

Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460

Office of Admissions



Your levy support guarantees quality and affordability.

- arts FINE & PERFORMING ARTS
- liberal arts LIBERAL ARTS & SCIENCES
- business BUSINESS TECHNOLOGIES
- engineering ENGINEERING & INDUSTRIAL TECHNOLOGIES
- health ALLIED HEALTH TECHNOLOGIES
- calvin COLLEGE EXTENDED LEARNING & HUMAN SERVICES

Periodicals Postage Paid

Bulletin • Sinclair Community College 2003-2004

Bulletin

Catalog for Success

Course Catalog 2003-2004



- Allied Health
- Business Technologies
- Distance Learning
- Engineering & Industrial Technologies
- Extended Learning & Human Services
- Fine & Performing Arts
- Liberal Arts & Sciences



Sinclair Community College

Getting Around

my.Sinclair.edu

www.sinclair.edu

Main Offices to Complete Enrollment

- **Admissions**
Building 10, Room 10112, (937) 512-3000, 1-800-315-3000 (Ohio), www.sinclair.edu, TDD (937) 512-2187
- **Placement Testing**
Assessment Intake Center, Building 10, Fourth Floor, (937) 512-3076
- **Payment of Fees/Bursar**
Building 10, Room 10244, (937) 512-3000
- **Student I.D. Cards**
Registration, Second Floor, Building 10
- **Office of Registration & Student Records**
Building 10, Second Floor, (937) 512-3000, TDD (937) 512-2395
- **Office of Financial Aid & Scholarships**
Building 10, Room 10343, (937) 512-3000
- **General Enrollment Information**
(937) 512-3000

How to Read Room Numbers and Get Around Campus

Buildings 1-7 surround the main plaza with the Learning Resources Center located beneath with access from all seven buildings from the lower level. Building 8 (PAC) is accessible from the lower 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.

To get around use underground corridors and enclosed third floor walkways which connect the campus' primary structures. 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 lower levels.

• Tartan Campus Store (Bookstore), Building 7, First Floor

• Tartan Marketplace (Cafeteria), Building 7, Basement

• Admissions
Building 10, Room 10112, First Floor

• Registration
Building 10, Second Floor

• Financial Aid
Building 10, Room 10343, Third Floor

• Pay Fees
Building 10, Second Floor

• Placement Testing
Building 10, Fourth Floor

• Teleport
Building 11, Room 11346, Third Floor

• Orientation
Building 14, Room 14130

Parking
Get Tartan Card at Registration, put money on card at Bursar, and save \$1.00 per day.

For campus telephone numbers and locations, see inside back cover.

Important Numbers

www.sinclair.edu
my.Sinclair.edu

Sinclair: Always On Your Side.

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 lower levels.

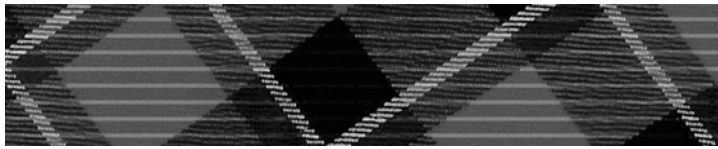
Department/Service Information	Number	Location
Activity or School Closing Information (24 hours)	512-3000 (937) 512-2888	Building 10, Room 10112
Admissions	512-3000 1-800-315-3000 Ohio TDD 512-2187	Building 10, Room 10112
Academic Credit Assessment Information Center	512-2800	Building 6, Room 6130
Advanced Integrated Manufacturing (AIM) Center	512-5357	Building 13, Room 13101
Allied Health Technologies	512-3029	Building 6, Room 6120
Alumni Affairs	512-2510	Building 15
Assessment Intake	512-2210	Building 10, Fourth Floor Lobby
Associate of Technical Study/ Associate of Individualized Study	512-2962	Building 6, Room 6130
Athletic & Sports Information	512-2860	Building 8, Room 8025
Automotive Laboratory	512-3242	Building 20
Blair Hall Theatre	512-2808	Building 2, Floor 1
Bookstore/Tartan Campus Store	512-BOOK	Building 7, Room 7110
Bursar/Cashier	512-3000	Building 10, Room 10244
Business Technologies	512-3054	Building 6, Room 6131
Campus Ministry	512-2768	Building 10, Room 10317
Campus Police	512-2700	Building 7, Room 7112
Career Planning & Placement Center	512-2772	Building 10, Room 10315
Cashier/Bursar	512-3000	Building 10, Room 10244
Child & Family Education Laboratory	512-2787	Building 9, Room 9108
Child Care/Day Care	512-2234	Building 9, Room 9101
Clarion Newspaper	512-2744	Building 7, Room 7240
College for Seniors (Citizens)	512-2372	Building 10, Room 10424
College Without Walls	512-2791	Building 6, Room 6130
Corporate & Community Services	512-3061	Building 12, Room 12101
Counseling Services	512-2752	Building 10, Room 10324
Credit for Lifelong Learning	512-2800	Building 6, Room 6130
Developmental Studies	512-2701	Building 6, Room 6222
Disability Services	512-5113	Building 10, Room 10421
Distance Learning	512-2990	Building 14, Room 14318
Donor Relations	512-2510	Building 15
Educational Support Services	512-5113	Building 10, Room 10421
Engineering & Industrial Technologies	512-2282	Building 3, Room 3142
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 Services	512-2760	Building 6, Room 6141
Faculty (Part-time) Support Services	512-2782	Building 16
Financial Aid & Scholarships	512-3000	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	Building 12, Room 12152
Grade Reporting System	1-800-613-9516	
Graduation Application	512-2736	Building 10, Room 10231
Help Desk	512-HELP (4357)	Building 13
Honors/Phi Theta Kappa	512-2517	Building 10, Room 10339
Human Resources	512-2514	Building 7, Room 7340
Learning Center, Miami Valley Research Park	252-9787	1900 Founders Drive
Library/Learning Resources Center (LRC)	512-2855	Building 7, Lower Level

Department/Service	Number	Location
Liberal Arts & Sciences	512-5134	Building 6, Room 6121
Lost & Found/Police	512-2700	Building 7, Room 7112
Maintenance (Service Control Center)	512-3090	Building 17
Manual Communication Language Laboratory	512-4559	Building 9, Room 9223
Mathematics Laboratory	512-2286	Building 1, Room 1315
Modern Language Laboratory	512-2228	Building 2, Room 2321
New Directions	512-3064	Building 10, Room 10424
PACE	512-2962	Building 6, Room 6130
PSEO Program	512-3060	Building 10, Room 10112
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, Room 8025
Physics Laboratory	512-5126	Building 4, Room 4241
Police (Campus)	512-2700	Building 7, Room 7112
President of Sinclair	512-2525	Building 7, Room 7311
Prevention Education Resource Center	512-5110	Building 10, Room 10316
Psychology Laboratory	512-5125	Building 4, Room 4212
Public Information Office	512-4636 (INFO)	Building 7, Room 7210
Registration & Student Records	512-3000	Building 10, Room 10231
Transcript Requests		
Transfer Credit Evaluation	TDD 512-2395	register@sinclair.edu
SEMAA Program	512-4527	Building 12, Room 12331
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
Student Activities Center	512-2509	Building 8, Lower Level
Student Employment	512-2772	Building 10, Room 10315
Student Government Association	512-2878	Building 8, Room 8025
Student Success Planning	512-3032	Building 10, Room 10424
Student Support Services	512-3550	Building 11, Room 11342
Supported Education Program	512-5113	Building 10, Room 10421
Tartan Campus Store	512-2665 (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 Operations	512-2512	Building 7, Room 7321
Vice President for Information Technology	512-3107	Building 14, Room 14310
Vice President for Instruction	512-2522	Building 6, Room 6142
Vice President for Student Services	512-2975	Building 10, Room 10323
Withdrawal from Classes	512-2736	Building 10, Room 10231
Writing Center	512-5106	Building 3, Room 3221
Young Scholars Program	512-3730	Building 10, Room 10112

Other Numbers (937) 512-2500
Web Address www.sinclair.edu

For a quick reference of general information on admissions, financial aid, registration, bursar/cashier

(937) 512-3000



Bulletin

www.sinclair.edu
my.Sinclair.edu

***Your World
of Opportunity.***

**Near or Far.
On or Off Campus.**

Day or Night.

**Changing the World,
One Life at a Time.**



What it Takes to Turn Dreams Into Reality

Sinclair Community College believes students are the greatest resource of the community. Sinclair energizes that resource, helps students find their place, realizes dreams through the best, most affordable and useful education possible.

That's why Sinclair:

- Offers **transfer and technical associate degree** programs, certificate programs and continuing education opportunities.
- Delivers academic courses in many **different learning environments** to meet student needs.
- Provides **high quality instruction**, educational activities, counseling, support services, and assessment tools to help students achieve personal and professional goals.
- Increases marketability in today's rapidly changing, technologically driven work force, through **traditional and non-traditional alternatives**.
- Challenges students to set sights high and recognize their worth in the global society by **fostering values** that respect and celebrate diversity, social responsibility, critical thinking, communication and innovation.
- Promotes development and implementation of new ideas, provides leadership for collaborative activities, and serves as a **resource center** for community based and regional partnerships.
- Manages human, physical and financial resources in a caring, ethical and prudent way that facilitates a **working and learning environment focused on continuous improvement**.

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www.sinclair.edu



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To Students

www.sinclair.edu

Note: This catalog contains official information for the academic years 2003, 2004 and 2005. 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 Prospective and Current 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) 512-3000, or (937) 512-2500, 1-800-315-3000, or log on to 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.

Accreditation

Sinclair is accredited by The Higher Learning Commission 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/Paralegal 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. Sinclair's Art, Visual Communication, Interior Design programs are accredited by the National Association of Schools of Art and Design (NASAD) and the Music program is accredited by the National Association of Schools of Music (NASM).

Right to Know

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

By fall 2001 there was a persistence rate of 78.3% for the 1,412 first-time, full-time students who entered Sinclair fall 1998. This includes students who graduated, are still enrolled at Sinclair, or left Sinclair in good standing:

Outcome

Graduated within three years (by summer 2001)	110	7.8%
Enrolled at Sinclair fall 2001*	274	19.4%
Transferred to a public four-year college in Ohio by fall 2001*	100	7.1%

*Includes only those who had not graduated.

60.5% or 622 of the non-completers that were not enrolled fall 2001 left Sinclair in good standing. These individuals, the Sinclair graduates, those who transferred to another institution, and those still enrolled at Sinclair add up to a persistence rate of 78%.

Student Right-To-Know and Jeanne Clery Act (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.

Welcome to Sinclair



President of Sinclair, Dr. Ned Sifferlen (center), is concluding a successful 38 year career at Sinclair. As he moves forward to share his expertise with the community, Dr. Steven Lee Johnson (center right), current provost, will become Sinclair's fifth president, fall 2003. He will continue the traditions of success and help guide Sinclair, offering more opportunities for everyone.

Whether you're pursuing your dreams or exploring your options, Sinclair Community College is on your side.

Our counselors, mentors, instructors and support staff give you the personal attention and specialized training that help you become a true success ... throughout your life.

So...What are you waiting for?

Enroll now to turn your dreams into reality.

Strong Roots and Positive Growth

College founder, David A. Sinclair, firmly believed that everyone deserves to further their education, and the Dayton community supported that belief. Through such strong faith and support, Sinclair Community College has grown from humble beginnings to earn a place as one of the finest colleges of its kind in the country.

Sinclair's roots go back to 1887, the year our Dayton YMCA began offering arithmetic, free hand and mechanical drawing classes in a one-room evening school. In 1910, the "Y" began offering courses in business administration. By the 1930s, offerings included a school of Liberal Arts, the Dayton YMCA Office Training School, Dayton Technical School and the Dayton Law School.

In 1948, the YMCA College became Sinclair College, renamed in honor of David A. Sinclair, general secretary of the Dayton YMCA (1874-1902) and founder of its educational program. 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.

Sinclair's impressive growth was once again recognized when the Montgomery County Commissioners created the Montgomery County Community College in 1965. A month later, they appointed a nine-member board of trustees. Downtown land, 20 acres in all, was acquired for the new campus.

The official plan for the community college was approved and its charter was presented in 1966. Voters of Montgomery County passed a one-mill levy for 10 years to support the proposed Montgomery County Commu-

nity College District. This vote of confidence among our community members would be repeated and enlarged during the coming years.

Edward Durell Stone of New York, and Sullivan, Lecklider and Jay of Dayton were named architects for the new Sinclair campus, which 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 (AIM) 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 (CIL) 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.

Fall 2003 Dr. Steven L. Johnson will succeed Dr. Ned Sifferlen as the college's fifth president.

Clearly, with such positive growth and strong local, regional and national support, Sinclair can offer its students the finest education.

Governance

In 1966, when Sinclair moved from private to public status, Montgomery County Commissioners and Ohio's Governor appointed a nine-member Board of Trustees to conduct the college's affairs. As the policy making body for the college, the board approves plans and internal policy decisions made by the president, administrative officers and faculty.

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 that accepts gifts of cash, bequests, trusts, annuities, securities, insurance and real estate.

Vision/Mission

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.

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.

Outstanding Educators

www.sinclair.edu

Sinclair Community College's excellence in teaching is shown through the 2003 National Institute for Staff and Organizational Development (NISOD) awards given to six Sinclair professors.

All six professors also received the 2003 SOCHE Innovations in Teaching Excellence Award.

These professors represent every academic division and received these honors for teaching excellence.



Allied Health Technologies
Sheranita Hemphill,
professor of Dental Hygiene



Business Technologies
Patti Santoianni,
professor of Computer Information Systems



Engineering & Industrial Technologies
Nick Scambilis
professor of Environmental Technology



Extended Learning & Human Services
Linda O'Keefe,
professor of Physical Education



Fine & Performing Art
Tess Little,
professor of Art



Liberal Arts & Sciences
Yufeng Wang,
professor of Humanities

Calendar

www.sinclair.edu

Fall Quarter

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

2003-2004

September 1 (Mon.)
 September 15 (Mon.)
 October 13 (Mon.)
 November 11 (Tues.)
 November 27 - 30 (Thur.-Sun.)
 December 7 (Sun.)
 December 17 (Wed.)
 December 22 - 26 (Mon.-Fri.)
 January 1 (Thurs.)

2004-2005

September 6 (Mon.)
 September 13 (Mon.)
 October 11 (Mon.)
 November 11 (Thurs.)
 November 25 - 28 (Thur.-Sun.)
 December 5 (Sun.)
 December 15 (Wed.)
 December 20 - 24 (Mon.-Fri.)
 December 31 - January 1 (Fri.-Sat.)

Winter Quarter

Classes Begin
 Martin Luther King, Jr. Holiday
 Classes End

January 5 (Mon.)
 January 19 (Mon.)
 March 21 (Sun.)

January 3 (Mon.)
 January 17 (Mon.)
 March 20 (Sun.)

Spring Quarter

Classes Begin
 Memorial Day Holiday
 Commencement
 Classes End

March 29 (Mon.)
 May 31 (Mon.)
 June 12 (Sat.)
 June 13 (Sun.)

March 28 (Mon.)
 May 30 (Mon.)
 June 11 (Sat.)
 June 12 (Sun.)

Summer Quarter

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

June 16 (Wed.)
 June 16 (Wed.)
 June 16 (Wed.)
 July 21 (Wed.)

June 15 (Wed.)
 June 15 (Wed.)
 June 15 (Wed.)
 July 20 (Wed.)

Independence Day Holiday

July 4-5 (Sun.-Mon.)

July 4 (Mon.)

Classes End

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

July 20 (Tues.)
 August 3 (Tues.)
 August 24 (Tues.)
 August 24 (Tues.)

July 19 (Tues.)
 August 2 (Tues.)
 August 23 (Tues.)
 August 23 (Tues.)

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

*Professional Development/Learning Day (Campus and all offices closed)

Please refer to *Quarterly Class Schedule/Bulletin* for more detailed information pertaining to specific registration/payment dates.

Registration Information

2003-2004

www.sinclair.edu

Fall Quarter 2003

June 30, 2003	Fall 2003 schedules available
July 7- Aug. 15, 2003	On-time registration (mail-in registration, web & telephone); payment options by telephone registration and in person
Aug. 18 - Sept. 5, 2003	In-person registration & telephone; payment options by telephone registration and in person for fall, deadline September 5 by 4:30 p.m.
August 11, 2003	Last day for dismissed students to petition for readmission for fall quarter by 7:00 p.m.
September 5, 2003	Last date to pay for on-time tuition. Students not paid will be de-registered, 5:00 p.m.
Sept. 8 - 12, 2003	Late registration, Audit & Golden Age registration (no late fee). Payment due at time of registration. Late registration (\$20 late fee) payment due at time of registration.
September 12, 2003	Deadline for new student enrollment (degree and certificate seeking)
September 15, 2003	Fall quarter classes begin
September 22, 2003	Last day to withdraw with a refund and without record for fall quarter by 7:00 p.m.
November 15, 2003	Last day to withdraw for fall quarter by 12:00 noon.
November 15, 2003	Last day to apply for December graduation by 12:00 noon
December 7, 2003	Fall quarter classes end

Winter Quarter 2004

November 3, 2003	Winter 2004 schedules available.
Nov. 10 - Dec. 19, 2003	On-time registration and drop/add. Payment due December 19, 5:00 p.m. (options by telephone registration and in person).
Nov. 10 - Jan. 2, 2004	Web registration and drop/add. Payment due December 19, 5:00 p.m. (options by telephone registration and in person).
Dec. 3 - Dec. 19, 2003	In-person registration and drop/add. Payment due December 19, 5:00 p.m. (options by telephone registration and in person).
December 10, 2003	Last day for dismissed students to petition for readmission for winter quarter, by 7:00 p.m.
December 19, 2003	Last day to pay for on-time registration fees, 5:00 p.m.
Dec. 22 - 26, 2003	Campus closed.
Dec. 30 - Jan. 2, 2004	Late registration, Audit & Golden Age registration (no late fee). Payment due at time of registration. Campus closed January 1, 2004. Late registration (\$20 late fee) payment due at time of registration.
January 2, 2004	Deadline for new student enrollment (degree and certificate seeking).
January 5, 2004	Winter quarter classes begin.
January 12, 2004	Last day to withdraw with a refund and without record for winter quarter, by 7:00 p.m.
February 5, 2004	Last day to complete removal of an Incomplete (I) from fall quarter, by 7:00 p.m.
March 6, 2004	Last day to withdraw for winter quarter, by 12:00 noon.
March 6, 2004	Last day to apply for March graduation, by 12:00 noon.
March 21, 2004	Winter quarter classes end.

—Continued next page

2004-2005

Spring Quarter 2004

February 9, 2004	Spring 2004 schedules available.
Feb. 16 - Mar. 19, 2004	On-time registration and drop/add. Payment due March 19, 5:00 p.m. (options by telephone registration and in person).
March 8, 2004	Last day for dismissed students to petition for readmission for winter quarter, by 7:00 p.m.
March 19, 2004	Last day to pay for on-time registration fees, 5:00 p.m.
March 22 - 26, 2004	Late registration, Audit & Golden Age registration (no late fee). Payment due at time of registration. Late registration (\$20 late fee) payment due at time of registration.
March 26, 2004	Deadline for new student enrollment (degree and certificate seeking).
March 29, 2004	Spring quarter classes begin.
April 5, 2004	Last day to withdraw with a refund and without record for spring quarter, by 7:00 p.m.
April 26, 2004	Last day to complete removal of an Incomplete (I) from winter quarter, by 7:00 p.m.
May 1, 2004	Last day to apply for June graduation, by 12:00 noon.
May 29, 2004	Last day to withdraw for spring quarter, by 12:00 noon.
June 12, 2004	Commencement
June 13, 2004	Spring quarter classes end.

Summer Quarter 2004

Term A - First five weeks	Term C - 10 weeks
Term B - Second five weeks	Term D - 7 weeks
May 3, 2004	Summer 2004 schedules available.
May 10 - 28, 2004	All terms - Mail-in registration and drop/add. Payment options by telephone registration and in person.
May 10 - June 15, 2004	All terms - Telephone & web registration and drop/add, payment options by telephone registration and in person.
June 1 - 11, 2004	Terms A, C, D - On-time registration and drop/add. Payment due June 11, 5:00 p.m. (options by telephone registration and in person).
June 1 - July 16, 2004	Term B - In-person registration and drop/add. Payment due July 16, 4:30 p.m. (options by telephone registration and in person).
June 14 - 15, 2004	Terms A, C, D - Audit & Golden Age registration (no late fee). Payment due at time of registration.
June 14 - 15, 2004	Terms A, C, D - Late Registration - \$20 late fee. Payment due at time of registration.
June 15	Terms A, C, D - Deadline for new student enrollment (degree and certificate seeking).
June 16, 2004	Terms A, C, D - Summer quarter classes begin.
June 19, 2004	Terms A, D - Last day to withdraw with a refund and without record for summer quarter, by 7:00 p.m.
June 23, 2004	Term C - Last day to withdraw with a refund and without record for summer quarter, by 7:00 p.m.
July 9, 2004	Term A - Last day to withdraw for summer quarter, by 4:30 p.m.
July 14, 2004	Last day to complete removal of an Incomplete (I) from spring quarter, by 7:00 p.m.
July 20, 2004	Term B - Audit & Golden Age registration (no late fee). Payment due at time of registration.
July 20, 2004	Term B - Late registration (\$20 late fee). Payment due at time of registration.
July 20, 2004	Term B - Deadline for new student enrollment (degree and certificate seeking).
July 20, 2004	Term A - Summer quarter classes end.
July 21, 2004	Term B - Summer quarter classes begin.
July 21, 2004	Term D - Last day to withdraw for summer quarter, by 7:00 p.m.
July 24, 2004	Term B - Last day to withdraw with a refund and without record for summer quarter, by 7:00 p.m.
August 3, 2004	Term D - summer quarter classes end.
August 6, 2004	Last day to apply for August graduation, by 4:30 p.m.
August 10, 2004	Term C - Last day to withdraw for summer quarter, by 7:00 p.m.
August 13, 2004	Term B - Last day to withdraw for summer quarter, by 4:30 p.m.
August 19, 2004	Last day for dismissed students to petition for readmission for fall quarter, by 7:00 p.m.
August 24, 2004	Terms B, C - Summer quarter classes end.

How to Begin

www.sinclair.edu



Whether arriving from around the block or around the globe, finishing high school or enjoying retirement, Sinclair makes it easy for students to get started. And it's amazing how friendly and helpful everyone is.

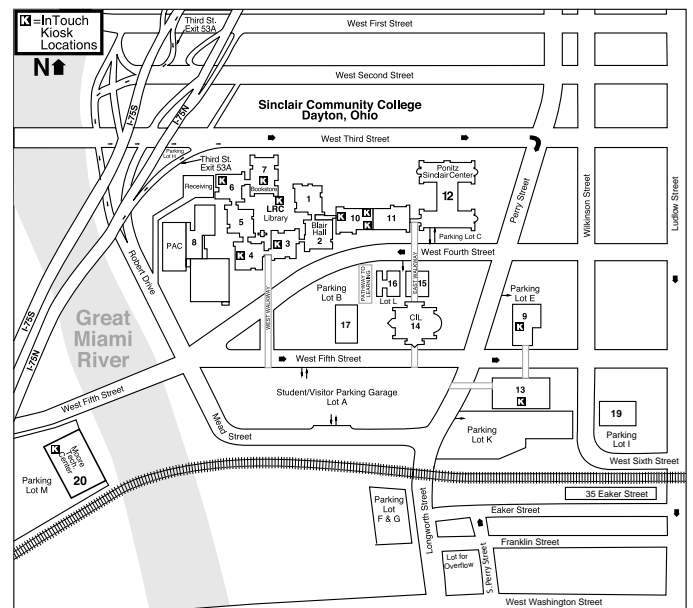
First, Complete the Application for Admission

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.

Everyone can get off to a great start... at Sinclair!

It's no accident that Sinclair has become the cultural and academic center for so many people.



How to Begin & Enrollment Steps

Admission is open to all applicants, with the exception of international students on an F-1 visa. Some academic programs have additional admission requirements and packets describing these programs can be obtained from Admissions, Building 10, Room 10112. A one-time, non-refundable \$10.00 application fee will be assessed at the time of your initial registration for classes.

Begin by finding your student category:

- **New-First Time in College** – Seeking to enroll at Sinclair after high school graduation or completing a GED and adults with no prior college classes and planning to earn a degree or certificate at Sinclair or another college or university.
Complete steps 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10 below.
- **Former Sinclair Student** – Those who have not enrolled in Sinclair classes during the last year, must complete a new application for admission.
Complete steps 1, 2, 5, 6, 7, 8, 9 & 10 below.
- **Incoming Transfer Student** – Attended another college or university and is seeking a degree or certificate at Sinclair or another college/university. For transfer credit, have the issuing institution mail the “official” transcripts to Sinclair Community College, Registration & Student Records, 444 West Third Street, Dayton, OH 45402-1454. Bring a copy of the “unofficial transcript” or grade cards for initial academic advising purposes only.
Complete steps 1, 2, 4, 5, 6, 7, 8, 9 & 10 below.
- **Transient Student** – Is enrolled in another college or university and is taking Sinclair courses to transfer back to the home institution. Declare Personal Interest (P.I.) as the major. Bring a copy of the “unofficial transcript” or grade cards from previous institution(s) for academic advising purposes and waiving of prerequisites.
Complete steps 1, 6, 7, 8, 9 & 10 below.
- **Personal Interest (P.I.) and/or Career Development (C.D.)** – Taking classes for personal interest or job/career development and not seeking a degree or certificate at Sinclair. Declare P.I. or C.D. as your major.
Complete steps 1, 6, 7, 8, 9 & 10 below.
- **College Advance Program for High School Students** – Seeking to enroll at Sinclair while still attending high school. You must present a letter of permission from the high school principal or guidance counselor to Registration & Student Records. Those who plan to take English or math, placement testing, Step 3, must be completed. Declare P.I. as the major.
Complete enrollment steps 1, 6, 7, 8, 9 & 10 below.
- **High School Age Student** – Seeking to enroll at Sinclair prior to high school graduation or completion of a GED and is not attending high school, must present a letter of permission from the principal or guidance counselor of the high school last attended and meet with a counselor at least once a quarter to discuss educational plans. A limited number of credit hours taken might be imposed.
Complete steps 1, 2, 3, 4, 5, 6, 7, 8, 9 & 10 below.
- **Post Secondary Enrollment Options (PSEO) Program** – High school students in grades nine through twelve who are seeking to enroll in the PSEO Program must obtain a PSEO Application for Admission and instructions from their high school guidance counselor. The application and all of the eligibility requirements must be submitted to Admissions, Building 10, Room 10112, priority deadline is the first Monday in June for the next academic year. Upon receipt of the PSEO application, written instructions will be sent to applicant and the guidance counselor.
- **International Students** – Attempting to obtain an F-1 Student Visa or to enroll using other types of visa must obtain all admission materials from Registration & Student Records, Building 10, Second Floor or at www.sinclair.edu.
- **Golden Age** – Senior citizens who are 60 years or older who want to take classes free of charge must complete a Golden Age application/registration form, available from Registration & Student Records or at the College for Seniors office, Building 10, Room 10424. Enroll on an audit, space available basis during the Late Registration period.

