ENG 122	Technical Composition II 3
MAT 133	Technical Mathematics III 5
PHY 131	Technical Physics I 4
QET 101	Survey of Total Quality Management 3 TOTAL 18
	TOTAL 18

continued next column

#### FOURTH QUARTER

riii A	UARTER	
198	Introduction to Computer Aided Drafting	0
	±	2
		3
198	Computer Applications in Engineering Technology	2
229	Work Group Dynamics	3
132	Technical Physics II	4
201	Statistical Process Control	3
	TOTAL	17
I QUA	RTER	
252		3
207		3
115		3
	Elective	3 3 3
206	Engineering Economics	3
130		3
	TOTAL	18
H QUA	ARTER	
•	General Education Elective*	3
$\frac{-}{211}$	Effective Speaking I	3
216		4
		3
	Elective	3
132	Connecting Technology & Our Lives	
	or	
	Elective*	3
	TOTAL	19
	198 205 198 229 132 201 4 QUA 252 207 115 206 130 4 QUA 211 216 202	Concepts  205 Process Engineering 198 Computer Applications in Engineering Technology  229 Work Group Dynamics 132 Technical Physics II 201 Statistical Process Control  TOTAL  I QUARTER  252 KAREL Robot Programming 207 Manufacturing Systems Analysis 115 Human Factors Engineering Elective 206 Engineering Economics 130 Just-In-Time Production Systems TOTAL  I QUARTER  General Education Elective*  211 Effective Speaking I 216 Industrial Facilities Layout 202 Computer Integrated Workcells Elective 132 Connecting Technology & Our Lives or Elective*

^{*} 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

IET

297

	,		
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
		•	
Indust	rial Pro	ocesses Track	
INT	204	CNC Lathe Programming	3
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

Special Topics in IET

3

Quality	y Techn	ology Track	
QET	111	Metrology I	3
QET	112	Metrology II	3
QЕТ	202	Advanced SQC	3
QET	203	Design of Experiments	3
QET	221	Quality Assurance I	3
QET	222	Quality Assurance II	3
IET	190	IET Workshop	3
IET	297	Special Topics IET	3
Draftir	ng/Desig	gn 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**

#### (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.

полес	Credit				
Cours	Course & Title Hours				
FIRST	Γ QUA	RTER			
PLA	106	Introduction to Plastics Technology	4		
MAT	131	Technical Mathematics I			
IET	101	Work Methods Analysis & Improvem	ent $\begin{array}{r} 5 \\ 3 \\ 3 \\ \hline 3 \\ \hline 17 \end{array}$		
DRT	196	Technical Graphics Communication	3		
QET	101	Survey of Total Quality Management	3		
·		TOTAL	<del></del>		
SECO	ND Q	UARTER			
PLA	150	Plastics Processing Equipment			
		Fundamentals	4		
	208	Plastic Materials Process I	4		
<b>ENG</b>	121	Technical Composition I	3		
IET	198	Computer Programming Applications	in		
		Engineering Technology	2		
CHE	131	Technical Chemistry I	4		
		TOTAL	17		
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U} A$	ARTER			
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	$\frac{2}{3}$		
QET	201	Statistical Process Control	4		
		TOTAL	13		
FOUF	RTH Q	UARTER			
ENG	111	English Composition I	3		
IET	110	Integrated Manufacturing	3		
IET	125	Introduction to Manufacturing Manag			
MAT	132	Technical Mathematics II	5		
IET		Plastics Elective	3		
		TOTAL	17		

FIFTH	I QUA	RTER	
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*	3
ENG	122	Technical Composition II	3
IET		Plastics Elective	3
		TOTAL	17
SIXTI	I QUA	RTER	
IET	216	Industrial Facilities Layout	4
HUM		Humanities Elective*	3
IET	135	Manufacturing Costs Analysis	3
		General Education Elective*	3
COM	211	Effective Speaking I	3
		TOTAL	16

^{*} See page 52.

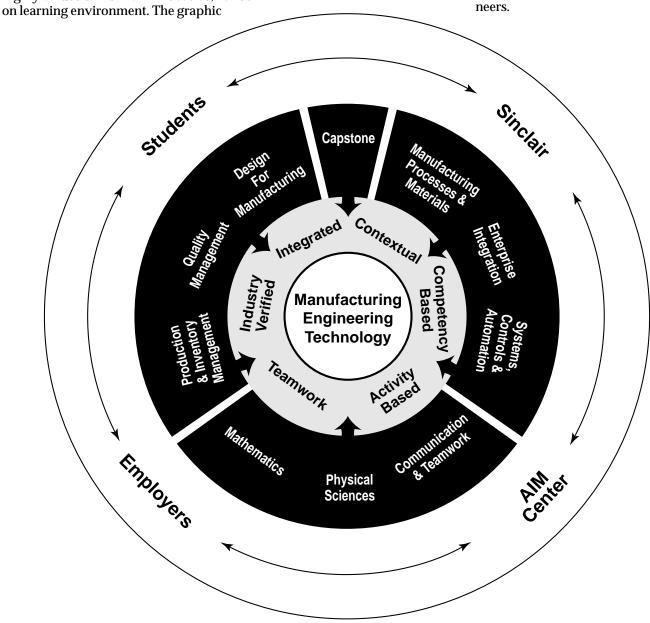
# Manufacturing Engineering Technology

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, hands-

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**

			redit
Carre	se & Ti		lours
			iours
	ΓQUA		•
DRT	196	Technical Graphics Communication	3
IET	101	Work Methods Analysis & Improvement	t 3
IET	125	World Class Manufacturing	3
MAT	131	Technical Mathematics I	5
MET	198	P.C. Applications in Engineering Technology	2
PSY	229	Work Group Dynamics	3
151	220	TOTAL	<del></del> 19
SECC	ND O	UARTER	10
CHE	131	Technical Chemistry I	4
DRT	198	Introduction to CAD Concepts	2
ENG	111	English Composition I	3
INT	109	Fund. of Tools & Manufacturing Process	
MAT	132	Technical Mathematics II	<u>5</u>
IVIAI	132	TOTAL	<del>3</del>
титр	יוס מי		10
ENG		ARTER Tackminal Communition I	9
	121	Technical Composition I	3
INT	113	Fundamentals of CNC	3
MAT	133	Technical Mathematics III	5
PHY	131	Technical Physics I	4
QET	132	Metallurgy TOTAL	$-\frac{3}{18}$
FOLIE	тн О	UARTER	10
EET	119	Basic Electrical Circuits & Controls	4
ENG	122	Technical Composition II	3
IET	115	Survey of Production & Inventory Contr	
PLA	106	Introduction to Plastics Technology	4
MET	203	Statics	4
IVILLI	203	TOTAL	<del></del>
CICTL	AIIA		17
		ARTER  Effective Speaking I	9
COM	211 128	Effective Speaking I	3 3
EGR	120	Robotics in CIM Systems	ა ი
IET	126	General Education Elective*	3 3
IET		Supervision & Work Teams	ა 3
IET	205	Process Engineering	
QET	101	Survey of Total Quality Management TOTAL	$-\frac{3}{18}$
SIXTE	I QUA		10
		EGR 132 or Humanities Elective	
IET	130	Just-In-Time Production Systems	3
IET	278	Manufacturing Capstone Experience	4
MET	281	Certified Mfg. Technician Review	3
QET	201	Statistical Process Control	3
V		Track Elective	3
		TOTAL	19
		<b></b>	
		TOTAL CREDIT HOURS	109

^{*} See page 52.

# **Subject Clusters**

Juk	ycci	OldStors	
Mathematics			
MAT	131	Technical Mathematics I	
MAT	132	Technical Mathematics II	
MAT	133	Technical Mathematics III	
Physi	cal Sci		
CHE	131	Technical Chemistry I	
PHY	131	Technical Physics I	
Comr	nunica	tion & Teamwork	
COM	211	Effective Speaking I	
		EGR 132 or Humanities Elective*	
ENG	111	English Composition I	
ENG		Technical Composition I	
ENG		Technical Composition II	
21.0		General Education Elective	
PSY	229	Work Group Dynamics	
		Manufacturing Taghnical Craphics Communication	
DRT	196	Technical Graphics Communication	
DRT MET	198	Introduction to CAD Concepts	
		Statics	
	·	nagement	
QET	101	Survey of Total Quality Management	
QET	201	Statistical Process Control	
Produ	iction a	& 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	
Manu	ıfactur	ing Processes & Materials	
INT	109	Fund. of Tools & Manufacturing Processes	
MET	281	Certified Mfg. Technician Review	
PLA		Introduction to Plastics Technology	
QET	132	Metallurgy	
•		ntrols & Automation	
EET	119	Basic Electrical Circuits & Controls	
EGR	128		
INT	113	Robotics in CIM Systems	
		Fundamentals of CNC	
		ntegration	
IET	125	World Class Manufacturing	
IET	126	Supervision & Work Teams	
MET	198	P.C. Applications in Engineering Technology	
Capst	one		
IET	278	Manufacturing Capstone Experience	

# Mechanical Engineering Technology*

#### (101 Total Credit Hours)

С----- о Т:41-

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.

Cours	se & T	itle	Hours
FIRS	ΓQUA	ARTER	
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	
ENG	121	Technical Composition I	3
INT	109	Fundamentals of Tool &	
		Manufacturing Processes	4
MAT	131	Technical Mathematics I	5
MET	198	Personal Computer Applications in	
		Engineering Technology	2
		TOTAL	17
		UARTER	
ENG	122	Technical Composition II	3
DRT	196	Technical Graphics Communication	3
MAT		Technical Mathematics II	5
MET		Design Realization	3
PHY	131	Technical Physics I	4
		TOTAL	18
		ARTER	
ENG	113	English Composition III	3
IET	198	Computer Program Applications	
3.64 m	400	in Engineering Technology	2
MAT	133	Technical Mathematics III	5
DRT	198	Introduction to CAD Concepts	2
MET	203	Statics	4
FOLI		TOTAL	16
	-	UARTER	
EET	119	Basic Electrical Circuits & Controls	4
MET	204	Dynamics with Kinematic Analysis	4
MET	207	Strength of Materials	4
MET	260	Engineering Technology Applications	3
OFT	132	with Computers	3
QET	132	Metallurgy or	
	133	Non-Metallic Materials	3
	133	TOTAL	<u></u> 18
FIFTI	4 0114	ARTER	10
CHE	131	Technical Chemistry	4
MET	205	Fluid Mechanics	3
MET	228	Equipment Measurement & Control	3
MET		Machine Design I	3
PHY	132	Technical Physics II	4
	102	TOTAL	<del></del>
		701111	

#### **SIXTH QUARTER**

MET	225	Thermodynamics	4
MET	232	Machine Design II	3
PSY	229	Work Group Dynamics	3
		or	
SOC		Social Science Elective	
EGR/	132	Connecting Technology & Our Lives	3
		or	
HUM		Humanities Elective**	
		Technical Elective	2
		TOTAL	15

Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology.

Credit

# Mechanical Engineering Technology*

## 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.

Cours	se & T	itle	Credit Hours
FIRST	ΓQUA	ARTER	
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	
DRT	196	Technical Graphics Communication	3
<b>ENG</b>	121	Technical Composition I	3
MAT	131	Technical Mathematics I	5
MET	106	Introduction to HVAC	$\frac{3}{17}$
		TOTAL	17
SECO	ND Q	UARTER	
DRT	198	Introduction to CAD Concepts	2
<b>ENG</b>	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	2
		TOTAL	18
THIR	$\mathbf{D}\mathbf{Q}\mathbf{U}$	ARTER	
ARC	139	Mechanical Systems Blueprint Reading	g 2
ENG	113	English Composition III	3
MAT	133	Technical Mathematics III	5
MET	145	HVAC Loads & Psychrometrics	3
PHY	131	Technical Physics I	4
		TOTAL	17

^{**} See page 52.

FOURTH QUARTER			
CCT	216	Construction Estimating	4
DRT	199	Computer Aided Drafting II	3
EET	119	Basic Electrical Circuits & Controls	4
MET	135	Modern Refrigeration Practice	3
MET	240	Advanced HVAC Applications	3
		TOTAL	17
FIFTH	I QUA	RTER	
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
SIXTI	H QUA	RTER	
MET	229	Controls for HVAC Systems	4
MET	244	HVAC Applications Project	3
PSY	229	Work Group Dynamics	3
		or	
SOC		Social Science Elective	
EGR	132	Connecting Technology & Our Lives	
		or	
HUM		Elective**	3
		TOTAL	135

^{*} Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology.

# **Quality Engineering Technology**

#### (100 Total Credit Hours)

This program provides students with the knowledge and skills necessary to understand the competitive pressures and 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. It includes planning, organizing, managing, measuring and analyzing product quality within any company. Graduates are qualified to employ statistical processes to solve quality problems within any manufacturing, industrial or service organization where improvement of quality performance is desired.

Cours	Hours					
FIRST	FIRST QUARTER					
COM	206	Interpersonal Communication	3			
		or				
	211	Effective Speaking I				
ENG	121	Technical Composition I	3			
MAT	131	Technical Mathematics I	5			
MET	198	Personal Computer Applications in				
		Engineering Technology	2			
QET	101	Introduction to TQM	3			
QET	M30	Introduction to Materials &				
		Manufacturing Processing	1			
		TOTAL	17			
SECO	ND Q	UARTER				
<b>ENG</b>	122	Technical Composition II	3			
MAT	132	Technical Mathematics II	5			
MET	104	Design Realization	5 3			
QET	111	Metrology I	3			
QET	112	Metrology II	3			
•		TOTAL	17			

THIRI	D QUA	RTER	
DRT	196	Technical Graphics Communication	3
ENG	113	English Composition III	3
QET	105	Introduction to Packaging	
QET	113	Coordinate Measurement	3 3
QET	131	Introduction to Material Science	3
421	101	or	·
	132	Metallurgy	
QET	201	Statistical Process Control	3
ALL	۵01	TOTAL	18
FOUR	τη οι	JARTER	10
DRT	198	Introduction to CAD Concepts	9
QET	120	Process Metrology	2 3
QET	134	Packaging Materials & Documentation	
QET	202	Advanced Statistical Quality Control	2 3 3
QET	211		ა ე
		Reliability I	ა 3
QET	223	Introduction to ISO 9000	
		TOTAL	16
	QUAF		
PSY	229	Work Group Dynamics	3
	or		
SOC		Social Science Elective	
QET	221	Quality Assurance	3
QET		Electives (See list of approved courses)	9
		TOTAL	15
SIXTH	I QUAI	RTER	
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	3
		TOTAL	17
OFT E	ectives	(17 hours required)	.,
QET	114	Advanced Coordinate Measurement	3
QET	123	Eddy Current Testing	
QET	124	Industrial Radiography	3
QET	125	Ultrasonic Testing	3
QET	126	Liquid Penetrant & Magnetic Particle Testing	3
•	131	Survey of Metallurgy	3
QET	132	Motallurgy	ა ვ
QET		Metallurgy	ა ი
QET	133	Non-Metallic Materials	ა ი
QET	200	CMI/CQT Review	3
QET	203	Design of Experiments	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 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. Although starting 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.

continued next page

Credit

^{**} See page 52.

				Credit
Cours	se & T	itle		Hours
FIRST	Γ QUA	ARTER		
COM	211	Effective Speaking I		3
ENG	111	English Composition I		3
MAT		Technical Mathematics I		5
MET	198	Personal Computer Applicat	tions in	•
		Engineering Technology		2
ILM	102	Quality Foundations		2
ILM	103	Teamwork		1
ILM	104	Basic Statistical Variation		1
		Т	OTAL	17
SECO	ND C	QUARTER		
CHE	131	Technical Chemistry I		4
MAT	132	Technical Mathematics II		5
MET		Design Realization		3
QET	111	Metrology I		3
QET	112	Metrology II		3
&r1	112		OTAL	<u></u> 18
титр	ם חו		OIAL	10
		ARTER		9
DRT	106	Essentials of Machine Drawi		3
DRT	198	Introduction to CAD Concep	ots	2
MAT	133	Technical Mathematics III		5
QET		Non-Metallic Materials		3
QET	201	Statistical Process Control	OTAT	3
FOLIE		=	OTAL	16
		UARTER		_
ENG		Technical Composition I		3
PHY		Technical Physics I		4
QET	105	Introduction to Packaging		3
(JET	120	Process Metrology		3
QET		Packaging Materials		2
QET	211	Reliability I		3
			OTAL	18
FIFTH	ł QUA	ARTER		
ENG		Technical Composition II		3
PHY	132	Technical Physics II		4
QET	212	Reliability II		3
QET	221	Quality Assurance		3
QET		Packaging Systems		3
QET	252	Packaging Development		3
		T	OTAL	19
SIXTI	$H \mathbf{Q} \mathbf{U}$	ARTER		
IET	198	Computer Program Applica	tions	
		in Engineering Technolog		2
PSY	229	Work Group Dynamics	,,	3
QET	254	Shock & Vibration		3
ÉGR/				
HUM	132	Connecting Technology & O	ur Lives	3
		or		
HUM		Humanities Elective**		
		Technical Elective		3
		General Education Elective*	*	3
	_		OTAL	17

^{*} Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology.

# 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.

~			Credit
	se & Ti		Hours
	•	ARTER	
COM	206	Interpersonal Communication	3
	011	or Effective Constituted	
DDT	211	Effective Speaking I	0
DRT	196	Technical Graphics Communication	3
ENG		Technical Composition I	3 5
MAT		Technical Mathematics I	3
QET	101	Introduction to TQM TOTAL	$\frac{-3}{17}$
SECO	ND O		17
ENG	122	UARTER Technical Composition II	2
MAT	132	Technical Composition II Technical Mathematics II	3 5
MET			3
QET		Design Realization Metrology I	3
QET	112	Metrology II	3
&r1	112	TOTAL	<u></u> 3
титр	DOII	ARTER	10
ENG	113	English Composition III	3
MAT	133	Technical Mathematics III	5
MET		P.C. Applications in Engineering	J
IVILI	130	Technology	2
QET	113	Coordinate Measurement	3
QET	132	Metallurgy	3
QET	201	Statistical Process Control	3
&n1	201	TOTAL	19
FOLIE	тн О	UARTER	10
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
421	~	TOTAL	18
FIFTE	HOUA	ARTER	
CHE	131	Technical Chemistry I	4
PHY	133	Technical Physics III	4
QET		Design of Experiments	3
QET	212	Reliability II	3
QET	221	Quality Assurance	3
421	~~-	TOTAL	<del></del>
SIXTI	HOU	ARTER	
IET	198	Computer Program Applications	
ш	100	in Engineering Technology	2
PSY	229	Work Group Dynamics	3
151	220	or	Ū
		Social Science Elective	
EGR	132	Connecting Technology & Our Lives	3
		or	3
HUM		Humanities Elective**	
		Technical Elective	3
$\overline{\text{QET}}$	133	Non-Metallic Materials	3
ЙЕТ	295	Quality Control Seminar	3
-		TOTAL	17
* Acc	redited	l by the Technology Accreditation Comr	nission of

 ^{*} Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology.

^{**} See page 52.

^{*} 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.

Cours	. O T!4	l.	Credit Hours		
Course & Title FIRST QUARTER					
	-				
SRM	101	Introduction to Safety Engineering Technology	3		
MAT	131	Technical Mathematics I	5		
CHE	131	Technical Chemistry	4		
ENG	121	Technical Composition I	3		
EVT	110	Environmental Compliance	3		
EGR		Engineering Careers	2		
GE GO	NID OI	TOTAL	19		
		JARTER			
MET	198	P. C. Applications in Engineering Technology	2		
SRM	215	Industrial Hygiene	3		
MAT	132	Technical Mathematics II	5		
BIO	107	Human Biology	5		
ENG	122	Technical Composition II	3		
		TOTAL	18		
THIR	D QUA	ARTER			
EVT	200	Environmental Waste Management	4		
SRM	217	Industrial Toxicology	3		
EGR	206	Engineering Technology Economics	3		
CHE	121	Introduction to Organic Chemistry	4		
COM	211	Effective Speaking	3		
		TOTAL	17		
FOUR	TH QU	J <b>ARTER</b>			
SRM	219	Industrial Hygiene Instrumentation	4		
PHY	131	Technical Physics I	3		
SRM	151	OSHA 1910.120 Hazardous Waste Opera			
		Technical Electives	<u>5-6</u>		
		TOTAL	17-18		
FIFTH	I QUAI	RTER			
MAT	122	Statistics	4		
HUM		Humanities Elective*	3		
EVT	260	Storage, Transportation, & Disposal			
		of Hazardous Wastes/Materials	3		
SRM	230	General Standards for Industry	4		
		Technical Electives	<u>3-4</u>		
		TOTAL	17-18		
	H QUA				
SRM	278	SRM Capstone	3		
PSY		Psychology Elective	3		
		Technical Electives	9-10		
mport		TOTAL	15-16		
		<b>ELECTIVES</b> (Select 17-20 credit hours from thes			
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 SRM	231 232	O.S.H.A. Construction Standards	4 3		
SRM	232	Construction Worksite Safety DOT Transportation Safety	3 2		
FST	101	Introduction to Fire Science	4		
FST	101	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		
	page 52				
200	1 0 - 0 -				

# **Tooling & Machining Technology**

#### (107 Total Credit Hours)

Credit

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.