Enrollment Steps (see above student categories)

1. **Complete the Sinclair Application for Admission** and submit it to Registration & Student Records.
2. **If seeking a degree or certificate, apply for Financial Aid** by completing the Free Federal Form for Federal Student Aid (FAFSA) or online at www.fafsa.ed.gov
3. **Complete Placement Testing**
All new degree and certificate seeking students must complete placement for writing skills, reading, and mathematics. No appointment is needed and there is no testing fee. Begin at the Assessment Intake Center, Fourth Floor lobby of Building 10. Allow three hours for testing. (937) 512-3210.
4. **Attend New Student Orientation**
The mandatory two-hour orientation provides important information about services and resources, how to get around campus, and everything needed to be a successful Sinclair student. Tours of the Sinclair campus can be arranged by contacting Admissions at (937) 512-3000 or 1-800-315-3000.
5. **Advising**
Academic counselors/faculty advisors from each academic division review the placement test results and help in the selection of the appropriate classes based on educational goals. Advising normally occurs after completing the placement tests.
6. **Class Selection Counselors** at Sinclair Central (Building 10, Room 10242) will help schedule days, times and sections of courses and show how to complete the registration form.
7. **Register for Your Classes**
Submit the completed registration form to Registration & Student Records, Building 10, Second Floor.
8. **Pay for Your Classes**
Take the fee bill to the Bursar’s (cashier’s) office, Building 10, Second Floor to pay for tuition and fees.
9. **Purchase Your Books**
Purchase books and supplies at the Tartan Campus Store, Building 7, First Floor.
10. **Attend Your Classes!**
Sinclair’s faculty and staff are genuinely concerned about your success and your academic success is directly related to your attendance in class!

Assessing Where Students Need to Be

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.

To give students the best possible opportunity to shine, Sinclair determines their academic background and skills in reading, English and mathematics when first entering Sinclair, prior to registration. Here's how assessment works:

- To earn a degree or certificate, Sinclair assesses reading, language usage and writing, and numerical skills.
- A transfer student seeking a degree or certificate, but does not have transferable courses in math or English, needs to have those skills assessed, unless they want to take a math or English class.

Bottom line? To earn a degree or certificate, students have to have placement scores on file in order to register for any credit courses. Those with special needs or English as a Second Language needs, can make appropriate assessment arrangements with Educational Support Services.

Students not seeking a degree or certificate, but who want to take courses for personal interest or career development, don't have to be assessed.

Students who take mathematics and English courses must be assessed prior to enrolling in those courses. See an academic counselor for advisement.

The Door Is Open to All

All applicants with the exception of international students on an F-1 visa are accepted to Sinclair. 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, ASEP, CAP, 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:

- (937) 512-3000 (in state) or 1-800-315-3000 (Ohio) TDD: (937) 512-2187.
- F-1 visa holders should contact the office of Registration & Student Records, (937) 512-3024, or review admissions requirements at www.sinclair.edu.

Cyber Services

Opportunity at Your Fingertips

www.sinclair.edu

Many admission and registration services are available on Sinclair's web page at www.sinclair.edu. These cyber services include requesting a course catalog, scheduling a campus visit, getting class schedules or an application for admission, searching for course descriptions and quarterly class schedules, registering for classes, making name/address changes, getting grades, requesting transcript forms, and accessing Selective Service registration.

Important information about the admission, registration, and records processes and services are also available at this web site. And 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, TDD 512-2187

Here's where it all starts—get application packets for admission and information about academic programs at the office of Admissions. Those who are thinking about Sinclair for the first time can schedule an admission interview and campus tour by calling either (937) 512-3000 or 1-800-315-3000, by visiting the office in Room 10112, or through <http://www.sinclair.edu>.

Those interested in applying for Allied Health or Legal Assisting/Paralegal programs need to complete additional requirements—get specific program admissions packets in the office of Admissions.

Contact the Police Academy, Early Childhood Education, ASEP, CAP, Step II and A.I.S./A.T.S. for information about their programs.

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.

The office of Admissions also coordinates **bilingual services** available to serve the area's Hispanic community.

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. At the time of registration, students will be assessed a one-time, non-refundable application fee.
- Score 190 or above with no section score below 18 on the computer TOEFL (Test of English as a Foreign Language) or score 520 on the written version.
- 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, and for applicants already in high school, submit documents one month 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 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, or see Registration's web site at www.sinclair.edu.

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, available at the Registration counter, Second Floor, Building 10, or from 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, page 21.

If one of these process steps does not identify the student enrolling at Sinclair, please call Admissions so the process for enrolling can be determined.

Financial Aid applicants must declare a major other than Personal Interest (P.I.), Career Development (C.D.), or undecided (L.S.).

Applicants with disabilities who would like assistance can contact the office of Disability Services, (937) 512-5113, TTY (937) 512-3096.

Post Secondary Enrollment Options Program (PSEO)

Created by Ohio Senate Bill 140, PESO permits high school students to take college classes while still enrolled in high school. Option A allows students to take college classes for college credit and students pay for those classes. Option B allows students to take college classes for both high school and college credit and the school district assumes the costs associated with tuition, fees and books as long as the students are in compliance with the program guidelines.

Interested students must obtain Sinclair PSEO information and the application from their high school guidance counselor. Students must be counseled at the high school about the risks and advantages of the program and sign an "intent to participate in PSEO form" prior to March 30 of each year in order to be eligible for the program during the next academic year. If this deadline is not met, written permission must be obtained from the district superintendent of the school district. In order to be eligible for the PSEO program at Sinclair, high school students must submit the following to Admissions by the first Monday in June to be eligible for the next academic year:

- a completed PSEO application
- a copy of the signed high school form indicating that counseling has occurred
- verification of a 2.5 cumulative grade point average.

Readmission Policy

If a student has been dismissed from Sinclair for academic reasons and wants to be readmitted, he or she must petition for readmission. The **petition 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 wants to enter. Only the division dean and division counselor can make exceptions to this requirement.

- A student who is **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 cannot attend winter quarter, but 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 student must return the completed petition to the appropriate division academic counselor's office and check the quarterly bulletin of the schedule of classes for the petition deadlines.

Petitions for readmission are available in Registration & Student Records, Second Floor, Building 10.

Veterans note:

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

Residency Rules

Residency status of each student is determined during the admissions process 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 **residence in Ohio for 12 months**, 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 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 automatically 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, Second Floor, Building 10. Requests for reclassification and supporting documents must be submitted prior to the end of the first week of classes.

Lowest Fees in the State

Fees (per credit hour)*

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

	Montgomery County Residents	Out-of-state Residents & Other Ohio Residents	International Residents	Other fees	
Students Instructional Fees	\$ 33.35	\$ 33.35	\$ 33.35	Application for Admission	\$ 10.00
Instructional Surcharge		\$ 23.30		Late Registration Fee	\$ 20.00
Tuition Surcharge			\$ 62.50	Graduation: Degree	\$ 10.00
General Fee	\$ 3.50	\$ 3.50	\$ 3.50	Certificate	\$ 5.00
Total (Per Credit Hour)	\$ 36.85	\$ 60.15	\$ 99.35*	Transcripts (each)	\$ 2.00
				Transcripts (same day service)	\$ 7.00
				Returned Check (penalty per check)	\$ 10.00
				Laboratory fees determined for individual classes.	

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

Payment of Fees

Payment of fees is due at the Bursar's office by the payment deadline date published in each quarterly bulletin.

- Make checks payable to **Sinclair Community College**. The student's Social Security Number should be written on the face of the check to ensure proper credit.
- Make VISA and MasterCard payments at the cashier's window or through the telephone registration system, (937) 512-5454, following the voice instructions.

Use one of the following options to check 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.

If a check is returned for any reason, the student must pay a \$10.00 processing fee plus any collection costs. Cancellation of registration will result from any unsettled bad checks, and the student will remain liable for all charges, 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

To receive a refund of fees, students must file the appropriate drop/add/withdraw form in the office of Registration & Student Records within the refund period, which is published in each quarterly class schedule.

If a student withdraws by the **eighth calendar day** (including Saturday and Sunday) of fall, winter, or spring quarter, 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 full-length term quarter dates. For information, contact **Registration & Student Records**, second floor, Building 10, (937) 512-3000.

If a student withdraws **after the eighth 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 to the Bursar's office, Second Floor, Building 10.

If Sinclair Community College cancels the student's class, 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.

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.

Assessment Intake Center

Find Your Place

Building 10, Fourth Floor Lobby

Assessment Intake assists new students with the enrollment process, including placement testing, scheduling new student orientation and an appointment with a counselor who will assist with choosing first quarter classes.

Placement testing is done on a drop-in basis—no appointment needed. **Those who are 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 the test. Students are only permitted to take the test twice, and there is a \$5.00 fee for the second test.

Testing hours are:

Monday-Thursday 8:00 a.m.-6:30 p.m.

Friday 8:00 a.m.-3:30 p.m.

Saturday 9:00 a.m.-2:00 p.m. (except summer)

Please allow approximately three hours to complete the tests. Holiday office hours vary.

Individualized Learning Plan (ILP)

New degree or certificate seeking students will be assigned to a counseling office when they come to the Assessment Intake Center at Sinclair Community College. Based on needs, some students will be offered the opportunity to develop an Individualized Learning Plan (ILP) with a Student Success Services counselor. An Individualized Learning Plan will serve as a new student's personal guide to educational success by assisting the student in:

- Choosing a college major or career goal
- Developing a plan to pay for education
- Identifying resources and services that will be beneficial
- Selecting and register for classes

Students who participate in this process their first quarter will have a customized success plan generated and a support system for completion of their educational goals.

The Tartan Card

Student I.D. Card

The Tartan Card, proof of student status, is required to use college services, or participate in college sponsored activities. The card electronically stores information about the student's enrollment status. Card readers located throughout campus scan the information and provide access for such transactions as checking out materials in the LRC, using the PAC, and parking facilities. Money put on the student account via the Tartan Card can also pay for various campus services such as books, food, parking and copier use—so the student doesn't have to carry cash. **Money can be put on cards at various transfer stations (Building 3, 7, 8, 10, 11, 13).**

To get the first Tartan Card at no charge, present a fee bill and another photo I.D. to Registration & Student Records, second floor, Building 10. The Tartan Card does not expire, but if the card is lost or stolen, there is a fee for replacement. Through the card, enrollment information is automatically downloaded within 24 hours after registering for classes.

Tartan Card Advantages

- Pay 50 cents parking with the Tartan Card (per parking in/out transaction)
- 5% discount on all food purchases
- 10% discount on selected gifts at Tartan Campus Store
- 50% discount on photocopies in LRC





***“I chose Sinclair because I wanted to start at a two-year college then transfer to a four-year university. Plus, I heard Sinclair has an outstanding Early Childhood Education program. I also like the fact that tuition is low and very affordable.*”**

Registration Information

www.sinclair.edu

About the Schedule/Bulletin

Find complete information about how to register for classes, including drop/add, audit and withdrawal each quarter in the most current issue of the Sinclair quarterly class schedule/bulletin.

About a week before registration begins, the schedule of classes/class bulletins are distributed. Get one at the office of Admissions, Room 10112 and other campus locations, 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.

Register by Phone

Just call (937) 512-5454, to register, add and drop courses, review class schedules and pay fees. Have the Tartan Card number or Social Security Number and a Personal Identification Number (PIN) ready to access telephone registration. Unless the student has changed his or her PIN, it is the last four digits of their Social Security Number. 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) 512-3000, TDD 512-2187

The office of Registration & Student Records:

- Handles student records, registration activities, transcripts, diplomas, I.D. cards.
- Reviews student eligibility for any number of awards such as scholarships, graduation honors, the Dean's List and degrees.
- Handles student personal information changes, like change of address, residency, name and so on.

Auditing a Course

To audit a course means students may attend class, are not required to take exams, and do not receive a grade or credit. Audit status must be indicated on the registration card or drop/add form by marking an "A" in the audit column.

The fee for auditing is the same as that for enrolling for credit. 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.

Audit status cannot be changed to credit status nor can credit status be changed to audit status once registration has been completed.

Registration and/or adds for audit status will be accepted only during designated late registration periods and before the first meeting of a class.

Dropping Courses or Withdrawing from the College

In order to drop a class or to withdraw from all classes, the drop/add/withdraw form must be processed in the office of Registration & Student Records or by utilizing the automated telephone registration system (TREG), (937) 512-5454. Failure to process the form means the student will receive a grade, usually an "F," in the class. A student may withdraw from 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.

Students withdrawing from class(es) will need to talk with a counselor in Sinclair Central (Room 10242) or their academic counselor before they can withdraw from the class(es). This intervention is to ensure students withdrawing from class(es) are making an informed decision, understanding both the financial aid and academic ramifications of the decision to withdraw from a class.

Note: students who have discussed withdrawing from a course with their academic counselor can have the drop/withdrawal form signed by that counselor.

Summer quarter, which consists of multiple terms, has deadlines for each term which are printed in the summer quarter schedule/bulletin. 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) 512-3000 or by calling Sinclair's automated telephone registration system (TREG), (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.

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

To get official transcripts of academic work completed at Sinclair:

- Complete the transcript request form in Building 10, Second Floor, or
- Send a written request to the office of Registration & Student Records, or
- Fax or mail the transcript request form found on the web page.

Students need their Social Security Number, birth date, the term last attended Sinclair, legal signature, daytime telephone number, and payment.

The cost is \$2.00 per mailed transcript. Same day counter service is available for a fee of \$7.00.

Changing Sections of a Course

After the drop/add period and through the last day for withdrawal with a “W” grade, students can ask permission to change to any open section of the same course. Acceptable reasons for changing sections may include class conflict with work schedule, child care, transportation or health issues. Students may be required to show documentation to support their request, and must include verification of attendance, along with written authorization from the academic dean on the drop/add form.

Repeating a Course

Students can repeat a course for any reason. In most cases, when a course is repeated, the most recent grade and credit hours are used in calculating the GPA [The second grade is used in calculating the cumulative grade point average (GPA) in place of the original grade, and so on.]

All grades remain on the transcript even if they are not counted in the cumulative GPA.

However, some courses are counted in the cumulative GPA each time they are taken, and the original grade is not replaced by the subsequent one. Such courses are designated in the course descriptions with an “R.” To have a previous grade in such a course replaced by a later grade, a student must make special arrangements with the department chairperson.

Veterans and other students who receive financial assistance from an outside agency should check for any agency rules that do not permit payment for courses which are taken more than once.

Prerequisites

A prerequisite is a course students have to complete before registering for a more advanced course. Students need to complete course prerequisites in order to have their registration processed for credit or for audit status. Prerequisites are indicated in the course descriptions located in the back of this catalog/bulletin.

To substitute courses completed at another institution for Sinclair prerequisites, students need to have transcripts sent from the previous institution to the Sinclair Registration & Student Records office for evaluation by their academic counselor/faculty advisor.

Changing Personal Data

To change a name, address, or Social Security number, students must complete a change form in Registration & Student Records, Second Floor, Building 10. Veterans have to report the change to the Veterans office, Room 10324.

A change of address does not automatically change residency for fee purposes. For that, students need to file a separate application for a change of residency and proof of eligibility.

Student Classification

First and Second Year

Want to know where you stand? The following definitions can help you gauge your pace.

- **Full-time student:** carries 12 or more credit hours per quarter.
- **Part-time student:** carries 11 credit hours or less per quarter.
- **First-year student:** one who is registered in a specific program and has earned 45 quarter hours or less of credit, including transfer credit.
- **Second-year student:** one who is registered in a specific program and has earned at least 46 quarter hours of credit, including transfer credit, but not a degree.
- **Credit hours:** in general, number of hours a student is in class per week and that are “credited” toward academic goals.

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.

Late Registration & Change of Schedule

- **Register for open classes during late registration**—the week before fall, winter and spring quarters and the two days before summer terms.
- **After the official late registration period concludes:**
 - 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 won’t be permitted to register for that class without permission from the division dean.
 - Students enrolled in a cancelled class who want to change to a new class or section that has already met, must have the division dean sign them into that class with written permission on the drop/add form. To transfer to classes or sections that have not yet met, written permission is not needed.
 - 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 or before the first class meeting.
- **Off-campus registrations** will be processed with the approval of the dean of Distance Learning.
- **After the drop/add period and through the last day for withdrawal with “W” grade**, students can switch to any open section of the same course, for acceptable reasons—including class conflicts with a change in their work schedule change, child care, transportation or health. Include verification of attendance and obtain written authorization from the dean on the drop/add form. They may also have to show documentation to support the request.
- 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.

Financial Aid & Scholarships

www.sinclair.edu



Start your
Sinclair
experience
today!

Overview

The Financial Aid & Scholarships office at Sinclair Community College provides financial assistance to the student whose financial resources are insufficient to meet educational costs. 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 costs and the amount the family is able to pay. Awards are made on a non-discriminatory basis.

It's Easy to Apply

How and When Can a Student Apply?

Federal Pell Grant/Federal SEOG/ Federal Work Study

1. Complete the Free Application for Federal Student Aid (FAFSA) and use the Federal School Code 003119;
2. Use FAFSA on the web (<http://www.fafsa.ed.gov>) or mail the FAFSA in the envelope provided.
3. Complete the Sinclair Financial Aid & Scholarships Office Application.

Federal Direct Stafford Loan and Federal Direct Plus

1. Complete the Free Application for Federal Student Aid (FAFSA) and use the Federal School Code for Sinclair 003119;
2. Use FAFSA on the web (<http://www.fafsa.ed.gov>) or mail in the envelope provided.
3. Complete the Loan Application Form; and
4. Complete the Sinclair Financial Aid & Scholarships Office Application.

How does a student show Selective Service compliance?

If required, the student must submit a copy of the selective service registration number and card. The selective service number can be obtained by calling 1-847-688-6888. Selective service registration can be done at (<http://www.sss.gov>) or in the Career Planning & Placement Center, Room 10315.

How is the accuracy of financial information checked?

A student who applies for federal student aid and is selected for verification of information by the Department of Education or the institution must submit certain written documents to confirm the information on the application. These documents may include, but are not limited to, a copy of the student, spouse and/or the parent's federal tax form for the previous year; a statement that no tax return was or will be filed, written verification of non-taxable income, a verification form, or other documents as may be determined to be needed by the Financial Aid & Scholarships office, Building 10, Room 10343.

Student Eligibility

Who Is Eligible for Federal Financial Aid?

In general, a student who applies for federal financial aid must meet the requirements listed below. See specific programs for additional requirements. These requirements apply to Federal Pell Grants, Federal SEOG, Federal Work Study, Federal Direct Stafford Loan, and Federal Direct PLUS.

1. Register and/or be accepted for enrollment in an eligible program of study.
2. Maintain satisfactory academic progress.
3. Be enrolled in a degree or approved certificate program.
4. Be enrolled for at least six credit hours (for some federal programs).
5. Be a U.S. citizen or eligible non-citizen.
6. Not be in default on any loan or owe an over payment under any Title IV program.
7. Demonstrate need through an approved need analysis system.
8. Have complied with current selective service registration regulations.
9. Sign a statement of educational purpose.
10. Not have a bachelor's or more advanced degree (for Federal Pell and Federal SEOG only).
11. Have a GED or high school diploma or meet Ability to Benefit guidelines.

Can a student receive financial aid without a GED or high school diploma?

Students who are admitted to Sinclair and who do not have a GED/high school diploma may receive federal financial aid providing they meet the following requirement:

1. Complete the skills assessment test and achieve predetermined passing scores in reading, writing and numerical sections.
2. Students who do not meet the requirement stated above must obtain the GED (submit a copy of the GED certificate to the Financial Aid & Scholarships office) before receiving federal financial aid.

Who Is Eligible for the Ohio Instructional Grant?

This program is funded by the state of Ohio. To be eligible a student must meet the following requirements:

Full-Time OIG

1. Independent—Student must be a resident of the state of Ohio.
2. Dependent—Student and parent must be a resident of the state of Ohio.
3. Enroll for a minimum of 12 credit hours each quarter.
4. Enroll in an associate degree program (certificate program students are ineligible for the OIG).
5. Not have a bachelor's or more advanced degree.
6. Have complied with current selective service registration regulations.
7. Be a U.S. citizen or eligible non-citizen.

Part-Time OIG

1. Independent — Student must be a resident of the state of Ohio.
2. Dependent — Student and parent must be a resident of the state of Ohio.
3. Enroll for 11 credit hours or less.
4. Enroll in an associate degree program (certificate program students are ineligible for the OIG).
5. Not have a bachelor's or more advanced degree.
6. Have complied with current selective service registration regulations.
7. Must demonstrate unmet financial need as determined by completing the FAFSA.
8. Be a U.S. citizen or eligible non-citizen.

Types of Financial Aid Available

There are generally three types of financial aid available to students. They are as follows:

1. **Grants and Scholarships**—non-repayable forms of aid
2. **Work**—positions where students work on campus
3. **Loans**—monies that must be repaid to the federal government.

Grants

Grants are given with no repayment expected.

Federal Pell Grant

The Federal Pell Grant is funded by the federal government.

- Student must carry twelve or more credit hours per quarter to receive the full amount of the award. However, eligible part-time students may receive part-time Pell awards.
- One credit hour to eleven credit hours may receive a proportionately reduced award.
- In some cases a student enrolled for one credit hour may not receive a Federal Pell Grant.

Ohio Instructional Grant (OIG)

This program is funded by the state of Ohio.

- Ohio residents are eligible to apply.
- Must carry at least 12 credit hours per quarter.
- OIG 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 Instructional Grant (OIG)

This program is funded by the State of Ohio.

- Only Ohio residents are eligible to apply.
- Must be enrolled for 11 credit hours or less.
- May be used only for instructional and general fees.
- Must demonstrate unmet financial need as determined by completing the FAFSA.
- **Must submit a fee bill on a quarterly basis to the Financial Aid & Scholarships office.**

Federal Supplemental Educational Opportunity Grant (FSEOG)

The Federal SEOG is provided to assist a student who has an exceptional financial need.

- Maximum amount is \$4,000.
- May be much less than the authorized maximum.
- A typical award will range from \$300 to \$1,000 per academic year.

Work

Federal Work-Study Program (FWS)

The Federal Work-Study Program provides opportunities for part-time employment either on or off campus for the purpose of gaining valuable work experience and to earn extra money to help meet educational expenses.

The eligible student is referred to available positions by the Career Planning & Placement Center. Job assignments can be in a variety of areas such as clerical, media services, student activities or community outreach.

Hours worked per week vary with each position. Hourly rates begin at minimum wage but may be increased with experience or according to the requirements of the position.

Regular Student Employment

The purpose of regular student employment is to assist the student in securing part-time employment at on-campus locations. Unlike the FWS program, the student does not have to demonstrate financial need.

Hourly rates begin at minimum wage but may be increased with experience or according to the requirements of the position. To be eligible for Regular Student Employment, a student must be currently enrolled at Sinclair. No financial aid application is necessary. A student employment bulletin board is located in the Career Planning & Placement Center, Building 10, Room 10315.

Loans

The Federal Direct Stafford Loan (subsidized and unsubsidized), and the Federal Direct Parent Loan for Undergraduate Students (FPLUS) all come under the umbrella of Direct Loans. Although a student applies through his or her institution, Direct Loans are administered by the Department of Education. An applicant must meet eligibility requirements explained elsewhere in the financial aid information.

All recipients of Federal Direct Stafford Loans must participate in an entrance counseling session before loan checks are issued. Also an exit interview is required prior to leaving Sinclair or graduating.

Federal Direct Stafford Loan Program

The Federal Direct Stafford Loan Program is designed to assist a student with educational expenses by offering 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 at least half-time (six credit hours). The interest rate is variable, but is capped at 8.25%.

The interest for the Federal Direct Stafford 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 a Federal Direct Stafford Unsubsidized Loan is paid by the borrower while still in school, or interest can be capitalized and added to the loan balance when the borrower enters repayment.

What is entrance and exit loan counseling?

Student loan borrowers must complete an online entrance counseling session before an initial loan disbursement can be made. The counseling session includes information on the rights and responsibilities of the borrower, repayment options and terms and conditions of the loan.

Loan exit counseling occurs immediately after graduation or when the student withdraws from school or ceases to be enrolled on at least a half-time basis. Students must complete an exit counseling form that updates information on address, references and driver's license number. In addition, student borrowers are provided with information regarding total loans borrowed, interest rates and guarantee agency information. Both loan entrance and exit counseling are required by federal regulation.

Sinclair Scholarships

Sinclair Foundation Scholarships

The Financial Aid & Scholarships office awards more than \$800,000 in scholarships annually to new students and to returning Sinclair Community College students. These scholarships are awarded for various criteria: financial need, academic performance, or a specific major. Scholarships are awarded to both full-time and part-time students.

Scholarships open approximately the third week of each quarter and are awarded the following quarter with the exception of the spring scholarships which are awarded the following fall quarter. There is one application which is available in the Financial Aid & Scholarships office. Find out more in the Financial Aid & Scholarships booklet.

External Scholarships

Several scholarships are awarded by agencies and clubs and organizations outside of Sinclair. A student is encouraged to periodically check the Scholarship Bulletin Board outside the Financial Aid & Scholarships office for additional information.

Athletics

The Physical Education department controls all athletic scholarship awards. Decisions and scholarship offers are made by individual coaches and endorsed by the appropriate athletic director. The office of Financial Aid & Scholarships is notified to credit an award to the student's account. Any changes made to athletic awards must be received, in writing, from the physical education director.

State Scholarships

Ohio War Orphans

The Ohio War Orphans Board awards scholarships to the children of disabled or deceased war veterans. The scholarship will cover the instructional and general fees at public institutions or partial instructional and general fees at private institutions in Ohio. Students must be enrolled full time. For additional information, contact the Ohio War Orphans Board of the Ohio Board of Regents.

Ohio Academic Scholarship

The Ohio Board of Regents awards 1,000 four-year scholarships up to \$2,000 each to high school graduates based on their high school academic records and ACT test. At least one scholarship is awarded to a student with the highest score in each high school. Students should apply for the scholarship through their high school guidance counselor. Students must be enrolled full time.

Ohio National Guard

The Ohio National Guard will pay 100% of in-county and out-of-county institutional and general fees for its members who are enrolled at Ohio public institutions for at least six credit hours. Please note that for students at Sinclair, the out-of-state surcharge is not paid by Ohio National Guard. Further information may be obtained by contacting the local Ohio National Guard Armory.

Financial Aid Eligibility

Who Decides How Much Financial Aid Students Get?

Federal and State regulations determine the amounts of Federal Pell Grant and Ohio Instructional Grant.

The U.S. Department of Education guidelines, in cooperation with the Financial Aid & Scholarships office, determine eligibility for Federal SEOG, Federal Work Study and student loans based on the student's financial need.

"Need" is determined by this formula:

Cost of attendance	(Includes tuition, fees, books, supplies, transportation and maintenance)
Minus expected family contribution	(Information from the FAFSA after it has been processed)
Equals need	(The amount of financial assistance students need to attend school.)

What decides eligibility for financial aid?

Financial need is determined by an analysis of the family's previous year's income, assets, number of family members and number of family members in college. This analysis results in an amount the family is expected to contribute for education (expected family contribution).

How is loan eligibility determined?

When the student completes all applications the eligibility is determined as noted above. The data is then transmitted electronically to the Department of Education and the student receives a promissory note from the office of Financial Aid & Scholarships.

Cost of Attendance & Budgets

Once a student's family contribution is determined, it is subtracted from the "cost of attendance" or "budget" to determine the student's need.

Student budgets are based upon dependency status. At the federal level, there are two types of students:

1. Dependent
2. Independent

Dependent vs. independent status—what does it mean?

For Federal Pell Grant, Federal SEOG, Federal Work Study, Federal Direct Stafford Loan, PLUS and OIG. Independent students for programs listed above are ones who meet one of the following criteria.

1. Individual who is at least 24 years old according to FAFSA instructions.
2. Orphan or ward of the court.
3. Veteran of the Armed Forces of the United States.
4. Individual with legal dependents other than a spouse.
5. Graduate or professional student.
6. Student is married.

Listed below are two examples of student budgets used at Sinclair. However, please note that for federal purposes the budget is composed of all components (living expenses, tuition, books, etc.) that would be typical of a student. However, the only expenses that are not part of everyday living and that students are already paying for are tuition, books and transportation. College may not be as expensive as one thinks.

Here are two examples of budgets at Sinclair Community College (these may change annually):

BUDGET A	<i>Dependent</i>	In-County 9 months
Tuition, Fees and Lab Fees		\$ 1,327
Books and Supplies		870
Transportation		522
Room and Board		2,084
Personal and Other		1,021
TOTAL		\$5,824

BUDGET B	<i>Independent</i>	In-County 9 months
Tuition, Fees and Lab Fees		\$ 1,327
Books and Supplies		870
Transportation		522
Room and Board		4,168
Personal and Other		1,021
TOTAL		\$7,908

Tuition is based on an average registration of 12 credit hours per quarter. Out-of-county students add \$839 and out-of-state students add \$2,250 to the total costs listed above.

How Does the College Decide Which Funds Students Can Receive?

What is a financial aid "package"?

The financial aid "package" is an offer of one or more types of financial aid to help a student meet educational costs. Sources of financial assistance which meet need:

- Federal Pell Grant and/or
- Ohio Instructional Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work-Study (FWS)
- Other Scholarships, Federal Direct Subsidized Stafford Loan, etc.

Total financial aid received cannot be more than the amount of the "need."

How will students know how much financial aid they are getting?

If students are eligible for financial aid, they will receive a Financial Aid Award Notification Letter. This letter tells:

1. Type(s) of award(s) students will receive.
2. Amount(s) available per quarter.
3. Terms and conditions student agrees to meet while receiving financial aid.

The students should read the letter carefully.

Federal Direct Stafford Loans and Federal Direct PLUS Loans are treated differently. The students receive notification that the loan has been approved on a "Disclosure Notice" from the agency working in cooperation with the Department of Education.

How Do Students Actually Receive the Monies Awarded to Them?

How do students with financial aid award letters get the funds?

- **Paying fees:** Financial aid will be credited to the student's account when he or she has registered. Federal funds will appear on the fee bill no earlier than 10 days before the quarter begins. Caution: If the award is not enough to pay the total fees due, the student must pay the balance or his or her registration will be canceled. Financial aid will not pay for audited classes
- **Buying books:** After tuition and fees are paid, if students have more financial aid available for the quarter, a book charge of up to \$400 will be displayed on the fee bill. Students should take the fee bill to the Sinclair Tartan Campus Store where they can charge books and supplies. They must bring a valid Tartan Card.
Note: Book charge dates vary each quarter. Check fee bill for dates. If the book needed is not in stock at the time the book charge can be used, students should ask the bookstore staff for a credit slip so that they can charge the book during the correct 20-day period, and then pick up the book at a later date.
- **Receiving the remaining balance:** After financial aid pays the tuition, fees and books, there is sometimes money left over which will be given to students in the form of a check. Any students with a financial aid refund will be mailed a check to their home address after the 14th day of the quarter. Students are responsible for maintaining a current address with the office of Registration & Student Records.

How are student loan checks disbursed?

Generally, student loan checks are disbursed on the 14th day of classes each term by the Bursar's office, (937) 512-3000, and will be mailed to the student's home address. **EXCEPTION:** The first check for the first quarter for first-time Federal Stafford Loan borrowers will be disbursed 31 days after the loan period begins. Federal, PLUS loan checks are disbursed as soon as all loan paperwork is processed and enrollment is verified. One quarter loans are disbursed in two disbursements.

Deadlines For Financial Aid

Sinclair has established MAY 1 as the annual deadline for its financial aid priority deadlines. Students who apply for financial aid by May 1 each year have the best chance of receiving a financial aid award for the next academic award year.

Quarterly Processing Priority Deadlines

Students who have not completed their annual application by the annual priority deadline may still apply for financial aid after that time. Sinclair has established quarterly deadlines which are the deadlines for each quarter wherein if the application process is completed by that deadline and the student is eligible for financial aid, the college guarantees completion of all processing by the fee payment deadline.

The quarterly deadlines are as follows:

Summer	May 1
Fall	August 1
Winter	November 15
Spring	February 15

Important Note:

Students who have not completed their financial aid applications by these deadlines may still be eligible to receive financial aid.

However, students will be required to initially pay their own fees and may be reimbursed, up to their eligibility limits, once the financial aid application is completed.

Students may be reimbursed Pell Grant funds for prior terms if they continue to meet enrollment and eligibility requirements. A Financial Aid & Scholarships counselor may be able to give additional information about reimbursement for a prior term Pell Grant within the same academic year.

Student Enrollment Status & Financial Aid Awards

Students are awarded aid based on their enrollment status (full time, three-quarter time, half time, etc.). Therefore, it is important for students to understand the importance of enrollment status on the awards they receive.

How will financial aid be affected if classes are dropped?

During the 100% refund period a student's financial aid awards 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 bookstore, students must pay the balance due and/or return the books to the bookstore by any established payment deadline.

After the 100% refund period, adjustments may be made to financial aid refund (living expense) check if the student withdraws completely.

Please remember, if students drop or withdraw from classes after the refund period, they are still responsible for meeting Standards of Satisfactory Progress.

What happens to financial aid if a student withdraws completely from classes?

The Sinclair students receiving federal aid who withdraw from all classes prior to completing 60% of the enrolled class time, will be subject to a return of Title IV funds refund calculation.

As part of the refund policy, the institution will credit refunds in the following order:

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

For students who CEASE ATTENDING all classes, as determined by class attendance, refunds will be calculated according to the same guidelines. If a student fails to attend one or more of their classes, their financial aid may be reduced or removed.

Critically Important

Students who withdraw from all classes and owe refunds will be placed on an academic restriction which prohibits them from registering for future classes until they repay those funds.

Are There Academic Requirements for Maintaining Financial Aid?

Probation Status For Students Not Maintaining Satisfactory Progress

If it has been determined that students do not meet Standards of Satisfactory Progress, 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 they 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 they 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 have their federal financial aid terminated.

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 GPA requirement

- Students not meeting the minimum cumulative GPA requirement of 2.0 will be given one quarter of probation with financial aid to achieve the minimum GPA for that quarter.

Regaining Eligibility

Students may be reinstated for federal financial assistance after one or more of the following:

1. Approval of an appeal by the Financial Aid & Scholarships office or
2. Successfully completing the deficiencies at student's own expense. **Students must notify the Financial Aid & Scholarships office when they believe they are eligible for reinstatement.**

Student Rights

- Student financial aid records are protected under the Family Educational Rights and Privacy Act (FERPA). **Therefore, no information can be provided to any person without the expressed written permission of the student.**

- Student has the right to know what financial aid programs are available at Sinclair Community College.
- Student has the right to know the deadlines for submitting applications for each of the financial aid programs available.
- Student has the right to know how financial aid will be distributed, how decisions on that distribution are made, and the basis for these decisions.
- Student has the right to know how financial need was determined. This includes how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc., are considered in the budget.
- Student has the right to know what resources (such as parental contribution, other financial aid, assets, etc.) were considered in the calculation of the need.
- Student has the right to request an explanation of the various programs in the student aid package.
- Student has the right to know the college's refund policy and how it affects the financial aid package.
- Student has the right to know what portion of the financial aid he or she receives must be repaid, and what portion is grant aid. If the aid is a loan, he or she has the right to know what the interest rate is, the total amount that must be repaid, the payback procedures, length of time to repay the loan, and when repayment is to begin.
- Student has the right to know how the college determines whether or not he or she is making satisfactory progress, and what happens if he or she is not.

What if a student needs financial aid for the summer quarter?

Federal Pell Grant, Ohio Instructional Grants (OIG's) and loans may be used for summer educational costs. Federal Pell Grant may be used for tuition, fees and books. OIG's can be used for tuition and fees. The applicants should complete the FAFSA no later than February 15 in order to receive any grants or loans for the summer quarter.

The Federal Pell Grant is limited to three quarters per academic year. Therefore, if the grants are used for summer, students have two quarters left in the academic year in which to use the grant. The OIG can be used for four quarters depending on eligibility. Students using grants for Summer quarter should inform the Financial Aid & Scholarships office by completing a separate summer application.

What if one of the classes is canceled?

A 100% refund of fees is given if a class is canceled. Because of this, financial aid will be reduced accordingly. In order not to risk a reduction in financial aid and possibly owing a balance, it is the student's responsibility to add classes that will bring him or her up to the required minimum hours.

What happens if the fees are paid and a student receives a grant later?

If a Federal Pell Grant is received after tuition and fees are paid for the term(s), it is possible to be paid retroactively providing a student is enrolled and is eligible at the time the Pell Grant is submitted to the Financial Aid & Scholarships office. A retroactive award is based on the number of credit hours the students have actually completed during a given term. If students withdrew from all classes or are not currently enrolled, they are not eligible to receive a retroactive award.

Enrollment Status & Developmental Course Work

Does financial aid pay for DEV classes?

Financial aid can pay up to 45 credit hours in Developmental tuition costs. Once students have 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 students have attempted 45 credit hours of Developmental course work, their federal aid will cover only non-Developmental course work.

Satisfactory Progress

Students are expected to meet **Standards of Satisfactory Progress** while working toward a degree, certificate or transfer credits. The Financial Aid & Scholarships office 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, Federal SEOG, Federal Work-Study, Federal Direct Stafford 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. Sinclair's Fresh Start has no bearing on standards of satisfactory progress.

Credit Hour Requirement

Students must have completed at least 75% of the credit hours for which they have registered since the first quarter of enrollment at Sinclair regardless of whether he or she received financial aid.

Grade Point Requirements

A student is required to maintain a 2.0 GPA. Grades of A, B, C, D, Y and S will be considered as credit hours successfully completed. Grades of W, F, I, IP and Z will be considered as credit hours not successfully completed.

Satisfactory progress is composed of standards detailed below:

Notification of Ineligibility and the Appeal Process—

- 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 an appeal for that quarter and include an Appeal Form.
- Students may appeal the termination of their federal financial aid if they feel they have extenuating circumstances that kept them from meeting standards of satisfactory progress. These extenuating circumstances must be documented and submitted with the appeal. The appeal and documentation will be reviewed, along with the student's transcript, by the
- The student will be notified by letter of the decision by the Appeals Committee which is final.

Maximum Timeframe to Receive Financial Aid

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.

Note: Hours transferred from other institutions that count toward current program requirements will be added to total hours attempted. Students must meet with an academic counselor to determine which hours will count for Sinclair program requirements; otherwise all transfer hours will be counted as hours attempted.

Sinclair Scholarships

Assisting talented students through scholarship opportunities enables Sinclair Community College to maintain and enhance the quality and diversity of its student body.

Students are encouraged to apply for as many different sources of financial aid as possible in order to pay for their college education.

The Sinclair Community College Foundation annually funds scholarships through endowment earnings and cash gifts to the college. Scholarships are available to currently enrolled Sinclair students, graduating high school seniors, and adults entering college for the first time. Many are not based on financial need but consider other criteria such as field of study, academic achievement, creativity, leadership or community service.

Completed application forms are accepted by the office of Financial Aid & Scholarships only during the advertised application period. Some scholarships will require additional supporting materials. Always consult the specific application for complete requirements.

The selection process takes time. However, each student applying for a scholarship will receive written notification of selection or non-selection as soon as a decision is made.

Students are always encouraged to consult the bulletin board just outside Room 10343 for all current scholarship opportunities including, local, state and national organizations not affiliated directly with Sinclair Community College or the Sinclair Foundation.

Institutional Scholarships

See Financial Aid & Scholarships booklet for the latest Institutional Scholarship opportunities.

Scholarships will be awarded on a first-come, first-served fund available basis. Most awards cover the entire academic year. Exceptions will be noted under the specific scholarship information.

Scholarship awards will be prorated according to registration status. To be maintained, students must continue to meet GPA requirements as well as complete 75% of the courses registered for in any given term.

Priority will be given to students demonstrating no federal or state grant eligibility. Exceptions may be made for those students receiving small grant amounts.

Tips on Competing for Scholarships

1. **Go after them.** You will never know until you try. Watch the scholarship bulletin board, read *The Clarion*, check the library for information and sources.
2. **Apply for as many scholarships as possible.** For the most part you can have as many scholarships as you can earn. But remember you are not going to receive everything for which you apply.
3. **Apply for the scholarship that matches your achievements and goals.** Remember there are different types of scholarships and you should concentrate your efforts first toward those which suit your qualifications.
4. **Identify what you have done that sets you apart from the other applicants.** Remember the application is your chance to set yourself apart. What have you done that is unusual, interesting, outstanding or different? Have you won contests, or held leadership positions? Tell about them. Spend time on your essay.
5. **Be honest.** Be prepared to live up to your claims. With most scholarships receiving the award is only the first step. You usually must maintain a certain enrollment, GPA, etc., to keep the scholarship.
6. **Appear professional.** Don't wait until the last minute. Read and follow all the directions. Type your application. Remember this is your opportunity to make a positive impression on the selection committee.

How to Apply for Scholarships

Before You Submit the Application

- **Read and follow all directions carefully.**
- **Submit the Free Application for Federal Student Aid (www.FAFSA.org) and Financial Aid & Scholarships Office Application if not already on file in the Financial Aid office.**
- **All applicants must submit a personal statement.** Include all factors the committee should consider in determining the qualifications for a scholarship.
- **If a specific scholarship announcement requires a personal statement for a particular topic, this statement must be included in addition to the personal statement noted above.**
- **Submit all required documents in one complete packet to:**
Financial Aid & Scholarships
Room 10343
444 West Third Street
Dayton, Ohio 45402-1460

Academic & College Policies

www.sinclair.edu



Get an Education with Muscle!

What good is a degree if you can't put it to work? At Sinclair, students get guarantees of academic excellence that follow them throughout their career, official transfer agreements that help students get the most from their education, anywhere — and a solid core of academic counseling to make sure all transitions are smooth!

On to school or on to work...you'll be prepared—guaranteed!

What happens after graduation? The Sinclair Guarantee of Graduate Quality gives graduates two guarantees they can count on:

- A guarantee of transfer credit for graduates receiving Associate of Arts and Associate of Science degrees at Sinclair Community College, for entering a university parallel/transfer program with confidence
- A guarantee of job competency for those who have obtained an Associate of Applied Science degree at the college and wish to enter a technical career program

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)

Thinking about pursuing a four-year degree? 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 that have articulation agreements with Sinclair Community College.

And, if the articulation agreement contains courses that are not accepted by the college or university, students can take alternate courses at Sinclair, acceptable to the receiving college or university, **tuition free!**

The guarantee applies only to courses included in a written transfer/articulation plan that 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.

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

For details about the guarantee see an academic counselor.

Guarantee for Job Competency

(A.A.S. Degrees)

Graduates looking for a technical job should be sure to tell potential employers that they are Sinclair graduates. Many of them know that Sinclair Community College guarantees to its Associate of Applied Science graduates appropriate technical job skills identified in the program outcomes for a specific degree.

And, if the employer feels the graduate is lacking in technical job skills identified by the program outcomes for the specific degree program, the college will provide the graduate with up to nine (9) tuition free quarter credit hours of additional training by Sinclair Community College, under the conditions of the guarantee policy.

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.

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 related directly to the degree's program outcomes.
- Specify areas of deficiency within six months of the initial employment.
- Develop a written educational plan for retraining the graduate 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

Have questions about a degree program? Wonder if you're suited for the path you've chosen? Relax.

No matter what the field of interest, students have a specialized counselor who understands the inner workings and demands of the personal academic pursuit. Sinclair's division counselors and full-time tenure track faculty in six academic divisions are here to help meet the challenges of college and get the most from an education.

Working as part of a team, the academic counselor will help students understand their program requirements and gauge their ongoing progress toward degree or certificate completion and graduation.

With an in-depth understanding of both division/department courses and degree/certificate programs, a counselor can make the perfect connection 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 use these services. Students with 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."

Begin a Four-Year Degree

Begin a four-year degree by taking advantage of Sinclair's small class sizes, caring faculty, supportive administration and low tuition.

Students can:

- Complete many freshman and sophomore level courses before transferring to a four-year institution.
- Earn a Sinclair associate degree and apply many of those credits toward a four-year bachelor's degree.
- Complete most of the general education requirements by taking courses from the Transfer Module, before transferring to a four-year institution.

Institutional Transfer & the Transfer Module

Ohio has developed a statewide policy to help students move easily from one Ohio college to another—avoiding duplication of course requirements and making it easier to move within Ohio's higher education system. Students can complete most of their general education requirements by taking courses from the Transfer Module before transferring to a four-year institution.

Since independent colleges and universities in Ohio may or may not be participating in this transfer policy, students need to check with the college or university of their choice regarding transfer agreements.

What Is the Transfer Module?

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 students are accepted. They may be required, however, to meet additional general education requirements not included in the Transfer Module.

Perks & Conditions for Transfer Admission

When students meet the requirements of the Transfer Module, they are subject to the following conditions. The policy encourages receiving institutions to:

1. Give preferential consideration for admission to students who complete the Transfer Module and either the Associate of Arts or the Associate of Science degrees. Students will be able to transfer all courses in which they received a passing grade of "D" or better, but they need to have an overall grade point average of 2.0 to be given credit for the Transfer Module.
2. 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. They 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. 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. Students will be able to transfer all courses in which they received a grade of "C" or better.

However, admission to a given institution doesn't guarantee transfer students will be automatically admitted to all majors, minors, or fields of concentration at that institution. And, of course, they'll have the same regulations, and appropriate class standing as native students. They also need to meet residency requirements at the receiving institution before getting their degree.

Completing the Transfer Module

When completing the Transfer Module at Sinclair prior to transferring to a four-year institution, students are guaranteed completion of the Transfer Module requirements at any state college or university in the state of Ohio.

To finish the requirements for the Transfer Module at Sinclair, students have to 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—depending on their major and transfer institution — to take to complete the Transfer Module.

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

English Composition

(9 quarter hours)

ENG	111	(3)
ENG	112	(3)
ENG	113	(3)

Mathematics

(minimum of 3 quarter hours)

MAT	108	(3)
MAT	116	(5)
MAT	117	(4)
MAT	122	(4)
MAT	151	(3)
MAT	201	(5)
MAT	202	(5)
MAT	203	(5)
MAT	204	(5)
MAT	215	(5)
MAT	216	(4)
MAT	218	(5)

Natural & Physical Sciences

(minimum of 12 quarter hours)

3 courses from one sequence

AST	101	(4)
AST	111/117	(4)
AST	112/118	(4)
AST	113/119	(4)
BIO	111/117	(4)
BIO	112/118	(4)
BIO	113/119	(4)
BIO	171/177	(5)
BIO	172/178	(5)
BIO	173/179	(5)
BIO	205/206	(4)
BIO	225/226	(4)
BIO	235/236	(4)
CHE	141/147	(4)
CHE	142/148	(4)
CHE	143/149	(4)
CHE	151/157	(5)
CHE	152/158	(5)
CHE	153/159	(5)
CHE	201/207	(5)
CHE	202/208	(5)
CHE	203/209	(5)
GLG	141/147	(4)
GLG	142/148	(4)
GLG	143/149	(4)
GLG	144	(4)
PHY	100/110	(4)
PHY	104/119	(4)
PHY	141	(4)
PHY	142	(4)
PHY	143	(4)
PHY	201	(5)
PHY	202	(5)
PHY	203	(5)

Social & Behavioral Sciences

(minimum of 9 quarter hours from

at least two areas)

ECO	201	(3)
ECO	202	(3)
ECO	203	(3)
GEO	101	(4)
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	223	(4)
PSY	225	(4)
PSY	228	(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)
SOC	226	(3)

Arts & Humanities

(minimum of 9 quarter 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)
HIS	112	(3)
HIS	113	(3)
HIS	214	(3)
HIS	215	(3)
HIS	216	(3)
HIS	217	(3)
HIS	218	(3)
HUM	125	(3)
HUM	130	(3)
HUM	131	(3)
HUM	135	(3)
HUM	255	(3)
LIT	201	(3)
LIT	202	(3)
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)
MUS	132	(3)
MUS	133	(3)
PHI	204	(3)
PHI	205	(3)
PHI	206	(3)
REL	111	(3)
REL	112	(3)
REL	135	(3)
REL	204	(3)
THE	105	(3)
THE	201	(3)
THE	202	(3)
THE	203	(3)

Getting Credit at Other Colleges Articulation Agreements

Articulation agreements are formal agreements between organizations detailing the recognition of college credit between those organizations. Sinclair uses articulation agreements as a means to avoid duplication of resources and to encourage and enhance students' interest in post secondary 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** with secondary schools, hospitals and professional organizations 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** with other colleges and universities indicate 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
 - Antioch McGregor University
 - Art Academy of Cincinnati
 - Bellevue University
 - Bowling Green State University
 - Capital University
 - Central State University
 - College of Mt. St. Joseph
 - DeVry Institute of Technology
 - Ferris State University
 - Governors State University
 - Indiana State University
 - Kettering University
 - 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 a partner school.

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

Policies:

- Students must have applied for admission, been accepted, and paid the appropriate fee before any credits earned through articulation agreements can be recorded on their record.
- Pay an administrative fee for each articulation agreement they processed.
- Provide documentation of successful completion of requirements per the agreement. Each department is responsible for determining appropriate documentation.
- Obtain departmental approval before the information will be recorded on their transcript by the office of Registration & Student Records.
- The course(s) will be recorded on their transcript with a "Y" grade.

- Students can apply no more than 45 credit hours earned through proficiency examinations or articulation agreements toward their degree requirements.
- Credits earned via an articulation agreement do not apply toward the college residency requirements.

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

To make sure that Sinclair credits transfer efficiently to another institution (referred to here as “transfer institution”), follow these steps:

1. Meet with the appropriate Sinclair academic counselor/faculty advisor AND speak with a representative at the transfer institution, early and often during an academic career. This will help ensure that the student is selecting the appropriate courses.
2. Follow the transfer admissions procedures for that institution.
3. Have official Sinclair transcripts sent to the transfer institution, and follow up to ensure that they have received and evaluated the transfer credits.

Remember:

- Students should **speak with an academic counselor/ faculty advisor early in the academic career.** It’s the student’s responsibility to keep them aware of the intended major and/or transfer institution.
- **Contact the transfer institution as soon as possible.** Ask for specific course recommendations from them to help with structuring a degree program at Sinclair as closely as possible around their requirements. Also, speaking to counselors from both institutions helps ensure that students receive timely, accurate transfer information.
- **Always confirm course choices with the transfer institution.** Because Sinclair is accredited by the Higher Learning Commission of the North Central Association and is a member of the 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

To make sure that credits from another institution transfer efficiently to Sinclair, follow these steps:

1. Have official transcripts sent directly from the student’s previous college(s)/university(ies) to the office of Registration & Student Records at Sinclair. Once Sinclair receives the transcripts the student will receive notification in the mail of how to proceed. **Be sure to contact the academic counselors/faculty advisors for the program to have all credits evaluated before registering.** Academic counselors/faculty advisors may need the student to provide course descriptions/syllabi in order to accurately evaluate transfer credits. Please note: registration will not recognize transfer credits that have been *accepted* but not *evaluated*.

2. Students who have transfer credit for English and/or mathematics equivalent to courses offered at Sinclair, **contact the appropriate academic counselors/faculty advisors before taking the placement test.**
3. Students required to take the placement test, go to Building 10, Fourth Floor, Room 10445, or call (937) 512-2210 for additional information.
4. Students who were dismissed from a previous institution, please follow the Readmission Policy explained on page 16.