			Credit
Course	e & Titl	le I	Hours
FIRST	QUAF	RTER	
DRT	196	Technical Graphics Communication	3
ENG	121	Technical Composition I	3
IET	101	Work Methods Analysis & Improvement	
INT	131	Basic Moldmaking	3
IET	198	Computer Programming Applications in	
		Engineering Technology	2
INT	111	Tool & Manufacturing Processes I	3
		TOTAL	17
SECO	ND QI	JARTER	
IET	125	World Class Manufacturing	3
DRT	198	Introduction to Computer Aided	Ū
DIUI	100	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
&r1	101	TOTAL	$\frac{-3}{17}$
титрі	DOIIA		17
	D QUA		9
DRT	199	Computer Aided Drafting II	3
INT	165	Advanced Tool & Manufacturing Proces	
MAT	131	Technical Mathematics I	5
IET	126	Supervision & Work Team Leadership	3
INT	113	Fundamentals of CNC	$\frac{3}{10}$
FOLID	TIT OF	TOTAL	18
		JARTER	
QET	111	Metrology I	3
IET	205	Process Engineering	3
INT	114	Jig & Fixture Design	3
INT	211	Advanced CNC	3
HUM/			
EGR 13		Connecting Technology to Our Lives	3
INT	151	Principles of Welding	3
		TOTAL	18
	I QUAF		
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	3
		TOTAL	18
SIXTE	I QUAI	RTER	
QET	113	Coordinate Measurement	3
IĚT	213	CNC Applications	3
INT	209	CNC Wire EDM Programming	3
IET	216	Industrial Facilities Layout	4
SOC		Social Science Elective	3
		General Education Elective*	3
		TOTAL	19
* See	page 52.		
500	rug. 02.		

continued next page

# Tooling & Machining Technology Machining Technology Option

(103-104 Total Credit Hours)

				Crean		
	Cours	e & Ti	tle	Hours		
FIRST QUARTER						
		-		0		
	DRT	196	Technical Graphics Communication	2		
	INT	109	Fundamentals of Tool & Manuf. Proces			
	INT	141	Applied Shop Mathematics I	3		
	INT	161	Machine Operations Lab I	8		
	QET	100	Tooling & Machining Metrology	2		
			TOTAL	19		
	SECO	ND Q	UARTER			
	DRT	198	Introduction to CAD	2		
	INT	113	Fundamentals of CNC	3		
	INT	142	Applied Shop Mathematics II	3		
	INT	162	Machine Operations Lab II	8		
	1111	102	TOTAL	<u>o</u>		
	(DI III)	D 011		10		
		-	ARTER			
	DRT	217	Introduction to Geometric,			
			Dimensioning & Tolerancing	3		
	INT		Technical Elective	3-4		
	INT	143	Applied Shop Mathematics III	3		
	INT	163	Machine Operations Lab III	8		
			TOTAL	17-18		
	FOUR	TH O	UARTER			
	ENG	121	Technical Communication I	3		
	IET	198	Computer Programming Applications	3		
	ILI	100	in Engineering Technology	2		
	INT	114	Jig & Fixture Design	3		
				3		
	INT	211	Advanced CNC	3		
	MAT	101	Elementary Algebra	5		
			TOTAL	16		
	FIFTH	I QUA	RTER			
	ENG	122	Technical Communication II	3		
	IET	205	Process Engineering	3		
	INT	212	Computer Assisted CNC Programming	3 3		
1	INT	225	Tool Design	3		
	MAT	131	Technical Mathematics I	5		
			TOTAL	17		
	SIYTI	1 0114	ARTER			
	COM	211		9		
		211	Effective Speaking I	3		
	HUM	900	Humanities Elective*	ა ი		
	IET	206	Value Engineering	3 3 3		
	INT	010	INT Elective	3		
	INT	213	CNC Applications	3		
	SOC		Social Science Elective	3		
			TOTAL	18		

^{*} See page 52.

# Tooling & Machining Technology Mechanical Option

(105 Total Credit Hours)

Credit

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.

				Credit
Cours	e & Tit	tle		Hours
FIRST	QUAI	RTER		
IET	101	Work Methods Analysis &	Improveme	nt 3
ENG	111	English Composition I	p. 0 v ee	3
IET	125	Introduction to Manufactur	ring	ŭ
	120	Management	8	3
DRT	196	Technical Graphics Commi	inications	3
INT	151	Principles of Welding		3
QET	131	Introduction to Material Sc	ience	3
421	101		TOTAL	18
SECO	ND OI	U <b>ARTER</b>	101112	10
IET	198	Computer Programming A	nnlications	in
IEI	130	Engineering Technology		2
ENG	121	Technical Communications		3
IET	126	Supervision & Work Team		3
QET	101	Survey of Total Quality Ma		3
MAT	131	Technical Mathematics I	magement	5 5
IET	105	Industrial Metrics Conversi	ion	2
ILI	103		TOTAL	$\frac{2}{18}$
THE	DOLLA		IOIAL	10
	D QUA		TT	0
ENG	122	Technical Communications	5 11	3
IET	205	Process Engineering	l B	3
MET	104	Introduction to Design Rea	lization Pro	cess 3
QET	132	Metallurgy		3
INT		Electives	тот и	6
FOLIP			TOTAL	18
	•	JARTER		_
IET	206	Value Engineering		3
EER	115	Essentials of Electricity		3
INT		Electives		6
SOC		Social Science Elective		3
			TOTAL	15
FIFTH	I QUAI	RTER		
EGR	206	Engineering Technology Ed	conomics	3
INT		Electives		9
COM	211	Effective Speaking I		3
HUM		Humanities Elective*		3
			TOTAL	18
SIXTI	<b>AUQ</b> I	RTER		
IET	216	<b>Industrial Facilities Layout</b>		4
QET	201	Statistical Process Control		4
		General Education Elective	*	3
INT		Electives		7
			TOTAL	18

# 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
	e & Tit		Hours
FIRST	<b>QUAI</b>	RTER	
INT	161	Machine Operations Laboratory I	8
INT	109	Fundamentals of Tool & Manufacturin	ng
		Processes	4
DRT	100	<b>Engineering Drawing Interpretation</b>	2
INT	141	Applied Shop Mathematics I	3
QET	100	Tooling & Machining Metrology	$-\frac{2}{19}$
SECO	ND OI	TOTAL J <b>ARTER</b>	19
INT	162	Machine Operations Laboratory II	8
INT	113	<u>.</u>	3
		Fundamentals of CNC	3
INT	142	Applied Shop Mathematics II	ა ი
DRT	106	Essentials of Machine Drawing	$\frac{3}{17}$
THE STATE OF	D OILA	TOTAL	17
	D QUA		
INT	163	Machine Operations Laboratory III	8
INT	143	Applied Shop Mathematics III	3
DRT	217	Introduction to Geometric Tolerancing	,
INT		Technical Elective	<u>3-4</u>
		TOTAL	17-18
FOUR	JQ HTS	J <b>ARTER</b>	
INT	114	Jig & Fixture Design	3
INT	211	Advanced CNC	3
ENG	121	Technical Communications I	3
IET	198	<b>Computer Programming Applications</b>	in
		Engineering Technology	2
MAT	131	Technical Mathematics I	5
		TOTAL	16
FIFTH	I QUAI	RTER	
INT	212	Computer Assisted Programming	3
IET	205	Process Engineering	3
ENG	122	Technical Communications II	3
Livo	122	General Education Elective*	6
INT	225	Tool Design	3
1111	220	TOTAL	18
SIXTI	AUQ F	RTER	
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
-111		TOTAL	$-\frac{3}{18}$
* See	page 52.		10

^{*} See page 52.

# **Certificate Programs**

# **Automotive Technology**

(55 Total Credit Hours)

Credit

This program is designed for students who want to become an 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.

Cours	se & T	itle	Credit Hours
FIRS	ΓQUA	ARTER	
AUT	210	Steering, Suspension, & Alignment	5
AUT	108	Engine Systems	5
AUT	125	Electrical & Electronic Systems	7
		TOTAL	17
SECC	ND Q	UARTER	
AUT	241	Automatic Transmissions	7
AUT	115	Fuel & Emission Systems	7
AUT	165	Brake Systems	5
		TOTAL	19
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER	
AUT	142	Manual Transmissions & Drive Line	5
AUT	146	Heating & Air Conditioning	5
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.

una p	· ····c··p·	ics of manifestance.	Credit
Cours	se & T	i+la	
			Hours
	r QUA	ARTER	
SOC		Social Science Elective	3
AVT	105	Orientation to Aviation	3
AVT	228	Aircraft Engines	3
AVT	143	Aircraft Maintenance	3
AVT	261	Airframe I	$\frac{3}{15}$
		TOTAL	15
SECC	ND G	UARTER	
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	4
		TOTAL	17
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER	
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	3
		TOTAL	16

continued next page

# 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.

			Crean
Cour	se & Ti	itle	Hours
<b>FIRS</b>	T QUA	ARTER	
EER	121	Electronic Problem Solving	4
EER	126		4
MET	198	P.C. Applications in Engineering	
		Technology	2
EET	116	Electronics Schematics & Layouts	$\frac{3}{13}$
		ŤOTAL	13
SECC	OND Q	UARTER	
EER	123	High Reliability Soldering	3
EER	127	A.C. Circuits	4
EER	128	Discrete Electronics	4
EGR	128	Robotics in CIM Systems	3
		TOTAL	14
THIR	RD QU	ARTER	
EER	124	Printed Wire Board Repair	3
EER	136	Digital Electronics	3
EER	138	Microprocessors Programming	
		& Applications	3
EER	139	Electrical Machinery	4
		TOTAL	13
<b>FOU</b>	RTH Q	UARTER	
EER	137	Linear Integrated Circuits	3
EER	147	Industrial Wiring & NEC	4
EER	165	Electronic Diagnostics & Repair	3
EER	166	Industrial Machine Wiring & Standard	$\frac{3}{13}$
		TOTAL	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.

Cours	e & Tit	le		Hours
<b>FIRST</b>	QUAI	RTER		
FST	193	Firefighter II Transition		7
FST	251	Fire Officer Level I		8
MET	198	P.C. Applications in Engir	neering	
		Technology	_	2
			TOTAL	17
<b>SECO</b>	ND Q	UARTER		
FST	252	Fire Officer Level II		4
ENG	121	Technical Composition I		3
COM	211	Effective Speaking I		3
ACC	111	Accounting I		3
FST		Technical Electives		5
			TOTAL	18

THIRD QUARTER					
FST	253	Fire Officer Level III	4		
ENG	122	Technical Composition II	3		
FST		Technical Electives	9		
		TOTAL	16		
TECH	NICAL	ELECTIVES			
Choose	e 14 crec	lit hours from the following:			
FST	102R	Fire Protection Organization	4		
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.

Cours	e & Ti	tla	Credit Hours		
	FIRST QUARTER				
	•	RIEK			
FST	101	Introduction to Fire Science	4		
SRM	230	Occupational Safety & Health	4		
MAT	101	Elementary Algebra	4		
FST	201	Fire Hydraulics	5		
		TOTAL	17		
SECO	ND Q	UARTER			
ENG	111	English Composition I	3		
FST	116	Fire Protection Systems I	3		
FST	204	Water Suppression Systems I	4		
SRM	151	OSHA 1910.120 Hazardous Waste			
		Operations	5		
ARC	138	Commercial Blueprint Reading	3		
		TOTAL	18		
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U} A$	ARTER			
FST	117	Fire Protection Systems II	3		
FST	210	Water Suppression Systems II	4		
FST	218	Plans Review for Fire Safety	3		
FST	103	Fire Prevention Fundamentals	4		
HUM		Humanities Elective	3		
		TOTAL	17		

# 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.

Cradit

		C	redit
Cours	se & Ti	itle H	ours
FIRS	ΓQUA	ARTER	
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	$\frac{3}{17}$
•		TOTAL	17
SECC	ND Q	UARTER	
PLA	150	Plastics Processing Equipment	
		Fundamentals	4
PLA	208	Plastic Materials Process I	4
<b>ENG</b>	121	Technical Communications I	3
IET	198	Computer Programming Applications in	
		Engineering Technology	2
CHE	131	Technical Chemistry 1	4
		TOTAL	17
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER	
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.

_			Credit
	se & T		Hours
FIRS'	ΓQUA	ARTER	
INT	109	Fundamentals of Tooling &	
		Manufacturing Process	4
INT	141	Applied Shop Mathematics I	$ \begin{array}{r} 3 \\ 3 \\ 3 \\ \underline{3} \\ 16 \end{array} $
QET	101	Introduction to TQM	3
QET	120	Process Metrology	3
QET	131	Survey of Metallurgy	3
		TOTAL	16
SECC	ND C	UARTER	
DRT	196	Technical Graphics Communications	3
INT	142	Applied Shop Mathematics II	3
QET	111	Metrology I	3 3 3 -3 -18
ЙЕТ	112	Metrology II	3
QET	124	Industrial Radiography	3
QET	125	Ultrasonic Testing	3
·		TOTAL	18
THIR	D QU	ARTER	
DRT	217	Introduction to Geometric Tolerancing	3
INT	143	Applied Shop Mathematics III	3
QET	113	Coordinate Measurement	3
ЙЕТ	123	Eddy Current Testing	2
•	126	Liquid Penetrant & Magnetic Particle Te	$ \begin{array}{r}     3 \\     3 \\     3 \\     2 \\     st. 3 \\     \hline     17 \end{array} $
ЙЕТ	201	Statistical Processing Control	3
•		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.

and m	ausur	a riy Sicric.	Cuadit
C	О Т		Credit
	se & Ti		Hours
FIRS	ΓQUA	ARTER	
SRM	101	Introduction to Safety & Risk Manager	ment 3
FST	101	Introduction to Fire Science	4
BIO	101	Body Structure & Functions	4
MAT	116	College Algebra	5
ENG	111	Technical Composition I	5 3
		TOTAL	19
SECO	ND Q	UARTER	
SRM	211	Industrial Safety I	3
<b>ENG</b>	122	Technical Composition II	$\frac{3}{3}$
SRM	215	Industrial Hygiene	3
FST	116	Fire Protection Systems I	3
MAT	122	Statistics	4
CHE	131	Technical Chemistry I	4
		TOTAL	17
THIR	$\mathbf{D}\mathbf{Q}\mathbf{U}$	ARTER	
SRM	230	Occupational Safety & Health	4
FST	103	Fire Prevention Codes & Ordinances	4
SRM	212	Industrial Safety II	3
SRM	215	Industrial Hygiene	3
DRT	100	Engineering Drawing Interpretation	2
PHY	100	Introduction to Physics	4
		TOTAL	20

# 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.

	v		Credit
Cou	rse & Ti	tle	Hours
FIRS	ST QUA	RTER	
ARC		Construction Methods & Materials	4
ARC	101	Architectural Drafting	3
CCT	201	Introduction to Surveying	3
MET	198	Personal Computer Applications in	
		Engineering Technology	2
		TOTAL	12
SEC	OND Q	UARTER	
ARC	•	Architectural Detail Drafting	3
CCT	226	Heavy Highway Construction	3
DRT		Introduction to Computer Aided Drafti	ng 2
MAT		Technical Mathematics I	5
		TOTAL	ng 2 5 13
THI	RD QU	ARTER	
CCT	-	Construction Surveying	5
DRT	199	Computer Aided Drafting II	3
		General Education Elective*	5 3 3 3
		Technical Elective	3
		TOTAL	14
FOU	RTH Q	UARTER	
CCT		Topographic Drawing & Mapping	4
CCT	203	Advanced Applications of Surveying	4
CCT	235	Legal Principles for Surveyors	4
		TOTAL	12
* C		n	

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.

Credit

Course & Title         Hours           FIRST QUARTER           DRT         196         Technical Graphics Communication         3           IET         125         World Class Manufacturing         3           INT         111         Tool & Manufacturing Processes I         3           INT         141         Applied Shop Mathematics I         3           QET         111         Metrology I         3           IET         198         Computer Programming Applications in Engineering Technology         2           EER         I 15         Essentials of Electricity         3           INT         112         Tool & Manufacturing Processes II         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         2         17           TOTAL         17           THIRD QUARTER           INT			· · · · · · · · · · · · · · · · · · ·	Dicuit
DRT 196 Technical Graphics Communication IET 125 World Class Manufacturing 3 INT 111 Tool & Manufacturing Processes I 3 INT 141 Applied Shop Mathematics I 3 QET 111 Metrology I 3 IET 198 Computer Programming Applications in Engineering Technology 2 TOTAL 17  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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	Cours	se & Ti	itle	Hours
DRT 196 Technical Graphics Communication IET 125 World Class Manufacturing 3 INT 111 Tool & Manufacturing Processes I 3 INT 141 Applied Shop Mathematics I 3 QET 111 Metrology I 3 IET 198 Computer Programming Applications in Engineering Technology 2 TOTAL 17  SECOND QUARTER EER I 15 Essentials of Electricity 3 INT 112 Tool & Manufacturing Processes II 3 INT 142 Applied Shop Mathematics II 3 INT 141 Applied Shop Mathematics II 3 INT 151 Principles of Welding 3 QET 112 Metrology II 3 DRT 198 Introduction to Computer Aided Drafting 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	<b>FIRS</b>	ΓQUA	ARTER	
IET         125         World Class Manufacturing         3           INT         111         Tool & Manufacturing Processes I         3           INT         141         Applied Shop Mathematics I         3           QET         111         Metrology I         3           IET         198         Computer Programming Applications in Engineering Technology         2           TOTAL         17           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         2           TOTAL         17           THIRD QUARTER           INT         113         Fundamentals of CNC         3				3
INT         111         Tool & Manufacturing Processes I         3           INT         141         Applied Shop Mathematics I         3           QET         111         Metrology I         3           IET         198         Computer Programming Applications in Engineering Technology         2           TOTAL         17           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         2           TOTAL         17           THIRD QUARTER           INT         113         Fundamentals of CNC         3	IET	125		3
INT 141 Applied Shop Mathematics I 3 QET 111 Metrology I 3 IET 198 Computer Programming Applications in Engineering Technology 7 TOTAL 17  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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	INT	111		
QET 111 Metrology I 3 IET 198 Computer Programming Applications in Engineering Technology 7 TOTAL 17  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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	INT	141		
IET 198 Computer Programming Applications in Engineering Technology 70TAL 17  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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	QET	111		3
Engineering Technology TOTAL  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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3	•	198		n
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 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3				
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 2 TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3				
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 2 TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3	SECC	ND Q	UARTER	
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 2 TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3		•		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 2 TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3				
INT         151         Principles of Welding         3           QET         112         Metrology II         3           DRT         198         Introduction to Computer           Aided Drafting         2           TOTAL         17           THIRD QUARTER           INT         113         Fundamentals of CNC         3			Applied Shop Mathematics II	3
QET 112 Metrology II 3 DRT 198 Introduction to Computer				3
DRT 198 Introduction to Computer Aided Drafting 2 TOTAL 17  THIRD QUARTER INT 113 Fundamentals of CNC 3			1 0	
Aided Drafting 2 TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3				· ·
TOTAL 17 THIRD QUARTER INT 113 Fundamentals of CNC 3	2111	100		2
THIRD QUARTER INT 113 Fundamentals of CNC 3				17
INT 113 Fundamentals of CNC 3	THIR	ED OH		
				3
				3
INT 165 Advanced Tool & Manufacturing Process 4				
INT 143 Applied Shop Mathematics III 3				33 <del>1</del>
INT 225 Tool Design 3				3
DRT 199 Advanced Computer Aided Drafting 3				
TOTAL 19	DIVI	199		10

# Tooling & Machining

(Project STEP II)*

(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.

_		_	Credit
Cours	e & Tit	le	Hours
<b>FIRST</b>	' QUAI	RTER	
DRT	196	<b>Technical Graphics Communications</b>	3
INT	109	Fundamentals of Tool & Manuf. Proces	sses 4
INT	141	Applied Shop Mathematics I	3
INT	161	Machine Operations Lab I	8
QET	100	Tooling & Machining Metrology	2
		TOTAL	20
<b>SECO</b>	ND QU	J <b>ARTER</b>	
DRT	198	Introduction to CAD	2
INT	113	Fundamentals of CNC	3
INT	142	Applied Shop Mathematics II	3
INT	162	Machine Operations Lab II	8
		TOTAL	16
THIR	D QUA	RTER	
DRT	217	Introduction to Geometric, Dimensioning & Tolerancing	3
INT	143	Applied Shop Mathematics III	3
INT	163	Machine Operations Lab III	8
INT	100	Technical Elective	3-4
•		TOTAL	17-18

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 firms— AutoDesk 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.

P			Credit Hours
Cours	e & Tit	tle	
<b>FIRST</b>	[QUA]	RTER	
DRT	110	Design Process	$\frac{2}{2}$
		TOTAL	2
SECO	ND QI	UARTER	
DRT		DRT Elective One	5
DRT	255		_
		Analysis	5
		TOTAL	10
THIR	D QUA	ARTER	
DRT	260		3
DRT		DRT Elective Two	$\frac{3}{5}$
		TOTAL	8
DRT F	LECTIV	VE ONE (choose one)	
DRT	200	Engineering Technology Graphics	5
DRT	247	Solidworks Basics	5 5 5
DRT	265	Unigraphics Level I	5
		VES TWO (choose one)	
DRT	205	Advanced AutoDesk Parametric Design	n 5 5
DRT	248	Solidworks Advanced	
DRT	266	Unigraphics Level II	5
		continued r	ext page

## Advanced Construction Technician

(43 Total Credit Hours)

Cours	ъ е т	utlo.	Credit Hours
			Houis
	•	ARTER	
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	$\frac{3}{13}$
		TOTAL	13
SECC	ND (	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	$\frac{3}{12}$
		TOTAL	12
THIR	DQU	ARTER	
CCT	133	Ironworker Level 2-A	3.5
CCT	134	Ironworker Level 2-B	3.5
DRT	198	Introduction to Computer Aided	
		Drafting Concepts 1	2
CCT	270	Civil Engineering Technology Internship	3
		TOTAL	12
FOU	RTH	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 FIRST QUARTER		
AUT	221	High Performance Blocks	
		& Rotating Assemblies	7
SECO	ND Q	UARTER	
AUT	222	High Performance	
		Cylinder Head & Valve Train	7
THIR	<b>D Q</b> UA	ARTER	
AUT	223	High Performance Engine	
		Assembly & Dyno Testing	7
FOURTH QUARTER			
AUT	224	High Performance Fuel Induction	7

# **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.

Cours	e & T		ours
		ARTER	
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	2
		TOTAL	13
SECO	ND (	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	3
		TOTAL	16
THIR	D QU	ARTER	
CCT	102	Basic Construction Surveying	4
CCT	242	Construction Management Personnel Issue	s 3
CCT	258	Project Management Techniques	3
SRM	231	OSHA Construction Standards	4
		TOTAL	14

## **Construction Technician**

(44.5 Total Credit Hours)

Cours	se & T		lours
FIRS	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
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	$\frac{1}{270}$	Civil Engineering Technology Internship	
		TOTAL	12
SECO	ND G	UARTER	
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	$\frac{3}{12}$
		TOTAL	12
THIR	D QU	ARTER	
CCT	126	Carpentry Level 3-B	3.5
CCT	127	Carpentry Level 4-A	3.5
		Tecĥnicaľ Elective	3
CCT	270	Civil Engineering Technology Internship	3
		TOTAL	13
FOUF	RTH G	UARTER	
CCT	128	Carpentry Level 4-B	3.5
SRM	231	OSHA Construction Standards	4
		TOTAL	7.5

## **Electrical Construction**

(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.

Credit

Cour	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	3-8
		TOTAL	12-32

# Firefighter Technician

(29 Total Credit Hours)

Credit

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.

			Credit		
Course & Title					
FST	180	Firefighter II	14		
FST	120	Fire Safety Inspector	6		
SRM	151	OSHA 1910.120 Hazardous			
		Waste Operations	5		
FST	206	Incident Command System	4		
		TOTAL	29		
Optio	onal Co	ourses			
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 1	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.

			Credit		
Cours	Course & Title Hou				
FIRS	ΓQUA	ARTER			
COM	206	Interpersonal Communication	3		
EET	119	Basic Electrical Circuits & Controls	4		
INT	141	Applied Shop Mathematics I	3		
MET	103	HVAC Installation Techniques	2		
MET	106	Introduction to HVAC	$\frac{3}{15}$		
		TOTAL	15		
SECC	ND Q	UARTER			
MET	111	Basics of Heating & Heating Systems	3		
MET	115	Gas Fired Appliances	3		
MET	120	Fundamentals of HVAC			
		Distribution Systems	3		
MET	130	Basics of Cooling & Cooling Systems	3		
		TOTAL	12		
THIR	D QU	ARTER			
ARC	139	Mechanical Systems Blueprint Reading	2		
EER	139	Electrical Machinery	4		
MAT	150	Testing, Adjusting & Balancing in HVA	.C 2		
MET	157	Basic Light Commercial HVAC			
		Troubleshooting	3		
MET	158	Advanced Light Commercial HVAC			
		Troubleshooting	3		
		TOTAL	14		

# **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.

		Cre	an	
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	
Stude	nts ma	ly select one of the following courses to us	e as	
		on for a course in the Manufacturing Mana		
ment o	certific	cate		
COM	211	Effective Speaking 1	3	
<b>ENG</b>	121	Technical Communications 1	3	
LAS	105	Introduction to Organized Labor in Americ	a 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	
		TOTAL	23	

## **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.

Credit Course & Title Hours FIRST QUARTER					
FIRST	ľŲUÆ	ARTER			
MET	101	Mechanics for Skilled Trades	3		
MET	102	Advanced Mechanics for Skilled Trades	3		
MET	151	Hydraulics I	3		
MET	152	Hydraulics II	3		
MET	153	Hydraulics III	3		
		TOTAL	15		

## 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.

Cours	se & T	itle	Credit Hours
		ARTER	
FST	171		1
FST	172		2
FST	173	Line Rescue	$\frac{2}{2}$
		TOTAL	5
SECC	ND Q	UARTER	
FST	174	Confined Space Rescue	2
FST	175		$egin{array}{c} 2 \\ 2 \\ 2 \\ 2 \\ - \underline{2} \\ 12 \\ \end{array}$
<b>FST</b>	176	Trench Rescue	2
FST	177	Structural Collapse	2
FST	178	Top Water Rescue	2
FST	179	Urban Search & Rescue	2
		TOTAL	12
THIR	D QU	ARTER	
FST	206	Incident Command System I	4
ALH	100	EMT: Basic Theory & Practice I	$-\frac{5}{9}$
		TOTAL	9
FOU	RTH Q	UARTER	
FST	208		4
ALH	102	EMT: Basic Theory & Practice II	3
		TOTAL	$-\frac{3}{7}$

# **Engineering & Industrial Technologies**

# 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

B² 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

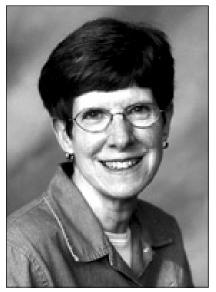
**DRT 223** 

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

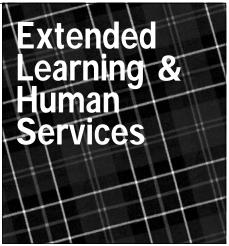
Criminal Justice Gary Tucker, Chairperson (937) 512-2876, Room 9315

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



www.sinclair.edu

#### **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 non-traditional 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

# **Physical Education**

(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 four-year 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.

continued next column

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 & 7	Гitle	Credit Hours
FIRST QU		
ENG 111		3
PED 235	Introduction to Physical Education	3
PED 200		2
PSY 121	General Psychology I	3
PED	Elective **	3
T LLD	TOTAL	$\frac{3}{14}$
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 3 3
20111 200	General Education Elective*	3
	TOTAL	15
THIRD Q	IARTER	
ENG 113	English Composition III	3
PED 237	Organization & Administration of	J
1 ED 231	Intramurals	2
PSY 242		4
PED 242	Electives** (Coaching and Officiating)	4
160	Arts or Humanities Elective*	3
	TOTAL	16
FOURTH (	QUARTER	10
BIO 111		4
HIS 101	U.S. History I****	3
PED 199	Computer Applications in Physical	
	Education	2
PED 238	Physical Education for Elementary School	ol 3
PED 270		2
	Arts or Humanities Elective*	3
	TOTAL	17
FIFTH QU	ARTER	
BIO 112		4
HIS 102	U.S. History II	3
PED 239	Athletic Injuries	3
COM 211	Effective Speaking I	3 3 3
PED	Elective **(Activity Class)	1
	Arts or Humanities Elective*	3
	TOTAL	17
SIXTH QU	JARTER	
BIO 113		4
HIS 103	U.S. History III	3
PED	Electives ** (Activity Class)	4
MAT	Elective (see advisor)	5
	TOTAL	<del></del>

- * 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 Gerontology Option

(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.

and me de	partificitis, bariks, stores and other be	Credit			
Course & '	Course & Title				
Course & Title H FIRST QUARTER					
BIS 105		9			
ENG 111	Introduction to Computers	3			
GRN 111	English Composition I* Human Services with the Elderly I	ა ე			
PSY 121	General Psychology I	ა 2			
COM 206	Interpersonal Communication	3 3 3			
SOC 111	General Sociology I	$\frac{3}{3}$			
300 111	TOTAL	$\frac{-3}{18}$			
CECOND		10			
	QUARTER	0			
ENG 112	English Composition II	3			
GRN 112	Human Services with the Elderly II	3 3 3			
PSY 122	3 63	3			
SWK 211	Introduction to Social Work Practice				
MAT	Elective*	$\frac{3-5}{15-17}$			
THE C	TOTAL	15-17			
THIRD Q		_			
ART 151	Art as Therapy I	3			
ENG 113	English Composition II	3			
GRN 115	Aging & Health	3 3 3 3			
ALH 125	Therapeutic Recreation	3			
SOC 160	Social Patterns of Aging	3			
	Arts or Humanities Elective*	3			
	TOTAL	18			
	QUARTER				
ART 152		3			
BIO 111	General Biology I	4			
GRN 211	Field Practicum with the Elderly I	5			
PSY 207	Psychology of Aging	3			
	TOTAL	15			
FIFTH QU	J <b>ARTER</b>				
BIO 112		4			
GRN 135	Family Relations in Later Years	3 5			
GRN 212	Field Practicum with the Elderly II				
	Arts or Humanities Elective*	3			
	TOTAL	15			
SIXTH Q	UARTER				
BIO 113	General Biology III	4			
	Arts or Humanities Elective*	6			
PSY 135	Living with Loss, Death & Grief	3			
SOC 145	Comparing Cultures	3			
	TOTAL	<del></del>			
* See nage	52 and check with counselor				

See page 52 and check with counselor.

**NOTE:** To complete the Ohio Transfer Module see an academic counselor.

# **Public Services**

## **Human Services Option**

(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.

issues.						
Credit						
Course & Title Hours FIRST QUARTER						
ENG		English Composition I	3			
COM		Effective Speaking	3			
PSY		General Psychology I				
BIS			3			
DIO	100	Arts or Humanities Elective*	3			
		TOTAL	15			
SECO	)ND	QUARTER	10			
ENG		English Composition II	3			
PSY	122	General Psychology II	3			
SOC	111	General Sociology I	3			
BIO		General Biology I	4			
210		Arts or Humanities Elective*	3			
		TOTAL	16			
THIE	rD OI	JARTER				
ENG	-	English Composition III	3			
SOC		General Sociology II	3			
BIO	112	General Biology II	4			
BIO PSY	218	Counseling Principles	4			
101	~10	Arts or Humanities Elective*	3			
		TOTAL	17			
FOU	RTH (	QUARTER				
SOC		· .	3			
BIO	113	General Biology III	4			
MAT		Elective	3-5			
SWK		Introduction to Social Welfare	4			
		Arts or Humanities Elective*	3			
		TOTAL	$\overline{17-19}$			
FIFT	H QU	ARTER				
SOC			4			
<b>SWK</b>	211	Introduction to Social Work Practice	3			
		Arts or Humanities Elective*	6			
PSY/SO	OC	Elective	3			
		TOTAL	16			
SIXT	H QU	JARTER				
	212	Basic Helping Skills in Social Work Pract	ice 3			
HUM		Humanities Elective*	3			
EBE	270	Internship	3			
PSY/SO	OC	Elective	3-4			
		TOTAL	12-13			
* C		70l -ll				

^{*} See page 52 and check with counselor.

**NOTE:** To complete the Ohio Transfer Module see an academic counselor.

# **Public Services Public Administration Option**

(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.

Credit

	n•.1	Credit
Course & 7	Hours	
FIRST QUA		
MAN 105		3
ENG 111	English Composition I	3
SOC 111		3 3 3
PLS 101	American Federal Government I	3
	Arts or Humanities Elective*	3
	TOTAL	15
SECOND (	QUARTER	
PSY 121	General Psychology I	3
ENG 112	English Composition II	3
PLS 102	American Federal Government II	3 3
COM 211	Effective Speaking I	$\frac{3}{3}$
SOC 112	General Sociology II	
	TOTAL	15
THIRD Q	UARTER	
ENG 113		3
PLS 103	State Government	3
PSY 122	General Psychology II	3
MAT	Elective*	3-5
PLS 104	Urban Government	3
	TOTAL	15-17
<b>FOURTH</b> 0	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 QU	ARTER	
·	Internship	3
$\overline{ACC}$ $\overline{112}$	Principles of Accounting II	3
BIO 112		4
	Arts or Humanities Elective*	6
	TOTAL	16
SIXTH QU	J <b>ARTER</b>	
BIO 113		4
SOC 205		4
	Arts or Humanities Electives*	6
PSY/SOC	Elective	3
	TOTAL	17

^{*} 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.

<b>J</b>	J		Credit
Cour			Hours
<b>FIRS</b>	ΓQU	ARTER	
ENG	111	0 1	3
SOC		General Sociology I	3
LEP	101	Constitutional Law Alternatives to Prison	3 3 3
COR	105		3
COR	106	Introduction to Corrections	3
		TOTAL	15
SECC	OND	QUARTER	
ENG	112	English Composition II	3
PSY		General Psychology I	3
COR	101	Corrections Ethics	3 3
COR	103	Legal Issues in Correctional Institutions	3
MAT		Elective	4
		TOTAL	16
THIR	PD Q	UARTER	
ENG	113	English Composition III	
		or	
	131	Business Communications I	3
PSY	122	General Psychology II	3
COR			3
SOC		Criminology	3 3 3 3
COR	126	Correctional Services in the Community	3
		TOTAL	15
		QUARTER	
	205	Social Problems	4
PHS/BI		Elective	3
COR			3
PSY			4
COM	206	Interpersonal Communication	
	211	Or Effective Speaking I	9
	211	Effective Speaking I TOTAL	$\frac{3}{17}$
CICTI	u OI		17
	-	JARTER	
COR	270	Corrections Internship or a Career Related Course	3
PLS	103	State Government	3
MAN		Elective	3
SOC	$\overline{225}$		
		or	
SOC		SOC Elective	3
COR	206	Institutional Procedures, Jails & Detention TOTAL	n <u>3</u>
SIXT	H QI	UARTER	
COR	270	Corrections Internship	3
		or	
	295	Corrections Seminar	
SOC	227		3
000		or	
SOC		Elective	

continued next page

PLS	104	Urban Government	3
COR	226	Contemporary Practices in Corrections	3
HUM		Humanities Elective*	3
		TOTAL	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 9.5	r:+l.	Crean Hours		
FIRST QU		0		
COR 101 COR 106	Correctional Ethics Introduction to Corrections	$\frac{3}{3}$		
		3		
ENG 111 LEP 101	Constitutional Law	3		
SOC 111	General Sociology I	3		
555 111	TOTAL	15		
SECOND	QUARTER			
COR 103	Legal Issues in Correctional Institutions	3		
ENG 112	English Composition II	3		
MAT	Elective	4		
COR 105	Alternatives to Prison	3		
PSY 121	General Psychology I	3		
	TOTAL	16		
THIRD QU	U <b>ARTER</b>			
COR 102	Crisis Intervention	3		
ENG 113	English Composition III			
101	or	•		
131	Business Communications I	3		
COR 126 PSY 122	Correctional Services in the Community	3 3		
SOC 226	General Psychology II Criminology	$\frac{3}{2}$		
300 220	TOTAL	$\frac{-3}{15}$		
FOURTH	QUARTER	10		
COM 206	Interpersonal Communication			
COM 200	or			
211	Effective Speaking	3		
COR 104	Written Communications in Corrections	3		
PSY 217	Abnormal Psychology	4		
SOC 205	Social Problems & Community Resource	s 4		
PHS/BIO	Elective	3		
	TOTAL	17		
FIFTH QU				
COR 206	Institutional Procedures, Jails &			
	Detention	3		
COR 270**	r	3		
	or			
	Career Related Course	0		
MAN PLS 103	Management Elective	$\frac{3}{3}$		
SOC 225	State Government Juvenile Delinquency	3		
300 223	or			
SOC	Elective	3		
	TOTAL	15		
SIXTH QU				
COR 226	Contemporary Practices in Corrections	3		
COR 270**		-		
	or			
295	Corrections Seminar	3		
		. 1		
	continued nex	tt column		

PLS	104	Urban Government		3
SOC	227	Probation & Parole		
		or		
SOC		Social Science Elective		3
HUM		Humanities Elective*		3
			TOTAL	15

^{*} See page 52.

# **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.

Credit Course & Title Hours				
			Hours	
		JARTER		
DIS	105	Introduction to Developmental Disabilities	4	
DIS		Elective	3	
ENG	111	English Composition I	3	
	121	General Psychology I	3	
SOC	111	General Sociology I	3	
300	111	TOTAL	$-\frac{3}{16}$	
SECO	OND	QUARTER		
DIS	106	Program Planning & Developmental Disabilities	4	
DIS	115	Trends, Issues & Social Services,	7	
DIS	113	& Developmental Disabilities	3	
DIS			3	
	119	Elective	3 3	
ENG DIS	112 206	English Composition II		
DIS	210	Computer Literacy & Assistive Technolog	gy 1	
DIS	210	Assistive Technology & Developmental Disabilities	1	
PSY	122	General Psychology II	3	
101		TOTAL	18	
тип	SD O	UARTER	10	
DIS	201	Field Practicum I***	5	
			3	
DIS	108	Principles & Techniques of Behavior Management	4	
DIS		Elective	3	
ENG	113	English Composition III	3	
		TOTAL	15	
		QUARTER		
DIS	109	Independent Living Skills	3	
DIS		Elective	3	
DIS	207	Health Aspects of		
~~		Developmental Disabilities	4	
COM	206	Interpersonal Communication or		
	211	Effective Speaking I	3	
PSY	208	Life Span Human Development**	5	
151	200	TOTAL.	<del></del>	
FIFT	H OI	JARTER	10	
DIS	•			
מוט	208	Communication Skills & Developmental Disabilities	4	
DIS		Elective		
HUM		Elective*	3 3 4	
MAT		100 level math or higher*	4	
PSY/S	OC	Elective	3	
		TOTAL	17	

continued next page

^{**} Department of Rehabilitation & Corrections (DRC) endorsed students must complete two internships (COR 270) inside a DRC facility.

# SIXTH QUARTER DIS 202 Field Practicum II*** 7 PSY/SOC____ Elective 3 PED 200 First Aid 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.

Course & Title			Hours
<b>FIRS</b>	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
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
<b>ENG</b>	111	English Composition I	3
		TOTAL	17
SECC	OND (	QUARTER	
ECE	145	Guidance & Discipline	3
ECE	129	Interaction with Children	5
MUS	121	Piano Class I	3
ECE		The Young Child	4
ENG	112	English Composition II	3
		TOTAL	18
THIR	D QU	JARTER	
ECE	118	Math & Science Experiences in ECE	3
ECE ECE	119	Art & Music in ECE	4
<b>ECE</b>	107	Movement Experiences in ECE	2
PSY	121	General Psychology I	3
SOC	111	General Sociology I	3
ENG	113	English Composition III	$\frac{3}{18}$
		TOTAL	18
FOU	RTH (	QUARTER	
<b>ECE</b>	160	Teaching Techniques in ECE	3
PSY	122	General Psychology II	3
		General Education Elective***	3
ECE/			
ITE/MA		Elective	3
	145	Comparing Cultures	3
COM	211	Effective Speaking I	
	000	or	_
	206	Interpersonal Communication	3
		TOTAL	18

ECE 182	Student Teaching I**	6
HUM	Elective***	3
MAT	MAT 101 (or higher)	4
ECE 112	ECE First Aid	1
ECE	Elective	3
	TOTAL	17
SIXTH QU	J <b>ARTER</b>	
ECE 281	ECE Student Teaching II**	7
ECE 215	Interaction with Families	3
PSY/SOC	Elective	3
ECE $\overline{113}$	Communicable Diseases in ECE1	
ECE/DIS/I	TE/	
MAC/CFE	Elective	3
	TOTAL	17

- 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.

**Credit** 

# 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.

Course &	Titla	Credit Hours
FIRST QU		110413
ENG 111		9
COR 101		3 3
LEP 105		3
LEP 103	Criminal Justice	
	or	
COR 106	Introduction to Corrections	3
LEP 101		3
LEP 115	Police Operations	3
LLI 110	TOTAL	$-\frac{3}{15}$
SECOND	QUARTER	10
ENG 112		9
PSY 121	English Composition II	ა ე
PLS 104		ა 2
LEP 102	Criminal Law	ა 2
LEP 102 LEP 125	Police Organization & Administration	3 3 3 3
LEF 123	Police Organization & Administration TOTAL	$\frac{-3}{15}$
THIRD	<del>-</del>	10
THIRD Q		
ENG 113	English Composition III or	
131	Business Communications I	3
PSY 122	General Psychology II	3 3 3
SOC 111 LEP 104	General Sociology I	3
LEP 104	Criminal Evidence & Procedures	3
LEP 205	Criminal Investigation	3
	TOTAL	$\frac{3}{15}$
FOURTH	QUARTER	
PLS 103	State Government	3
PHS/BIO	Elective	3
SOC 205	Social Problems	4
SOC 205 LEP 215	Introduction to Forensic Science	3
LEP 225	<b>Intergroup Relations for Police Officers</b>	3
	TOTAL	16

FIFT	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 QUARTER				
LEP		Elective	3	
MAT		Elective (Math 100 Series)	4	
LEP	295	Seminar in Law Enforcement &		
		Administration of Justice**	3	
SOC	215	Cultural Diversity	4	
		or		
	226	Criminology	3	
HUM		Elective*	3	
		TOTAL	16-17	

^{*} See page 52.

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# 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         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           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	
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	
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	
PLS         101         American Federal Government I         3           LEP         101         Constitutional Law         3           LEP         107         Security Administration         3           TOTAL         16           SECOND QUARTER	
SECOND QUARTER	
SECOND QUARTER	
SECOND QUARTER	
SECOND QUARTER	
PSY 121 General Psychology I 3	
PSY 121 General Psychology I 3	
PLS 102 American Federal Government II 3	
LEP 102 Criminal Law 3	
LEP 117 Principles of Loss Prevention3	
TOTAL 15	
THIRD QUARTER	
ENG 113 English Composition III 3	
ENG 113 English Composition III 3 PSY 122 General Psychology II 3 LEP 104 Criminal Evidence & Procedures 3 FST 125 Fire Investigation Procedure 4	
LEP 104 Criminal Evidence & Procedures 3	
FST 125 Fire Investigation Procedure 4	
SOC 111 General Sociology I3	
${16}$	
FOURTH QUARTER	
PHS/BIO Elective 3	
PLS 103 State Government 3 PHS/BIO Elective 3 SRM 211 Industrial Safety I 3 LEP 217 Current Security Problems 3	
LEP 217 Current Security Problems 3	
SOC 205 Social Problems 4	
TOTAL 16	

FIFTH QUARTER			
PLS 104	Urban Government		
MAT	Elective (MAT 100 Series)		

LLO	104	Orban Government	ა
MAT		Elective (MAT 100 Series)	4
SRM	230	Occupational Safety & Health	4
COM	211	Effective Speaking I	3
SOC	225	Juvenile Delinquency	3
		TOTAL	17
SIXTH QUARTER			

~	11111 111	
LEP	Law Enforcement Elective	3
MAN	Management Elective	3
LEP 295	Seminar in Law Enforcement &	
	Administration of Criminal Justice	3
SOC 226	Criminology	3
HUM	Humanities Elective*	3

**TOTAL** 

15

# 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-of-hearing 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.

кепарии	ation from wright state University.	
		Credit
Course &	z Title	Hours
FIRST Q	UARTER	
MAC 101		3
MAC 131		4
ENG 111	0 0 0	
PSY 121		3 3 3
COM 211		3
	TOTAL	16
SECONI	QUARTER	
MAC 102	•	3
MAC 116		3
MAC 132		4
ENG 112		3
PSY 122		3
	TOTAL	16
THIRD (	QUARTER	
MAC 103	·	3
MAC 133		I** 4
MAC 201		4
MAC 207		3
ENG 116	Advanced Vocabulary Building	$\frac{3}{17}$
	TOTAL	17
FOURTH	I QUARTER	
MAC	_ Elective	3
MAT 105	Business Mathematics	4
DIS 206	Computer Literacy & Assistive Technolog	gy 1 3
HUM		
	TOTAL	11

Credit

^{**}Departmental permission.

^{*} See page 52.

ririn Qu	AKIEK	
MAC 202	Sign-to-Voice Interpreting II	4
MAC 231	Advanced American Sign Language I	4
MAC 236	Transliterating	4
MAC 261	Practicum I**	3
PSY 117	Psychology of Deafness	3
	TOTAL	18
SIXTH QU	JARTER	
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	3
	TOTAL	$\frac{3}{15}$
<b>SEVENTH</b>	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**	3
	TOTAL	15

* See academic counselor.