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	
A Excellent	4	90-100%	S Satisfactory	0
B Good	3	80-89	I Incomplete	0
C Average	2	70-79	W Withdrawal	0
D Passing	1	60-69	P Pass	0
F Failure	0	0-59	N Progress	0
Z Non-Attendance	0-59		Y Proficiency Credit	0
			IP 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	B	9
College Algebra	5	C	10
General Psychology I	3	A	12
Western Civilization I	3	B	9
Physical Education	<u>1</u>	A	<u>4</u>
TOTALS	15		44
44 ÷ 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 How Am I Doing?

Degree audit is a process that indicates the students’ progress toward the completion of a degree program. Students can request a degree audit from an academic counselor to determine how many classes they have completed for a specific major. If they change majors, a different degree audit must be done. Degree audits may also be done on the Intouch information kiosk.

Dean’s List and Academic Honors

To be eligible for the Dean’s List in any quarter, students must have:

- Six or more credit hours of college level course work
- A grade point average of 3.4 with no grade below a “C” for that term
- Good academic standing

Courses for which students earn grades of “X”, “IP”, “I”, “W”, “P”, “N”, “S”, or “Y” are not computed in the total credit hours attempted. Their placement on the Dean’s List will be noted on their academic transcript.

Graduation honors are also noted on the transcript. Sinclair awards “graduation honors” for a cumulative grade point average of 3.4 to 3.899. The college awards “high honors” for a cumulative grade point average of 3.900 and above. For further information concerning Honors programs, see page 58.

Standards of Academic Progress Academic Intervention, Probation, Dismissal

1. All students must maintain a minimum academic performance of at least a 2.0 GPA cumulatively (2.0 or greater).
2. Students will be placed on the following academic standards:
 - i. First quarter below 2.0 GPA - Academic Intervention
 - ii. Second consecutive quarter below 2.0 GPA - Academic Probation
 - iii. Third consecutive quarter below 2.0 GPA - Academic Dismissal
3. Students will be returned to good academic standing when a cumulative GPA of 2.0 or greater is earned.
4. Students who are on academic intervention will receive correspondence that refers students to academic counselors, faculty advisors, and Student Services for advising, academic assistance, and information on the impact on financial aid.

5. Students who are on academic probation must be seen by an academic counselor or faculty advisor to:
 - i. register or add classes
 - ii. receive additional support information or assistance.
6. Students whose quarter GPA is 2.0 or greater, but whose cumulative GPA would cause them to be dismissed, will be granted an additional probationary period for each quarter in which the quarter GPA is 2.0 or greater. It is expected these standards will be implemented fall 2003.

Get a Fresh Start!

Sinclair’s Fresh Start policy is directed at students who are returning to the college after an absence of at least three years. These students have a “one time only” option of having their grade point averages recalculated from the point of re-enrollment, without losing credit for previous course work for which they earned a grade of “S” or “C” and above.

The academic Fresh Start Policy and its conditions are as follows:

1. To be eligible for Fresh Start, students 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 six 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 this policy be applied to remove effects on GPA of grades received prior to the Fresh Start date.
2. The policy can be **applied only once** and only to classes taken before re-enrollment. Once approved, the application of this policy against the student’s record cannot be changed.
3. After choosing Fresh Start and the college verifies eligibility, a **notation will be added to the transcript** indicating that all Sinclair credit hours earned prior to policy enactment will be subject to the following conditions:
 - The previous GPA 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 eliminated.
 - Grades from all course work taken at Sinclair will be shown on the transcript.
4. Fresh Start may not be applied to any course that was completed **prior** to the awarding by the college of an Ohio Board of Regents authorized certificate or associate degree.

The academic transcript will show:

The Fresh Start Policy has been applied for academic work taken at Sinclair prior to _____.

Term/Year

How to Earn an Associate Degree

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 students must earn the **last 30 credit hours** on campus at Sinclair).
- Maintain a **cumulative grade point average of at least 2.0**.
- Complete an application for graduation in the office of Registration & Student Records, Second Floor, Building 10, by deadline dates published in quarterly class schedules.

Students have to meet degree requirements listed in the Sinclair catalog in effect at the time they begin study. However, if the course of study is prolonged beyond six years after beginning, consult with the department chairperson to determine graduation requirements. Sinclair will consider granting permission to graduate under a catalog more than six years old if they have 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.

How to Earn a Certificate

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. To qualify for a Certificate of Completion, students must complete at least 13 credit hours of Sinclair course work within the area of study and fulfill the institution's requirements. They 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 they complete the requirements.

Changing a Major

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

Applying for Graduation

Graduation applications are available in the office of Registration & Student Records, Room 10231, or on the web site: www.sinclair.edu. To apply for graduation, students must first obtain a Degree Audit evaluation for the academic program/major that the student is pursuing during the quarter in which requirements will be met AND before completing the application for graduation. If the degree audit status is either "P" for pending anticipated completion or "C" complete, the student is eligible to apply for graduation. **NOTE:** The student may obtain a copy of the degree audit by accessing his or her student information on the kiosk or by contacting an academic counselor.

- If the degree audit status is "IP" in progress or "N" not started, the student should contact his or her academic counselor/faculty advisor for a graduation evaluation prior to completing the application.

Then students:

- Complete the **graduation application** during the quarter in which they meet all requirements.
- Attach a degree audit report showing pending or completed status
- Pay the **application fee** at the Cashier's office.
- Return the completed application packet to the office of Registration & Student Records by the published deadline.

If students don't complete course requirements in the quarter they indicated on their graduation application, they have to 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 time frame 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 for associate degree graduates only. Students graduating in all quarters can participate in commencement. Check the quarterly class schedule/bulletin for the graduation application deadlines. Applicants for certificates may not participate in the commencement ceremony.

Academic Credit Assessment Information Center (ACAIC)

See page 40.

College Examinations

College Level Equivalency Examinations

Advanced Placement Examinations

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

Policies:

- Students must have applied for admission, been accepted at Sinclair and paid the appropriate fees.
- Receive a three or better on the Advanced Placement Program examinations.
- The course(s) will be recorded on the student's transcript with a "Y" grade.
- Students can apply no more than 45 credit hours earned through APP/proficiency examinations /articulation agreements/ACE/CREDIT/CLEP/DANTES toward degree requirements.
- Credits earned via APP examinations do not apply toward the college residency requirements.

College Level Examination Program (CLEP)

www.collegeboard.com

Sinclair awards credit for the College Level Examination Program based on the scores they earn. The Academic Credit Assessment Information Center and the academic department determine the amount of credit awarded.

Policies:

- Students must have applied for admission, been accepted at Sinclair, and paid the appropriate fees.
- Course(s) will be recorded on their transcripts with a “Y” grade.
- They can apply no more than 45 credit hours earned through APP/proficiency examinations/articulation agreements/ACE/CREDIT/CLEP/DANTES toward degree requirements.
- Credits earned via CLEP examinations do not apply toward the college residency requirements.

Defense Activity for Non-Traditional Education Support (DANTES)

www.getcollegecredit.com

Sinclair awards credit for the DANTES Examinations based on the scores earned. The Academic Credit Assessment Information Center and the academic department determine the amount of credit awarded.

Policies:

- Students must have completed a Sinclair Community College application and paid the appropriate fees.
- The course(s) will be recorded on their transcript with a “Y” grade.
- Students can apply no more than 45 credit hours earned through APP/proficiency examinations/articulation agreements/ACE/CREDIT/CLEP/DANTES toward degree requirements.
- Credits earned via APP examinations do not apply toward the college residency requirements.

Proficiency/Challenge Examinations

To earn credit for certain courses without enrolling in them, students must take a special examination and/or perform special assignments through the appropriate department. Credit by examination requires departmental approval. This process is coordinated by the Academic Credit Assessment Information Center. For each proficiency examination, students have to pay a non-refundable fee.

Policies:

- Students have to get departmental approval before taking a proficiency examination.
- Students can't take a **proficiency examination** until they have completed a Sinclair Community College application and paid the appropriate fee.
- Students 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.
- Students can take a proficiency examination only once for any course. If they have taken a course and received a failing grade, with departmental approval they can take a proficiency examination one time in order to improve the grade. The grade for the proficiency exam replaces the previous grade, if they have taken the course only once.
- A proficiency examination cannot be taken nor credit awarded during any quarter in which they were previously registered for that course.
- They 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 their transcript.

- They can apply no more than 45 credit hours earned through proficiency/challenge examinations toward degree requirements.
- Proficiency credits do not apply toward the college residency requirements.
- Proficiency fees are non-refundable.
- Proficiency examination grades are recorded on the transcript with a notation that clearly shows which grades are the result of taking a proficiency/challenge examination.

Credit for Lifelong Learning

See page 41.

Military Training

www.acenet.com

Sinclair evaluates military training 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.

Policies:

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

Code of Student Conduct and Disciplinary Policy

Student Activities, Building 8, Room 8025, (937) 512-2509

Student Handbooks are available in the Student Activities office.

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 manager 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 in the *Student Handbook* 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.

Procedures for student conduct are listed in the *Student Handbook*.

Student Records Policy

Students 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.

Students 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, their parents' financial records, and certain confidential letters and recommendations.

If upon inspection and review of the students' records, they wish to challenge (correct or delete) inaccurate or misleading data or any records which they believe violate their right to privacy or other rights, they may request a correction or deletion in writing. If the record custodian denies the request, the student will be given a copy of the record(s) in question, and they 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 the request; a written decision will be issued. If the students are not satisfied, they may submit written comment(s) which will be maintained with the challenged record(s).

The Family Educational Rights & Privacy Act (FERPA) affords a student certain rights with respect to educational records. Copies of educational records or personally identifiable information concerning students will not be released to anyone outside the college, except as required or allowed by law, without their written consent. However, directory information may be released without their written consent. Directory information includes: the students 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 attended. If the students does not want their directory information released, they 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 FERPA coordinator, director of Registration & Student Records. Students also have the right to file complaints with the U.S. Department of Education FERPA office.

Miscellaneous College Policies

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 NEVER attended the class, the student may expect to have a portion of his or her federal financial aid award(s) returned to the federal government.

For further details, see the *Student Handbook*.

Children in Classes

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

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 a list of prohibitive behaviors.

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.

Alternative Learning

www.sinclair.edu



There's always an alternative at Sinclair!

When it comes to delivering the education you need, when and how you need it, nobody does more for you than Sinclair. With cutting-edge technologies, fresh, unbiased imagination, and an eagerness to go the distance, we can grow together.

Distance Learning

Building 14, Room 14318, (937) 512-2990, 1-888-226-2457
<http://www.sinclair.edu/distance>
See page 101 for more information.

Senior Citizens

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

Whenever you're ready, Sinclair's College for Seniors coordinates lots of opportunities to continue your education:

- Persons 60 years or older can enroll in credit classes, tuition free, on an audit, space available basis during late registration period each quarter. The student must pay for any special or laboratory fees as listed in the quarterly class schedule.
- Credit classes are offered at 24 senior citizen and community centers each quarter. Persons age 60 and over can audit credit courses at these sites tuition free.
- A quarterly newsletter featuring courses, workshops, and other opportunities is published and distributed to over 6,000 senior citizens. In addition, an annual newsletter is published during summer quarter featuring advisory committee reports, new courses, and articles about senior citizens.

Senior Academy

The Senior Academy offers short term, non-credit classes on- and off-campus and is designed to meet educational needs of the rapidly growing group of senior citizens. Fees are usually \$45 for the first course and \$15 for each additional class in one quarter.

Cooperative Education

Students wishing to pursue a cooperative education internship should consult their academic department or counselor.

Corporate & Community Services

Building 12, Room 12101, (937) 512-3061

The Corporate & Community Services division administers and coordinates activities of the David H. Ponitz Sinclair Center, Building 12. The division:

- Schedules, coordinates and supports corporate and community training and education throughout the college.
- Customizes such programs to meet the training and education needs of the Miami Valley.
- Coordinates college sponsored seminars and non-credit registrations.
- 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.
- 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.

continued next page

Seminars and courses open to the general public are publicized in the quarterly schedule of classes or are announced by special mailings. For further information, 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) 512-2782, to leave messages for their instructor and obtain any available instructor telephone numbers.

Experience Based Education (EBE)

The Experience Based Education department supports a broad range of non-traditional study opportunities and evaluation of prior learning for college credit to help students develop career and lifelong learning skills, and achieve their educational and professional goals.

Academic Credit Assessment Information Center (ACAIC)

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

The Academic Credit Assessment Information Center is designed to help students learn about non-traditional ways to receive credit for Sinclair classes.

Since learning is an everyday activity that doesn't always take place in a classroom, students may have a variety of learning experiences that they want to translate into college credit.

The center has information about ways to do this:

- Articulation agreements with various institutions' licenses and certifications
- College equivalency examinations (proficiency exams, CLEP, DANTES, and advanced placement exams)
- ACE/CREDIT course recommendations
- Evaluation of prior learning by portfolio [see Credit for Lifelong Learning Program (CLLP) for details]

For more information, contact the ACAIC.

Associate of Individualized Study (A.I.S.)

Building 6, Room 6130, (937) 512-2962

Through the Associate of Individualized Study, students can design an interdisciplinary degree program using liberal arts or combining liberal arts with technical areas of study. They can focus specifically on education for individual development and enrichment, or design a curriculum with a goal of employment or continuation to selected four-year degree programs. Faculty members assist students in the degree planning process.

To determine degree requirements, see the Extended Learning & Human Services chapter on curricula. For more information, contact the A.I.S. office.

Associate of Technical Study (A.T.S.)

Building 6, Room 6130, (937) 512-2962

If technical degree goals can't be accomplished through enrollment in one of Sinclair's existing degree programs, students may check out the A.T.S. degree.

Design a degree that combines two or more technical areas from existing Sinclair programs into a new, individualized degree plan. And, as an alternative, students may be able to incorporate credit awarded through articulation agreements as a portion of their degree requirements. Faculty members will help plan the most appropriate course of study to reach student goals.

See the Extended Learning & Human Services chapter on curricula to determine degree requirements. For more information, contact the ATS office.

College Without Walls (CWW)

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

Those who need a study plan that allows them to learn at their own pace with a flexible time frame, check out College Without Walls. Students have one to three quarters to complete CWW courses. Students are assigned a core faculty member who helps develop a learning contract, a comprehensive guide for achieving course objectives and evaluation of the work. Select course from the following disciplines are available:

- Business
- Extended Learning
- Fine & Performing Arts
- Liberal Arts & Sciences

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

College Credit Recommendation Services

www.acenet.com

Building 6, Room 6130, (937) 512-2940

In 1994, ACE/CREDIT decided to expand its outreach to 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 college level instruction
- Promoting the recognition of the ACE/CREDIT credit recommendations by accredited colleges and universities
- Coordinating and conducting ACE/CREDIT reviews of college-level instruction by training providers

The state offices serve as the representative of ACE/CREDIT, ensuring the same quality academic review of work place learning and adhering to the same policies, 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.

For more information, contact the ACE/CREDIT office.

Service-Learning

Building 6, Room 6130, (937) 512-2771

Service-Learning is designed to provide practical applications as well as critical reflection related to community and civic issues. Service-Learning activities provide a reciprocal “growing and learning” experience between students and cooperating agencies and organizations.

For more information, contact the Experience Based Education office, Room 6130, (937) 512-2771.

Credit for Lifelong Learning Program (CLLP)

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

Credit for Lifelong Learning evaluates your learning experiences—from work, volunteer services, conferences, workshop attendance, in-service training, vocational interests, or independent research—for college credit. Document experiences by developing a portfolio.

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

Policies:

- Students must enroll in, and successfully complete, EBE 100, Prior Learning Portfolio Development.
- Faculty conducts evaluation of prior learning competencies, for which students must pay a fee.
- If students are awarded credit for the course, the credit and letter grade will be transcribed on their transcript.

Program for Accelerated College Education (PACE)

Building 6, Room 6130, (937) 512-2962

If you’re a working adult—or just like a fast pace—PACE, with its accelerated course of study, may be for you. 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, class work may be supplemented with alternative ways to access the necessary information.

PACE students may earn an Associate of Arts in Liberal Arts or the Associate of Science in Business Administration. Blocks of general education courses are also available. For more information, see an academic counselor or a PACE Coordinator, Room 6130, (937) 512-2962.

Developmental Studies Program (DEV)

Building 6, Room 6222, (937) 512-2701

Students not quite prepared for some college level work, check out the Developmental Studies program. It’s designed to assist students in adjusting to college through special academic and counseling support services.

Incoming full-time students are required to take skill tests in reading, English and mathematics. If resulting scores are below established requirements, students may be required to enroll in one or more Developmental courses. Students who just want to improve their skills, can also 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 students to meet their learning needs. Counseling services are also available to complement classroom instruction through educational, vocational and personal counseling.

The Learning Center at Miami Valley Research Park

1900 Founders Drive, (937) 252-9787

The Learning Center at Miami Valley Research Park provides comprehensive tools and resources to support workforce training and development, including:

- Five 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 small training programs or breakout session.
- Interactive videoconferencing capable of delivering point-to-point or multi-point distance learning instruction or training.

The Learning Center offers open enrollment and customized training solutions to Dayton corporations in an array of topics, including Network Security, Programming, Web Development, Supervision and Management, and Customer Service. The Learning Center is also a SkillsMAX/ACT certified center delivering IT certification tests, online courses, and database management services.

Sinclair Honors Program

See page 58.

Sinclair Ohio Fellows Leadership Program

See page 58.

Southwestern Ohio Council for Higher Education (SOCHE)

www.soche.org

Full-time students at Sinclair can register for courses for credit at SOCHE institutions (see below for a complete list) at Sinclair's rate per credit hour. Students need to pay any applicable lab or related fees at the host institution. To take advantage of this program:

- The course cannot be available at Sinclair.
- Space must be available at the SOCHE institution, only during regular sessions of the academic year (summer sessions and self-supporting or sustaining programs are excluded).
- Students must:
 - Have counselor's permission.
 - Satisfy all course prerequisites.
 - Meet the host institution's admissions requirements.

For more information, contact the office of Registration & Student Records, second floor, Building 10, or the SOCHE web site, www.soche.org.

The consortium of 20 colleges and universities, three corporate partners, and one foundation was established to promote inter-institutional cooperation and community service. SOCHE:

- Holds regular conferences for faculty and staff.
- Serves as a clearinghouse for the exchange of information.
- 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.

International Study Abroad

Building 16, Room 16118, (937) 512-5306

Studying abroad allows students to get to know and understand another country's culture and everyday life. Students become more aware of perspectives that may be different than their own.

Through study abroad opportunities, ranging from a few weeks to an entire academic year, students can earn academic credit in a wide variety of disciplines.

To qualify, they need to have a grade point average of 2.0 or better at Sinclair and meet any other specific requirements of the particular study abroad opportunity.

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

Campus Facilities

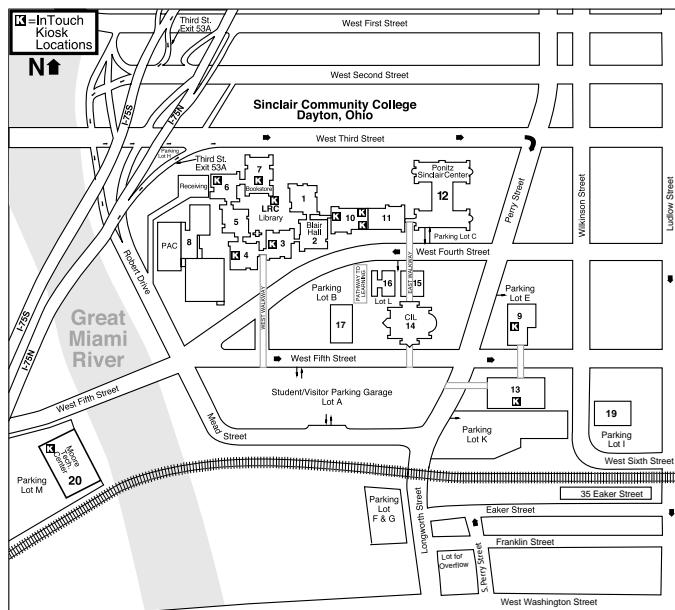
www.sinclair.edu



It's Easy to Get Around!

Sinclair's campus is growing by leaps and bounds—and we're still making it easy to find classes, the Tartan Campus Store, Tartan Marketplace—just about any place you want to go, whether it's a classroom or a place to relax.

Enjoy all the resources and recreation of a large university, combined with the personalized learning and student friendly atmosphere of one of the most well respected community colleges in the nation.



Sinclair's Growing Campus

Next to I-75 on the west edge of downtown Dayton, Sinclair's campus stretches from West Third to Fifth and Perry Streets and beyond. Wherever students go—on the over 50 acres of campus—they're greeted by beautiful architecture and greenspaces. Plus, underground corridors and covered walkways keep you out of the weather—and on time!

Sinclair's main campus opened in 1972 and consisted of seven major buildings: Buildings 1-7, the Automotive Technology building, and Building 9 at West Fifth and Perry Streets. Since then, the Physical Activity Center (PAC), Building 8, underground and above ground parking garages, and Buildings 10-17, 19 and 20 have been added. And Sinclair will continue to grow to meet the needs of students!

How to Find a Classroom

Finding the way around is easy—once you get the hang of it. Classroom numbers are made up of the building number first and the floor level next, and the third and fourth numbers complete the classroom number. So if the class is in Room 1324, go to Building 1, floor 3, and find classroom 1324. If the class is in the basement, the floor number will begin with 0. (By the way, the building numbers don't totally follow in order; be sure to grab a map and don't hesitate to ask someone for help.)

Buildings 1-7 surround the main plaza. The Learning Resources Center (LRC) stretches beneath. Enter the LRC from the basement level of all seven buildings or get to Building 8 (PAC) from the basement level. Buildings 9 and 13 can be entered through the Fifth Street or Lot A parking garage.

Finding a Place to Park

Sinclair student parking is a real bargain with the Tartan Card. (For more details on the Tartan Card see page 19).

Students can park:

- Lot A, in the multi-level parking garage, west of South Perry Street (enter/exit from West Fifth or Mead Streets). Motorcycle parking available only in Lot A.
- Lot M, at Building 20, (enter/exit from Fifth Street).
- Lot E, on South Perry Street, between Fourth and Fifth Streets. Entrance is from Perry Street and is mainly an employee parking lot.
- Lot H under I-75 on Robert Drive.
- Lot I serves Building 19, entrance from Ludlow Street.
- Lot K is close to Mead Street, entrance from Longworth Street.
- Lot C serves the David H. Ponitz Sinclair Center (Building 12), but includes parking for the disabled. Entrance from Fourth Street.
- Lot B is an employee lot.
- Parking for disabled is located in all student lots.

continued next page

Normal hours of operation for fall, winter, and spring quarters are:

	Monday - Thursday	Friday	Saturday
Lot A	6:30 a.m.-10:30 p.m.	6:30 a.m.-6:00 p.m.	6:30 a.m.-6:00 p.m.
Lot B	6:00 p.m.-8:00 p.m.	Opens at 3:00 p.m. (Free Parking)	Opens at 3:00 p.m. (Free Parking)
Lot E	7:00 a.m.-10:00 p.m.	7:00 a.m.-6:00 p.m.	CLOSED No Student Parking
Lot H	7:30 a.m.-10:00 p.m.	7:30 a.m.-6:00 p.m.	CLOSED No Student Parking
Lot I	7:00 a.m.-10:00 p.m.	7:00 a.m.-10:00 p.m.	As needed
Lot K	7:00 a.m.-5:30 p.m.	7:00 a.m.-5:30 p.m.	CLOSED No Student Parking
Lot M	6:30 a.m.-7:00 p.m.	6:30 a.m.-4:00 p.m.	CLOSED No Student Parking

Normal hours of operation for summer quarter are:

	Monday - Thursday	Friday	Saturday
Lot A	6:30 a.m.-9:30 p.m.	6:30 a.m.-6:00 p.m.	CLOSED
Lot B	CLOSED No Student Parking	Opens at 3:00 p.m. (Free Parking)	Opens at 6:30 a.m. (Free Parking)
Lot E	CLOSED No Student Parking	CLOSED No Student Parking	CLOSED No Student Parking
Lot H	CLOSED No Student Parking	CLOSED No Student Parking	CLOSED No Student Parking
Lot I	CLOSED No Student Parking	CLOSED No Student Parking	CLOSED No Student Parking
Lot K	CLOSED No Student Parking	CLOSED No Student Parking	CLOSED No Student Parking

Parking Fees

Rates applicable to student parking lots: \$.50 (every in/out transaction) when paying with the Tartan Card (funds must be added to the Tartan Card); \$1.50 when paying with cash.

Shuttle

Sinclair typically operates a free shuttle service from the campus to overflow lots at the beginning of fall and winter quarters. Call (937) 512-2518 for details.

Theatre at Sinclair

Entertainment lovers of the Miami Valley have come to know and praise the performances offered by Sinclair students at Blair Hall Theatre (Building 2), the perfect setting for Sinclair Theatre productions, music department concerts, and dance department performances.

Community organizations also use beautiful Blair Hall for special events, corporate annual meetings, and a wide range of cultural programs. To book the theatre, call Corporate & Community Services, (937) 512-3046.

Buying Books

tartanstore.sinclair.edu

Get textbooks and supplies from the Tartan Campus Store, located on the first floor of Building 7. Plus, pick up postage stamps, RTA bus passes, greeting cards, newspapers and much more.

The beginning date for buying textbooks is posted each quarter. To get a refund for textbooks bought on or after this date, just return them in clean and resalable condition, within 30 days from the start of the quarter for which they were purchased. Return dates vary during summer term. Return textbooks bought any other time and all other merchandise within 30 days of purchase. Complete return information is provided with the sales receipt. For all returns or exchanges, remember to present the right cash register receipt. MasterCard and Visa are accepted.

Get extra cash by selling used textbooks during regular Tartan Campus Store hours throughout the year.

For more information or purchases, do it online at tartanstore.sinclair.edu.

Hours (when classes are in session):

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

Friday, 8:30 a.m. - 4:00 p.m.; Saturday, 8:30 a.m. - 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 (CIL)

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 CIL 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. The Instructional Development Support department sponsors faculty workshops and seminars and provides a laboratory with multimedia resources for use by faculty.