FIFTH OHARTER

** 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 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. 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	First of sequence	3 hours
English	Second of sequence	3 hours
Communication	Elective	3 hours
Math	at 100 level or above	3 hours
Social Science	Elective	3 hours
Computer Literacy	Elective	3 hours
Humanities	Elective	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 AIS degree.

# **Associate of Technical Study**

#### (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.

		-8	Credit
Cour	se & T		Hours
FIRS	TQU	ARTER	
DIS	105	Introduction to Developmental Disabilitie	es 4
DIS		Program Planning	4
ENG		English Composition I*	
PSY		General Psychology I	3
PED	200	First Aid	2
		TOTAL	$   \begin{array}{r}     3 \\     3 \\     \hline     2 \\     \hline     16   \end{array} $
SECO	OND	QUARTER	
DIS	108	Principles/Techniques of	
		Behavior Management	4
DIS	115	Trends, Issues, & Social Services,	
		& Developmental Disabilities	3
DIS	130	Principles of Production in Adult Services	
DIS	206	Computer Literacy &	
		Assistive Technology I	1
DIS	210	Assistive Technology &	
		Developmental Disabilities	1
DIS	109	Independent Living Skills	$\frac{3}{15}$
		TOTAL	15
THIE	PD QI	U <b>ARTER</b>	
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	3

* 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.

TOTAL

# **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.

Course & Title			Hours
<b>FIRST</b>	$\Gamma \mathbf{Q} \mathbf{U} A$	ARTER	
ECE	101	Introduction to ECE	3
ECE	106	Childhood Nutrition, Health & Safety	3
<b>ECE</b>	120	Observing Young Children	3
<b>ECE</b>	117	Language Experience in ECE	4
ENG	111	English Composition I	3
ECE	111	Child Abuse Recognition & Prevention	1
<b>ECE</b>	112	Early Childhood Education First Aid	1
		TOTAL	18

SECO	OND	QUARTER	
<b>ECE</b>	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	18
THIRD QUARTER			
ECE	113	Communicable Diseases: Prevention	
		& Recognition	1
ECE	160	Teaching Techniques in ECE	3
ECE	119	Art & Music Experiences in ECE	4
<b>ECE</b>	182	Student Teaching I	6
ECE	107	Movement Experiences in ECE	2
<b>ECE</b>	118	Math & Science Experiences in ECE	3

# 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.

**TOTAL** 

19

0.0101110	Credit			
Course &	Hours			
FIRST QUARTER				
COM 200		9		
		3		
ENG 11	O	3		
GRN 11	<i>J</i>	3		
PSY 12:	3 63	3		
SOC 113	l General Sociology I	$ \begin{array}{r} 3 \\ 3 \\ 3 \\ -3 \\ \hline 15 \end{array} $		
	TOTAL	15		
SECON	D QUARTER			
ALH 125	Therapeutic Recreation	3		
GRN 112				
GRN 115		3		
PED 200	8 8	2		
PSY 12		3		
101 12.	General Education Elective **	3		
	TOTAL	$ \begin{array}{r} 3 \\ 3 \\ 2 \\ 3 \\ \hline 3 \\ 17 \end{array} $		
Third O		11		
Third Q		_		
GRN 13	<i>J</i>	3		
GRN 21	I Field Practicum with the Elderly I	5		
PED 208	B Cardiopulmonary Resuscitation	1		
PSY 135		3		
PSY 207		$\frac{3}{3}$		
	TOTAL	15		

- * 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 & 7	<b>Fitle</b>	Hours
FIRST QU	ARTER	
COM 211		3
PSY 121		3
SOC 111	General Sociology I	3
ENG 111	English Composition I***	3
	General Education Elective*	3
	TOTAL	15
SECOND	QUARTER	
PSY 122	General Psychology II	3
SOC 205	Social Problems	4
SOC 145	Comparing Cultures	3
SOC 112	General Sociology II	3
ENG 112	English Composition II	3
	TOTAL	16
THIRD QU	JARTER	
SOC 215	American Minorities**	4
PSY/SOC	Elective	3
MAT	Elective*** (MAT 100 Series)	4-5
	General Education Elective *	3
	TOTAL	14-15
* See page	59	

^{*} See page 52.

## Infant/Toddler Education

#### (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.

		8	Credit			
Cour	se &	Title	Hours			
<b>FIRS</b>	T QI	J <b>ARTER</b>				
<b>ECE</b>	101	Introduction to Early Childhood				
		Education	3			
ECE	104	Prenatal Life & Birth	3			
ECE	106	Childhood Health Nutrition &				
		Safety	3			
<b>ECE</b>	120	Observing Young Children	3			
ECE	150	The Young Child	4			
ECE	111	Child Abuse Recognition & Prevention	1			
		TOTAL	17			
SECO	SECOND QUARTER					
ECE	135	Group Care of Infants/Toddlers	3			
ECE	155	Infant/Toddler Activities	3			
ECE	117	Language Experiences in ECE	4			
<b>ECE</b>	112	ECE First Aid	1			
<b>ECE</b>	113	Communicable Disease Prevention				
		& Recognition	1			
ENG	111	English Composition I	3			
		TOTAL	15			

continued next column

#### THIRD QUARTER

ECE 156	Relating to Infants & Toddlers	5
ECE/DIS/	<u> </u>	
COM/PSY/		
SOC	Electives	9
	TOTAL	14

**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 H			
FIRST QUA	ARTER		
ENG 111	English Composition I	3	
MAC 101	Orientation to Deafness	3	
MAC 131	Intermediate American Sign Language I	4	
PSY 117		3	
MAC	Elective (MAC 111, 112, 113, or 190)	3	
	TOTAL	16	
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	3	
	TOTAL	13	
THIRD QUARTER			
DIS 206	Computer Literacy & Assistive Technolog	gy 1	
MAC 133	Intermediate American Sign Language III		
MAC 201	Sign-to-Voice Interpreting I	4	
MAC	Elective	4	
PSY 122	General Psychology II	3	
	TOTAL	16	

^{**} 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.

## **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.

		Crean			
Course & 7	Hours				
FIRST QU	FIRST QUARTER				
ENG 111	English Composition I**	3			
SOC 111	General Sociology I	3			
MAT	Elective** (MAT 100 Series)	4-5			
MAN 105	Introduction to Business	3 3			
	General Education Elective*	3			
	TOTAL	16-17			
SECOND	QUARTER				
PLS 104	Urban Government	3			
BIS 105	Introduction to Computers	3			
ACC 111	Principles of Accounting I	$ \begin{array}{r} 3 \\ 3 \\ 3 \\ 3 \\ \underline{3} \\ 15 \end{array} $			
ENG 112	English Composition II	3			
SOC 112	General Sociology II	3			
	TOTAL	15			
THIRD QUARTER					
ACC 112	Principles of Accounting II	3			
COM 285	Organizational Communications	3			
MAN 205	Principles of Management	3			
PSY/SOC	Behavioral Science Elective	3			
SOC 145	Comparing Cultures	$ \begin{array}{r} 3 \\ 3 \\ 3 \\ \hline 15 \end{array} $			
	TOTAL	15			
* See nage	59 and chack with counsalor				

^{*} See page 52 and check with counselor.

# **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.

			Credit		
Course & Title			Hours		
FIRST QUARTER					
LEP	101	Constitutional Law	3		
COR	106	Introduction to Corrections	3		
BIS	119	P.C. Applications—Microsoft Works	3		
<b>ENG</b>	131	Business Communications I	3 3		
COR	101	Corrections Ethics	$\frac{3}{15}$		
		TOTAL	<del></del>		
SECO	OND (	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	$ \begin{array}{r}     3 \\     3 \\     \hline     3 \\     \hline     15 \end{array} $		
COR	206	Institutional Procedures, Jails & Detention	3		
		TOTAL	15		
THIE	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		
		TOTAL	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 & '	<b>Title</b>	Credit Hours
FIRST QU	ARTER	
BIO 107		5
PED 106		1
PED 200	First Aid & Safety	$ \begin{array}{r}   2 \\   3 \\   \hline   3 \\   \hline   14 \end{array} $
ENG 111	English Composition I	3
PED 239	Athletic Injuries	3
	TOTAL	14
<b>SECOND</b>	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	$ \begin{array}{r}   2 \\   3 \\   \hline   3 \\   \hline   15 \end{array} $
COM 211	Effective Speaking	3
	TOTAL	15
THIRD Q	UARTER	
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 3 3 3
COM 206	Interpersonal Communication	3
PED	Elective	
PED	Elective Activity Class	$\frac{1}{15}$
	TOTAL	15

^{**} Placement testing results may indicate need for developmental mathematics, reading and/or English.

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

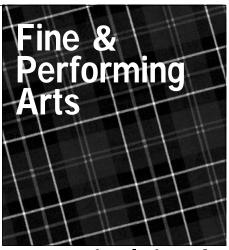
Communication Arts Lori Zakel, Chairperson (937) 512-4580, Room 2220

#### Music

Dr. Robert Ruckman, Chairperson (937) 512-4580, Room 2220

#### Theatre/Dance

Neil Vanderpool, Chairperson (937) 512-4580, Room 2220



www.sinclair.edu

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 Central State University University of Dayton Wright State University Visual Communications, Art Communication Music, Communication Music, Communication, Art

# **University Parallel** Transfer Degree **Programs**

## Art

#### (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.

Credi	t
Hour	S

Course & Title				
<b>ENG</b>	111	English Composition I	3	
<b>ENG</b>	112	English Composition II	3	
<b>ENG</b>	113	English Composition III	3	
COM	211	Effective Speaking I	3	
BIS	160	Introduction to Word, PowerPoint & Excel	3	
215	100	or	Ū	
BIS	105	Introduction to Computers	3	
DID	100	or	Ü	
BIS	M41	Introduction to Excel	1	
DID	.,,,,,	and	•	
BIS	M51	Introduction to PowerPoint	1	
DIO	WIJI	and	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	112		3	
		General Biology III	3 4	
GLG	141	General Geology I	4	
GLG	142	General Geology II	_	
GLG	143	General Geology III	4	
CLC	144	Or	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	
		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	113	Art Drawing III	3	
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	295	Pre-Graduation Exhibition	1
ART	270	Art Internship	1-12
ART	161	Photography I	3
ART	121	Painting I	3
ART	122	Painting II	3
ART	123	Painting III	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
ART	125	African Art	3
ART	131	Sculpture I	3
ART	132	Sculpture II	3
ART	133	Sculpture III	3
ART	136	Virtual Sculpture	3
ART	141	Ceramic Art I	3
ART	142	Ceramic Art II	3
ART	143	Ceramic Art III	3
ART	146	Video Production	3
ART	162	Photography II	3
ART	163	Photography III	3
ART	175	Computer Photography I	3
ART	176	Computer Photography II	3
ART	212	Advanced Drawing II	3
ART	213	Advanced Drawing III	3
ART	216	Life Drawing & Anatomy	3
ART	217	Advanced Life Drawing & Anatomy	3 3
ART	218	Life Drawing & Anatomy III	3
ART	231	Art of the Ancient World	3
ART	232	Art of the Medieval & Renaissance World	3
ART	233	Art of the Modem World	3 3 3 3
ART	235	History of Photography	3
ART	236	History of Women Artists	3
ART	263	Business of Art	3

## **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 degree can provide opportunities 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 Wright State 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)

#### **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 (12 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)

MŬS 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****

#### (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

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

#### **Survey of Musical Styles (9 hours)** IV. MŬS 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.

#### Theatre Historical Perspective (12 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)

#### **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

#### **Communication (12 hours)**

ENG 111, 112, 113 **COM 215** 

# VI. Natural Science, Mathematics, Computer Skills

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

#### **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

# **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.

Course & Title				
FIRS	ΓQUA	ARTER		
ENG	111	English Composition I	3	
PRT	101	Graphic Arts Processes I	3	
VIS	106	Design Basics: 2D	3	
VIS	104	Computer Basics	3	
MAT		Elective	4	
		TOTAL	16	
SECC	ND Q	UARTER		
ENG	112	English Composition II		
		or		
	131	Business Communication I	3	
PRT	102	Graphic Arts Processes II	4	
PRT	221	Offset Presswork I	3	
VIS	146	Digital Illustration	3	
VIS	147	Digital Imaging	3	
		TOTAL	16	

THIRD	<b>QUARTI</b>	æ

	~ ~~		
ENG	113	English Composition III	
		or	
	132	Business Communication II	3
MAN	105	Introduction to Business	3
PSY	140	Psychology of Interaction & Human Potentia	al
		or	
	145	Patterns of Human Relationships	3
PRT	222	Offset Presswork II	3
VIS	148	Digital Page Layout	3
		TOTAL	15
FOUR	TH QU	U <b>ARTER</b>	
PRT	270	Graphic Arts Internship	3
PRT	271	Digital Prepress I	3 3 3
COM	206	Interpersonal Communication	3
VIS	108	Typography	3
		General Education Elective**	3
		TOTAL	15
FIFTH	I QUAI	RTER	
PRT	270	Graphic Arts Internship	3
PRT	272	Digital Prepress II	3 3 3
PRT	120	Screen Printing I	3
HUM		Elective**	3
		Business Elective	3
		TOTAL	15
SIXTI	I QUA	RTER	
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.

Course & Title 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	3	
		TOTAL	18	

SECO	ND Q	UARTER	
ENG	112	English Composition II	
		or	
	131	Business Communication I	3
VIS	107	Design Basics: 3D	3 3 3
VIS	109	Design Drawing	3
VIS	115	Digital Graphics I	3
VIS	146	Digital Illustration	3
		TOTAL	15
THIR	D QU	ARTER	
ENG	113	English Composition III	
		or	
	132	Business Communication II	3
VIS	108	Typography	3
VIS	116	Digital Graphics II	3 3 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*	1
		and	
	102	Tech Prep Seminar II*	1
		and	
	103	Tech Prep Seminar III*	1
		TOTAL	18
FOUF	RTH Q	UARTER	
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	I QUA	ARTER	
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
SIXTI	H QUA	ARTER	
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

^{*}For Tech Prep students only.

# 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.

			Credit
Course & Title			Hours
<b>FIRST</b>	[QUA]	RTER	
BIS	160	Introduction to Word, PowerPoint, & Ex	xcel 3
VIS	106	Design Basics: 2D	3
IND	131	Interior Design I	3
ENG	111	English Composition I	3
ARC	101	Introduction to ARC Drafting	3
		TOTAL	15
SECO	ND QI	UARTER	
VIS	107	Design Basics: 3D	3
IND	132	Interior Design II	3
ENG	112	English Composition II	3
ARC	102	Architectural Detail Drafting	5
	102	TOTAL	14
THIR	D QUA	ARTER	
DRT	198	Introduction to Computer Aided Draftin	ng
2111	100	Concepts	2
VIS	109	Design Drawing	3
IND	133	Interior Design III	3
ENG	113	English Composition III	3
ART	101	Art Appreciation: Introduction to Art	3
1 110 1	101	TOTAL	14
FOLIE	тн оі	UARTER	
MAN	205	Introduction to Business	3
ART	102	Art Appreciation: Art Media	3
PSY	121	General Psychology I	3
MAT	121	Elective	4
MAI		TOTAL	$\frac{-4}{13}$
DIETI	TOTIA		13
	I QUA		
ARC	240	Computer Aided Architectural Drafting I	4
IND	231	Advanced Interior Design I	3
IND	240	History of Furniture	3
MRK	225	Sales Fundamentals	3
PSY	122	General Psychology II	3
~***		TOTAL	17
	H QUA		
IND	134	Textiles & Materials	3
IND	232	Advanced Interior Design II	4
MRK	201	Marketing I	3
SOC	111	General Sociology I	3
ARC	116	Architectural History & Preservation	3
		TOTAL	16
		QUARTER	
COM	206	Interpersonal Communication	3
IND	233	Advanced Interior Design III	4
VIS	276	Portfolio Development	3
ARC	117	ARC Restoration & Rehabilitation	
		or	
MRK	202	Marketing II	3
		TOTAL	13

Credit

# **Certificate Program**

# **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.

Music Theory		
MUS 111	Music Theory I	3
MUS 112	Music Theory II	3
MUS 113	Music Theory III	3
Sight Singing &	Dictation	
MUS 141	Singing & Dictation I	1
MUS 142	Singing & Dictation II	1
MUS 143	Singing & Dictation III	1
History of Chui	rch Music	
MUS 148	History of Music & Worship I	3
MUS 149	History of Music & Worship II	3
MUS 150	History of Music & Worship III	3
<b>Choral Conduct</b>	ing	
MUS 136		2
<b>Church Service</b>	Playing	
MUS 245	Church Service Playing I	2
MUS 246	Church Service Playing II	2
<b>Applied Music</b>	Practicum (organ instruction)	
MUS 299 (Repe	atable for 3 quarters)	12
Church Music P	racticum	
MUS 275		2
. Music Electives	i .	4
	MUS 111 MUS 112 MUS 113  Sight Singing & MUS 141 MUS 142 MUS 143  History of Chur MUS 148 MUS 149 MUS 150  Choral Conduct MUS 136  Church Service MUS 245 MUS 246  Applied Music MUS 299 (Repe	MUS 111 Music Theory I MUS 112 Music Theory II MUS 113 Music Theory III  Sight Singing & Dictation  MUS 141 Singing & Dictation I MUS 142 Singing & Dictation II MUS 143 Singing & Dictation III  History of Church Music  MUS 148 History of Music & Worship I MUS 149 History of Music & Worship II MUS 150 History of Music & Worship III  Choral Conducting MUS 136  Church Service Playing  MUS 245 Church Service Playing I MUS 246 Church Service Playing II  Applied Music Practicum (organ instruction) MUS 299 (Repeatable for 3 quarters)  Church Music Practicum

# Short Term Certificates 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.

		Credit		
Course & Title				
206	Interpersonal Communication	3		
131	Business Communications I	3		
285	Professional Communication	3		
225	Group Communication	3		
108	Tax Compliance & Record Keeping			
	for Small Business	3		
105	Introduction to Business	3		
201	Introduction to Supervision	3		
M41	Introduction to Excel	1		
M31	Introduction to Access	1		
M61	Introduction to Word	1		
201	Marketing I	3		
225	Sales Fundamentals	3		
261/	Business of Art	3		
263				
278	Capstone	1		
	206 131 285 225 108 105 201 M41 M31 M61 201 225 261/ 263	206 Interpersonal Communication 131 Business Communications I 285 Professional Communication or 225 Group Communication 108 Tax Compliance & Record Keeping for Small Business 105 Introduction to Business 201 Introduction to Supervision M41 Introduction to Excel M31 Introduction to Access M61 Introduction to Word 201 Marketing I 225 Sales Fundamentals 261/ Business of Art		

continued next column

Six cre	Six credit hours from the following: 6				
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 c	redit h	ours 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 c	redit h	ours from the following (no repeat credit):	3		
ART	270	Fine Arts Internship			
MUS	270	Music Internship			
THE	198	Applied Theatre Technology			
Doo	Doois Drawing				

# **Basic Drawing**

(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.

Cours	Hours		
ART	111	Art Drawing I	3
ART	112	Art Drawing II	
		or	
VIS	109	Design Drawing	3
ART	113	Art Drawing III	3
ART	121	Painting I	
		or	
	211	Advanced Drawing I	
		or	
	216	Life Drawing & Anatomy I	3

# **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

				Creun
Cours	Hours			
ART	141	Ceramic Art I		3
ART	142	Ceramic Art II		3
ART	143	Ceramic Art III		3
ART	241	Advanced Ceramic Art I		3
ART	131	Sculpture I		3
ART	132	Sculpture II		3
ART	133	Sculpture III		3
ART	251	Advanced Sculpture		3
		-	TOTAL	24

#### 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			Hours
DAN	145	Dance Practicum 3X	3
DAN	178	Technical Theatre for Dancers	2
DAN	180	Music for Dancers	2 3 3 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 3 3
DAN	275	Tap Dance II	3
MAN	105	Introduction to Business	3
BIS	160	Introduction to Word, PowerPoint, Exc	cel 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.

Cour	se & Ti	itle		Credit Hours
<b>FIRS</b>	T QUA	ARTER		
VIS	104	Computer Basics		3
VIS	106	Design Basics: 2D		3
		9	TOTAL	6
SECO	OND Q	UARTER		
VIS	146	Digital Illustration		3
VIS	108	Typography		3
		31 G 1 3	TOTAL	<u>6</u>
THIE	RD QU	ARTER		
VIS	147	Digital Imaging		3
VIS	148	Digital Page Layout		3
		8 8 3	$T \cap T \Delta I$	<u></u>

# **Digital Prepress**

#### (28 Total Credit Hours)

Credit

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.

C	0 T	241 -		Credit Hours		
	Course & Title					
<b>FIRS</b>	ΓQUA	ARTER				
VIS	104	Computer Basics		3		
VIS	108	Typography		3		
PRT	101	Graphic Arts Process I		3		
		•	TOTAL	9		
SECC	ND Q	UARTER				
VIS	146	Digital Illustration		3		
VIS	147	Digital Imaging		3		
PRT	102	Graphic Arts Process II		4		
		•	TOTAL	10		
THIR	D QU	ARTER				
PRT	271	Digital Prepress I		3		
PRT	272	Digital Prepress II		3		
VIS	148	Digital Page Layout		3		
		<i>5 5 y</i>	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.

				Crean
Cour	se & Ti	itle		Hours
<b>FIRS</b>	T QUA	ARTER		
VIS	104	Computer Basics		3
VIS	106	Design Basics: 2D		3
VIS	108	Typography		3
		V1	TOTAL	9
SECO	OND Q	UARTER		
VIS	147	Digital Imaging		3
VIS	146	Digital Illustration		3
VIS	115	Digital Video		3
		O	TOTAL	9
THIE	D QU	ARTER		
VIS	117	Web Page Design		3
VIS	116	Digital Graphics II		3
VIS	265	Digital Authoring		3
		0 0	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.

Cours	se & Ti	itle		Credit Hours
FIRS	ΓQUA	RTER		
VIS	104	Computer Basics		3
PRT	101	Graphic Arts Processes I		3
		1	TOTAL	<u></u> 6
SECC	ND Q	UARTER		
PRT	102	Graphic Arts Processes II		4
PRT	221	Offset Presswork I		3
			TOTAL	7
THIR	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER		
PRT	120	Silk Screen Printing		3
PRT	222	Offset Presswork IĬ		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.

			Creatt
Cours	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.

	C	reait
Course & 7	Гitle H	ours
COM 201	Introduction to Mass Communication	3
COM 206	Interpersonal Communication	3
COM 211	Effective Speaking I	3
COM 212	Effective Speaking II	3
COM 215	Oral Interpretation	3
COM 227	Principles of Persuasion	3
COM 230	Non-Verbal Communication	3
COM 235	Principles of Interviewing	3
COM 245	Intercultural Communication	3
COM 250	Applied Health Communication	3
COM 285	<b>Business &amp; Professional Communication</b>	3
COM 286	Public Relations Principles	3
COM 287	Effective Listening	3
COM 290	Introduction to Broadcasting	3
Please note:	A student may choose any 9 courses from the	e
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

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

Art Ross, Chairperson (937) 512-3047, Room 4230A

Psychology Barbara Kabat, Chairperson (937) 512-2889, Room 4143B



**Grade Report Process** Changed

Monday-Thursday, 8:30 a.m. - 7:00 p.m.; Friday, 8:30 a.m. - 5:00 p.m.

counselor will be available. These hours may vary each quarter.

Note: Please call (937) 512-5134 to make an appointment to ensure that a

Academic Counseling:

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

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

Dr. Thomas Martin, Director (937) 512-2517, Room 10339

Phi Theta Kappa Dr. Katherine Rowell, Advisor (937) 512-2517, Room 8025



www.sinclair.edu

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** College of Arts & Sciences University **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 **CLIMB Program** Wilberforce University Wittenberg University College of Arts & Sciences Wright State University College of Liberal Arts College of Education College of Science & Mathematics College of Arts & Sciences **Xavier University**

## **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.

	Hours
I. English (9 hours required)	
English (ENG)	
111 Composition I	3
112 Composition II	3
113 Composition III	3

		Hours
II. Math	nematics (3 hours minimum required)	
	atics (MAT)	
108	Math & the Modern World	3
116	College Algebra	5
117	Trigonometry	4
	Statistics I	4
151	Introduction to Mathematical Modeling	3
201	Calculus & Analytic Geometry I	5
202	Calculus & Analytic Geometry II	5 5
	Calculus & Analytic Geometry III	5
	Calculus & Analytic Geometry IV	5
215	Differential Equations	5
	Elements of Linear Algebra	4
218	Calculus for Business & Economics	5
III Nat	ural & Physical Sciences	
One seam	ence required with labs; 12 hours minimum re	anired
Astrono	my (AST)	quircu
111	Introduction to Astronomy	4
112	The Solar System	4
113	Stars, Galaxies, & Cosmology	4
	30	
Biology		
111	General Biology I	4
112	General Biology II	4
113	General Biology III	4
225	Ecology	4
235	Introduction to Genetics	$\overline{4}$
	Field Botany	4
Chemist	ry (CHE)	
141	College Chemistry I	4
	College Chemistry II	4
143	College Chemistry III	4
151	General Chemistry I	5
152	General Chemistry II	5
	General Chemistry III	5
100	General enemous III	Ů
201	Organic Chemistry I	5
202		5
203	Organic Chemistry III	5
Coology	(CLC)	
Geology		4
	General Geology I	4
	General Geology II	4
143		4
144	or Geological Field Trips	4
DI.	(DLINA)	
Physics (		4
	Introduction to Physics	4
104 A ST 101	, O	4
AST 101	Survey of Astronomy	4

Credit

	Credit Hours		redit
141 College Physics I	4	205 Social Problems	Iours 4
142 College Physics II	4	208 The Urban Environment	3
143 College Physics III	4	215 American Ethnic & Racial Groups	4
	_	226 Criminology	3
151 Mechanical Universe I	4	220 Criminology	Ü
152 Mechanical Universe II	4	V. Arts & Humanities	
153 Mechanical Universe III	4	15 hours required. A minimum of 9 hours from this list, j	plus
		an additional 6 hours from either this list or the elective	
201 General Physics I	5	Choose courses from at least two areas listed below.	
202 General Physics II	5 5 5	Art (ART)	
203 General Physics III	5 4	101 Art Appreciation I	3
204 General Physics IV	4	102 Art Appreciation II	3
IV. Social & Behavioral Sciences		125 African Art	3
15 hours required. A minimum of 9 hours from this h	liet plue	231 Art of the Ancient World	3
an additional 6 hours from either this list or the elect.		232 Art of the Medieval & Renaissance Worlds 233 Art of the Modern World	3
Choose courses from at least two areas listed below.	ive fist.	235 Art of the Modern World 235 History of Photography	3
Economics (ECO)		236 History of Women Artists	3
201 Principles of Economics I	3	200 Thistory of Women Titlesis	Ū
202 Principles of Economics II	3	Dance (DAN)	
203 Principles of Economics III	3	155 Dance History	3
		157 Dance Appreciation	3
Geography (GEO)			
101 Introduction to Geography I	3	History (HIS)	
102 Introduction to Geography II	3	101 U.S. History (1607-1815)	3
201 World Regional Geography I	3 3	102 U.S. History (1815-1919)	3
202 World Regional Geography II	3	103 U.S. History (1919-Present)	3
Political Science (PLS)		111 Western Civilization (0-1300) 112 Western Civilization (1300-1815)	3
101 American Federal Government I	3	112 Western Civilization (1806-1813) 113 Western Civilization (1815-Present)	3
102 American Federal Government II	3	105 African-American History	4
103 State Government	3	214 History of Southeast Asia	3
104 Urban Government	3	215 Survey of African History	3
200 Political Life, Systems & Issues	3	216 Survey of Latin American History	3
201 International Relations I	3		
		Humanities (HUM)	
Psychology (PSY)	۳	125 The Human Image	3
119 General Psychology	5	130 Humanities & Challenge Technology	3
Or 191 Canaral Bayahalagu I	3	131 Search for Utopia	3
121 General Psychology I and	3	255 People & Religion	3
122 General Psychology II	3	Literature (LIT)	
208 Life Span & Human Development	5	201 Survey of English Literature (to 1660)	3
or	_	202 Survey of English Literature (1660-1832)	3
205 Child Development	4	203 Survey of English Literature (1832-Present	
and		211 Survey of American Literature I	3
206 Adolescent & Adult Psychology	3	212 Middle American Literature	3
207 Psychology of Aging	3	213 Modern American Literature	3
217 Abnormal Psychology	4	217 Images of Women in Literature	3
225 Social Psychology	4	227 Introduction to Shakespeare	3
228 Psychology in the Workplace	4	230 Great Books of the Western World	3
Socialogy (SOC)		234 Literature of Africa, Asia, & Latin America	a 3
Sociology (SOC) 120 General Sociology	5	Music (MUS)	
or	J	Music (MUS)	3
111 General Sociology I	3	115 Music Appreciation 131 Survey of Musical Styles I	3 3
and	3	132 Survey of Musical Styles II	3
112 General Sociology II	3	133 Survey of Musical Styles III	3
145 Comparing Cultures	3		2
160 Social Patterns in Aging	3		

	Credit	Electives
Philosophy (PHI)	Hours	Arts Deg
204 Great Books: Philosophy	3	Ai to Deg
205 Introduction to Philosophy	3	
206 Personal Ethics	3	
200 Tersonal Lines	J	Arts & Human
Religion (REL)		ART (any cou
111 Eastern Religions	3	DAN (any cou
112 Western Religions	3	HUM/
135 American Religious Movements	3	EGR 132
	•	LIT 236
Theatre (THE)		LIT 238
105 Introduction to Theatre	3	PHI 207
201 History of Theatre I	3	MUS (any cou
202 History of Theatre II	3	THE (any cou
203 History of Theatre III	3	any coc
·		Modern Lang
VI. Communication (3 hours required)		FRE 101
<b>Communication (COM)</b>		FRE 102
206 Interpersonal Communication	3	FRE 102
211 Effective Speaking I	3	FRE 201
225 Small Group Communication	3	
		FRE 202
VII. Computer Competency (3 hours require	ed)	FRE 203
CIS 111 Introduction to Computer Programming	3	GER 101
CIS 111 Introduction to Computer Programming BIS 119 PC Applications – MS Works	3	GER 102
BIS 160 Introduction to Word, PowerPoint,		GER 103
& Excel	3	SPA 101
CHE 152 General Chemistry II	5	SPA 102
MAT 220 Statistics II	4	SPA 103
TITT 16 1.4 1. 1 (0.1		SPA 201
VIII. Multicultural (3 hours required)*		SPA 202
GEO 102 Human Geography	3	SPA 203
GEO 201 World Regional Geography I	3	
GEO 202 World Regional Geography II	3	Mathematics
LIT 217 Images of Women in Literature	3	MAT 132 (A.A
LIT 234 Lit. of Africa, Asia & Latin America	3	MAT 133
PLS 200 Political Life, Systems & Issues	3	MAT 134
PSY 225 Social Psychology	4	WIAI 134
SOC 145 Comparing Cultures	3	Notanal 9 Dha
SOC 215 Cultural Diversity	4	Natural & Phys
200 210 Cultural Diversity	-	BIO 104
IV Freehman Evnerience (2 hours required	4)	BIO 141 *
IX. Freshman Experience (2 hours required		BIO 142 *
ASE 101 LAS Freshman Experience	2	BIO 143 *
W Fl (01)		BIO 151
X. Electives (31 hours maximum required)		BIO 152
Students select elective courses from the followin	g areas	BIO 205
to complete their degree:		CHE 120
— Emphasis area list(s)		CHE 121

- List of electives
- Any course within the Transfer Module not used to meet a Transfer Module requirement

# Credit Hours | Electives for the Associate of Arts Degree

7 ii ta Bagi aa			
	redit Iours		Credit
Arts & Humanities	iours		Hours
ART (any course)	3	Social & Behavioral	
DAN (any course)	3	Sciences	_
HUM/	J	AFR 111	3
EGR 132	3	AFR 112	3
LIT 236	3	ECO 215	3
LIT 238	3	PSY 160	3
PHI 207	3	PSY 218	4
MUS (any course)	3	PSY 223	4
THE (any course)	3	PSY 228	4
1112 (ally course)	Ü	PSY 229	3
<b>Modern Languages</b>		PSY 235	4
FRE 101	4	PSY 236	4
FRE 102	4	PSY 242	4
FRE 103	4	SOC 115	4
FRE 201	4	SOC 117	3
FRE 202	4	SOC 125	3
FRE 203	4	SOC 130	3
GER 101	4	SOC 209	3
GER 102	4	SOC 210 SOC 216	3 3
GER 103	4		3
SPA 101	4	SOC 225 SOC 227	3
SPA 102	4	SOC 227 SOC 235	3
SPA 103	4	SOC 255	3
SPA 201	4	Other	
SPA 202	4	ACC 111	3
SPA 203	4	ACC 111 ACC 112	3
		ACC 112 ACC 113	3
Mathematics		COM (any course)	3
MAT 132 (A.A. only)	5	JOU 101	3
MAT 133	5	JOU 101 JOU 102	3
MAT 134	5	LAW 101	3
		LAW 102	3
Natural & Physical Sci	ences	MAC 111	3
BIO 104	3	MAC 112	3
BIO 141 *	4	MAC 113	3
BIO 142 *	4	MAC 131	4
BIO 143 *	4	MAC 132	4
BIO 151	4	MAC 133	4
BIO 152	4	MAN 105	3
BIO 205	5	MAN 205	3
CHE 120	4	MRK 201	3
CHE 121	4	MRK 202	3
CHE 122	4		•
GLG 145	4	Physical Education	
* "old" 121,122		PED 200	2
		PED 208	1
		PED (any activity cours	_
NI-4 A	. 1	- CDED+	, ı

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.

^{*} Other courses that meet the multicultural requirement may have been approved since the publication of this catalog. Please check with the Liberal Arts & Sciences academic counselors for additional information on this requirement.

# 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	Advanced Composition
ENG 255	Poetry
ENG 256	Fiction
ENG 257	Freelance
ENG 258	Advanced Fiction
ENG 259	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

Introduction to Geography
World Geography
Federal Government
Principle of Economics
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 la	anguage and one of anothe
HIS	111, 112, 113	Western Civilization

#### Philosophy/Religion

PHI	204	Great Books
PHI	205	Introduction to Philosophy
PHI	206	Personal Ethics
PHI	207	Logic
REL	111	Eastern Religions
REL	112	Western Religions
REL	135	American Religions
REL	204	Great Books

#### **Political Science**

PLS	101, 102	Federal Government
PLS	103	State Government
PLS	104	Urban Government
PLS	200	Political Systems & Issues
ECO	201	Principles of Economics
HIS	101, 102, 103	U.S. History

Psycholo	gy	
	119 or (121 & 122)	General Psychology
PSY	208 or (205 & 206)	Life Span Development
PSY	217	Abnormal Psychology
PSY	225	Social Psychology
PSY	228 or 229	Psychology Workplace/ Work Group Dynamics
PSY	223 or 242	Cognitive Psychology / Educational Psychology
PSY	207 or 218	Psychology of Aging/ Principles of Counseling
SOC	120 or (111 & 112)	General Sociology
PHI	207	Logic
Social W	ork	
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
Sociolog	y	
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

## **Associate of Science**

#### (94 Total Credit Hours)

SOC 115

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.

Today's Changing Family

I. English (9 hours required)	Credit	
English (ENG)	Hours	
111 Composition I	3	
112 Composition II	3	
113 Composition III	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.

	nematics (4 hours minimum required)	
	atics (MAT)	Hours
	College Algebra Trigonometry	5 4
	Statistics I	4
	Calculus & Analytic Geometry I	5
	Calculus & Analytic Geometry I	5
	Calculus & Analytic Geometry II	5
	Calculus & Analytic Geometry IV	5
	Differential Equations	5
216	Elements of Linear Algebra	4
	Calculus for Business & Economics	5
III. Nat	ural & Physical Sciences	
	ence required with labs; 12 hours minimum	required
	my (AŜT)	•
	Introduction to Astronomy	4
112	The Solar System	4
113	Stars, Galaxies, & Cosmology	4
Biology	(BIO)	
	General Biology I	4
	General Biology II	4
113	General Biology III	4
225	Ecology Introduction to Genetics	4
		4
240	Field Botany	4
Chemist	ry (CHE)	
	College Chemistry I	4
	College Chemistry II	4
143	College Chemistry III	4
	General Chemistry I	5
	General Chemistry II	5
153	General Chemistry III	5
	Organic Chemistry I	5
	Organic Chemistry II	5
203	Organic Chemistry III	5
Geology		
	General Geology I	4
	General Geology II	4
143	General Geology III or	4
144	Geological Field Trips	4

		Credit Hours			Credit Hours
Physics (	(PHY)	110415	205	Child Development	4
	Introduction to Physics	4	200	and	1
	Sound, Light & Modern Physics	4	206	Adolescent & Adult Psychology	3
	Survey of Astronomy	4		Psychology of Aging	3
141	College Physics I	4	217	Abnormal Psychology	4
	College Physics II	4		Social Psychology	4
	College Physics III	4		Psychology in the Workplace	4
151	Mechanical Universe I	4	Sociolog	ey (SOC)	
	Mechanical Universe II	4		General Sociology	5
	Mechanical Universe III	4		or	
100	Wicelanical Chiverse III	•	111	General Sociology I	3
201	General Physics I	6		and	_
	General Physics II	6	112	General Sociology I	3
	General Physics III	6		<i>S</i>	
200	General Litysies III	Ü	145	Comparing Cultures	3
204	General Physics IV	4		Social Patterns in Aging	3
201	General Hysics IV	-1		Social Problems	4
IV Soci	al & Behavioral Sciences			The Urban Environment	3
	required. A minimum of 9 hours from this l	list plus		American Ethnic & Racial Groups	4
	onal 6 hours from either this list or the elect			Criminology	3
	ourses from at least two areas listed below.	ive iist.		ermmorogy	Ū
			V Arts	& Humanities	
	ics (ECO)	9		required. A minimum of 9 hours from this list,	nluc
	Principles of Economics I	3		onal 6 hours from either this list or the elective	
	Principles of Economics II	3		ourses from at least two areas listed below.	1151.
203	Principles of Economics III	3	Art (AF		
Geograp	ohy (GEO)			Art Appreciation I	3
	Introduction to Geography I	3		Art Appreciation II	3
	Introduction to Geography II	3		African Art	3
	World Regional Geography I	3	231	Art of the Ancient World	3
	World Regional Geography II	3	232	Art of the Medieval & Renaissance World	s 3
	8 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		233	Art of the Modern World	3
Political	Science (PLS)			History of Photography	3
	American Federal Government I	3		History of Women Artists	3
	American Federal Government II	3		3	
	State Government	3	Dance (I	DAN)	
	Urban Government	3		Dance History	3
	International Relations I	3		Dance Appreciation	3
	Political Life, Systems & Issues	3		FF	
200	Tollical Elic, Systems & Issues	Ü	History	(HIS)	
Psycholo	ogy (PSY)			U.S. History (1607-1815)	3
	General Psychology	5		U.S. History (1815-1919)	3
110	or	Ü		U.S. History (1919-Present)	3
121	General Psychology I	3		Western Civilization (0-1300)	3
1 2 1	and	Ū		Western Civilization (1300-1815)	3
199	General Psychology II	3		Western Civilization (1815-Present)	3
1 2 2	General i Sychology II	J		African-American History	4
202	Life Span & Human Development	5		History of Southeast Asia	3
۵00	or	J		Survey of African History	3
					•

	redit lours	Cred Hour
Humanities (HUM)	ouis	11001
125 The Human Image	3	VIII. Multicultural (3 hours required) *
130 Humanities & the Challenge Technology	3-	GEO 102 Human Geography 3
131 Search for Utopia	3	GEO 201 World Regional Geography I 3
255 People & Religion	3	GEO 202 World Regional Geography II 3
aco respie es nongion	Ü	LIT 217 Images of Women in Literature 3
Literature (LIT)		LIT 234 Literature of Africa, Asia & Latin America 3
201 Survey of English Literature (to 1660)	3	PLS 200 Political Life, Systems, & Issues 3
202 Survey of English Literature (1660-1832)	3	PSY 225 Social Psychology 4
203 Survey of English Literature (1832-Present		SOC 145 Comparing Cultures 3
211 Survey of American Literature	3	SOC 215 Cultural Diversity 4
212 Middle American Literature	3	500 210 Cultural Diversity
213 Modern American Literature	3	IX. Freshman Experience (2 hours required)
217 Images of Women in Literature	3	
227 Introduction to Shakespeare	3	ASE 101 LAS Freshman Experience 2
230 Great Books of the Western World	3	WELL (1971
234 Literature of Africa, Asia, & Latin America		X. Electives (17 hours maximum required)
234 Literature of Africa, Asia, & Latin America	. J	Students select elective courses from the following areas
Marcia (MIIC)		to complete their degree:
Music (MUS)	9	Emphasis Area List(s)
115 Music Appreciation	3	List of Electives
131 Survey of Musical Styles I	3	Any course within the Transfer Module not
132 Survey of Musical Styles II	3	used to meet a Transfer Module requirement
133 Survey of Musical Styles III	3	
DI I /DIII		*Other courses that meet the multicultural requirement
Philosophy (PHI)	0	may have been approved since the publication of this
204 Great Books: Philosophy	3	catalog. Please check with the Liberal Arts & Sciences
205 Introduction to Philosophy	3	academic counselors for additional information on this
206 Personal Ethics	3	requirement.
Religion (REL)		
111 Eastern Religions	3	
112 Western Religions	3	
135 American Religious Movements	3	
100 7 intericum ivengious movements	J	
Theatre (THE)		
105 Introduction to Theatre	3	
201 History of Theatre I	3	
202 History of Theatre II	3	
203 History of Theatre III	3	
VII Communication (2 house monimal)		
VI. Communication (3 hours required)		
Communication (COM)	0	
206 Interpersonal Communication	3	
211 Effective Speaking I	3	
225 Small Group Communication	3	
VII. Computer Competency (3 hours required)		
CIS 111 Introduction to Computer Programming	3	
BIS 119 P.C. Applications – MS Works	3	
BIS 160 Introduction to Word, PowerPoint & Excel		
CHE152 General Chemistry II	5	
MAT 220 Statistics II	4	
THE REAL PROPERTY OF THE PROPE	•	

# Electives for the Associate of Science Degree

Credit Credit			
Arts & Humanities	Hours		Hours
HUM/		Social & Behavioral	
EGR 132	3	Sciences	0
LIT 236	3	AFR 111	3
LIT 238	3	AFR 112	3
PHI 207	3	ECO 215	3
ART (any course)	3	PSY 160	3
DAN (any course)	3	PSY 218	4
MUS (any course)	3	PSY 223	4
THE (any course)	3	PSY 229	3
TTIL (any course)	J	PSY 235	4
<b>Modern Languages</b>		PSY 236	4
FRE 101	4	PSY 242	4
FRE 102	4	SOC 117	4
FRE 103	4	SOC 117	3
FRE 201	4	SOC 125	3
FRE 202	4	SOC 130	3
FRE 203	4	SOC 209	3
GER 101	4	SOC 216	3
GER 102	4	SOC 225	3
GER 103	4	SOC 227	3
SPA 101	4	SOC 235	3
SPA 102	4	Oil	
SPA 103	4	Other	0
SPA 201	4	ACC 111	3
SPA 202	4	ACC 112	3
SPA 203	4	ACC 113	3
		COM (any)	3
Mathematics		JOU 101	3
MAT 132 (A.A. only)	5	JOU 102 LAW 101	3
MAT 133	5	LAW 101 LAW 102	3
MAT 134	5	MAC 111	3
MAT 220	4	MAC 112	3
		MAC 112 MAC 113	3
Natural & Physical Scien	nces	MAC 113 MAC 131	3 4
BIO 104	3	MAC 131 MAC 132	4
BIO 141 *	4	MAC 132 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 200 PED 208	1
CHE 120	4	PED (any activity course)	1
CHE 121	4	Substitutions to the e	
CHE 122	4	listed above may only	be made
GLG 145	4	by the academic coun	selor by
* "old" 121,122		permission of the dean of Arts & Sciences.	t Liberal
		THE CONTRICTS.	