Learning Technology Productions supports learning through the development of multimedia courses and class enhancements utilizing the fully equipped, broadcast quality digital media production studio. Cyber Services assists faculty using multimedia equipment in the CIL classrooms and provides support for two-way interactive classes. The Distance Learning division assists faculty in the development of distance learning courses.

The CIL houses the nine specialized computer and video conferencing classrooms, an open computer lab for students, walk-up computer stations where students can quickly check their e-mail or login to the my.Sinclair portal, and a multimedia theatre. The CIL introduces new educational technologies to the Sinclair academic community through hands-on interactive experiences. The CIL also hosts special events, demonstrations, and training sessions for Sinclair faculty, staff, administrators, and visitors from the Miami Valley business community.

Food for Thought

Just about wherever students go around campus, they can fuel up for classes.

	Location	Days	Hours*
Tartan Marketplace	Building 7, Lower Level	Mon.-Thurs. Friday Saturday	7:00 a.m. - 8:00 p.m. 7:00 a.m. - 2:30 p.m. 7:30 a.m. - 2:00 p.m.

Check out the Chef's Table for hot meals 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 salads; and the Fireside Grill for cheese steaks and burgers.

Tartan Sports Café	Building 8, Lower Level	Mon.-Thurs. Friday Saturday	7:30 a.m. - 7:00 p.m. 7:30 a.m. - 2:00 p.m. Closed
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Freshly baked pizza, fruit smoothies and hand dipped ice cream, prepared salads and assorted beverages.

Tartan Subshop	Building 3, Third Floor	Mon.-Thurs. Friday Saturday	7:30 a.m. - 8:00 p.m. 7:30 a.m. - 2:00 p.m. Closed
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Made to order deli sandwiches, fresh soups, hot dogs, salads, and assorted beverages.

Tartan Pizza Cart	Building 2 & 10 Walkway, Third Floor	Mon.-Thurs. Friday Saturday	7:30 a.m. - 8:00 p.m. 7:30 a.m. - 2:00 p.m. Closed
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Freshly baked pizza, hot dogs, prepared salads, snacks, and assorted beverages.

Snack Bar	Building 13 Fourth Floor	Mon.-Thurs. Friday Saturday	7:30 a.m. - 8:00 p.m. 7:30 a.m. - 2:00 p.m. Closed
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Pizza, deli sandwiches, hot entrées, prepared salads and assorted beverages.

Espresso Cafe	Building 11 Third Floor	Mon.-Thurs. Friday Saturday	7:30 a.m. - 6:00 p.m. 7:30 a.m. - 2:00 p.m. Closed
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Speciality coffee blends, cappuccino, lattes, box lunches and breakfast pastries.

Or stop by any of several vending locations throughout campus for a wide variety of tasty treats, including:

- freshly brewed coffee by the cup
- regular and “wellness connection” health conscious snacks
- canned and bottled cold beverages

*NOTE: Summer hours for these facilities may vary.

Learning Center at Miami Valley Research Park

See page 41.

Learning Resources Center (LRC)

Building 7L, (937) 512-2855

Books, magazines, newspapers, CD-ROMs, audio and video tapes, computers, printers, copiers and other electronic resources ... Sinclair's Learning Resources Center (LRC)—a real hub of activity for study and research. It consists of the College Library, Microcomputer Lab and Media Services, all located beneath the main plaza, with entrances at the basement level of Buildings 1-7.

As a member of OhioLINK, a computer network of libraries and electronic information resources, Sinclair provides 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. That means quick, easy access to research materials throughout the state. All sites offer online access to the central catalog and extend on-site borrowing privileges to patrons of other OhioLINK institutions.

Library orientations and research assistance can help students. Sinclair's LRC offers interlibrary loans for items not available at Sinclair or through OhioLINK, and course reserves. Sinclair provides web-based access to the LRC online catalog, OhioLINK Central Catalog, research databases, and Internet resources.

In order to serve everyone best, eating or drinking is not permitted on the mezzanine level (study area) or on the lower level of the Library and Media Services.

The Sinclair Tartan Card is also a library card. Graduates of Sinclair with an Alumni card can also borrow materials from the LRC.

For specific information about borrowing materials, using other academic and public libraries in the area, or accessing resources outside the LRC, call Reference Services, (937) 512-2855. Or connect to the LRC home page at: <http://library.sinclair.edu>.

Hours:

Monday-Thursday, 8:00 a.m. - 9:30 p.m.

Friday, 8:00 a.m. - 5:00 p.m.

Saturday, 8:00 a.m. - 3:00 p.m.

Summer session and interim hours vary.

Testing Center

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

The Testing Center, in addition to placement testing, provides academic testing for students collegewide.

Hours*:

Day(s)	Open	First Test Given	Last Test Given	Close
Mon. - Thurs.	8:00 a.m.	9:00 a.m.	7:00 p.m.	8:00 p.m.
Friday	8:00 a.m.	9:00 a.m.	3:00 p.m.	4:00 p.m.
Saturday	9:00 a.m.	9:00 a.m.	1:00 p.m.	2:00 p.m.

*Summer and holiday hours vary.

Computers on Campus

Sinclair offers computer training in a wide range of uses, from running a household to operating a manufacturing plant. Open labs give students access to computers and software outside the classroom. Students with disabilities should contact Disability Services at (937) 512-5113 when adaptive equipment is needed.

The software being taught on campus is listed by division and software name, operating hours and access restrictions for each location and can be found in the **Campus Computer Labs and Software** fact sheet in the LRC and Teleport or by going to <http://www.sinclair.edu/technology/labs>. For further information or updated changes to the list, students may contact the office noted on the pamphlet or web site.

Teleports

Building 11, Third Floor, Room 11346, (937) 512-2002
Building 13, Second Floor, Room 13223, (937) 512-5394

A Tartan Card is required to access Teleports resources. Teleports (Technology Enhanced Learning Environments Ports) are state-of-the-art computer laboratory facilities. They are open lab facilities for students and faculty 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. It has printers, plotters, scanners, VCR's, and copiers. There are always lab assistants at the Teleport to help students with their learning objectives. Tutors are also available.

Teleports work stations are high end P.C.'s that have the Sinclair Academic Image which includes: Windows 2000 Operating System, Microsoft Office XP, 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. Teleport also has over 200 division specific software applications.

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

	Room 11346	Room 13223
Mon.-Thurs.	8:00 a.m. - 9:30 p.m.	8:00 a.m. - 9:30 p.m.
Friday	8:00 a.m. - 4:00 p.m.	8:00 a.m. - 4:00 p.m.
Saturday	9:00 a.m. - 4:00 p.m.	9:00 a.m. - 4:00 p.m.
Fall, Winter, Spring quarters		
Sunday	Closed	12:30 p.m. - 6:30 p.m.

Summer quarter

Sunday Closed Closed

Teleports are also opened between quarters. Signs will be posted with the special hours on bulletin boards around the campus and at the Teleports.

Student E-Mail

Every enrolled student at Sinclair receives an e-mail account. The college uses those accounts to send important communication to students. Those might include messages from a faculty member regarding classes, announcements concerning services offered by the college, and eventually, confirmation of registration that the student may have completed through web based services.

It is important that students either use the e-mail account provided, or use the forwarding options available to forward messages to an e-mail account used regularly. The college currently plans to continue to allow students to use their my.Sinclair e-mail accounts even after they have graduated or stopped taking classes at the college. Students can access their account by going to <http://my.sinclair.edu>. Those who don't know their username and password, click on the "Don't Know or Forgot User I.D." link and follow the directions to get started. Use of the e-mail system is governed by the college's e-mail and acceptable use policies.

my.Sinclair Portal

The my.Sinclair portal is the home for web based services offered by the college. In my.Sinclair students will find access to their own my.Sinclair e-mail account, a customizable home page that provides college announcements, local weather, the daily menu in the Tartan Marketplace and more. The portal also knows what classes students are taking and provides tools for the faculty member to use, including chat rooms, discussion boards, and file sharing. More features and services will be added to my.Sinclair in the future.

To access the portal go to <http://my.sinclair.edu>. For those who don't know what their username and password are, click on the "Don't Know or Forgot User I.D." link and follow the directions to get started. Use of the my.Sinclair portal is governed by the college's acceptable use policy.

I.T. Help Desk

The Technical Support Help Desk is a branch of Information Technology Services. Its goal is to provide students, faculty and staff with a single primary point of contact for technology related issues and provide basic Level 1 technical support.

Assistance can be done over the phone at (937) 512-4357 (HELP) or toll free (866) 781-4357 (HELP), or via e-mail at helpdesk@sinclair.edu.

The Help Desk Analysts are trained to help students with their questions about the supported software listed below. They will not be expected to answer questions about non-supported software or commercial online services (AOL, FastNet, etc). Help Desk Analysts do not have the resources to setup or repair personal computers, install personal software, nor can they assist with computer programming.

- Student E-mail Account
- InTouch Kiosk Information System
- Online Continuing Education
- Personnel Identification Number (PIN) Reset
- Portal
- Web Advisor
- WebCT

For more information about Help Desk hours and services students can log onto www.sinclair.edu/helpdesk.

Stay InTouch! Information Kiosks

Get information about Sinclair and student records with these easy-to-use computer terminals. Find InTouch kiosks in:

Building	Location
2	Third Floor, at Walkway
3	First Floor
LRC	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

Take a Break in a Lounge

For a place to rest or a quiet place to talk, try one of the lounges located on the first floor of most buildings. And, please—in order to keep lounges nice for everybody, drinks in disposable containers are okay, but no food; player/recorders or televisions are permitted in the lounges. Smoking is not permitted.

PAC for Good Health

Physical Activity Center (PAC), Building 8

Sinclair's Physical Activity Center (PAC), located in Building 8, is one of the finest community college facilities in the nation. Get in shape with PAC's six-lane swimming pool and diving well, four racquetball courts, gymnasium, aerobics and self-defense rooms, yoga and pilates room, weightroom and saunas. Men's and women's locker rooms, training room, athletic locker rooms and other areas support a "sporting" campus life. PAC's 38,000-square-foot, multi-purpose field house is the perfect place to run track, play tennis, badminton, and perfect your swing—in golf or baseball.

David H. Ponitz Sinclair Center

Building 12, (937) 512-3061

Sinclair Center provides a creative, state-of-the-art, training environment for the Miami Valley, along with the crucial support facilities and services essential for successful learning. Sinclair Center is the only conference center in the Dayton area certified by the International Association of Conference Centers of North America (IACC).

The center combines world-class technology with the proactive programs, innovative faculty, and comprehensive facilities of Sinclair. An incredible array of features can be tailored to meet any adult learning and training needs:

- A full-time registration staff helps coordinate activities and record keeping.
- A 400-car parking garage underneath Sinclair Center means complete shelter from 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.
- Complete catering services from gourmet meals to business lunches to morning and afternoon breaks are available.
- Using the latest equipment, video and electronic programming can reach meeting rooms throughout the building.
- 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.

Ponnie Kendall Student Activities Center

Where to go to relax

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

The Student Activities Center provides lots of opportunities to get involved outside the classroom. 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.

Located in the lower level of Building 8, the center includes a great room, entertainment area, game room, **Sports Café**, conference rooms—for student organizations' meetings, dances, programs and service work. Take part in competitive games, tournaments, annual cultural events, leadership development training programs, success seminars and educational workshops.

Be sure to check out the full range of **scheduled activities** and services information offered throughout the quarter at www.sinclair.edu/stservices/sact. Through the center, students can take part in workshops, retreats and classes, and get to know other students, faculty and staff.

Student Activities Center hours during the quarter:

Monday - Friday, 7:30 a.m. - 10:00 p.m.

Saturday, Sunday, 8:00 a.m. - 5:00 p.m.

Other hours based on scheduled events.

Tartan Sports Café Hours:

Monday - Thursday, 7:30 a.m. - 7:00 p.m.

Friday, 7:30 a.m. - 2:00 p.m.

Saturday, Sunday, Closed.

Services for Students

www.sinclair.edu



Counseling Enrollment Disability Services Enrichment

Nobody supports you like Sinclair! Students will find whatever they need to get those courses, certificate or degree, no matter what their background or circumstances.

Academic Credit Assessment Information Center (ACAIC)

See page 40.

Admissions

See page 15.

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.
- Develops a variety of activities for alumni to attend and provide volunteer service on campus.
- Oversees creation and delivery of periodic newsletters to all Sinclair 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 15-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, staffed by Roman Catholic and Protestant campus ministers, provides such services as:

- Personal and crisis counseling
- Programming for spiritual growth
- Guest lectures, discussion groups, support groups, Bible studies, workshops, retreats and spiritual direction

Campus Police

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

www.sinclair.edu/departments/police for crime statistics
Sinclair takes pride in its safety record and is committed to maintaining a safe environment. On the Sinclair campus, you can enjoy all the advantages of an urban college, plus peace of mind in a beautiful, contained academic setting.

To reduce crime and ensure the campus community is safe and secure, the Sinclair Campus Police department employs 21 sworn police officers, security officers in Buildings 9, 12, 13, 19, 20, LRC, plus officers on each level of the garage and perimeter parking lots. All these officers provide visible police presence to prevent crime.

Information related to crimes committed on campus, crimes committed on/adjacent streets and crimes committed at off campus locations can be viewed at www.sinclair.edu. Click on the Directories to find "Campus Police." The past three years of crimes are noted, plus there is a "tip" line available should any student have a need to report issues anonymously. Also listed are the services provided by Campus Police.

Students, faculty, staff and visitors are expected to promptly and accurately report any crime or incident that negatively affects the college to Campus Police, Building 7, Room 7112, or call (937) 512-2700.

To deter crime and make themselves available, police patrol the campus and its parking lots on a regular basis.

Campus Police also provide escorts to the parking lots. Sinclair urges students to travel with care and avoid walking alone.

The **Lost & Found** is located in the Campus Police office, Room 7112.

Emergency Telephones/Intercoms

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

- Third floor of buildings 1-6, 10, 11
- Basement level of Buildings 1,2,3,4,5,6
- First floor of Building 11
- North and south stairwells, Building 12 (all floors)
- 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 you press the button.

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

- Parking Garage A (all stairwells)
- Parking areas (B, C, D, E, H, I, K, L, M)
- First floor levels of Buildings 1, 9, 10, 13, 14, 15, 16, 19, 20
- First floor level between Buildings 3 and 4

Blue lights on top of poles mark the outside blue lights, including those in the parking garage. 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. For those who experience 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 (CPPC)

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

Career Planning Services

Use career planning services to help make the most of your education, talents, interests and experiences. The experienced, dedicated staff can help determine short and long term goals, select a college major, and/or change career fields. Receive assistance individually or in groups, and check out the variety of workshops, given each quarter, focused on career decision making, and job readiness skills.

Services include:

- Computerized and online 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
- Computerized and online information systems that contain Ohio job market data
- Online scholarship and financial aid information for students planning to transfer and/or continue their education
- On-campus student employment postings online and in house.

Job Seeker's Training

If finding full-time employment is a top priority, take advantage of the Job Seeker's Training program, a free service open to the community. This intensive workshop meets for 2 1/2 hours a week, for seven weeks, and trains students in assertive job seeking techniques. Interviewing, resume development, networking and use of the Internet for job searching are just a few of the program's services.

Joblink Online Placement Management System

By using the Internet to access this online placement system, students can:

- Register for Placement Services.
- Post a resume to the CPPC graduate database web site.
- Review current job opportunities and future interview schedules.

Once students are eligible and are registered with the system, the computer can match them by academic majors and/or skills to available job opportunities, and refer their resume to employers for consideration.

Additional Services

- On-Campus Recruitment
- Resume Critiquing
- Employer Library
- Employment Counseling
- Full-time, part-time, and temporary job postings
- Allied Health Job Fair
- Career Exploration Fair
- Virtual Career Fair
- Career Opportunity Corner
- Lists of employers by academic majors

Placement Services

Students who are going to graduate within three quarters, or who are a Sinclair graduate or alumnus, can use the college's placement services. Those who are planning to graduate from Sinclair and have accumulated 75 credit hours toward an associate degree need to register for a Placement Services Orientation. Alumni must register with the Alumni Association before registering with CPPC.

Child Care

Early Childhood Education Centers

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

Students who need child care services while on campus should check with the Early Childhood Education Centers, a component of the Child & Family Education department and owned and operated by Sinclair. The centers are approved and licensed by the Ohio Department of Human Services and are accredited by the National Association for the Education of Young Children.

Using an open classroom and child-centered, developmentally appropriate approach, teachers with degrees in early childhood education and Early Childhood Education students work to help children grow educationally, physically, emotionally and socially at their own pace.

Two centers are available at reasonable rates: The Early Childhood Learning Center, for those who need extended care, and the Flex-Time Center, which offers an eight hour per day maximum stay.

For more information about care and fee structures, contact the Early Childhood Education Centers at (937) 512-2234. Tuition assistance is available for some students.

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

Students currently enrolled at Sinclair, use the labs, a component of Sinclair's Child & Family Education department, to get materials and resources about:

- Child care and early childhood education
- Manual communication/American Sign Language
- Disability intervention services
- Infant/toddler education
- Gerontology

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

Computer Services for Students

My.Sinclair Portal

When students first register for courses they are provided an account in the college's portal system at <http://my.sinclair.edu>. Through this system, students are given an e-mail account, access to online tools for their courses such as chat rooms, discussion boards, calendars, and file sharing, and access to other online services. The college will be sending critical information to student e-mail accounts using my.Sinclair so students should either check their mail regularly, or forward their my.Sinclair mail to an account they do check regularly.

Additional information and instructions for using the my.Sinclair portal can be found at <http://www.sinclair.edu/mysinclair/>.

Computers on Campus

See page 46.

Cooperative Education

See page 39.

Counseling Services

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

Students interested in addressing challenges that may affect their ability to successfully progress within the Sinclair Community setting, may contact Counseling Services for:

- Individual counseling about educational, personal or social concerns
- Individual Learning Plans and Counseling Action Plans for current students
- Educational information and skill development in areas, such as problem solving, time management, stress management, study skills, managing emotions and moods, career decisions, interpersonal relationships, and life management skills
- Resource information on alcohol/drug awareness, health education and holistic well being
- Comprehensive community referrals to off-campus agencies for additional assistance

All counseling services are free, confidential and available by appointment or walk-in basis.

Hours: Monday-Thursday, 8:00 a.m. - 7:00 p.m.

Friday, 8:00 a.m. - 5:00 p.m. Summer hours may vary.

African-American Male Initiative (AAMI)

Counseling Services, Building 10, Room 10324, (937) 512-2752

The African-American Male Initiative (AAMI) is a comprehensive program designed to assist and support African-American male students as they make their transition into the mainstream of college life. Student Services, Experience Based Education, and the Career Planning & Placement Center collaborate to help men in the AAMI attain their vocational and educational goals.

AAMI provides a nurturing, supportive environment and mentoring to help students build self-esteem and gain self-confidence. Students may participate in activities that teaches basic resume writing skills, job interviewing techniques and other necessary employment survival skills. They are also introduced to other college support services such as Tutorial, Career Planning & Placement Center, Financial Aid & Scholarships, and Student Activities. AAMI men are involved in individual counseling sessions and are introduced to community resources.

Eligibility Requirements for AAMI 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 an EBE class may be available
- Willingness to follow an individual Learning Plan or Counseling Action Plan.

Disability Services

Building 10, Room 10421, (937) 512-5113 or 512-3096 (TTY)

For students with a disability, Sinclair wants to provide the means to help develop their potential. Early identification is recommended to ensure timely provision of materials and services. In order to gain early access to the appropriate services, necessary materials and information regarding program requirements, 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

Adaptive Aids

- ADA computer stations campuswide
- Assistive listening devices
- Computer screen enlargement
- Closed captioning
- CCTV magnification devices
- Voice recognition software
- Braille translation and embossing
- Screen readers

These services are provided within the framework of the college. Disability Services is an informational and resource center to ensure mainstreaming. **Students request and receive services on a voluntary basis.**

Once registered with Disability Services and approved for services, students should contact this office at least two weeks before each quarter begins. At the beginning of each quarter, students are also responsible for informing instructors of any instructional accommodations and/or special learning needs.

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

Students may be required to provide medical or psychological records in order to document and receive specialized services. These records are protected under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) until they are provided to Sinclair Community College. At that point they become educational records under the protection of the Family Educational Rights and Privacy Act of 1974 (FERPA). Both these acts have strict rules to protect personal confidential information.

Educational Support Services

See Disability Services (page 52), English as a Second Language/Limited English Proficiency Program (page 52), Supported Education Program (page 55), and Tutorial Services (page 55).

English as a Second Language

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

If you're a student for whom English is a second language and you need assistance with registration or placement testing, contact the English as a Second Language program.

Enrichment Center

Growing College Students of the Future

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

www.sinclair.edu/future/

Students at the elementary, middle, and high school levels—from all over the county—love Sinclair's pre-college enrichment programs and so do their teachers. The Enrichment Center provides an array of exciting, age appropriate programs to help develop our children's academic and work force skills and college readiness. Sinclair's students and communities benefit because Sinclair's Enrichment Programs strive 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 apply to college.
- Assist with career guidance and career development.

Sinclair designs its enrichment programs to better serve stakeholders by assisting students with becoming more academically and socially prepared to pursue higher education.

Pre-College Enrichment Programs

Academic Resource Center (ARC)

The purpose is to provide academic intervention in the basic skills of mathematics, writing and reading through the use of remediation software and career planning workshops in a facilitated pre-college learning environment. The Sinclair ARC is located in the Teleport, Building 13 and is expanding to be housed in area high schools.

Science, Engineering, Mathematics, Aerospace Academy (SEMAA)

Building 12, Room 12331, (937) 512-2335

A year-round K-12 program funded by NASA John Glenn Research Center in Cleveland, Ohio, SEMAA is designed to increase the participation of under-represented groups in science, mathematics, engineering and aerospace careers. Enrollment preference is given to past participants.

Upward Bound

Building 12, Room 12382, (937) 512-2331

A free, federally funded pre-college program for low income, first generation (neither parent has a four-year college degree) college students, Upward Bound is designed to increase the probability that participants will complete their high school education, enroll and graduate from college. The program serves 50 students in grades 9-12.

Quick Start

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

This local initiative, funded by the Sinclair Foundation, offers advanced levels of instruction for high school junior and senior students in courses related to technical and vocational education. Receiving instruction in robotics, computers and visual communications, students are taught by Sinclair faculty members on campus or on site in stand-alone course sections.

Post Secondary Enrollment Options (PSEO)

Building 10, Room 10112, (937) 512-3060

See page 16 for details.

Young Scholars Program

Building 10, Room 10112, (937) 512-3730

Designed to provide eighth grade, first generation students residing in Montgomery County with the opportunity to become academically and socially prepared for college, this unique program offers ten, three-hour Saturday sessions per year 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.

In addition to the thematic experience, students received a comprehensive computer literacy module throughout the five-year experience and upper grades participate in a sponsored Leadership conference.

For application information, call (937) 512-3730.

Experienced Worker Program

Building 10, Room 10315, (937) 512-5347

Designed for workers who are unemployed or displaced. Eligibility is based on age and income, and participants must be residents of Montgomery County.

This work force training program offers:

- Assessment of current skills
- Employment counseling to implement a clear, attainable career goal
- Identification of short term training opportunities
- Short term skills training
- Development of career pathways and job seeking skills to ensure successful employment outcomes
- Referrals to employers

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m.

Financial Aid & Scholarships

See page 23.

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 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 trained in emergency first aid and Cardiopulmonary Resuscitation (CPR) 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 Center
1123	4001	6022	10411	Bookstore
1143	4012	6040		LRC
2220	4224	7112		Bldg. 12
3013	4232	8026		13307
3021	4241	9106		13420
3023	4311	10001		16106

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

New Students to Sinclair

Assessment Intake Center

Building 10, Fourth Floor

During the New Student Enrollment process, the Assessment Intake Center:

- Helps students clarify goals and Sinclair majors.
- Identifies special needs and resources
- Prepares for placement testing.
- Schedules a new student orientation session and academic advising session.

Students leave the center with an individualized enrollment plan based on their needs and next enrollment steps.

Assessment Center

Building 10, Room 10445, (937) 512-2618

The Assessment Center provides both academic and placement testing. Academic testing serves as an alternative to in-class testing for many courses, including distance learning. Students starting a degree, can also receive placement testing in the Assessment Center, which administers pen and paper and computer tests with full supervision at all times.

New Student Orientation

To help new students fully understand campus policies and procedures, as well as strengthen their start at Sinclair, they must attend an interactive two-hour orientation session. Registration, financial aid, academic counseling and campus resources are just some of the topics they cover.

Sinclair Central

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

Sinclair Central assists 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 academic divisions and student services departments. Terminals are also 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, etc.)
- Referral to specialized services on campus.

At Sinclair, the Student Support Services program strives to develop new ways to help students overcome barriers to their educational and career goals through services that include, but not limited to:

- Student Success Action Plan
- Credit load advising
- Personal, career and financial aid counseling
- Professional and/or peer tutoring
- Study and life skills workshops
- Textbook and study aid loan bank
- Transfer information, planning and assistance
- Cultural and educational enrichment activities
- Referral to campus and community services
- Advocacy

Supported Education Program

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

The Supported Education Program offers people with mental disabilities support and guidance for successfully completing a college degree. Services include college orientation, walk-in support, problem solving, development of peer relationships, educational survival skills and connection with collegewide resources. If students believe their academic success is being hindered by an emotional complication, they can drop by to discuss concerns.

Tutorial Services

Free Services for Students

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

Tutorial Services offers free individualized educational assistance in most 100 level courses to students enrolled at Sinclair for credit. Tutors, selected on the basis of scholastic ability and interpersonal skills, are available on a walk-in basis, in open learning laboratories, on a scheduled basis in the Tutorial Center, and in group supplemental instruction sessions. Students interested in receiving free tutoring or applying to become a paid tutor, visit 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.

Veterans Assistance

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

Located in the department of Counseling Services, Veterans Assistance provides support regarding V.A. educational benefits for service members, veterans, reservists, National Guard and their dependents.

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.

- Educational Benefits

Students, who have V.A. eligibility, may be certified to receive educational benefits by registering with Sinclair Community College's V.A. coordinator. Six chapters of benefits currently exist: 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).

- Benefits 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. Students enrolled less than half-time are reimbursed for tuition and fees only, under Chapters 34/30, 30, 35 and 31.

Students may be certified before classes begin in order to receive an early check to assist in paying registration expenses.