# 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	General Chemistry I, II, III
CHE 201, 202, 203	Organic Chemistry I, II, III
PHY 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	General Biology I, II, III
BIO	205, 225	Microbiology, Ecology
CHE	151, 152, 153	General Chemistry I, II, III
CHE	201, 202, 203	Organic Chemistry I, II, III
GLG	141, 142, 143	General Geology I, II, III
MAT	201	Calculus I
PHY	201, 202, 203	General Physics I. II. III

Geology		
	141, 142	General Geology I, II and
GLG	143 or 144	General Geology III or Field Trip
CHE	151, 152, 153	General Chemistry I, II, III
PHY	201, 202, 203	General Physics I, II, III
	201, 202, 203, 204	•
Madhama	.4	
Mathema		T. t
MAT		Trigonometry
	201, 202, 203, 204	Calculus I, II, III, IV
MAT		Differential Equations
MAT	216	Linear Algebra
Physics		
	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
	MET 260	Engineering Tech. Applications with Computers
Psycholo	gy	P
PSY	119 or (121 & 122)	General Psychology
PSY	208 or (205 & 206)	Life Span & Human Development
PSY	217	Abnormal Psychology
PSY	225	Social Psychology
PSY	228 or 229	Psychology Workplace/Work Group Dynamics
PSY	207 or 218	Psychology of Aging/Principles of Counseling
SOC	120 or (111 & 112)	General Sociology
BIO		General Biology I, II, III
CHE	151, 152, 153	General Chemistry I, II, III
PHI	207	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.

			Credit
	e & Ti		Hours
FIRST	QUA		
BIO	111	General Biology I	4
ENG	111	English Composition I	3
MAT	106	Allied Health Mathematics	4
	110	or	-
DTNI	116	College Algebra	5 3
BTN	110	Biotechnology & Bioethics TOTAL	<u> </u>
SECO	ND O	UARTER	14-13
BIO	112	General Biology II	4
ENG	112	English Composition II	3
CHE	131	Technical Chemistry I	4
CIIL	101	or	•
	120	Introduction to Chemistry	4
BTN	120	Radioactive Detection Methods &	
		Biosafety	3
		TOTAL	14
THIR	D QUA	ARTER	
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
FOLID		TOTAL	17
		UARTER	
COM	211	Effective Speaking I	
	225	or Small Croup Communication	3
BIS	119	Small Group Communication P.C. Applications—MS Works	3
DIS	113	or	
	160	Introduction to Word, PowerPoint, & E	xcel 3
	100	ARTS/HUM Elective*	3
		Elective	3
		TOTAL	12
FIFTH	I QUA	RTER	
BIO	107	Human Biology	5
		Multicultural Elective	3
BTN	210	Protein Purification & Analysis	6
BTN	295	Seminar	2
		TOTAL	16
SIXTI	I QUA	ARTER	
BTN	220	Microbiology & Fermentation Techniq	
BTN	230	Molecular Biology Techniques	6
		ARTS/HUM Elective	3
		SOC/BEH Elective	3
CEX IE	NITTI C	TOTAL	16
		QUARTER	0
BTN	240	Bioinformatics	3
BTN	270	Internship Elective	6-9
		TOTAL	$\frac{3}{12-15}$
*See pa	nge 52	IOIAL	16-1J
oce po	ige Ja.		

# **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.

1	O	3 1	Credit
Cours	e & Tit	tle	Hours
<b>FIRST</b>	QUAI	RTER	
SOC		General Sociology I	3
BIS	101	Personal Computer Keyboarding	
		or	
	119	P.C. Applications - Microsoft Works	
	100*	or	1 0
	160*	Introduction to Word, PowerPoint & Exc TOTAL	cel <u>3</u>
SECO	ND QU	UARTER	
SOC	112	General Sociology II	3
SWK	206	Introduction to Social Welfare	$-\frac{4}{7}$
		TOTAL	7
THIR	D QUA	ARTER	
SOC		Today's Changing Family	4
SWK	211	Introduction to Social Work Practice TOTAL	$-\frac{3}{7}$
FOUR	TH QU	J <b>ARTER</b>	
SWK	212	Theory & Method in Social	
		Work Practice	$-\frac{3}{3}$
		TOTAL	3
	bstitute:		
SOC	130	Family Violence and/or	3
PSY	140	Psychology of Interaction &	
		Human Potential	3

# **Social Service**

#### (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.

				Credit
Cours	e & T	'itle		Hours
<b>FIRST</b>	$\mathbf{QU}$	ARTER		
COM	211			3
SOC	111	General Sociology I		3
			TOTAL	6
SECO	ND (	QUARTER		
COM	286	Public Relations		3
SOC	205	Social Problems		4
SOC	215	Cultural Diversity		4
		· ·	TOTAL	11

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<b>THIR</b>	$\mathbf{D} \mathbf{Q} \mathbf{U}$	ARTER
SOC	130	Family

SWK	206	Introduction to Social Welfare	4
MHT	140	Child & Adolescent Mental Health	3
		TOTAL	10
FOUR	RTH Q	UARTER	
LEP	297	Special Topics: Juvenile Justice System	3
SOC	297	The Capstone Experience	3
		TOTAL	6

3

# Sinclair Community College Transfer Module

Family Violence

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)
<b>ENG</b>	112	(3)
ENG	113	(3)

#### **Mathematics**

wiathen.	iatics		
(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)

	1	
AST	101	<b>(4)</b>
AST	111/117	(4)
AST	112/118	(4)
AST	113/119	<b>(4)</b>
BIO	111	<b>(4)</b>
BIO	112	<b>(4)</b>
BIO	113	<b>(4)</b>
BIO	171/177	(5)
BIO	172/178	(5)
BIO	173/179	(5)
BIO	205	(4)
BIO	225	<b>(4)</b>
BIO	235	<b>(4)</b>
CHE	141	<b>(4)</b>
CHE	142	(4)
CHE	143	<b>(4)</b>
CHE	151	(5)
CHE	152	(5)

153

(5)

continued next page

CHE	201	(5)
CHE	202	(5)
CHE	203	(5)
GLG	141	<b>(4)</b>
GLG	142	<b>(4)</b>
GLG	143	<b>(4)</b>
GLG	144	<b>(4)</b>
PHY	100	<b>(4)</b>
PHY	104	<b>(4)</b>
PHY	141	<b>(4)</b>
PHY	142	<b>(4)</b>
PHY	143	<b>(4)</b>
PHY	151/157	<b>(4)</b>
PHY	152/158	<b>(4)</b>
PHY	153/159	<b>(4)</b>
PHY	201	(5)
PHY	202	(5)
PHY	203	(5)
PHY	204	<b>(4)</b>

# **Social & Behavioral Sciences**

(minimum of 9 quarter hours from at least two areas)

at least two areas)				
ECO	201	(3)		
ECO	202	(3)		
ECO	203	(3)		
GEO	101	(3)		
GEO	102	(3)		
GEO	201	(3)		
GEO	202	(3)		
PLS	101	(3)		
PLS	102	(3)		
PLS	103	(3)		
PLS	104	(3)		
PLS	200	(3)		
PLS	201	(3)		
PSY	119	(5)		
PSY	121	(3)		
PSY	122	(3)		
PSY	205	(4)		
PSY	206	(3)		
PSY	207	(3)		
PSY	208	(5)		
PSY	217	(4)		
PSY	225	(4)		
PSY	228	(4)		
PSY	223	(4)		
PSY	242	(4)		
SOC	111	(3)		
SOC	112	(3)		
SOC	120	(5)		
SOC	145	(3)		
SOC	160	(3)		
SOC	205	(4)		
SOC	208	(3)		
SOC	215	(4)		
COC	000	(0)		

226

(3)

Arts & Humanities					
	m of 9 quai	ter hours			
from two	areas)				
ART	101	(3)			
ART	102	(3)			
ART	125	(3)			
ART	231	(3)			
ART	232	(3)			
ART	233	(3)			
ART	235	(3)			
ART	236	(3)			
DAN	155	(3)			
DAN	157	(3)			
HIS	101	(3)			
HIS	102	(3)			
HIS	103	(3)			
HIS	105	(4)			
HIS	111	(3)			

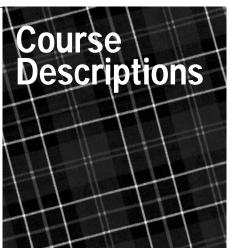
Α A A Α A D D Н Н Н Н Н (3) HIS 112 HIS 113 (3)HIS 214 (3)HIS (3)215 216 HIS (3)HIS 217 (3)(3) HIS 218 HUM 125 (3)HUM 130 (3)HUM 131 (3)HUM 135 (3)HUM 255 (3)LIT 201 (3)LIT (3) 202 LIT 203 (3)LIT 211 (3)LIT 212 (3)LIT 213 (3) LIT 217 (3)LIT 227 (3)LIT 230 (3)LIT 234 (3)MUS 115 (3)MUS 131 (3)(3)**MUS** 132 MUS (3)133 PHI 204 (3)PHI 205 (3)PHI (3) 206 **REL** (3)111 **REL** 112 (3)**REL** 135 (3)**REL** 204 (3)THE 105 (3)THE 201 (3)(3) THE 202 THE (3) 203

SOC





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.



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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)

African-American Studies (AFR)

Allied Health (ALH)

Architectural Technology (ARC)

Art (ART)

Arts & Sciences Education (ASE)

Astronomy (AST)

Automotive Technology (AUT)

Aviation Technology (AVT)

Biology (BIO)

Biotechnology (BTN)

**Business Information Systems (BIS)** 

Business Ownership (BUO)

Career Planning (CAP)

Chemistry (CHE)

Chinese (CHN)

Civil Engineering Technology (CCT)

Communication Arts (COM)

Computer Information Systems (CIS)

Corrections (COR)

Dance (DAN)

Dental Hygiene (DEH)

Developmental Studies (DEV) Dietetics Technology (DIT)

Disabilities Intervention Services (DIS)

Early Childhood Education (ECE)

Economics & Finance (ECO)

Electrical & Electronics Repair (EER)

Electronics Engineering Technology (EET)

**Emergency Medical Services (EMS)** Engineering Technology (EGR)

English (ENG)

Environmental Technology (EVT)

**Experience Based Education (EBE)** 

Extended Learning (EXL) Financial Management (FIN)

Fire Science Technology (FST)

French (FRE)

Geography (GEO) Geology (GLG)

German (GER)

Gerontology (GRN)

Health Information Management (HIM)

History (HIS)

Hospitality Management (HMT)

Humanities (HUM)

Industrial Design & Graphic Technology

(DRT)

Industrial Engineering Technology (IET)

Industrial Manufacturing Technology (INT)

Insurance (INS)

Interior Design (IND)

Japanese (JPN)

Journalism (JOU)

Labor Studies (LAS)

Law (LAW)

Law Enforcement (LEP)

Legal Assisting (LAP)

Literature (LIT)

Management (MAN) Management of Volunteer Programs (VOL)

Manual Communication (MAC)

Marketing (MRK)

Mathematics (MAT)

Mechanical Engineering Technology (MET)

Medical Assistant Technology (MAS)

Mental Health Technology (MHT)

Music (MUS)

Nursing (NSG)

Occupational Therapy Assistant (OTA)

Philosophy (PHI)

Physical Education (PED)

Physical Therapist Assistant (PTA)

Physics (PHY)

Plastics & Composites (PLA)

Political Science (PLS) Printing Technologies (PRT)

Psychology (PSY)

Purchasing (PUR)

Quality Engineering Technology (QET)

Radiologic Technology (RAT)

Real Estate (RES)

Religious Studies (REL)

Respiratory Care (RET)

Safety Engineering Technology (SRM)

Social Work (SWK)

Sociology (SOC)

Spanish (SPA)

Surgical Technology (SUT)

Theatre (THE) Transportation Management (TRA)

Travel & Tourism (TNT)

Visual Communications (VIS)

# **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

3 Cr. Hrs

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

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* 

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#### 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

3 Cr. Hrs.

Hands-on microcomputer experience with an integrated software package. Prerequisite: ACC 113, ACC 115

#### 270 Accounting Internship

1-9 Cr. Hrs.

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

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 African-American 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

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 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).

#### 103 Introduction to Health Care Delivery 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, public health, 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 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, 085 or equivalents

ALH ALH

#### 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 peripheral IV 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

1 Cr. Hr.

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 ex-

perience. 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** 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 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

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**

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 2 Cr. Hrs.

A group 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 **Care Professionals** 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 3 Cr. Hrs. & Management

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 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 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 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 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

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

1 Cr. 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 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

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 &

3 Cr. Hrs. Preservation

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 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

ARC ART

#### 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 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 4 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: DRT 198 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 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

#### 278 Architectural Technology

4 Cr. Hrs. Capstone

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

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 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

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

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

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.

Personal expression with instruction in classical 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 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 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 emphasis on functional pottery; experimentation with various glazing techniques. Prerequisite: ART 141

ART

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

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

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 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 (35mm or 120, adjustable preferred), film and print paper. One lecture, four lab hours per week.

162 Photography II 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 (35mm 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

Advanced photographic techniques. Specialized darkroom techniques, special purpose films and processes are explored. Students to supply own camera (35mm or 120 or 4x5, 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 I 3 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 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

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

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 I 4 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 Develops independence and freedom of expression; critique and 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 Worlds 3 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 Artists 3 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 (35mm 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

techniques will be employed to enhance the print. Student to supply own camera (35mm 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 (35mm 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

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

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 1 Cr. 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 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 R

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

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

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

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; drum brake, disc brake, 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

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 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: AUT 108 or instructor's approval

#### 223 High Performance Engine

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 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 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.

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 ENG 111, 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)(1-13), 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: AVA 110 (or instructor approval)

124 Flight Lab for AVT 120 1 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 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 220 1 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

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 single-engined aircraft to commercial systems.

#### 250 Commercial Pilot Ground School

3 Cr. Hrs.

Constant speed propellers, advanced fuel systems, retractable landing 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 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 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 253 1 Cr. Hr. Provides pilots in the Professional Pilot option with the flight training necessary to pass the Federal Aviation Administra-

tion (FAA) practical test requirements for

the Commercial Pilot certificate. *Prerequisite: Chairperson permission* 

266 Flight Lab for AVT 256 1 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 259 1 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 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.

Prerequisite: Chairperson permission

#### 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.

# **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 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 I5 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 I 4 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 &

Physiology III 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 BIO 172. 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. Urc

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

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

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

Prerequisite: BIO 105 or BIO 113

#### 246 Lab for BIO 240

Laboratory must be taken with BIO 240.

#### 270 Biology Internship

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 established learning outcomes and prepare related reports and/or projects each quarter.

#### 297 Special Topics

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/ 4 Cr. Hrs. Skillbuilding

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 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 support staff/ 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 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 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 ENG 112 or ENG 132.

# 136 Introduction to Medical 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 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 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,& Excel3 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. Power-Point: 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 Microsoft PowerPoint 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 Excel and 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, Power-Point 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 acquaint students 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

difficult situations. 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 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 4 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

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

2 Cr. Hrs.

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 two-course sequence.

Prerequisite: BIS 251

# 270 Business Information Systems Internship

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.

Prerequisite: Department approval

#### 297 Special Topics

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 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. Hi

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 Cr. 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 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 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.

#### 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, 35mm 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 Cr. 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 Cr. 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 for formatting, 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. Hr

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

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: BIO 111, BTN 120 and MAT 106 or MAT 116 or equivalent.* 

#### 141 Lab for BTN 140

Laboratory must be taken with BTN 140.

#### 210 Protein Purification & Analysis

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 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.

3 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

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: BIO 113, BTN 210, BTN 230 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

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 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 R 1-9 Cr. Hrs.

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

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 1 Cr. 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

Trades

An orientation to the various construction trades including carpentry, ironwork, masonry, concrete, electrical, plumbing and HVAC.

3 Cr. Hrs.

121 Carpentry Level 1-A 2 Cr. Hrs. Introduction to the craft of carpentry with strong emphasis in hands-on learning ex-

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

3.5 Cr. Hrs. 125 Carpentry Level 3-A 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 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: CCT 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: CCT 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 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

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

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: ARC 138 or ARC 101 and ARC 105

#### 258 Project Management Techniques

3 Cr. Hr

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

1-6 Cr. Hrs.

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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

1 Cr. Hr.

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, non-science 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, three lab (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 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 non-science 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, aromatic hydrocarbons, 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 degree student. Two lecture, 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 R 2-12 Cr. Hrs.

See EBE 270 Internship for course description.

297 Special Topics

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 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 students have keyboarding and mouse skills. It is recommended that all Developmental courses (DEV) be completed prior to enrolling in this course. An assessment of basic computer concepts, 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 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 object oriented 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

CIS

# 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 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, CD 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 program-

ming 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

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, VB Scripting 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 3 Cr. Hrs.

Introduction to the Cold Fusion Markup Language (CEML) technology for use in the development of dynamic, database-driven 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

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 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-class lab 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

& 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

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 Engineering 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 COBOL I 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

#### 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 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 course builds on the foundation of C++ studies covered in CIS 233. Intermediate and advanced topics of sorting, searching, pointers, linked lists, recursion, and object-oriented programming techniques will be covered. Programming assignments require additional time outside of class.

Prerequisite: CIS 233

#### 236 Visual C++ 3 Cr. Hrs.

Windows based C++ language concepts and programming including objects, classes, inheritance and encapsulation; selected intermediate/advanced C++ 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 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

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 Exchange Server 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: CIS 113 or (CIS 111 and BIS M31)

#### 268 Introduction to Oracle: SQL & PL/SQL

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

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 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. Prepares students for the industry certification exam. Assignments require lab outside of classroom. Prerequisite: CIS 274

#### 276 MCSE Internet Explorer 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

CIS

# 280 Java Programming I 4 Cr. Hrs. Basics of java programming and object-oriented software. Objects, attributes, and methods in Java are covered. The basics of programming structures are covered: se-

Prerequisite: CIS 111

lection, looping and arrays.

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 object-oriented 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 web-based 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 web-based 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 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

#### 297 Special Topics

0.5-6 Cr. Hrs.

R

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 Cr. 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: 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-class lab 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, 35mm 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

OIS M68

#### M70 Introduction to the Internet

1 Cr. 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 Cr. 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-of-class 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 non-verbal theory, Impression Management. *Prerequisite: COM 206 or COM 225* 

# 235 Principles of Interviewing 3 Cr. Hrs. Development of effective interviewing skills 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 3 Cr. Hrs.

Examines the principles and skills of effective face-to-face communication in business and professional settings; surveys on-the-job 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 Broadcasting3 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 CommunicationR 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

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.

COR

Challenges, expectations, and demands of corrections officers; ethical behavior, 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 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 Corrections 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 R

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 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 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

1 Cr. Hr.

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 R

1 Cr. Hr.

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 R

3 Cr. Hrs.

Dance techniques, improvisations, and movement theories used therapeutically and pedagogically.

#### 145 Dance Practicum R 1 Cr. Hr.

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

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

3 Cr. Hrs.

R

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

R 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.

R

R

R

Basic fundamentals of jazz technique. Class work consists of warm-up exercises, isolations, and basic movements.

#### 175 Tap Dance I

3 Cr. Hrs.

Basic fundamentals of tap technique. Class work consists of basic steps, combinations, and rhythms.

#### 176 Men's Technique Class

1 Cr. Hr.

Ballet classes emphasizing the skills needed and required of the male dancer.

#### 177 Folk & Ethnic Dance

1 Cr. Hr.

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

3 Cr. Hrs.

R

Music fundamentals and concepts presented from a dance perspective to demonstrate sensitivities to music that will improve the quality of dancing.

#### 204 Ballet Pedagogy

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

1 Cr. Hr.

R

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

#### 207 Dance Class Accompanying

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

3 Cr. Hrs.

R

Rules and theory of basic dance composition. Prerequisite: One year of dance or permission of instructor

#### 242 Dance Composition II

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

3 Cr. Hrs.

R

Intermediate ballet level. Working knowledge of basic barre and center work required. Prerequisite: DAN 111 or DAN 172 or previous training

#### 273 Modern Dance II

3 Cr. Hrs.

Intermediate modern level. Working knowledge of modern dance technique required. *Prerequisite: DAN 173 or previous training* 

#### 274 Jazz II

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

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 lec-

ture, two lab hours per week. Prerequisite: BIO 107

104 Dental Anatomy for Dental **Auxiliaries** 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

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 preventive and the rapeutic dental hygiene procedures in the clinical setting.

Prerequisite: DEH 112, DEH 106

114 Exposure Control in Dentistry

1 Cr. 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.

3 Cr. Hrs. 125 Dental Materials

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 ra-

diographic 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

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 re-

view 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 epidemio-

logical 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 I 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** 

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

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 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 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 219

255 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

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

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

4 Cr. Hrs.

R

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

R 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 II

4 Cr. Hrs.

R

For 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: Advanced

4 Cr. Hrs.

For 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 para-

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 Structure 4 Cr. Hrs.

graphs and articles.

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, ratio-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

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 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 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 Skills 3 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 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 &

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 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 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 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 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 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 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 Services

1-5 Cr. Hrs.

R

Overview of current topics in developmental disabilities.

#### 297 Special Topics R

1-5 Cr. Hrs.

Overview of current topics in developmental disabilities.

# Dietetics Technology (DIT)

# 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 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

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 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

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 205 2 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 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

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 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

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

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

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 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

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 PortfolioDevelopment 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 Cr. 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 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

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

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

3 Cr. Hrs.

R

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

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

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

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

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 Prenatal development progressing from conception through birth.

#### 106 Childhood, Nutrition, Health & Safety

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 & Prevention 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 Cr. 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 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

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, indepen-

dence and pro-social behaviors; practical application of guidance and discipline techniques. Center participation required.

#### 150 The Young Child 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

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.

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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.

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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.

#### 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 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

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. Hr

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 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.

# 296 Special Topics in Early Childhood Education F

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

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 I 3 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 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 residential-type 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. Two lecture, two lab hours per week.

Prerequisite: EER 128 or EER 145

# 166 Industrial Machine Wiring & Standards 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

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

3-8 Cr. Hrs.

R

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 procedures for 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.

R

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 OR-CAD software, electronic symbols, schematic diagrams, printed circuit board layout and design. Two lecture, two lab hours per week.

EET EET

# 119 Basic Electrical Circuits & Controls

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

1-4 Cr. Hrs. 197 Tech Prep Seminar A review course for electronics tech prep freshman students covering D.C. circuits, A.C. circuits, and discrete electronics.