For specific benefit and payment information, contact the Veterans Assistance office.

Repayment of Benefits

Under certain circumstances, withdrawing from courses could mean repayment of V.A. benefits, so veterans 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 a paid receipt for 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 the future.

Courses and Courses of Study

Students who have attended a prior college or military school must have these transcripts evaluated by the Registration & Student Records office and the results 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, benefits will be suspended.

Sinclair's Developmental Studies courses are approved for all chapters as long as you have tested into the courses through placement testing.

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

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

1. All certificate (one year) programs
2. Mini-modulars of individualized instruction programs
3. **Any course that cannot be credited toward graduation in the degree program**
4. A third attempt at a failed ("F") course.
5. Real estate courses through Dayton Board of Realtors for students not enrolled in Real Estate & Property Management degree program.

Remember: Assistance may be received in course selection, but the final course selection is the student's responsibility. A student should follow the course outline as contained in the college catalog and see the academic counselor.

**The regulations vary for Chapter 31 veterans.*

Student Life on Campus

www.sinclair.edu



Clubs, Sports, Special Activities—What a Life!

At Sinclair, the quality of an entire college experience is what Sinclair is all about. Students enjoy a campus life that's as varied and full of energy as students want to make it. No matter what their personal interests are, students are bound to find a place to shine.

Join In - Organizations & Clubs

www.sinclair.edu/stservices/sact

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

Learning comes in lots of forms—including building relationships. When students join a club or participate in an art performance, they can make friendships and gain experience that will be with them through a lifetime of success. Just stop by the office of Student Activities/Student Government, Room 8025, Building 8 basement, to learn more about leadership development activities, honor societies and clubs related to careers, special interests or activities.

Bravo for Fine & Performing Arts

For those who want to act on stage or work behind the scenes, Sinclair's Fine & Performing Arts has something for everyone. The Guest Artist and Lecture Series, and Fine & Performing Arts division, in cooperation with Student Government Association and the Student Activities Program Board, offers students a wide variety of events, performances, presentations and activities.

- African-American History Art Show
- Art Faculty Show
- Art Galleries (LRC Gallery, Zone VI Gallery, Burnell R. Roberts Triangle Gallery, Hypotenuse Gallery)
- Bluegrass Saturdays
- Classical Guitar Ensemble
- Community Concert Band
- Concert Handbell Choir
- Dance Events
- Design Graduate 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

Intercollegiate Sports

Sports for All

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

If you've got what it takes, Sinclair's intercollegiate sports program can give you what you need. Students can choose from four men's intercollegiate teams (basketball, tennis, baseball and golf) and three women's teams (basketball, volleyball and tennis).

As a member of the National Junior College Athletic Association, Sinclair 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:

Jim Price	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
April Carpenter	Women's Tennis

Intramurals

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

Like a little competition in your game now and then? A member of the National Intramural Recreational Sports Association, Sinclair offers over 20 different intramural activities for students, faculty, staff and alumni. Team and individual recreational programs include volleyball, basketball, tennis, and racquetball. For an intramural handbook that contains specific information (dates, times, places) related to a quarter-by-quarter activity schedule, go to the intramural office, Room 8023.

Physical Activity Center

See page 47.

Sinclair Honors Program

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

Highly motivated students who love to learn may find the Sinclair Honors Program is for them. Designed to meet special academic and leadership needs, the program gives students the opportunity to become independent learners through in-depth study of academic disciplines. Those who qualify can participate in one of two ways, Honors Scholars program or individual Honors courses.

The Honors Scholars program provides special recognition and scholarship opportunities. In order to apply and be accepted, students have to complete five Honors experiences in at least three Liberal Arts & Sciences disciplines, including one Honors Interdisciplinary course, and maintain a grade point average of 3.25 or higher.

Anyone can enroll in individual Honors courses, although students with no GPA or a GPA under 3.25 must see the Honors director for permission. To receive Honors credits, students have to earn an "A" or "B" grade in the course. Earned Honors credit is recorded on their transcript. Students may earn their Honors recognition by successfully completing Honors designated courses, seminars and/or 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 may be able to earn scholastic recognition through membership in Phi Theta Kappa, the honor society for two-year colleges. Sinclair's chapter, Nu Pi, one of the most active student organizations on campus, gives opportunities for campus and community service, leadership development, and scholarships.

Phi Theta Kappa members become part of the international organization that offers national scholarships and scholastic development through the honors study topic. To be eligible for membership, students have to be in a degree granting program, have earned 15 academic credit hours or more at Sinclair, with a GPA of 3.5 or higher.

After joining, they receive a Phi Theta Kappa notation on the Sinclair transcript. Members also wear the Phi Theta Kappa gold stole at graduation and have the Phi Theta Kappa gold seal affixed to their diplomas.

Each member must maintain a 3.5 GPA. If the GPA falls below the 3.5 standard, the member will have one quarter to raise the GPA in order to maintain membership. If the student graduates with a GPA 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 the leadership skills of Sinclair students who demonstrate initiative, maturity, intellectual curiosity, social concern, and a genuine desire to grow and lead.

Students may be nominated by a faculty member or may nominate themselves. The program advisory board interviews nominees and then selects students it feels will benefit from, and also contribute to, the program. New students are inducted each quarter.

Upon induction into the program, students are required 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 194, Words & Community Issues (fall) (tuition and texts paid for by the program).
- Complete a community internship.

The program also includes a mentor component, programs and activities designed to develop leadership skills, service and leadership projects and individual life/career planning.

Student Activities

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

Student Activities 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 office is located in the lower level of Building 8.

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 Activities Center.

Students are encouraged to participate in 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 Activities academic quarter hours:

Monday - Friday, 8:00 a.m. - 5:00 p.m.

Summer hours:

Monday - Friday, 8:00 a.m. - 4:30 p.m.

Closed Saturday and Sunday

Student Government Association

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

The Student Government Association (SGA) serves and represents the needs and desires of the student body, members of the faculty, administration and trustees; and promotes leadership in Student Activities.

Because SGA is an important part of student life, students are automatically members of the association once they are accepted into the college. Sinclair encourages all students to become active members, so that the association really does represent student thought and opinion.

Funded through the Student Activities Advisory Board, the SGA sponsors educational and entertainment activities such as dances, concerts, movies and many other events.

The Student Government executive board members:

- Assist Student Activities in authorizing the chartering of student organizations.
- Approve constitutional or bylaw changes by an organization under the board's jurisdiction.
- Recommend action or policy to the college administration.
- Investigate any matter affecting the student body.
- Plan and present student programs.

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. Get information about the Student Government Association, its constitution and information on developing a club or organization in the Student Activities office, Room 8025.

The Clarion

Building 7, Room 7240, (937) 512-2744

clarion@sinclair.edu

Want to learn more about the newspaper game? Join Sinclair's newspaper, *the Clarion*, and become involved in reporting, layout and design, cartooning, proofreading, distribution, advertising, and business management. Students can be paid as a student assistant. To learn more, contact *the Clarion* office.

The Clarion is published weekly during the regular academic year and twice during summer quarter. Newspapers are available on racks in every building throughout campus.

Degrees & Programs

www.sinclair.edu



At Sinclair—how, what, where and when are up to you.

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.

Or how about taking the alternative learning route? Discover all sorts of ways to meet all your needs—Distance Learning, College Without Walls, Credit for Lifelong Learning, Cooperative Education.

Or register for courses at other colleges through the Southwestern Ohio Council for Higher Education for Sinclair credit.

Whatever students choose to study, they are going to need to complete specific course work and meet certain prerequisites. Be sure to plan the program with an academic counselor or faculty advisor. Find a complete list of counselors and department chairpersons before each division's listing in this catalog. Feel free to contact them for answers to questions.

Prepare for entry into a specific job field, get a promotion, or make a career change. Check out the list of Sinclair's career programs on the following pages.

If transferring to a four-year college is the goal, Sinclair's University Parallel degree programs may be right. But, first things first.

To be successful, students must:

- Determine the transferability of all courses before taking classes at Sinclair. Remember: the transfer school has the final determination of what courses will be accepted for that school's degree requirements.
- Plan the program carefully with both a Sinclair academic counselor and an advisor at the transfer school. Most Liberal Arts & Sciences courses completed with a final grade of "C" or better will transfer.

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 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.

University Parallel programs are suggested programs of study for those who ultimately plan to major, at a four-year school, in one of the areas listed on the following pages.

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.

General Education

www.sinclair.edu

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.

Sinclair Honor Code

The Sinclair Honor Code stems from the General Education competency relating to Values, Citizenship, Community. In November 2002, a campuswide vote resulted in strong support for the Honor Code:

As a member of the Sinclair College community of students, faculty, and staff, I will uphold the values of citizenship, social-responsibility, and personal accountability. I will maintain the highest standards of professional and academic ethics. I will uphold my personal integrity, dignity, and self-respect by being fair and honest at all times and by treating all individuals with respect. By honoring these ideals, I will be building a better future for myself, my college, and my local, regional, and global communities.

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



The Choice is Yours...

- 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 141 Appalachia
- 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

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

- ART 231 Art of the Ancient World
- 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
- LIT 211, 212 Survey of American Literature I, II
- LIT 227 Introduction to Shakespeare
- LIT 230 Great Books of the Western World
- MUS 131, 132, 133 Music Styles I, II, III
- THE 201, 202, 203 History of Theatre I, II, III

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

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 communication, thinking, and values/citizenship/community, the vision for a diverse community of lifelong learners at Sinclair will be achieved.

Degrees

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

Career Programs (A.A.S.)

- Accounting
- Architectural Technology
- Automation & Control Technology
- Automotive Technology
- Aviation Technology
 - Options: Aviation Maintenance
 - Professional Pilot & Airway Science
- Biotechnology
- Business Information Systems
 - Options: Accounting Office
 - Legal Office
 - Medical Office
- Business Management
- Civil Engineering Technology
 - Option: Construction Management
- Computer Information Systems
 - Concentration: Network Engineer
 - Network Manager
 - Software Development
 - User Support
 - Web Development
- Corrections
 - Options: Community Based
 - Institutional
- Dental Hygiene Technology
- Dietetics & Nutritional Management Technology
- Disabilities Intervention Services
- Early Childhood Education
- 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
- Integrative Medical Massage Therapy
- Interior Design
- Labor Studies
- Law Enforcement
 - Options: Industrial/Retail Security
 - Police Science
- Legal Assisting
- Logistics Management
- Manual Communication
- Marketing Management
- Mechanical Engineering Technology
 - Option: Heating & Air Conditioning
- Medical Assistant Technology
- Mental Health Technology
- Mid-Management Retailing
- Nursing
- Occupational Therapy Assistant
- Personal Computer Applications
- Physical Therapist Assistant
- Printing Technologies
- Procurement & Materials Management
 - Options: Production & Inventory Control
 - Transportation
- Quality Engineering Technology
 - Options: Packaging
 - Quality Assurance

- Radiologic Technology
- Real Estate/Property Management
- Respiratory Care
- Safety Engineering Technology
- Surgical Technology
- Tooling & Machining Technology
 - Options: Machining
 - Mechanical
- Travel & Tourism
- Visual Communications

Certificate Programs

- Adult Services Specialist
- Airframe Aviation Maintenance
- Automotive Technology
- Business Management
- Church Music
- Disabilities Intervention Services
- Early Childhood Education
- Early Intervention Specialist
- Electrical & Electronics Repair Technology
- Emergency Medical Services
- Fire Administration
- Fire Science Technology
- Food Service Management
- General Aviation Maintenance
- Gerontology
- Hospital Coding
- Human Services
- Infant/Toddler Education
- Information Processing
- Labor Studies
- Manual Communication
- Medical Office Specialist
- Medical Transcription
- Paraeducator Instruction Specialist
- Personal Computers for Business
- Plastics & Composites Engineering Technology
- Powerplant Aviation Maintenance
- 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
- Adult Services
- Advanced Construction Technician
- Advanced Substance Abuse
- Allied Health Management
- Art Administration
- Automotive High Performance
- Basic Drawing
- Call Center
- Ceramics/Sculpture
- Clinical Phlebotomy
- Construction Supervisor
- Construction Technician
- Corrections
- Dance
- Desktop Publishing
- Dietary Management
- Digital Prepress
- Drafting & Design
- Early Intervention
- Electrical Construction
- Electrocardiography
- EMT-Basic Certificate
- EMT-Paramedic Certificate
- Exercise Specialist
- Family Advocate
- Fast Track Programmer Analyst
- Firefighter Technician
- Ford Maintenance & Light Repair
- Help Desk

- Human Resource Management
- Industrial Maintenance Technician
- Industrial Robot Technician
- JAVA Enterprise DEV Implementation
- Light Commercial HVAC Service
- Long Term Care
- Manufacturing Management
- Mechanical Maintenance
- Medical Office Coding Specialist
- Multi-Skilling Health Care
- Multimedia
- Offset Printing
- Paraeducator Instruction
- Pharmacy Technician
- Photographic Technology
- Professional Communication
- Rescue Technician
- Social Service
- Software Applications for the Professional
- Substance Abuse
- Top Gun Machining Academy
- Web Authoring
- Web Programming

Individualized Degrees

- Associate of Technical Studies
- Associate of Individualized Study

University Parallel Programs (A.A. & A.S.)

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

- Music Education
- Music Performance
- Theatre Performance
- Theatre Technical

Specialized Courses

- Basics of Activities Programming
- Electrocardiography for the Health Care Provider
- Health Unit Coordinator
- Home Health Aide
- Nurse Aide Training
- Patient Care Assistant
- Pediatric Patient Care Assistant
- Venipuncture for the Health Care Provider



One of the great things about an education in Allied Health Technologies is that it leads to a satisfying—and secure—career. That's because employers are in desperate need of competent and caring professionals with the kind of skills and knowledge that you'll learn at Sinclair. In fact, surveys of our graduates show that nearly 100% are employed! And job opportunities continue to grow as more and more facilities offer health care, including clinics, urgent care centers and mobile units. I'm sure you'll find your career in health care to be as challenging—and rewarding—as I have.

—Dr. David L. Collins, Dean

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 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.

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

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

Dental Hygiene
Rena Shuchat, Chairperson
(937) 512-2779, Room 4332

Dietetics & Nutritional Management
Nora Schaefer, Chairperson
(937) 512-2756, Room 13228

Emergency Medical Services
Chuck Sowerbrower, Chairperson
(937) 512-5338, Room 19223

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
Linda Mowrey, 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

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

Radiologic Technology
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

Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair does not mail grade reports automatically to students. Grades will be mailed to students only upon request through the telephone grade reporting system.

Student grades are 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

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 counseling 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 course work 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 GED) 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 placement testing in Room 10455 and meet with an Allied Health counselor. Call (937) 512-3029 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. 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 (109-110 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.

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Admission Requirements:

ALH	140	Basic Life Support	1
BIO	107	Human Biology	5
		or	
	141,142,143	Anatomy & Physiology	12
SOC	111	General Sociology I	3
		TOTAL	9 or 16

Course & Title**FIRST QUARTER**

ALH	104	Allied Health Informatics	2
DEH	103	Head & Neck Anatomy	4
DEH	105	Introduction to Dental Hygiene	2
CHE	122	Bio-Chemistry	4
ENG	111	English Composition I	3
		TOTAL	15

SECOND QUARTER

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

THIRD QUARTER

DEH	112	Pre-Clinical Dental Hygiene II	4
DEH	135	Dental Radiology	4
DEH	156	Dental Hygiene Research Project	1
DEH	220	Medical Emergencies in the Dental Office	2
DEH	106	Nutrition & Oral Health	3
ALH	220	Pathophysiology	4
		TOTAL	18

FOURTH QUARTER

DEH	113	Clinical Dental Hygiene I	5
DEH	215	Periodontics I	2
MAT	101	Elementary Algebra	4
PSY	119	General Psychology	5
		(or PSY 121 & PSY 122 = 6 cr. hrs.)	5
		TOTAL	16-17

FIFTH QUARTER

DEH	125*	Dental Materials	3
DEH	211	Clinical Dental Hygiene II	7
DEH	210	Drug Therapy in Dentistry	2
DEH	235	Community Dental Health I	3
		TOTAL	15

SIXTH QUARTER

DEH	212	Clinical Dental Hygiene III	7
DEH	250	Periodontics II	2
DEH	253	Pain Control in Dentistry	1
COM	211	Effective Speaking	3
		TOTAL	13

SEVENTH QUARTER

DEH	213	Clinical Dental Hygiene IV	7
DEH	236	Community Dental Health II	2
DEH	255	Dental Hygiene Practice	2
—	—	Humanities Elective*	3
		TOTAL	14

* See page 62.

Dietetics & Nutritional Management Technology

(107 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 (CADE) 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 (ADA) 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.

Course & Title**FIRST QUARTER**

DIT	109	Introduction to Dietetics	2
DIT	112	Medical Terminology	2
ALH	103	Introduction to Health Care Delivery	3
MAT	101	Elementary Algebra	4
CHE	120	Introduction to Chemistry	4
		TOTAL	15

SECOND QUARTER

DIT	129	Human Nutrition	5
DIT	137	Food Safety & Sanitation	3
CHE	122	Introduction to Biochemistry	4
ALH	104	Allied Health Informatics	2
		TOTAL	14

THIRD QUARTER

DIT	135	Nutrition in the Life Cycle	4
DIT	224	Community Nutrition	3
DIT	205	Food & Meal Management	3
DIT	207	Laboratory for DIT 205	2
ENG	111	English Composition I	3
		TOTAL	15

FOURTH QUARTER

PSY	119	General Psychology	5
COM	206	Interpersonal Communication	3
ENG	112	English Composition II	3
SOC	111	General Sociology I	3
		TOTAL	14

FIFTH QUARTER

DIT	221	Medical Nutrition Therapy I	3
DIT	226	Dietetics Directed Practice I	4
DIT	225	Educational Methods & Materials	4
DIT	216	Food Preparation & Service	4
DIT	218	Directed Practice for DIT 216	2
		TOTAL	17

SIXTH QUARTER

DIT	222	Medical Nutrition Therapy II	4
DIT	227	Dietetics Directed Practice II	4
DIT	240	Food & Culture	5
—	—	Humanities Elective*	3
		TOTAL	16

continued next page

SEVENTH QUARTER

DIT	223	Medical Nutrition Therapy III	4
DIT	228	Dietetics Directed Practice III	4
DIT	236	Organization & Management	6
DIT	255	Dietetics Seminar	2
TOTAL			16

* See page 62.

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 (CAHEA) 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

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

Course & Title

FIRST QUARTER

Course	Title	Credit Hours	
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 Reimbursement	3
HIM	135	Medicolegal Aspects of Health Care Records	3
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
ENG	111	English Composition I	3
		or	
	131	Business Communications I	3
ALH	201	Survey of Drug Therapy	2
—	—	Portfolio Elective	3
TOTAL			16

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FOURTH QUARTER

MAT	106	Allied Health Mathematics	4
		or	
	101	Elementary Algebra	3
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	3
ENG	112	English Composition II	3
		or	
	132	Business Communications II	3
PSY	121	General Psychology I	3
		or	
SOC	111	General Sociology I	1
BIS	M51	Introduction to PowerPoint	1
TOTAL			14

FIFTH QUARTER

HIM	236	Ambulatory Coding for Hospitals	3
HIM	250	Supervised Professional Practice I	2
HIM	244	Health Care Quality Improvement	3
HIM	245	Health Information Resource Management	3
—	—	Humanities Elective*	3
TOTAL			14

SIXTH QUARTER

HIM	231	Inpatient ICD-9-CM Coding	5
HIM	251	Supervised Professional Practice II	3
HIM	228	Clinical Abstracting	3
HIM	235	Health Record Statistics	3
TOTAL			14

SEVENTH QUARTER

HIM	218	Cancer Registry	1
HIM	278	HIM Capstone	3
HIM	204	Health Informatics	2
HIM	252	Supervised Professional Practice	4
—	—	General Education Elective*	3
TOTAL			13

* See page 62.

Integrative Medical Massage Therapy

(106 Total Credit Hours)

The massage therapy program is a partnership between Sinclair and Self-Health Institute (SHI) of Lebanon, Ohio. Completion of the curriculum will lead to a diploma issued by SHI 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	107	Human Biology	5
TOTAL			5

continued next page

Course & Title			Credit Hours
FIRST QUARTER			
ALH	104	Allied Health Informatics	2
ENG	131	Business Communication I	3
	111	English Composition I	
MAT	105	Business Mathematics	4
	101	Introduction to Algebra	
HIM	121	Medical Terminology	3
ALH	151	Introduction to Holistic Therapy	1
IMT	105	Personal Assessment for Massage Therapists	2
		TOTAL	15
SECOND QUARTER			
ENG	132	Business Communication II	3
	112	English Composition II	
FIN	245	Personal Finance	3
COM	206	Interpersonal Communication	3
IMT	101	Integrative Medical Massage Therapy I	2
SOC	111	General Sociology	3
	145	Comparing Cultures	
		TOTAL	14
THIRD QUARTER			
IMT	103	Integrative Medical Massage Therapy II	5
IMT	107	Anatomy & Physiology for Massage Therapists I	5
ALH	152	Pain Management	4
BUO	105	Business Ownership Orientation	3
		TOTAL	17
FOURTH QUARTER			
IMT	205	Integrative Medical Massage Therapy III	5
IMT	210	Anatomy & Physiology for Massage Therapists II	5
		TOTAL	10
FIFTH QUARTER			
IMT	207	Integrative Medical Massage Therapy IV	5
IMT	212	Anatomy & Physiology for Massage Therapists III	5
IMT	216	Business Practices for Massage Therapists I	3
—	—	Humanities Elective*	3
		TOTAL	16
SIXTH QUARTER			
IMT	208	Integrative Medical Massage Therapy V	5
IMT	214	Anatomy & Physiology for Massage Therapists IV	5
IMT	218	Massage Therapy Practicum	2
		TOTAL	12
SEVENTH QUARTER			
IMT	220	Anatomy & Physiology Seminar	3
ALH	203	Health Care Wellness & Promotion	2
IMT	221	Massage Therapy Seminar	3
IMT	223	Business Practices for Massage Therapists II	2
IMT	224	Pain Management for Massage Therapists	2
		TOTAL	12

* See page 62.

Medical Assistant Technology

(103 Total Credit Hours)

Medical 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 (CAAHEP) on recommendation of the curriculum review board of the American Association of Medical Assistant's Endowment (AAMAE). 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 (CMA).

Note: Professional CPR 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.

Prerequisites:

ALH	103	Introduction to Health Care Delivery	3
MAS	101	Introduction to Medical Assisting	2
		TOTAL	5

Course & Title

FIRST QUARTER			Credit Hours
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

SECOND QUARTER

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 Practice	2
ENG	132	Business Communication II	3
		TOTAL	17

THIRD QUARTER

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

FOURTH QUARTER

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 QUARTER

MAS	106	Medical Office Emergency Procedures	3
MAS	201	Family Practice Clinical Assisting Procedures	3
MAS	202	Insurance & Patient Records	3
MAS	203	Medical Assisting Directed Practice I	2
HIM	260	ICD-9-CM Medical Office Coding	3
HIM	261	CPT Medical Office Coding	3
TOTAL			17

SIXTH QUARTER

MAS	204	Medical Assisting Directed Practice II	3
MAS	206	Specialty Clinical Assisting Procedures	3
MAS	207	Medical Laboratory Procedures	3
ALH	130	Electrocardiography for the Health Care Provider	1
—	—	Humanities Elective*	3
TOTAL			13

SEVENTH QUARTER

MAS	205	Medical Assisting Directed Practice III	5
MAS	208	Medical Assisting Seminar	2
BIS	220	Computer Applications for the Medical Office	4
RAT	104	Radiographic Principles for General Machine Operator	4
TOTAL			15

* See page 62.

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 GPA of 2.0 is required for admission to the program.

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

Course & Title

FIRST QUARTER

Course & Title	Credit Hours	
ENG 111 English Composition I	3	
PSY 121 General Psychology I	3	
BIO 107 Human Biology	5	
MHT 101 Introduction to Mental Health Work	3	
TOTAL		14

SECOND QUARTER

ALH 103 Introduction to Health Care Delivery	3	
ENG 112 English Composition II	3	
PSY 122 General Psychology II	3	
MAT 105 Business Mathematics	4	
SOC 111 General Sociology I	3	
TOTAL		16

continued next column

THIRD QUARTER

ALH	104	Allied Health Informatics	2
PSY	160	African-American Psychology	3
PSY	217	Abnormal Psychology	4
MHT	115	Social Case Work	3
MHT	126	Introduction to Addictive Illnesses	3
TOTAL			15

FOURTH QUARTER

MHT	201	Interviewing & Assessment	3
PSY	208	Life Span Development	5
COM	206	Interpersonal Communication	3
—	—	Humanities Elective*	3
TOTAL			14

FIFTH QUARTER

MHT	211	Group Dynamics I	3
MHT	221	Activity Therapy	3
MHT	205	Psychosocial Interventions	3
MHT	202	Practicum in Mental Health I	5
TOTAL			14

SIXTH QUARTER

MHT	212	Group Dynamics II	3
MHT	—	MHT Elective (see MHT advisor)	3
MHT	245	Mental Health & the Family	4
MHT	203	Practicum in Mental Health II	5
TOTAL			15

SEVENTH QUARTER

MHT	213	Group Dynamics III	3
SOC	205	Social Problems	4
—	—	Career-related Elective	3
MHT	204	Practicum in Mental Health III	5
TOTAL			15

* See page 62.

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 (ADN) 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 placement test
- High school chemistry (within previous five years with grade of "C" or better or college equivalent)

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- Nursing pre-admission exam
 - Certified Nurse Assistant status
- Note:** CPR certification is required prior to NUR 122 and must remain current throughout the program.