#### 201 Electronics I

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

#### 3 Cr. Hrs. 202 Electronics II

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 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

3 Cr. Hrs. Systems I

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

3 Cr. Hrs. Systems II

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

#### 4 Cr. Hrs. 242 Television Systems 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

#### 259 Programming for Electronics 3 Cr. Hrs. Technology

Computer solutions of engineering problems, using QBASIC language, algorithms, numerical analysis, and matrix methods for problem solving involving physical principles and engineering applications. Programming assignments require lab time outside of class. Two lecture, two lab hours per week.

Prerequisite: EET 115 and EET 150

#### 261 Microprocessor/Microcontroller Systems 4 Cr. Hrs.

Introduction to the fundamentals of microprocessor/ microcontroller hardware and software design, starting out with hardware/software analysis and culminating with a design project. Emphasis will be placed on numerical concepts, programming skills and system architecture. Programming assignments will require lab time outside of class.

Prerequisite: EET 231

#### 262 Microprocessor Applications

4 Cr. Hrs.

Study of 8-bit microprocessor systems, hardware interfacing and serial data transfers, system interrupts. Analog-todigital and digital-to-analog conversion, addressing modes, motor control, LCD interfaces and basic interfacing techniques including use of EPROMS. Prerequisite: EET 261

#### 264 P.C. Troubleshooting & Repair 3 Cr. Hrs.

Familiarization of circuits, components, malfunctions, and systematic troubleshooting on a P.C.-type microcomputer, including hands-on experience necessary to become proficient in the repair of microcomputers as well as skills in software and hardware diagnostics. Two lecture, two lab hours per week.

Prerequisite: EET 261 or EER 138

#### 266 Electric Distribution I Basic electrical theories, functions of transmission and distribution system components, electrical distribution engineering fundamentals, distribution circuit print reading, poles and hardware loading, guying and anchoring, conductors and sags.

267 Electric Distribution II 4 Cr. Hrs. Electric distribution clearances, codes and standards, NEC, transformer theory and sizing, electric load estimating, general electrical safety, work order preparation. Prerequisite: EET 266

268 Electric Distribution III 4 Cr. Hrs. Underground residential distribution (URD) system design, construction permits and contracts, rights-of-way, line clearance principles and methods.

Prerequisite: EET 267

#### 269 Substation Protection &

Monitoring

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

1-12 Cr. Hrs.

R

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 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

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

1-8 Cr. Hrs.

R

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 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 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 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

Economics 3 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 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, two lab 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

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.

#### 236 Electrical Network Analysis

Prerequisite: EGR 252

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, proper selection, 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 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 Ethernet communication. Two lecture, 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 "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 cardio-vascular 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

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 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

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, crime scene 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

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

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3 Cr. Hrs.

Viewing, analyzing, writing about American and international films.

# 250 Personal Essay: Advanced Composition 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

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 Film 140 CHE 1401.

Prerequisite: EVT 110, ĈHE 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, MAT 131 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 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.

EVT

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, MAT 133 or equivalent

# 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

### **Extended Learning (EXL)**

#### 100 Rapid Reading

3 Cr. Hrs.

Techniques for increasing speed and efficiency, reading for main ideas, previewing, skimming, scanning, pattern recognition, and varying rate according to purpose for reading and the type of material.

Prerequisite: DEV 065 or placement test referral

102 Spelling & Vocabulary 4 Cr. Hrs. Techniques for mastering spelling and expanding vocabulary including the following topics and activities: dictionary and thesaurus use, phonetic transcription, connotation/denotation, context clues, etymology, euphemism, Greek and Latin roots, prefixes/suffixes, mnemonics, visual memory practice, and word games.

#### 105 Study Skills

2 Cr. Hr

Basic study skills including time management, strategies to improve concentration and memory, tips on essay and textbook reading, organization of information, guidelines to listening and note taking from lectures, test taking, library skills.

#### 109 Vocabulary II

4 Cr. Hrs.

College level skills focusing on Greek and Latin roots; prefixes/suffixes; shifting parts of speech; denotation/connotation; etymology; spelling; writing assignments and games that incorporate new words.

#### 120 Fundamentals of Critical Thinking 4 Cr. Hrs.

Introduction to critical thinking, including solving problems making decisions, analyzing issues with an emphasis on setting goals and constructing arguments; various models and processes of critical thinking develop frameworks for understanding content and methods of academic disciplines.

#### 297 Special Topics

1-6 Cr. Hrs.

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Opportunities to receive credit for non-traditional courses such as courses by TV or web site, as well as special interest topics. Objectives will vary with the particular content area. Course is repeatable as topics change.

# 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, deposit insurance, 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 credit reports, and collection procedures. *Prerequisite: FIN 105* 

#### 202 Consumer Credit Counseling

3 Cr. Hrs.

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 management strategies; 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

# 270 Financial Management Internship 3 Cr. Hrs

employee's financial health.

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

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

3 Cr. Hrs.

Construction, operation and maintenance of pumping engines, aerial ladder trucks and platforms, and specialized fire equipment. Two lecture, two lab hours per week.

116 Fire Protection Systems I 3 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 or permission

Prerequisite: FST 101 or FST 191 or permission of chairperson

#### 170 Technical Rescue Awareness

1 Cr. Hr.

Introduction to the issues and concerns that emergency 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 Cr. 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 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.

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

Prerequisite: FST 171, FST 173

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 re-

al 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

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 scene operations management, fundamental principles of effective placement and utilization of apparatus and personnel to resolve emergencies in a safe and efficient manner. 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, inter-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

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 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

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. . Younger students 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

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.

297 Special Topics

1-6 Cr. Hrs.

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

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

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 R 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 quar-

#### 297 Special Topics R 1-6 Cr. Hrs.

ter. See EBE 270 Internship for course

description.

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

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.

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 C

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 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 (HIM 116) 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 (HIM 118) 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, eponymic terms 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 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 computer-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. F

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 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 in-

(HIM 247) hours per week.

# 245 Health Information Resource Management 3 Cr. Hrs.

dustry is required. Two lecture, four lab

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* 

#### 247 Lab for HIM 244

chairperson

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-9-CM, 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 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 (1919-Present)

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 (1815-

Present)

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 mod-

ern nations of the area.

215 Survey of African History 3 C

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 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 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

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

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

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 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 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

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 3 Cr. Hrs.

Management and operation of the lodging industry.

Prerequisite: HMT 105

#### 211 Hospitality Industry Computer Systems 3 Cr. Hrs.

Information needs of lodging properties with food services; essential aspects of computer systems, such as hardware, software, and generic applications; computer-based property management systems for both front and back office functions; hotel sales computer applications and yield management strategies; and computer-based food and beverage management systems for both service oriented and management oriented functions. *Prerequisite: HMT 105, CIS 119* 

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 here.

212 Front Office Operations 3 Cr. Hrs.

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 presenta-

# 225 Organization & Administration of Hospitality Industry 3 Cr. Hrs.

tion. Two lecture, six lab hours per week.

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 HospitalityIndustry3 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 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

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 Management

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

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 are explored. 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 Technology 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 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

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

3 Cr. Hrs.

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 & 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 R 1-6 Cr. Hrs.

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**

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

Basic concepts of production and inventory control of an industrial organization.

#### 125 Introduction to World-Class 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

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 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. Two lecture, two lab hours per week. Prerequisite: IET 198 or IET 199

#### 202 Computer Integrated Workcells II 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

# COURSE

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.

#### 270 Industrial Engineering Internship R 1-12 Cr. Hrs.

Prerequisite: MAT 131 or equivalent

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 of manufacturing 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 F

0.5-8 Cr. Hrs.

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 to Swedish 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 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

#### 208 Integrative Medical Massage Therapy V 5 Cr. Hrs.

Identification, assessment and treatment of neuro-musculoskeletal disorders; clinical supervision. Two lecture, six lab hours per week.

Prerequisite: IMT 207, IMT 212, Chairperson signature

#### 209 Lab for IMT 208

Laboratory must be taken with IMT 208.

#### 210 Anatomy & Physiology for the

Massage Therapist II 5 Cr. Hrs. Introduction to the human body including articulations, muscle tissue, muscles, nervous tissue, spinal cord and spinal nerves with application in massage therapy. Two lecture, six lab hours per week. *Prerequisite: IMT 103, IMT 107* 

#### 211 Lab for IMT 210

Laboratory must be taken with IMT 210.

#### 212 Anatomy & Physiology for the

Massage Therapist III 5 Cr. Hrs. Introduction to the human body including brain, sensory, motor, and integrative systems; special senses, autonomic nervous system, endocrine system, blood, heart, and blood vessels with application in massage therapy. Two lecture, six lab (IMT 213) hours per week. Prerequisite: IMT 205, IMT 210, Chairperson signature

#### 213 Lab for IMT 212

Laboratory must be taken with IMT 212.

#### 214 Anatomy & Physiology for the

Massage Therapist IV 5 Cr. Hrs. Introduction to the human body including lymphatic, respiratory, digestive, urinary, reproductive systems; advanced coursework in skeletal and muscle systems with application in massage therapy. Two lecture, six lab hours per week. Prerequisite: IMT 207, IMT 212, IMT 216, Chairperson signature

#### 215 Lab for IMT 214

Laboratory must be taken with IMT 214.

#### 216 Business Practices for the

Massage Therapist 3 Cr. Hrs. "TouchPro" method of seated massage; development of a plan for establishing a massage clinic. One lecture, two lab (IMT 226) hours per week.

Prerequisite: IMT 205, IMT 210, Chairperson signature

#### 217 Lab for IMT 207

Laboratory must be taken with IMT 207.

#### 218 Massage Therapy Practicum

4 Cr. Hrs.

Introductory experience in the clinical setting, application of theories and techniques for client intervention, assessment and medical record keeping, and referral to other health care providers. Two lecture, 14 clinical hours per week.

Prerequisite: IMT 207, ÎMT 212, IMT 216, Chairperson signature

#### 219 Massage Therapy Directed

Practice 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. F

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. Two lecture, four lab hours per week. *Prerequisite: ARC 101 and (IND 131 or ARV 131)* 

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 3 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

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

1-9 Cr H

See EBE 270 Internship for course description.

297 Special Topics

0.5-6 Cr. Hrs.

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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 3 Cr.

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 computer aided design (CAD). Two lecture, 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 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 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.

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. 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

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: DRT 110, DRT 196, MAT 131 or equivalent.

#### 247 SolidWorks Basics 5 Cr. Hrs.

Utilize SolidWorks mechanical design automation software to build 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 Solid-Works 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 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

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 An introduction to Unigraphics® 3D Modeling software intended for new Unigraphics® 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® 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® Update 1 Cr. Hr. Provide Unigraphics® 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 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 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 3 Cr. Hrs.

Knowledge of machine tool operations extended by utilizing various types of milling machines, drill presses, lathes and EDM. Two lecture, 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

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 lec-

ture, 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 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.

The student 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 3 Cr. Hrs

Introduces CNC programming language, the tape format and CNC tools and equipment. Two lecture, 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 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 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

3 Cr. Hrs.

Kinds of newspaper stories, 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

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

3 Cr. Hrs. **Commercial Code** 

Principles of contract law and Uniform Commercial Code emphasizing sales and secured transactions. Problems in contract agreements and accompanying docu-

Prerequisite: LAP 105

#### 121 Litigation I

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

#### 3 Cr. Hrs. 122 Litigation II

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

Prerequisite: LAP 105

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.

#### 132 Real Estate Transactions II 3 Cr. Hrs.

Emphasis on commercial transactions and financing instruments. The student acquires 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

3 Cr. Hrs. 211 Probate Law I

The law of wills and estates, and estate administration including Ohio estate tax returns and fiduciary accounting. Prerequisite: LAP 105

#### 212 Probate Law II

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

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 court decrees. 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 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 Pro-

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

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

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 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 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. Administering EEO, 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 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, Landrum-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 world-wide 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

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 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

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

3 Cr. Hrs.

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

#### 102 Criminal Law 3 Cr. Hrs.

courtroom appearance is covered.

Current federal, state, and local laws and codes pertaining to arrest, search and seizure, and related topics.

#### 104 Criminal Evidence & Procedures

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 agen-

cies 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 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.

Physical evidence, 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 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 UnitedStates 3 Cr. Hr

Organized crime theory, techniques, activity and depth of current national and local involvement.

270 Police Internship

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) 3 Cr. Hrs. nological survey of major writers of

Chronological survey of major writers of English poetry, drama, and prose from the beginnings through 1660.

## 202 Survey of English Literature (1660-1832) 3 Cr. Hrs.

Chronological survey of major writers of English poetry, drama, and prose from 1660 to 1832.

## 203 Survey of English Literature (1832-Present) 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 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 Renaissance, 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 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 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

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 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 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

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 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 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 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 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

Prerequisite: MAC 232

#### 233 Advanced American Sign Language III 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.

236 Transliterating 4 Cr. Hrs.

A preparatory course for the Registry for the Interpreters for the Deaf Certificate of Transliteration exam. The Signing Exact English System 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

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.

3 Cr. Hrs.

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 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 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: MAN 205. MAN 225 is equivalent 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 & Applications 1 Cr. 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 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 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 Commerce basics. A definition of e-commerce, and an explanation of how e-commerce 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 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

Variations of experiential learning by way of group projects, independent study, 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; physician patient relationship; implied versions and patients are setting to the confidential type.

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 patient appointments, 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

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 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 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 C

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 MAT MAT

## 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

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.

5 Cr. Hrs.

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.

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 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 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 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

0.5-6 Cr. Hrs.

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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 3 Cr. Hrs. Trades

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** 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** 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** 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 106

115 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** 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

permission of chairperson

#### 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

#### 130 Basics of Cooling & Cooling 3 Cr. Hrs. Systems

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** 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, hydraulic fluids, 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 Cr. 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

3 Cr. Hrs. Troubleshooting

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 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

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 4 Cr. Hrs.

Various types of force systems, analysis of trusses, friction, center of gravity and moments of inertia.

Prerequisite: MET 198, MAT 132, PHY 131 or 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

3 Cr. Hrs. 224 Industrial Ventilation 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 electronic instrumentations 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 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 includ $ing\,computer\,software\,to\,design\,of\,HVAC$ 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, MAT 133 or equivalents

#### 270 Mechanical Engineering Internship

1-12 Cr. Hrs.

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See EBE 270 Internship for course description. Student must consult the department chairperson for the specific degree requirement.

#### 281 Certified Manufacturing Technician Review

3 Cr. Hrs.

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

3 Cr. Hrs.

Review of metrology, materials, manufacturing processes, methods, machining systems and economics.

Prerequisite: MET 281 or permission of instructor

#### 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.

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 Cr. 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 Cr. Hr.

1 Cr. 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

Chemical dependency treatment for Appalachian clients. Cultural influences which impede and promote treatment success.

#### 123 Street Drug Actions

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 1 Cr. Hr.

Factors contributing to relapse following chemical dependency treatment. Successful approaches to aftercare programming.

## 126 Introduction to Addictive Illnesses

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

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 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

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

Etiology, assessment and treatment of emotional and behavioral problems of children and adolescents. Service planning and community resources.

151 Art as Therapy I 3 Cr. Hrs. Experiential discovery of personal creative processes using a variety of art media.

#### 152 Art as Therapy II Emphasizing clinical art therapy experi-

ences 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

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 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 3 Cr. Hrs. Certification

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 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.

3 Cr. Hrs.

#### 221 Activity Therapy 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 F

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 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 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

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

Marketing 3 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 3 Cr. 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

Prerequisite: MRK 105 or MRK 201

types and sizes of stores.

#### 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 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

1-9 Cr. Hrs.

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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 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 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 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

Prerequisite: MUS 112

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 3 Cr. Hrs. Form-design-analysis: Binary, rounded binary/incipient ternary, ternary as surveyed from text, workbook, and anthology. Song form with trio, minuet-trio-minuet, suite, bar form, stollen, abgesang, lied. Secondary dominants applied.

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,
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 Cr. 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 3 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 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.

MUS MUS

#### 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 152 or permission of 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

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 R

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 half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

## 169 Applied Music: Organ 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 170 Applied Music: Piano

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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 171 Applied Music: Voice F

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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 172 Applied Music: Percussion F

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 half-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 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 half-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 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 175 Applied Music: Cello

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 half-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 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 half-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 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 half-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 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

## 180 Applied Music: Oboe 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 half-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 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 182 Applied Music: Trumpet 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 half-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 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 half-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 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 half-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 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 186 Applied Music: Tuba

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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 187 Applied Music: 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 half-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 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 half-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 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 half-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 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 half-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 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 half-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 half-hour lessons per week for ten weeks, board examination, student recital performance and three hours per day practice.

#### 194 Wind Symphony

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

1 Cr. Hr.

Concentration on instrumental problems and techniques. Development of symphonic band 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 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 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

MUS NSG

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 Cr. 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 1 Cr. 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 the music/worship orders involved in a wide variety of settings, ranging from free and unstructured to highly 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 skills such 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

1-3 Cr. Hrs.

R

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 performance and 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

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: ÂLH 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 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 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 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 Association for Critical Care Nurses. 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.

#### 297 Special Topics

0.5-6 Cr. Hrs.

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, two lab (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 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

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

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.

3 Cr. Hrs.

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-tech and 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 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

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, side stroke, backstroke, front and back crawl plus diving and water safety skills.

#### 105 Physical Fitness

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

1 Cr. H

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

1 Cr. Hr.

Beginning skills, rules and regulations, and courtesies. Emphasis on the basic approach, delivery, follow through, plus scoring.

#### 126 Volleyball

1 Cr. Hr.

Develops basic skills including the various serves, spikes, sets, team strategy, rules and regulations, and skill techniques.

#### 127 Basketball

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

1 Cr. 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

1 Cr. Hr.

Intermediate skill techniques plus playing strategy for both singles and doubles related to shot selection and placement.

#### 133 Advanced Tennis

1 Cr. Hr.

Develops advanced skill techniques related to actual game strategy and the psychological aspect of the competition.

#### 134 Snow Ski Conditioning

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

1 Cr. Hr.

Introduction and practical application of basic yoga methods including a historical and philosophical review.

#### 137 Intermediate Yoga

1 Cr. Hr.

Intermediate skills regarding positions and methods of yoga.

Prerequisite: PED 136 or equivalent skills

#### 142 Beginning Pilates

1 Cr. 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

2 Cr. Hrs.

R

Develops knowledge and procedure(s) for obtaining advanced jogging/fitness. Detailed, individually suited formulated running and exercise program.

#### 148 Beginning Social Dance

1 Cr. 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 1 Cr. Hr.

Improves knowledge and skill related to the popular ballroom dance steps, developing grace and self-confidence.

#### 151 Beginning Square Dance R

1 Cr. Hr.

Develops basic skills of square dancing while responding to a caller's voice. Fifty basic movements are taught.

#### 152 Intermediate Square Dance 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 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 Cr. 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 Cr. Hr.

Develops intermediate skills and techniques. Emphasis on shot selection, placement, strategy and overall consistency.

#### 163 Advanced Racquetball 1 Cr. Hr.

Advanced skills and techniques. Emphasis on shot selection, placement, strategy, and the psychological aspect of the game.

#### 165 Country Western Dance 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 of steps, 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 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

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 Cr. 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

1 Cr. Hr.

Development of the intermediate skills related to the martial arts.

#### 174 Practical Aspects of Self Defense for Women

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

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 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

1 Cr. Hr.

R

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 R

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

1 Cr. Hr.

R

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

#### R 211 Intermediate Volleyball 1 Cr. 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 Cr. Hr.

R

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

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

2 Cr. Hrs.

R

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

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

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 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

**Elementary School** 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

239 Athletic Injuries 3 Cr. Hrs. Application of principles involved in prevention, care and treatment of athletic injuries.

2 Cr. Hrs. 245 Coaching Baseball 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 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

#### 297 Special Topics In Physical Education

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

1-6 Cr. Hrs.

R

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).

PHY

#### 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

Prerequisite: PHY 141

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.

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 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 MAT 202. 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.

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

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 3.0 GPA in physics and mathematics.

297 Special Topics

1-6 Cr. Hrs.

R

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
Technology

4 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 4 Cr. Hr

Applied study of equipment operating 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)

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

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

201 International Relations 3 Cr. Hrs. Principles and techniques of international politics emphasizing different world perspectives.

#### 205 Model United Nations/

policy options.

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 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

297 Special Topics

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 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 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

3 Cr. Hrs. 221 Offset Presswork I

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 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

1-9 Cr. Hrs.

R

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

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 Sinclair Community 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, holistic health, relaxation techniques 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 Skills3 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 Psychology3 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 covers hiring, 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 work-places; experiential focus through applications of work group theory and methods.

## 235 Research Methods for Social Sciences 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

-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

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 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

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: PTA 116 or chairperson signature

#### 121 Physical Therapist Assistant

Procedures I 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 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 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* 

PTA QET

#### 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 Theory and clinical rationale for use and application of massage, soft tissue and joint mobilization with emphasis on func-

tional 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 techni-

Prerequisite: PTA 221 or PTA 223

## **Purchasing (PUR)**

201 Purchasing Principles 3 Cr. Hrs. The contribution of the purchasing orga-

nization 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 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, MAT 101 or equivalent

220 Supplier Relationships 3 Cr. Hrs. Overview of determining vendor capability by sourcing/certification, and stateof-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

1-9 Cr. Hrs.

See EBE 270 Internship for course description.

297 Special Topics

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 3

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

Measurement

3 Cr. Hrs.

Operating techniques for computer-aided Servo driven coordinate measurement machine. Two lecture, two lab 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, two lab 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

Prerequisite: QET 120

hours per week.

## 126 Liquid Penetrant & Magnetic Particle Testing 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.

## 131 Fundamentals of Metallurgy & Materials Science 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

Prerequisite: INT 141 or MAT 101 or equivalent

#### 132 Metallurgy 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

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, MAT 132 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

iviecnanical inspector review R

3 Cr. Hrs.

aview of the requirements and tonics to

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: QET 101, MAT 131 or equivalent* 

## 202 Advanced Statistical Quality Control 3 Cr. Hrs.

Applications of statistical quality control methods including hypothesis testing, confidence limits, and linear regression analysis. Two lecture and two lab hours per week. *Prerequisite: QET 202, MAT 111 or equivalent* 

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, MAT 132 or equivalent

#### 212 Reliability II

3 Cr. Hrs. nd failure

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

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 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

3 Cr. Hrs.

R

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 **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

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

1-6 Cr. Hrs.