Course & Title		Credit Hours
FIRST QUARTER		
ALH 103	Introduction to Health Care Delivery	3
BIO 141	Principles of Anatomy & Physiology I	4
COM 206	Interpersonal Communication	3
ENG 111	English Composition I	3
PSY 119	General Psychology	5
	TOTAL	18
SECOND QUARTER		
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
THIRD QUARTER		
BIO 143	Principles of Anatomy & Physiology III	4
NSG 122	Physiological Stressors	8
NSG 123	Promoting Healthy Responses Through Psychomotor Interventions	3
	TOTAL	15
FOURTH QUARTER		
ALH 219	General Pharmacology	3
NSG 220	Promoting Health Responses to Specific Stressors I	8
PSY 208	Life Span Human Development	5
	TOTAL	16
FIFTH QUARTER		
ALH 104	Allied Health Informatics	2
NSG 221	Promoting Healthy Responses to Psychosocial Stressors (1/2 qtr.)	4
NSG 222	Promoting Healthy Responses to Specific Stressors III (1/2 qtr.)	4
	TOTAL	10
SIXTH QUARTER		
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
	TOTAL	11.5
SEVENTH QUARTER		
ALH	Portfolio Elective	3
NSG 225	Promoting Healthy Responses in the Child & Family (1/2 qtr.)	4.5
NSG 226	Promoting Healthy Responses to Interrelated Pathophysiological Stressors III (1/2 qtr.)	4
	TOTAL	11.5
EIGHTH QUARTER		
	Humanities Elective*	3
NSG 230	Directed Nursing Practice	7
	TOTAL	10

* See page 62.

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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 LPN's

Sinclair offers an advanced placement into the nursing program for qualified LPN'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 course work. It is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA'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 (NBCOT). After successful completion of this examination, the individual will be a Certified Occupational Therapy Assistant (COTA) 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

Course & Title		Credit Hours
FIRST QUARTER		
ALH 142	Fundamentals of Disease Processes	4
ALH 160	Learning Communities for Health Care Professionals	1
OTA 131	Therapeutic Self	9
	TOTAL	14

SECOND QUARTER

ENG 111	English Composition	3
HIM 121	Basic Medical Terminology	3
OTA 104	Applied Anatomy	2
OTA 132	The Nature of Being Human	9
	TOTAL	17

continued next page

THIRD QUARTER

COM	206	Interpersonal Communication	3
PSY	121	General Psychology I	3
OTA	133	The Dysfunctional Human	9
		TOTAL	15

FOURTH QUARTER

		Program Electives	3
BIS		Electives	2
ENG	112	English Composition II	3
PSY	122	General Psychology I	3
SOC	111	General Sociology I	3
		TOTAL	14

FIFTH QUARTER

ALH	104	Health Informatics	2
SOC	215	Cultural Diversity	4
OTA	231	Treatment Issues	9
		TOTAL	15

SIXTH QUARTER

		Humanities Elective*	3
MAT	106	Allied Health Mathematics	4
OTA	232	Treatment Issues II	9
		TOTAL	16

SEVENTH QUARTER

OTA	220	Clinical Affiliation I	3
OTA	233	Clinical Issues I	1
		TOTAL	4

EIGHTH QUARTER

OTA	221	Clinical Affiliation II	3
OTA	234	Clinical Issues II	1
		TOTAL	4

* See page 62.

Physical Therapist Assistant

(109 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.

Prerequisites

BIO	141	Anatomy & Physiology I	4
BIO	142	Anatomy & Physiology II	4
PTA	106	Introduction to Physical Therapy	2
		TOTAL	10

continued next column

**Credit
Hours**

Course & Title

FIRST QUARTER

PTA	116	Movement Science I	5
ALH	103	Introduction to Health Care Delivery	3
BIO	143	Anatomy & Physiology	4
HIM	121	Medical Terminology	3
ALH	104	Allied Health Informatics	2
		TOTAL	17

SECOND QUARTER

PTA	118	Movement Science II	5
PTA	120	Pathology & P.T. Clinical Practice	5
MAT	101	Elementary Algebra (or higher)	4
PTA	110	Fundamentals of PT Practice	2
		TOTAL	16

THIRD QUARTER

PTA	134	Tests & Measures	3
PTA	130	Therapeutic Exercise I	4
PHY	100	Introduction to Physics	4
		or	
	142	College Physics	
PTA	124	Clinical Procedures I	5
		TOTAL	16

FOURTH QUARTER

PTA	221	Clinical Procedure II	2
PTA	223	Therapeutic Exercise II	4
ENG	111	English Composition I	3
PSY	119	General Psychology	5
		TOTAL	14

FIFTH QUARTER

PTA	226	Clinical Procedures III	3
PTA	211	Clinical Practicum I	3
PTA	230	Neuroscience for PTA	2
ENG	112	English Composition II	3
		TOTAL	11

SIXTH QUARTER

PTA	212	Clinical Practicum II	3
PTA	233	Rehabilitation Skills	5
COM	206	Interpersonal Communication	3
		TOTAL	11

SEVENTH QUARTER

PTA	213	Clinical Practicum III	3
PTA	235	Practice Management	3
		Humanities Elective*	3
PSY	208	Life Span Human Development	5
		TOTAL	14

* See page 62.

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.

continued next page

Recommended Prerequisite

BIO 107	Human Biology	5
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Required Prerequisite

PHY 100	Introduction to Physics (or high school physics within the past five years)	4
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Course & Title**FIRST QUARTER**

ALH 103	Introduction to Health Care Delivery	3
ALH 106	Introduction to Health Care Practice	2
ENG 111	English Composition I	3
HIM 121	Basic Medical Terminology	3
MAT 101	Elementary Algebra	4
	TOTAL	15

SECOND QUARTER

ALH 104	Allied Health Informatics	2
ENG 112	English Composition II	3
BIO 131	Radiologic Anatomy & Physiology I	5
RAT 121	Introduction to Radiography & Positioning	4
RAT 131	Patient Care in Radiography	2
	TOTAL	16

THIRD QUARTER

BIO 132	Radiologic Anatomy & Physiology II	5
RAT 111	Clinical Competency Development I	4
RAT 122	Radiographic Positioning	4
RAT 132	Ethics & Law in Medical Imaging	2
	TOTAL	15

FOURTH QUARTER

PHY 106	Physics for Radiologic Technology	5
RAT 112	Clinical Competency Development II	4
RAT 123	Fluoroscopy in Radiography	5
	TOTAL	14

FIFTH QUARTER

COM 206	Interpersonal Communication	3
	Humanities Elective*	3
RAT 215	Pathology for Radiographers	2
SOC 111	General Sociology I	3
	TOTAL	11

SIXTH QUARTER

RAT 212	Clinical Competency Development III	6
RAT 218	Advanced Radiographic Practice	3
RAT 219	Pharmacology for Radiography	1
RAT 222	Principles of Radiographic Technique	5
	TOTAL	15

SEVENTH QUARTER

RAT 199	Computers in Medical Imaging	2
RAT 213	Clinical Competency Development IV	8
RAT 231	Sectional Anatomy	2
	TOTAL	12

EIGHTH QUARTER

RAT 214	Clinical Competency Capstone	4
RAT 226	Synopsis in Radiography	2
RAT 229	Quality Management in Medical Imaging	1
RAT 232	Radiation Biology	2
SOC 145	Comparing Cultures	3
	TOTAL	12

* See page 62.

Respiratory Care**(108 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.

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
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Course & Title**FIRST QUARTER**

BIO 141	Anatomy & Physiology I	4
MAT 106	Allied Health Mathematics	4
ALH 103	Introduction to Health Care Delivery	3
ALH 106	Introduction to Health Care Practice	2
	TOTAL	13

SECOND QUARTER

BIO 142	Anatomy & Physiology II	4
RET 110	Respiratory Therapeutics I	5
BIO 125	Respiratory Anatomy & Physiology	3
ENG 111	English Composition I	3
	TOTAL	15

THIRD QUARTER

BIO 143	Anatomy & Physiology III	4
RET 120	Respiratory Therapeutics II	4
ENG 112	English Composition II	3
	Humanities Elective*	3
	TOTAL	14

FOURTH QUARTER

RET 130	Cardiopulmonary Disease Processes	4
RET 140	Adjuncts to Respiratory Care	6
RET 224	Cardiopulmonary Pharmacology	3
	TOTAL	13

FIFTH QUARTER

ALH 130	Electrocardiography for Health Care Providers	1
COM	Communication Arts Elective	3
ALH 104	Health Informatics	2
RET 146	Clinical Practice	3
PSY	Psychology Elective	3
	TOTAL	12

SIXTH QUARTER

RET 230	Respiratory Critical Care I	8
ALH 220	Pathophysiology	4
ALH 141	Emergency Cardiac Care	2
	TOTAL	14

SEVENTH QUARTER

RET 240	Respiratory Critical Care II	8
RET 250	Pediatrics & Neonatology	4
	TOTAL	12

EIGHTH QUARTER

RET 260	Assessment of Respiratory Function	3
RET 280	Correlations in Respiratory Care	6
	Portfolio Elective	3
	TOTAL	12

* See page 62.

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 CPR 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.

Course & Title	Credit Hours
FIRST QUARTER	
BIO 161 Surgical Anatomy & Physiology I	5
COM 206 Interpersonal Communication	3
ENG 111 English Composition I	3
ALH 103 Introduction to Health Care Delivery	3
HIM 121 Basic Medical Terminology	3
TOTAL	17
SECOND QUARTER	
BIO 162 Surgical Anatomy & Physiology II	5
PSY 119 General Psychology	5
SUT 111 Surgical Technology Fundamentals	6
TOTAL	16
THIRD QUARTER	
ALH 104 Allied Health Informatics	2
BIO 205 Microbiology	4
SUT 112 Surgical Process	10
TOTAL	16
FOURTH QUARTER	
ALH 201 Survey of Drug Therapy	2
MAT 106 Allied Health Mathematics	4
SUT 211 Surgical Procedures I	10
TOTAL	16
FIFTH QUARTER	
ALH 220 Pathophysiology	4
ENG 112 English Composition II	3
SUT 212 Surgical Procedures II	10
TOTAL	17
SIXTH QUARTER	
SUT 213 Surgical Procedures III	11
ALH ____ Portfolio Elective	2
TOTAL	13
SEVENTH QUARTER	
SUT 220 Surgical Technology Role Transition	10
____ Humanities Elective*	3
TOTAL	13

* See page 62.

Certificate Programs

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 142 for more details on degree planning.

• Associate of Applied Science, Emergency Medical Technology (One-Plus-One)

Students complete first year of degree at Sinclair and transfer to Clark State Community College for the final year. First year curriculum follows:

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

*Courses required for EMT-Paramedic Certification

Hospital Coding

(51 Total Credit Hours)

Completion of this one-year certificate prepares individuals to work in hospitals and other health care organizations in coding and reimbursement positions. Students gain basic knowledge of anatomy, medical terminology, pathology, medical record science, and health care delivery systems. In addition, advanced knowledge and skills in ICD-9 and CPT coding systems, DRG and APC reimbursement systems, and computer software applications are included. The program is designed to prepare the student to take the Certified Coding Associate (CCA) certification examination offered by the American Health Information Management Association. Student must earn at least a "C" in all required courses and maintain a 2.0 GPA. Some courses are only offered during the day.

Course & Title	Credit Hours
FIRST QUARTER	
BIO 107/108 Human Biology	5
HIM 121 Basic Medical Terminology	3
ALH 103 Introduction to Health Care Delivery	3
ALH 104 Allied Health Informatics	2
TOTAL	13

continued next page

SECOND QUARTER

HIM	122	Specialized Medical Terminology	3
HIM	260	ICD-9-CM Medical Office Coding	3
HIM	261	CPT Medical Office Coding	3
HIM	110/116	Health Information Processing I	3
TOTAL			12

THIRD QUARTER

HIM	262	Advanced Medical Office Coding	4
HIM	265	Health Care Data in Reimbursement	3
MAS	202/282	Insurance & Patient Records	3
ALH	142	Fundamentals of Disease Process	4
TOTAL			14

FOURTH QUARTER

HIM	231	Inpatient ICD-9-CM Coding	5
HIM	135	Medicolegal Aspects of Health Care Records	3
HIM	264	Hospital Coding Practicum	2
ALH	201	Survey of Drug Therapy	2
TOTAL			12

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.

Course & Title

FIRST QUARTER

			Credit Hours
BIO	107	Human Biology	5
HIM	121	Basic Medical Terminology	3
BIS	102	Document Formatting	2
ALH	104	Allied Health Informatics	2
ALH	103	Introduction to Health Care Delivery	3
TOTAL			15

SECOND QUARTER

ALH	142	Fundamentals of Human Disease	4
HIM	122	Specialized Medical Terminology	3
BIS	103	Advanced Document Formatting/ Skill Building	4
ENG	131	Business Communications I	3
TOTAL			14

THIRD QUARTER

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

FOURTH QUARTER

HIM	202	Medical Surgical Transcript. Lab Practicum	3
BUO	105	Business Ownership Orientation	3
—	—	Portfolio Elective	2
TOTAL			8

Short Term Certificates

Allied Health Management

(13 Total Credit Hours)

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

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

Clinical Phlebotomy

(3 Total Credit Hours)

This course is intended to provide expanded competencies and proficiencies to practicing professionals, students enrolled in health science programs, and entry level skills to accommodate special situation individuals. The students will be required to complete 25 hours of non-paid clinicals during the course. Clinicals for this course are held during the day. Class held in the evenings. Students who complete this course will receive a certificate of completion.

Course & Title

ALH 111 Clinical Phlebotomy	3
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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.

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

continued next page

ALH

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.

Course & Title	Credit Hours
ALH 107 Principles of Electrocardiography	3

EMT-Basic Certification

(8 Total Credit Hours)

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

Course & Title	Credit Hours
FIRST QUARTER	
EMS 115 EMT-Basic Theory & Practice I	5
EMS 116 EMT-Basic Theory & Practice II or EMS 117 EMT-Basic Theory & Practice I and II (EMS 115 and EMS 116) packaged together	3 8

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.

Course & Title	Credit Hours
FIRST QUARTER	
EMS 135 Paramedic I: Introduction to ALS Care	8
EMS 136 Paramedic II: The Respiratory & Cardiac Patient	8
EMS 137 Paramedic III: Trauma & Pediatrics	8
EMS 138 Paramedic IV: The Medical Patient	8
EMS 139 Paramedic V: Integration	7

Long Term Care

(9 Total Credit Hours)

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

Course & Title	Credit Hours
FIRST QUARTER	
ALH 125 Basics of Activities Programming	3
SECOND QUARTER	
ALH 135 Administration of Activities Programming	3
THIRD QUARTER	
ALH 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.

Course & Title	Credit Hours
FIRST QUARTER	
ALH 103 Introduction to Health Care Delivery	3
BIO 107 Human Biology	5
TOTAL	8
SECOND QUARTER	
ALH 104 Allied Health Informatics	2
HIM 121 Basic Medical Terminology	3
TOTAL	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)

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 & Title		Credit Hours
FIRST QUARTER		
ALH 103	Introduction to Health Care Delivery	3
BIO 107/108	Human Biology	5
— —	Clusters	<u>1-8</u>
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	
	131 Business Communications I	3
COM 206	Interpersonal Communication	3
— —	Clusters	<u>1-8</u>
TOTAL		7-14

CLUSTERS

Diagnostic Procedures

ALH 111	Clinical Phlebotomy	3
ALH 107	Principles of EKG	3
RAT 104	Radiological Principles for GMO	4

Patient Care

ALH 120	Nurse Aide Training	6
ALH 131	Patient Care Assistant	
	or	
	133 Pediatric Patient Care Assistant	6

Health Unit Coordinator

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	<u>2</u>
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.

Course & Title		Credit Hours
FIRST QUARTER		
ALH 122	Pharmacy Technician I	5
HIM 121	Basic Medical Terminology	3
BIO 107	Human Biology	5
ALH 103	Introduction to Health Care Delivery	<u>3</u>
TOTAL		16
SECOND QUARTER		
ALH 123	Pharmacy Technician II	5
ALH 142	Fundamentals of Disease Processes	4
BIS 101	Personal Computer Keyboarding	2
MAT 106	Allied Health Mathematics	<u>4</u>
TOTAL		15
THIRD QUARTER		
ALH 124	Pharmacy Technician III	5
ALH 113	Venipuncture for the Health Care Provider	2
ALH 104	Allied Health Informatics	2
ALH 140	Basic Life Support Training	1
ENG 131	Business Communication I	<u>3</u>
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 of 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 (OCB). Courses are non-restricted and may be taken in any order.

Basic Certificate of Completion: (15 Credit Hours)

Any five courses listed below

Advanced Certificate of Completion: (24 Credit Hours)

Any eight courses listed below

Course & Title		Credit Hours
MHT 126	Introduction to Addictive Illnesses	3
MHT 128	Family Dynamics of Addiction	3
MHT 130	Treatment Techniques: Addiction	3
MHT 132	Assessment of Chemical Dependency	3
MHT 134	CD Treatment in Correctional Settings	3
MHT 135	A&D Treatment for African-Americans	3
MHT 136	Ethical Issues in CD Treatment & Prevention	3
MHT 137	Adolescent Substance Abuse	3
MHT 138	Dual Diagnosis: Substance Abuse & Mental Illness	3
MHT 139	Substance Abuse Prevention	3
MHT 210	Chemical Dependency Counselor	3

Note: 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.

continued next column

Specialized Courses

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.

Course & Title	Credit Hours
ALH 120 Nurse Aide Training	6

Basics of Activities Programming

(3 Total Credit Hours)

This specialized course is designed to meet the standards set by the Ohio Department of Health for extended care facilities.

Course & Title	Credit Hours
ALH 125 Basics of Activities Programming	3

Business

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The Business Technologies division is filled with exciting options and career paths created to make you one of the most sought after “knowledge workers” in your chosen field. Come see what we’re all about—visit our labs, talk to our students and instructors—and begin your journey to a fulfilling career!

—Dr. Frieda R. Bennett, Dean

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

Note: Please call for scheduled changes.

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
Chairperson
(937) 512-2616, Room 5141C

Business Information Systems
Cheryl Reindl-Johnson, 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

Labor Studies
(937) 512-2917, Room 6110

Law/Legal Assisting/Paralegal
Bonnie Shane, Chairperson
(937) 512-2616, Room 5141B

**Management/Marketing/Purchasing/
Transportation**
Daniel R. Ricica, Chairperson
(937) 512-3796, Room 5142B

Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair does not mail grade reports automatically to students. Grades are mailed to students only upon request through the telephone grade reporting system.

Student grades are 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 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.**

continued next page

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/paralegal, 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 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

The following represents a partial listing of the available articulation agreements. Please be sure to ask for the most current listing from the counseling office in the Business Technologies division.

Business Administration (A.S. degrees):

Antioch University
 Capital University
 Central State University
 College of Mt. St. Joseph on the Ohio
 DeVry Institute of Technology
 Indiana University East
 University of Cincinnati
 University of Dayton
 Urbana University
 Wilberforce University
 Wright State University

Business Administration with Special Emphases:

Computer Science	Wright State University
Management Information Systems	Wright State University
Management Information Systems	University of Dayton

Career Degree Agreements (A.A.S. degrees)

NOTE: Be sure to see an academic counselor to determine which career degrees/career courses are applicable in transfer.

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.

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Course & Title

FIRST QUARTER

			Credit Hours
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 QUARTER

ACC	112	Principles of Accounting II	3
ENG	112	English Composition II	3
MAT	218	Calculus for Business & Economics	5
PSY/SOC	___	Elective*	3
___	___	Humanities Elective*	3
		TOTAL	17

THIRD QUARTER

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
___	___	Humanities Elective*	3
		TOTAL	15

FOURTH QUARTER

BIO/GLG/ PHY/CHE		Natural Science Sequence*	4
ECO	201	Principles of Economics I	3
COM	211	Effective Speaking I	3
MAT	122	Statistics I	4
___	___	Humanities Elective*	3
		TOTAL	17

FIFTH QUARTER

BIO/GLG/ PHY/CHE		Natural Science Sequence*	4
ECO	202	Principles of Economics II	3
___	___	General Education Elective*	9
		TOTAL	16

SIXTH QUARTER

BIO/GLG/ PHY/CHE		Natural Science Sequence*	4
ECO	203	Principles of Economics III	3
___	___	General Education Elective*	9
		TOTAL	16

* 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.** Adult transfer opportunities are available for bachelor degree completion at a number of 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.

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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 CPA 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.

			Credit Hours
FIRST QUARTER			
ENG	111	English Composition I	
		or	
	131	Business Communications I	3
MAT	116	College Algebra	
		or	
	121	Mathematics for Business Analysis	5
ACC	111	Principles of Accounting I	3
BIS	160	Introduction to Word, PowerPoint & Excel	3
MAN	105	Introduction to Business	3
		TOTAL	17

SECOND QUARTER

ENG	112	English Composition II	
		or	
	132	Business Communications II	3
MAT	122	Statistics I	4
ACC	112	Principles of Accounting II	3
MAN	205	Principles of Management	3
ECO	201	Principles of Economics I	3
		TOTAL	16

THIRD QUARTER

ACC	113	Principles of Accounting III	3
ACC	115	Personal Computer Applications in Accounting	3
COM	211	Effective Speaking I	
		or	
	225	Small Group Communication	3
ECO	202	Principles of Economics II	3
		Humanities Elective*	3
MAN	255	Business Systems & Procedures	3
		TOTAL	18

continued next page

BUS

FOURTH QUARTER

ACC 201	Intermediate Accounting I	3
ACC 211	Cost Accounting I	3
ACC 221	Federal Taxes I	3
LAW 101	Business Law I	3
ECO 203	Principles of Economics III	3
ACC 270	Accounting Internship	3
— —	or	
— —	Business Administration Elective	3
	TOTAL	18

FIFTH QUARTER

ACC 202	Intermediate Accounting II	3
ACC 212	Cost Accounting II	3
ACC 222	Federal Taxes II	3
ACC 240	Microcomputer Accounting Systems	3
LAW 102	Business Law II	3
ACC 270	Accounting Internship	3
— —	or	
— —	Business Administration Elective	3
	TOTAL	18

SIXTH QUARTER

ACC 203	Intermediate Accounting III	3
ACC 235	Auditing Theory & Practice	3
FIN 215	Corporation Finance	3
MRK 201	Marketing I	3
ACC 270	Accounting Internship	3
— —	or	
— —	Business Administration Elective	3
	TOTAL	15

* See page 62.

Business Information Systems

(100 Total Credit Hours)

Current and future industry/business needs require information technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Support staff members, as well as all information technology workers, are required to work in teams, actively participate as customer service agents, and use new technologies to maximize business productivity. Employment opportunities continue to grow in all businesses, governmental agencies, and industries both large and small.

Course & Title	Credit Hours	
FIRST QUARTER		
BIS 101	Personal Computer Keyboarding	2
BIS M61	Introduction to Word	1
BIS M70	Introduction to the Internet	1
BIS M71	Intermediate Internet	1
MAN 205	Principles of Management	3
COM 206	Interpersonal Communication	3
— —	or	
— —	285 Business & Professional Communication	3
MAT 105	Business Mathematics	4
BIS 105	Introduction to Computers	3
	TOTAL	18

SECOND QUARTER

ENG 131	Business Communications I	3
— —	or	
— —	111 English Composition I	3
ECO 105	General Economics	3
— —	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	3
— —	or	
MRK — —	Marketing Elective	3
	TOTAL	17

THIRD QUARTER

ENG 132	Business Communications II	3
— —	or	
— —	112 English Composition II	3
ACC 111	Principles of Accounting I	3
BIS M51	Introduction to PowerPoint	1
BIS M52	Intermediate PowerPoint	1
BIS 114	Filing Applications	2
BIS M63	Advanced Word	1
BIS M64	Expert Word	1
BIS M21	Introduction to Desktop Publishing	1
BIS M22	Intermediate Desktop Publishing	1
— —	General Education Elective*	3
	TOTAL	17

FOURTH QUARTER

BIS 115	Work Place Technology	2
BIS M31	Introduction to Access	1
BIS M32	Intermediate Access	1
BIS M53	Advanced PowerPoint	1
BIS 103	Advanced Document Formatting/ Skillbuilding	4
MAN 245	Office Management	3
CIS 130	Introduction to Web Development	3
— —	Humanities Elective*	3
	TOTAL	18

FIFTH QUARTER

BIS 215	Office Applications Practicum/Seminar	4
BIS 201	Customer Service	3
BIS M43	Advanced Excel	1
BIS M44	Expert Excel	1
BIS M33	Advanced Access	1
BIS M34	Expert Access	1
BIS 207	Telecommunications	2
CIS 162	MS Office Installation & Troubleshooting	3
	TOTAL	16

SIXTH QUARTER

BIS M11	Pretranscription Skills	1
BIS 135	Machine Transcription	3
BIS 172	Integrated Solutions	2
BIS 202	Online Customer Service	3
BIS 117	Electronic Files Management	2
BIS 270	Office Technology Applications Internship	3
	TOTAL	14

* See page 62.

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Business Information Systems

Accounting Office Option

(104 Total Credit Hours)

Current and future industry/business needs require information technology support staff competent in a number of software programs and capable of integrating applications to be more productive. Accounting office support staff members, as well as all information technology workers, are required to work in teams, actively participate as customer service agents, and use new technologies to maximize accounting office productivity. Employment opportunities include account secretaries in accounting departments in private businesses and industries, educational institutions, and other governmental agencies.