R

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**

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

Orientation to hospital and radiology organization, radiographic procedures involved 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 gastrointes-

tinal, biliary, and urographic procedures. 16 clinical hours.

#### Prerequisite: RAT 111

121 Introduction to Radiography & Positionina 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 (RAT 129) 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.

RAT

#### 137 Lab for RAT 131

Laboratory must be taken with RAT 131.

#### 199 Computers in Medical Imaging

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 Cr. 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 Technique 5

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 4 Cr. Hrs.

Basic physics concepts involving the generation and construction of human planar M.R. images.

## 244 Magnetic Resonance Imaging Applications 4 Cr. Hrs.

Magnetic resonance imaging procedures including patient preparation, positioning, filming protocol, instrumentation and archiving.

Prerequisite: RAT 243

#### 245 Magnetic Resonance Imaging Practicum

2-8 Cr. Hrs.

Variable credit clinical experience performing actual patient exams involving magnetic resonance imaging. Prerequisite: RAT 199, RAT 231

#### 246 Advanced Patient Care in

Radiography 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 & Applications 2 Cr. Hrs.

Mammographic equipment concepts including x-ray tube considerations, imaging media and processing, quality assurance testing and exposure principles.

## 249 Mammographic Practicum R

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

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 R

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 R

1-3 Cr. Hrs.

Current issues and developments in radiologic technology. Case studies of selected topics.

## **Religious Studies (REL)**

111 Eastern Religions
An introduction to Far Fastern

An introduction to Far Eastern religious traditions, focusing on Hinduism, Buddhism, Confucianism, and Taoism.

112 Western Religions 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.

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.

R

tion.

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, co-ownership, 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 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 descrip-

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

1-6 Cr. Hrs.

R

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, twelve clinical hours per week. *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 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

1 Cr. Hr.

Respiratory care procedures, equipment physiology, pathology, patient care, and other topics relevant to the discipline.

#### 297 Special Topics

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

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

0.5 Cr. Hr.

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

1 Cr. Hr.

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 Russian-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 inequal-

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,

ities, social processes, and social change.

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

prevention and treatment.

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

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 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

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 This course focuses on male and female anatomy, physiology, conception, contraception, sexually transmitted diseases and sexual violence.

Prerequisite: SOC 216

225 Juvenile Delinquency 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-sentence investigation, 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 1600s up through today. The course's central theme is viewing the African-American 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, nucle-

Prerequisite: SOC 111 or SOC 120

ar deterrence, etc.

270 Sociology Internship

1-12 Cr. Hrs.

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See EBE 270 Internship for course descrip-

295 Independent Study

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

1-6 Cr. Hrs.

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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.

4 Cr. Hrs. 101 Elementary Spanish I Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.

102 Elementary Spanish II 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

1-12 Cr. Hrs.

R

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 Cr. 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 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

Instrumentation 3 Cr. Hrs.

Use of industrial hygiene instruments employed in the measurement of parameters which may present a health hazard to humans. Two lecture, two lab 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 accident investigation, incident rates, 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 at construction work sites. Two lecture and two lab hours per week. *Prerequisite: SRM 231* 

#### 270 Safety Risk Management Internship

1-12 Cr. Hrs.

See EBE 270 Internship for course description.

#### 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 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

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

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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 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

R 0.5-6 Cr. Hrs.

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

Cr. Hr

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

design of lighting for theatrical productions. Emphasis will be given to the coordination of visual and aesthetic aspects of lighting design. One lecture, four lab hours per week. *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, survey of historic fashion, research sources, wardrobe organization, costume plot and construction of garments for the stage. One lecture, four lab hours per week.

#### 126 Stage Make-up 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 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 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

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

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

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

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 concept of play direction. The bases, 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

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

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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

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

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

1-7 Cr. Hrs.

See EBE 270 Internship for course description.

#### 297 Special Topics

0.5-6 Cr. Hrs.

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.

 $Pre requisite: DEV\,065, 085, 110\, or\, equivalents$ 

#### 102 Travel Sales & Telephone Techniques

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 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 2 Cr. Hrs.

Study of research and reservation process for accommodations, car rentals, tours, and rail transportation.

Prerequisite: TNT 100

## 109 Cruise Line Sales 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, 110 or equivalents

#### 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 or BIS 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

Overview of an annual plan for a travel agency which includes units on advertising, marketing, sales, personnel, facilities, and other operational incomes and expenditures. *Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122* 

## 210 Management of Travel Sales Personnel 3 Cr.

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

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

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

2 Cr. Hrs.

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 sales techniques which apply to the travel industry. *Prerequisite: TNT 100, 102, 104, 108, 109, 112, 114, 122, 123, 131, MRK 201*

#### 270 TNT Internship

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

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.

VIS

## Visual Communications (VIS)

100 Design Survey 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 R

1 Cr. Hr.

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 2D animation 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 3 Cr. Hrs. Computer illustration techniques using vector based software.

Prerequisite: VIS 104

147 Digital Imaging 3 Cr. Hrs. Computer imaging and photo manipula-

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 265* 

270 Visual Communications Internship R1-12 Cr. Hrs.

See EBE 270 Internship for course description.

## 276 Visual Communications PortfolioDevelopment 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 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

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.

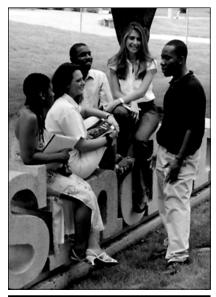
The volunteer seminars will encompass topics offered as part of a continuing education program for persons interested in volunteer management. Seminars will be planned, scheduled, and offered throughout the year in a variety of volunteer management subject areas and for varying lengths of time.

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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### Lawrence "Larry" Porter

President

L.P.A., Incorporated

## **Ethel M. Washington** Community Volunteer

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## Administration Ned J. Sifferlen (1965)

Ned J. Sifferlen (1965) President

B.S., M.S., University of Dayton Ed.D., University of Cincinnati

#### Steven L. Johnson (2000)

Provost & Chief Operating Officer B.S., University of Wisconsin M.S., Iowa State University Ph.D., University of Texas

#### Deirdre L. Delaney (2002)

Vice President for Business Operations B.S.B.A., Franklin University Certified Public Accountant

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Vice President for Student Services A.A., Indiana River Community College B.A., University of Florida M.Ed., Florida Atlantic University Ed.D., University of Florida

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Vice President for Instruction B.A., Fisk University M.Ed., Alabama A. & M. Ph.D., University of Alabama

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Vice President for Administration B.S., University of Rhode Island M.S., Ed.D., Indiana University

#### Kenneth Moore (2000)

Vice President for Information Technology & Chief Information Officer B.S., University of Cincinnati M.B.A., Robert Morris College

#### Frieda R. Bennett (1975)

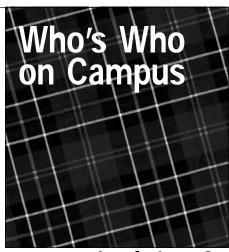
Dean, Business Technologies B.S., Tennesse State University M.S., Bowling Green State University Ph.D., Ohio State University

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Dean, Corporate & Community Services B.S., M.Ed., University of Illinois

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Manager, Information Processing & Technical Services

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#### Tim Parsons (1999)

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Director, Learning Resources Center B.A., M.S., Indiana State University M.L.S., Indiana University

#### Michael W. Plourde (1984)

Director, Accounting Services B.S., Wright State University (Certified Public Accountant)

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Librarian, Periodicals/Reference, Learning Resources Center B.A., Stanford University M.S.L.S., University of Michigan

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Academic Counselor, Business Technologies A.A.S., Westchester Community College

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#### Jeanna Reedy (1987)

Manager, Teleports & Help Desk A.A.S., Sinclair Community College

#### Brenda E. Reddrick (1990)

Coordinator, SEMAA Program A.S., Sinclair Community College B.S., Central State University M.S., University of Dayton

#### Nita Renfrow (2000)

Counselor, Access to Better Jobs, Adult ReEntry & Special Programs B.S., Bowling Green State University M.S., University of Dayton

#### Tom Roberts (1998)

Advisor, Sinclair Ohio Fellows/Outreach Specialist, Admissions B.A., University of Dayton

#### Richard Runner (2000)

Network Lab Coordinator, Computer Information Systems A.A.S., Sinclair Community College

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Academic Counselor, Developmental Studies B.S., Ohio State University M.R.C., Wright State University (L.P.C.)

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Assistant, Purchasing A.A.S., Sinclair Community College B.A., Capital University

#### Eric Schwein (1996)

Network Administrator, Information Technology

#### Patrick Seymour (1999)

Network Application Specialist, Information Technology

#### Deborah A. Shuler (1996)

Coordinator, Special Projects, Engineering & Industrial Technologies B.S., Kent State University M.S.E., University of Dayton

#### David Siefert (2000)

Director, Strategic Programming B.A., Capital University M.A., Antioch University

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Conference Services Manager Corporate & Community Services

#### Dawn Singh (2001)

Web Course Facilitator, Distance Learning

B.S., Purdue University M.A., Indiana University

#### Sara Porter Smith (1988)

Director and Systems Manager, Outreach Services

B.S., M.S., Indiana University

#### Donald Smith (1998)

Manager, Technology Services, Distance Learning

A.S., Community College of the Air Force

B.A., M.A., Chapman University

#### Jaton R. Stanford (1999)

Admissions Officer, Admissions B.S., M.S., University of Cincinnati

#### Robert E. Stemple (1983)

Manager, Instructional Development Support, Information Technology A.A., A.S., Sinclair Community College

#### Cheryl Stewart (2001)

Policy & Procedures Specialist, Information Technology B.S., M.Ed., Wright State University

#### Mary Strong (1987)

Coordinator, Veterans Affairs, Counseling Services B.S., Park University

#### Terry Stump (1995)

Theatre Manager, Technical Director, Fine & Performing Arts B.F.A., Wright State University

#### Sheila D. Suel (1993)

Specialist, Cooperative Education B.A., Indiana University of Pennsylvania M.S., Wright State University (Certified Professional Human Resources)

#### Roslyn Taylor (1995)

Network Engineer, Information Technology B.A., Oregon State University B.A., M.S.E.E., Air Force Institute of Technology

#### Stephanie Y. Taylor (1998)

Counselor, New Directions, Adult ReEntry & Special Programs A.A., Sinclair Community College B.S., Wilberforce University M.S.Ed., University of Dayton

#### Kimberly J. Thomas (1998)

Academic Counselor, Allied Health Technologies B.A., Florida State University M.Ed., Boston University

#### Cindy A. Tiedemann (2000)

Gallery Coordinator, Collections Manager A.A., Sinclair Community College B.A., Union Institute M.A., McGregor School of Antioch

#### Joseph F. Tobias (1985)

University

Assistant Manager, Tartan Campus Store/Materials Management B.S., Taylor University (Certified Store Professional, Certified Purchasing Manager)

#### John Tomoser (1988)

Coordinator, Off-Campus Sites, Distance Learning

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Librarian, Reference, Learning Resources Center B.S., Utah State University M.L.S., University of Kentucky

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Director, Student Activities B.A., Capital University M.S., University of Dayton

#### Kathy L. Wiesenauer (1990)

Director, Financial Aid & Scholarships B.A., Miami University M.A., Bowling Green State University

#### Carlyn Williams (1984)

Assistant Director, Financial Aid & Scholarships B.S., Park University M.S.Ed., University of Dayton

Karen Witt (1979)

Director, Adult ReEntry & Special Programs

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Alan Yeck (2000)

Program Developer, I.T. The Learning Center at Miami Valley Research Park

William Young (1997)

Coordinator, Academic Computer Center

A.A.S., Sinclair Community College

### **Full-Time Faculty**

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Professor, Developmental Studies B.S., Bowling Green State University M.Ed., Wright State University

Marlon Aldridge (1998)

Assistant Professor, Physics B.S., Morehouse College M.S., Wright State University

#### Derek Allen (1996)

Assistant Professor, Hospitality Management A.A.S., Sinclair Community College B.S., Central State University M.B.A., Wright State University

#### **Shepherd Anderson (1996)**

Assistant Professor, Chairperson, Manufacturing Engineering Technology B.S., M.S., Purdue University (C.Mfg.E.)

#### Linda L. Andrews (1988)

Professor, Nursing B.S.N., Columbia Union College M.S., Wright State University (R.N.)

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Professor, English B.S., M.S., Miami University

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Professor, Chairperson, Occupational Therapy Assistant B.S., Loma Linda University M.A.T., Wright State University (O.T.R./L.)

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Professor, Legal Assisting B.A., Valparaiso University J.D., University of Toledo

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#### Jennifer Barr (1993)

Associate Professor, Chairperson, Medical Assistant Technology Coordinator, Allied Health Instruction B.S., Eastern Kentucky University M.T., Lourdes Hospital M.Ed., Wright State University

#### MaryAnn Barth (2001)

Assistant Professor, Manual Communication B.A., Thomas More University M.A., Gallaudet University

#### Connie S. Beal (1991)

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#### Daniel E. Becker (1976)

Professor, Dental Hygiene B.S., Ohio University D.D.S., Ohio State University

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Professor, Chairperson, Respiratory Care B.S., Ohio State University M.S., Wright State University Ph.D., University of Dayton (R.R.T., R.P.F.T.)

#### Jack Bennett (1990)

Professor, English B.A., Western Michigan University M.A., Kent State University

#### Kay Berg (1990)

Professor, English B.A., Elmhurst College, M.A., California State College at San Bernardino

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Professor, Experience Based Education, Coordinator, P.A.C.E. A.B., Wilmington College M.A., Ball State University Ed.D., Teachers College, Columbia University

#### V. Michael Brigner (2001)

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#### James Brooks (1983)

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#### Michael J. Canestaro (1998)

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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)

Professor, Dental Hygiene 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)

Assistant Professor, English B.A., University of Texas M.F.A., Ohio State University

#### Anne Henry (1994)

Assistant Professor, Geology B.S., M.S., Wright State University

#### Teresa Hieronymus (1991)

Professor, Developmental Studies B.A., M.A., University of Dayton

#### Patrick B. Hodges (1977)

Professor, Chairperson, Physical Education/Athletics B.S., Manchester College M.S., Indiana University Ph.D., Ohio State University

#### Jane Hofverberg (1992)

Professor, Occupational Therapy Assistant B.S., Virginia Commonwealth University (O.T.R./L.)

#### Steven Holliday (1997)

Associate Professor, Dental Hygiene B.S., Capital University D.D.S., Ohio State University

#### Rob Hoopes (2000)

Associate Professor, Manual Communication B.A., University of Akron M.A., Gallaudet University J.D., University of Cincinnati

#### William J. Hoover (1972)

Professor, Accounting B.S., Miami University M.B.A., University of Dayton (Certified Public Accountant)

#### James Houdeshell (1978)

Professor, Quality Engineering Technology B.S., Rose-Hulman Institute M.S., Wright State University M.S., University of Dayton (Professional Engineer)

#### Paula Hraban (1988)

Associate Professor, Manual Communication B.A., Valparaiso University M.S., University of Wisconsin

#### Catharine A. Huber (1980)

Professor, Health Information Management B.S., Ohio State University (R.R.A.)

#### Ronald L. Hutchins (1984)

Professor, Tooling & Machining Technology A.A.S., Sinclair Community College B.S., University of Cincinnati (C. Mfg. E.) Shirley Ivory (1992)

Associate Professor, Computer Information Systems A.S., Sinclair Community College 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 (R.N.)

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)

Assistant Professor, Chairperson, 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

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)

Geography B.S., University of California at Irvine M.S., Ph.D., University of California at Santa Barbara

Professor, Chemistry, Geology,

#### 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)

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)

Associate Professor, Chairperson, Fire

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 (Certified Public Accountant)

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)

Assistant Professor, Computer Information Systems 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

B.A., M.A., University of Dayton

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 (L.I.S.W.)

Michael Taylor (1995)

Associate Professor, Automotive Technology B.S., University of Toledo M.Ed., University of Dayton

Nancy Thibeault (1999)

Associate Professor, Chairperson, 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)

Assistant Professor, Geology B.S., M.S., Wright State University

#### Barbara L. Tollinger (2000)

Assistant Professor, Business Information Systems B.A., Wright State University M.S., University of Dayton

#### Viet Tran (1991)

Associate Professor, Developmental Studies

B.S., M.S., Wright State University

#### Jacqueline Trimier (1998)

Assistant Professor, Philosophy B.A., University of Texas at Austin M.A., University of Warwick

#### Gary W. Tucker (1990)

Professor, Chairperson, Criminal Justice A.A.S., Forest Park Community College B.A., Maryville College M.A., Webster University Ed.S., University of Sarasota

#### Boikai Twe (1990)

Professor, Psychology B.A., Berea College Ed.D., University of Cincinnati

#### Lisa Tyler (1993)

Associate Professor, English B.A., M.A., University of Dayton Ph.D., Ohio State University

#### Jeffrey L. Tyus (2000)

Assistant Professor, Communication Arts

B.S., M.A., Ph.D., Ohio University

#### Jeff Vance (1999)

Assistant Professor, Chairperson, Economics, Financial Management, Real Estate, Business Ownership B.S., M.B.A., Wright State University

#### Beverly VanDenEinde (1988)

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

#### Paul Van Marter (1977)

Professor, Chairperson, Mental Health Technology B.A., University of Dayton M.S.W., Ohio State University (L.I.S.W.)

#### Tim Waggoner (1999)

Assistant Professor, English B.S., Ed., M.A., Wright State University

#### Charles J. Wagner (1972)

Professor, English
B.S. M.A. University

B.S., M.A., University of Dayton

#### Albert C. Wahle (1993)

Professor, Chairperson, Architectural Technology, Civil Engineering Technology, Industrial Design & Graphic Technology C.E., University of Cincinnati M.B.A., Wright State University (Registered Engineer and Surveyor)

#### D. Andrew Waker (2000)

Assistant Professor, STEP II Coordinator, Tooling & Machining Technology A.A.S., Sinclair Community College B.S., University of Dayton

#### Barbara Wallace (1993)

Associate Professor, Health Information Management B.S., Ohio State University M.B.A., Wright State University

#### **Betty Wallace (1978)**

(R.R.A.)

Professor, Chairperson, Developmental Studies

B.S., M.A., Ball State University Ed.D., National-Louis University

#### James A. Walter (1972)

Professor, History B.S.Ed., Otterbein College M.A., Purdue University

#### Yufeng Wang (1993)

Associate Professor, History, Humanities, Chinese B.A., Nankai University, Tianjin, China M.A., College of William & Mary Ph.D., West Virginia University

#### Steven Wendel (1994)

Associate Professor, Industrial Design & Graphic Technology B.S.M.E., M.S.M.E., University of Dayton

#### Sarah Werner (1999)

Assistant Professor, English B.A., M.A., Unversity of Dayton

#### Steve Whiting (1994)

Associate Professor, Developmental Studies B.S.Ed., Ohio University M.Ed., Wright State University

#### **Colleen Whittington (1997)**

Associate Professor, Chairperson Physical Therapist Assistant B.S., Ohio State University

#### Michael Whittington (1999)

AssistantProfessor, Civil Engineering Technology

#### B.S., Ohio State University

#### Shirley B. Wilkerson (1973)

Professor, Business Information Systems B.A., Georgetown College M.Ed., Xavier University (C.P.S.)

#### Charles C. Williams, Jr. (1976)

Professor, Developmental Studies B.S., West Chester University M.Ed., University of Pittsburgh M.S., University of Dayton Ed.D., Pennsylvania State University

#### Phyllis Williams (1992)

Professor, Chairperson, Biology B.S.Ed., Southwestern University M.S., University of Houston

#### Thomas Wilson (1985)

Professor, Mathematics B.A., Wittenberg University M.A.T., Northwestern University M.A., Stanford University

#### Karen Winston (1983)

Professor, Chairperson, Child & Family Education

B.S., M.S., Michigan State University

#### Jennifer E. Wise (1998)

Assistant Professor, Safety Risk Management, Environmental Engineering Technology B.S., Arizona University M.S., University of Cincinnati

#### Lewis Woodruff (1978)

Professor, Economics, Real Estate B.S., Wright State University M.Ed., Ed.D., University of Cincinnati

#### Richard Wourms (2001)

Assistant Professor, Tooling & Machining Technology A.S., Sinclair Community College B.S., Antioch University

#### John H. Yeamans (1972)

Professor, Management B.S., Ohio State University M.A., Ball State University (C.A.M., S.P.H.R.)

#### Ned D. Young (1994)

Professor, Business Management B.S., M.B.A., Wright State University

#### Lori Zakel (1990)

Professor, Chairperson, Communication Arts A.A., Sinclair Community College B.S., University of Wyoming M.A., Antioch University

#### Beth Zickefoose (1989)

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**

In 1984, the Sinclair Board of Trustees approved the awarding of Emeritus status to retired Sinclair faculty members who, through years of distinguished service to the college, were deemed outstanding and were nominated and selected by their faculty colleagues for this honor. Since 1984, selections each year have been made and conferred at Springgraduation. The faculty members who have been so honored during this period are as follows:

Professor Helen S. Peterson (1984) Liberal Arts & Sciences

Professor Carl M. Schell (1984) **Engineering & Industrial Technologies** 

Professor Robert J. Buehler (1985) Allied Health Technologies

Professor Helen Louise Katz Froug (1985) Liberal Arts & Sciences

Professor Mary W. Peelle (1986) **Business Technologies** 

Professor Robert M. Stuart (1986) **Business Technologies** 

Professor Jane Teeven (1987) Allied Health Technologies

Professor Mark G. Treat (1987) **Business Technologies** 

Professor Erwin C. Vernon (1988) **Business Technologies** 

Professor Russell L. Moubray (1989) **Engineering & Industrial Technologies** 

Sister Joseph Taddy (1989) **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) Allied Health Technologies

Professor Mellow D. Bradley (2001) **Experience Based Education** 

Professor Mary L. Navarro (2001) English

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Teacher

Wee Haven Children's Center

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Beavercreek Fire Department

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**Trotwood Fire Department** 

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Chief

**Trotwood Fire Department** 

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**Butler Township Fire Department** 

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**Community Relations** 

**Madelyn Buran** 

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Covenant House

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Retirement Housing Consultant Bethany Lutheran Village

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Michelle Foley

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Livingston Care Center

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Vann Rucker

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**Beverly Wall** 

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**Eldon House** 

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**United Rubber Workers** 

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Lieutenant

**Dayton Police Department** 

**Greg Johnson** 

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**Andy Tellers** 

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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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