Course & Title		Credit Hours
FIRST QUARTER		
BIS	101 Personal Computer Keyboarding	2
BIS	M61 Introduction to Word	1
BIS	M70 Introduction to the Internet	1
BIS	M71 Intermediate Internet	1
MAN	205 Principles of Management	3
COM	206 Interpersonal Communication	3
	or	
	285 Business & Professional Communication	
MAT	105 Business Mathematics	4
LAW	101 Business Law I	3
	TOTAL	18
SECOND QUARTER		
ENG	131 Business Communications I	3
	or	
	111 English Composition I	
ECO	105 General Economics	3
	or	
	201 Principles of Economics I	
ACC	111 Principles of Accounting I	3
BIS	102 Document Formatting	2
BIS	M62 Intermediate Word	1
BIS	M41 Introduction to Excel	1
BIS	M42 Intermediate Excel	1
MAN	Management Elective	3
	or	
MRK	Marketing Elective	
	TOTAL	17
THIRD QUARTER		
ENG	132 Business Communications II	
	or	
	112 English Composition II	3
ACC	112 Principles of Accounting II	3
BIS	M51 Introduction to PowerPoint	1
BIS	M52 Intermediate PowerPoint	1
CIS	130 Introduction to Web Development	3
BIS	114 Filing Applications	2
BIS	M63 Advanced Word	1
BIS	M64 Expert Word	1
	Business Elective	3
	TOTAL	18
FOURTH QUARTER		
BIS	115 Work Place Technology	2
BIS	M31 Introduction to Access	1
BIS	M32 Intermediate Access	1
ACC	113 Principles of Accounting III	3
BIS	103 Advanced Document Formatting/ Skillbuilding	4
MAN	245 Office Management	3
	Humanities Elective*	3
	TOTAL	17

continued next column

FIFTH QUARTER

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

SIXTH QUARTER

BIS	M11	Pretranscription Skills	1
BIS	135	Machine Transcription	3
BIS	172	Integrated Solutions	2
BIS	202	Online Customer Service	3
BIS	117	Electronic Files Management	2
BIS	270	Office Technology Applications Internship	3
		General Education Elective*	3
		TOTAL	17

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
BIS	101 Personal Computer Keyboarding	2
BIS	M61 Introduction to Word	1
BIS	M70 Introduction to the Internet	1
BIS	M71 Intermediate Internet	1
MAN	205 Principles of Management	3
COM	206 Interpersonal Communication	3
	or	
	285 Business & Professional Communication	
MAT	105 Business Mathematics	4
ECO	105 General Economics	3
	or	
	201 Principles of Economics I	
	TOTAL	18
SECOND QUARTER		
ENG	131 Business Communications I	3
	or	
	111 English Composition I	
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	3
	or	
MRK	Marketing Elective	
	TOTAL	16

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BUS

THIRD QUARTER

ENG	132	Business Communications II or	3
	112	English Composition II	
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

FOURTH QUARTER

BIS	115	Work Place 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*	3
—	—	Humanities Elective*	3
		TOTAL	18

FIFTH QUARTER

BIS	215	Office Applications Practicum/Seminar	4
BIS	201	Customer Service	3
BIS	M43	Advanced Excel	1
BIS	M44	Expert Excel	1
BIS	M33	Advanced Access	1
BIS	M34	Expert Access	1
CIS	162	MS Office Installation & Troubleshooting	3
LAP	114	Legal Technology Resources	3
		TOTAL	17

SIXTH QUARTER

BIS	M11	Pretranscription Skills	1
BIS	135	Machine Transcription	3
BIS	172	Integrated Solutions	2
BIS	202	Online Customer Service	3
BIS	117	Electronic Files Management	2
BIS	207	Telecommunications	2
BIS	270	Office Technology Applications Internship	3
		TOTAL	16

* See page 62.

** 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.

continued next column

**Credit
Hours**

Course & Title

FIRST QUARTER

BIS	101	Personal Computer Keyboarding	2
BIS	M61	Introduction to Word	1
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
MAN	205	Principles of Management	3
COM	206	Interpersonal Communication or	3
	285	Business & Professional Communication	
MAT	105	Business Mathematics	4
BIS	136	Introduction to Medical Terminology	4
		TOTAL	19

SECOND QUARTER

ENG	131	Business Communications I or	3
	111	English Composition I	
ECO	105	General Economics or	3
	201	Principles of Economics I	
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	1
MAN	—	Management Elective or	3
MRK	—	Marketing Elective	
		TOTAL	18

THIRD QUARTER

ENG	132	Business Communications II or	3
	112	English Composition II	
LAW	101	Business Law I	3
ACC	111	Principles of Accounting I	3
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	114	Filing Applications	2
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
BIS	138	Advanced Medical Terminology	4
		TOTAL	19

FOURTH QUARTER

BIS	115	Work Place 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
—	—	Humanities Elective*	3
		TOTAL	19

FIFTH QUARTER

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
		TOTAL	17

SIXTH QUARTER

BIS	201	Customer Service	3
BIS	202	Online Customer Service	3
BIS	117	Electronic Files Management	2
BIS	270	Office Technology Applications Internship	3
—	—	General Education Elective*	3
		TOTAL	14

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
MAN 105	Introduction to Business	3
MAN 201	Introduction to Supervision	3
ACC 111	Principles of Accounting I	3
ENG 111	English Composition I	3
	or	
	131 Business Communications I	
MAT 116	College Algebra	5
	or	
	121 Mathematics for Business Analysis	
TOTAL		17
SECOND QUARTER		
MAN 205	Principles of Management	3
ACC 112	Principles of Accounting II	3
BIS 160	Introduction to Word, PowerPoint & Excel	3
ENG 112	English Composition II	3
	or	
	132 Business Communications II	
MAT 122	Statistics I	4
TOTAL		16
THIRD QUARTER		
MAN 225	Human Relations & Organizational Behavior	3
MRK 201	Marketing I	3
ACC 113	Principles of Accounting III	3
ECO 105	General Economics	3
	or	
	201 Principles of Economics I	
COM 211	Effective Speaking I	3
TOTAL		15
FOURTH QUARTER		
MAN 216	Managing Operations	3
MRK 202	Marketing II	3
PUR 201	Purchasing Principles	3
— —	Humanities Elective*	3
— —	General Education Elective*	3
TOTAL		15

continued next column

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

SIXTH QUARTER

MAN 270	Management Internship	9
	or	
	Business Electives	
MAN 278	Management Capstone	3
— —	Business Elective	3
— —	General Education Elective*	3
TOTAL		18

* See page 62.

** Must not include MAN 270.

Computer Information Systems

(100-101 Total Credit Hours)

The rapid spread of computers and computer-based technologies over the past two decades has generated a need for skilled, highly trained workers in programming positions. Students in the Computer Information Systems program are provided technical skills for entry level information systems positions. Students are prepared in the areas of flowcharting and documenting structured programs, network administration, microcomputer and network operating systems, and business applications using computer languages such as COBOL, Visual Basic, C, and C++. Students learn to use commercially available network and application software on local area networks and microcomputers. Employment opportunities in this expanding field include entry level positions such as programmers, computer operator trainees, personal computer network administrators, job data control specialists and information center specialists.

Prerequisites

BIS 105	Introduction to Computers	3
EBE 170	Introduction to Co-op/Education	3
MAT 101	Elementary Algebra	4
TOTAL		10

Course & Title		Credit Hours
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FIRST QUARTER

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

continued next page

BUS

SECOND QUARTER

CIS	111	Introduction to Computer Programming	3
CIS	225	Systems Software Troubleshooting	3
COM	206	Interpersonal Communication	3
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
MAT	122	Statistics I	4
		TOTAL	16

THIRD QUARTER

ACC	111	Principles of Accounting I	3
CIS	265	Database Management	3
		or	
	266	Client Server Database	4
CIS	_____	CIS Concentration *	3
CIS	230	Computer Networks *	3
COM	225	Small Group Communication	3
_____	_____	Humanities Elective*	3
		TOTAL	18-19

FOURTH QUARTER

CIS	_____	CIS Concentration	3
CIS	210	Systems Analysis & Design	3
CIS	_____	CIS Concentration	3
CIS	_____	CIS Concentration	3
LAW	101	Business Law I	3
MAN	205	Principles of Management	3
		TOTAL	18

FIFTH QUARTER

_____	_____	Internet Elective **	3
CIS	270	CIS Internship	3
		or	
	_____	Business/CIS Elective	
CIS	_____	CIS Concentration	3
CIS	_____	CIS Concentration	3
ECO	201	Principles of Economics I	3
		TOTAL	15

SIXTH QUARTER

CIS	270	CIS Internship	3
		or	
	_____	Business/CIS Elective	
CIS	_____	CIS Concentration	3
CIS	278	CIS Capstone	4
MRK	201	Marketing I	3
CIS	_____	CIS Concentration	3
		TOTAL	16

* Students electing the Network Engineer Concentration must complete CIS 241 in place of CIS 230 and one CIS concentration course.

** Internet Elective

Choose 3 credit hours

BIS	M70	Introduction to Internet	1
BIS	M71	Intermediate Internet	1
CIS	129	HTML/JavaScript	3
		or	
	136	Introduction to HTML and	
	137	Introduction to JavaScript	4
CIS	130	Introduction to Web Development	3
CIS	134	Macromedia Flash	3
VIS	117	Web Page Design	3
VIS	147	Digital Imaging	3

Areas of Concentration

Students must develop an area of concentration by selecting 24 credit hours from one of the following:

Web Development

Choose 24 credit hours:

CIS	129	HTML/JavaScript	3
		or	
	136	Introduction to HTML and	
	137	Introduction to JavaScript	4
CIS	130	Introduction to Web Development	3
CIS	131	Intermediate Web Development	3
CIS	134	Macromedia Flash	3
CIS	138	Advanced Macromedia Flash	3
CIS	141	Active Server Pages	3
CIS	143	Cold Fusion	3
CIS	144	PERL/CGI	3
CIS	147	Visual Basic I	3
CIS	148	Visual Basic II	3
CIS	223	XML	3
CIS	224	Web Server Administration & Security	4
CIS	229	Advanced JavaScript	3
CIS	233	C++ Programming I	3
CIS	234	C++ Programming II	3
CIS	280	Java I	4
CIS	281	Java II	4
CIS	284	Client/Server Web Tools	3
CIS	285	Web Application Development with Java	4
VIS	117	Web Page Design	3
VIS	146	Digital Illustration	3
VIS	147	Digital Imaging	3
VIS	115	Digital Graphics I	3
VIS	116	Digital Graphics II	3
VIS	265	3D Digital Graphics	3

User Support

Required courses

BIS	201	Customer Service	3
		or	
	202	Online Customer Service	
CIS	164	Introduction to User Support	3
CIS	166	User Support Tools	3
CIS	238	P.C. Installation Management	3
COM	287	Effective Listening	3
CIS	162	MS Office Troubleshooting & Problem Solving	3
CIS	264	A+ Certification	3
PSY	126	Stress Management	3

Software Development

BIS	M81*	Microsoft Project	1
CIS	112*	Object-oriented Concepts	3
		or	
CIS	113*	Object-oriented Design	4

*Required

The student must select two of the following threads, one of which must be an object-oriented thread. In addition, the student must select a sufficient number of courses from the "Programming Electives" list to total 24 credit hours for this concentration area.

(Object-oriented) Visual Basic Thread

CIS	147	Visual Basic Programming I	3
CIS	148	Visual Basic Programming II	3

(Object-oriented) Java Thread

CIS	280	Java I	4
CIS	281	Java II	4

(Object-oriented) C++ Thread

CIS	233	C++ Programming I	3
CIS	234	C++ Programming II	3

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Cobol Thread		
CIS 221	Cobol I	3
CIS 222	Cobol II	3
Web Programming Thread		
CIS 284	Client/Server Web Tools	3
	or	
285	Web Application Development with Java	4
CIS 223	XML	3
	or	
144	Perl/CGI	3
Programming Options Elective		
CIS 237	Data Structures in Java	4
CIS 236	Visual C++ Programming	3
CIS 284	Web Client/Server Tools	3
CIS 285	Web Application Development with Java	4
Network Manager		
Choose 24 credit hours:		
CIS 271	MCSE 2000 Professional	4
CIS 272	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
CIS 276	MCSE Internet Explorer 5.0	3
CIS 260	MCSE Exchange 5.5	4
Network Engineer		
Required courses		
CIS 241	Cisco Networking Fundamentals	7
CIS 242	Cisco Router Fundamentals	7
CIS 243	Cisco Routing in LANs	7
CIS 244	Cisco Routing in WANs	7

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.

Course & Title		Credit Hours
FIRST QUARTER		
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

SECOND QUARTER

ENG 112	English Composition II	3
ACC 112	Principles of Accounting II	3
BIS M62	Intermediate Word	1
BIS M42	Intermediate Excel	1
BIS M32	Intermediate Access	1
MAT 105	Business Mathematics	5
	or	
	116 College Algebra	4
ECO 202	Principles of Economics II	3
	TOTAL	16-17

THIRD QUARTER

ACC 113	Principles of Accounting III	3
PSY 121	General Psychology I	3
ECO 203	Principles of Economics III	3
FIN 255	Money & Capital Markets	3
FIN 245	Personal Finance	3
LAW 101	Business Law I	3
	TOTAL	18

FOURTH QUARTER

PSY 122	General Psychology II	3
MAN 205	Principles of Management	3
FIN 200	Consumer Credit	3
COM 225	Small Group Communication	3
	or	
	206 Interpersonal Communication	
MRK 201	Marketing I	3
	TOTAL	15

FIFTH QUARTER

MAN 225	Human Relationships & Organizational Behavior	3
LAW 102	Business Law II	3
	or	
	103 Consumer Law	
FIN 246	Principles of Investment	3
MRK 202	Marketing II	3
	Business Electives	3
FIN —	Finance Electives	3
	TOTAL	18

SIXTH QUARTER

FIN 215	Corporate Finance	3
FIN 270	Internship	3
	Humanities Elective*	3
FIN —	Finance Electives	3
	Business Electives	3
	TOTAL	15

* See page 62.

Hospitality Management

(95 Total Credit Hours)

There is a need for entry level management personnel in restaurants, hotels, motels, convention centers, private clubs and catering businesses. Efficient and profitable operation of these businesses require managers to recruit, train and supervise an adequate number of employees. This program prepares students in supervisory skills, accounting, human relation skills, and understanding the skills needed in the management for a lodging or restaurant operation. Employment opportunities for lodging, restaurant, private club entry level managers, liquor establishment managers, and caterer's assistants are available to students in the hospitality management industry. This program is accredited by the American Culinary Federation Accrediting Commission and the Commission on Accreditation of Hospitality Management Programs.

Course & Title			Credit Hours
FIRST QUARTER			
HMT	107	Sanitation & Safety	3
HMT	105	Survey of the Food Industry	3
MAT	105	Business Mathematics	4
		Humanities Elective*	3
PSY	105	Survey of Psychology	3
		or	
	121	General Psychology I	
TOTAL			16
SECOND QUARTER			
HMT	112	Basic Food Preparation	2
HMT	113	Lab for HMT 112	3
COM	206	Interpersonal Communication	3
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
ACC	111	Principles of Accounting I	3
LAW	101	Business Law	3
TOTAL			17
THIRD QUARTER			
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	3
		or	
	132	Business Communications II	
MAN	205	Principles of Management	3
		General Education Elective*	3
TOTAL			17
FOURTH QUARTER			
ECO	105	General Economics	3
		or	
	201	Principles of Economics I	
HMT	215	Food & Labor Cost Controls	3
HMT	201	Food Service Equipment & Design Maint.	3
HMT	291	Food Service Internship I	3
BIS	119	Personal Computer Applications:	3
		Microsoft Works	
		or	
	160	Introduction to Word, PowerPoint & Excel	
		or	
	M61	Introduction to Word	1
	M51	Introduction to PowerPoint	1
	M41	Introduction to Excel	1
TOTAL			15
FIFTH QUARTER			
HMT	110	Menu Planning & Dining Service	3
HMT	225	Organization & Administration of Hospitality Industry	3
HMT	292	Food Service Internship II	3
MRK	201	Marketing I	3
		Business Elective	3
TOTAL			15
SIXTH QUARTER			
HMT	226	Purchasing for the Hospitality Industry	3
HMT	227	Marketing in the Hospitality Industry	3
HMT	293	Food Service Internship III	3
HMT	295	Food Service Seminar	3
HMT		Hospitality Management Elective	3
TOTAL			15

* See page 62.

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.

Course & Title			Credit Hours
FIRST QUARTER			
HMT	107	Sanitation & Safety	3
HMT	105	Survey of Food Industry	3
MAT	105	Business Mathematics	4
		Humanities Elective*	3
BIS	160	Introduction to Word, PowerPoint & Excel	3
TOTAL			16
SECOND QUARTER			
HMT	112	Basic Food Preparation	2
HMT	113	Lab for HMT 112	3
HMT	108	Introduction to Foods & Nutrition	3
HMT	110	Menu Planning & Dining Services	3
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
COM	211	Interpersonal Communication	3
TOTAL			17
THIRD QUARTER			
HMT	114	Advanced Food Preparation	2
HMT	115	Lab for HMT 114	3
HMT	201	Food Service Equipment & Design Maint.	3
HMT	226	Purchasing for the Hospitality Industry	3
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
		General Education Elective*	3
TOTAL			17
FOURTH QUARTER			
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	3
		or	
	201	Principles of Economics	
TOTAL			17

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FIFTH QUARTER

HMT 208	Pastry & Confectionery	5
HMT 238	Lab for HMT 208	
HMT 225	Organization & Administration of Food Service	3
HMT 292	Food Service Internship II**	3
MRK 201	Marketing I	3
ACC 112	Principles of Accounting II	3
	TOTAL	17

SIXTH QUARTER

HMT 209	Professional Cooking	5
HMT 239	Lab for HMT 209	
HMT 215	Food & Labor Cost Control	3
HMT 293	Food Service Internship III	3
HMT 227	Marketing in the Hospitality Industry	3
PSY 105	Survey of Psychology	3
	or	
121	General Psychology I	
	TOTAL	17

* See page 62.

Labor Studies

(99 Total Credit Hours)

The increasing complexity and changing scope of 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.

Course & Title

FIRST QUARTER

		Credit Hours
ACC 111	Principles of Accounting I	3
ENG 131	Business Communications I	3
LAS 105	Introduction to Organized Labor in America	3
MAT 105	Business Mathematics	4
LAS 125	Perceptions of Productivity	3
	TOTAL	16

SECOND QUARTER

BIS 105	Introduction to Computers	3
ECO 105	General Economics	3
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

THIRD QUARTER

PLS 101	American Federal Government I	3
PSY 122	General Psychology II	3
SOC 111	General Sociology I	3
LAS 201	Negotiating Labor Management Contracts	3
LAS 211	Labor Relations	3
	TOTAL	15

FOURTH QUARTER

LAS 215	Labor Law	3
LAS 245	Consumer Education	3
PLS 104	Urban Government	3
SOC 112	General Sociology II	3
COM 211	Effective Speaking I	3
PSY 225	Social Psychology	4
	TOTAL	19

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FIFTH QUARTER

LAS 202	Administering Labor Management Contracts	3
LAS 225	Perceptions of Productivity	3
	or	
265	Comparative Labor Movements	
LAS 255	Public Employee Labor Relations	3
PSY 228	Psychology in the Work Place	4
LAS 212	Collective Bargaining	3
	TOTAL	16

SIXTH QUARTER

LAS 203	Arbitrating Disputes in L-M Contracts	3
LAS 235	Seminar in Labor Studies	3
LAS 270	Labor Studies Internship	6
	or	
___	Business Electives	
___	Humanities Electives*	3
	TOTAL	15

* See page 62.

Legal Assisting/Paralegal

(99-100 Total Credit Hours)

The Legal Assisting/paralegal 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/paralegal program before beginning LAP courses. Requirements for acceptance are outlined in a program packet available in the Legal Assisting/paralegal 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/paralegal courses. Students are required to complete two quarters of internships.

Course & Title

FIRST QUARTER

		Credit Hours
ACC 111	Principles of Accounting I	3
BIS 160	Introduction to Word, PowerPoint & Excel	3
	or	
	BIS M41, M51, M61	
	or	
223	Using Word Perfect and M41 or M51	
ENG 111	English Composition I	3
LAP 105	Paralegal Principles	5
COM 206	Interpersonal Communication	3
	TOTAL	17

SECOND QUARTER

ACC 112	Principles of Accounting II	3
PLS 101	American Federal Government I	3
ENG 112	English Composition II	3
LAP 111	Legal Research & Writing I	4
LAP 121	Litigation I	3
	TOTAL	16

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THIRD QUARTER

LAP	112	Legal Research & Writing II	4
LAP	115	Contract Law & the UCC	3
PLS	102	American Federal Government II	3
ENG	199	Writing Style & Sentence Structure	3
LAP	122	Litigation II	3
			<hr/>
TOTAL			16

FOURTH QUARTER

LAP	201	Business Organization I	3	
LAP	211	Probate Law I	3	
LAP	220	Law Office Ethics	3	
			<hr/>	
			Humanities Elective*	3
MAT	105	Business Mathematics	4	
			<hr/>	
			or	
---	116	College Algebra	5	
			<hr/>	
TOTAL			16-17	

FIFTH QUARTER

ECO	201	Principles of Economics I	3
LAP	205	Criminal Law & Procedure	3
LAP	215	Family Law	3
LAP	291	Internship I	2
LAP	---	Electives (see advisor's list)	6
			<hr/>
TOTAL			17

SIXTH QUARTER

LAP	---	Electives (see advisor's list)	6	
LAP	131	Real Estate Transactions I	3	
LAP	292	Internship II	2	
PSY	121	General Psychology I	3	
			<hr/>	
			or	
SOC	111	General Sociology	3	
---	---	Elective (Career Related, see advisor's list)	3	
			<hr/>	
TOTAL			17-18	

* See page 62.

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.

Course & Title		Credit Hours		
FIRST QUARTER				
ENG	111	English Composition I	3	
			<hr/>	
			or	
	131	Business Communications I		
MAT	121	Mathematics for Business Analysis	5	
			<hr/>	
			or	
	116	College Algebra I		
ACC	111	Principles of Accounting I	3	
ECO	201	Principles of Economics I	3	
BIS	160	Introduction to Word, PowerPoint & Excel	3	
			<hr/>	
TOTAL			17	

SECOND QUARTER

ENG	112	English Composition II	3	
			<hr/>	
			or	
	132	Business Communications II		
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	
			<hr/>	
TOTAL			16	

THIRD QUARTER

ENG	113	English Composition III	3	
			<hr/>	
			or	
			General Education Elective*	
ACC	113	Principles of Accounting III	3	
TRA	120	Transportation Logistics	3	
PUR	201	Purchasing Principles	3	
MAN	251	Logistics Management	3	
			<hr/>	
TOTAL			15	

FOURTH QUARTER

MRK	201	Marketing I	3	
LAW	101	Business Law I	3	
MAN	270	Management Internship	6	
			<hr/>	
			or	
			Business Electives	
TRA	215	Export/Import Distribution Management	3	
			<hr/>	
TOTAL			15	

FIFTH QUARTER

COM	211	Effective Speaking I	3
LAW	102	Business Law II	3
MAN	216	Managing Operations	3
MAN	225	Human Relations & Organizational Behavior	3
MRK	202	Marketing II	3
TRA	230	Transportation Regulations	3
			<hr/>
TOTAL			18

SIXTH QUARTER

PUR	---	Purchasing Elective (Recommend PUR 220)	3	
			<hr/>	
			Humanities Elective*	3
MAN	255	Business Systems & Procedures	3	
PUR	215	Inventory & Production Control	3	
MAN	260	Management Science I	3	
MAN	278	Management Capstone	3	
			<hr/>	
TOTAL			18	

* See page 62.

Marketing Management

(96 Total Credit Hours)

Marketing Management graduates play a vital role in any organization that needs products and services effectively and profitably distributed. Organizational functions of these graduates range from direct sales and customer services to management and coordination of personnel, sales territories, and promotional activities. Graduates may be involved in aspects of product development, advertising, promotion, marketing strategies, pricing, and research. Skills gained include excellent interpersonal and written communication, organizational ability, attention to detail, computational expertise, particularly in the areas of accounting and statistics, and understanding of human behavioral patterns. Employment opportunities include sales representatives, marketing research technicians, industrial marketing managers, and representatives in advertising agencies, media organizations, retailers, and service or industrial corporations.

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Course & Title**FIRST QUARTER**

			Credit Hours
ACC	111	Principles of Accounting I	3
ENG	111	English Composition I	3
	131	Business Communications I	
MAN	105	Introduction to Business	3
MAT	116	College Algebra	5
	121	Mathematics for Business Analysis	
		TOTAL	14

SECOND QUARTER

ACC	112	Principles of Accounting II	3
ENG	112	English Composition II	3
	132	Business Communications II	
MRK	201	Marketing I	3
MAT	122	Statistics I	4
MAN	205	Principles of Management	3
		TOTAL	16

THIRD QUARTER

ACC	113	Principles of Accounting III	3
MRK	202	Marketing II	3
MRK	225	Sales Fundamentals	3
PSY/SOC		Elective	3
COM	211	Effective Speaking I	3
BIS	105	Introduction to Computers	3
		TOTAL	18

FOURTH QUARTER

ECO	201	Principles of Economics I	3
MRK	215	Principles of Advertising	3
MRK	245	Principles of Retailing	3
MRK		Elective	3
BUO	105	Business Ownership Orientation	3
		TOTAL	15

FIFTH QUARTER

ECO	202	Principles of Economics II	3
MRK	235	Marketing Research	3
MRK		Elective	3
PLS	104	Urban Government	3
PSY/SOC		Elective	3
MRK	270	Marketing Internship**	3
		or	
		Business Elective	
		TOTAL	18

SIXTH QUARTER

MRK	270	Marketing Internship**	3
		or	
		Business Elective	
MRK		Elective	3
MRK	295	Marketing Seminar	3
		Humanities Elective*	3
ECO	203	Principles of Economics III	3
		TOTAL	15

* See page 62.

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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 & Title**FIRST QUARTER**

			Credit Hours
ACC	111	Principles of Accounting I	3
MAN	105	Introduction to Business	3
MAT	105	Business Mathematics	4
		General Education Elective*	6
		TOTAL	16

SECOND QUARTER

ACC	112	Principles of Accounting II	3
ECO	105	General Economics	3
	201	Principles of Economics I	
ENG	131	Business Communications I	3
LAW	101	Business Law I	3
MRK	201	Marketing I	3
		TOTAL	15

THIRD QUARTER

ACC	113	Principles of Accounting III	3
ENG	132	Business Communications II	3
MRK	202	Marketing II	3
MRK	245	Principles of Retailing	3
		Humanities Elective*	3
MRK	215	Advertising	3
		TOTAL	18

FOURTH QUARTER

MAN	205	Principles of Management	3
MRK	270	Marketing Internship	4
MRK	236	Consumer Behavior	3
COM		Communication Arts Elective	3
MRK	225	Sales Fundamentals	3
		TOTAL	16

FIFTH QUARTER

ECO	225	Consumer & Commercial Credit	3
MRK	270	Marketing Internship	4
PSY	105	Introduction to Psychology	3
PLS	104	Urban Government	3
MRK	247	Retail Buying & Merchandising	3
		TOTAL	16

SIXTH QUARTER

MRK	246	Fashion Merchandising	3
MAN	225	Human Relations & Organizational Behavior	3
MRK	270	Marketing Internship	4
MRK	295	Marketing Seminar	3
BIS	105	Introduction to Computers	3
		TOTAL	16

* See page 62.

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BUS

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.

Course & Title		Credit Hours
FIRST QUARTER		
BIS	101 Personal Computer Keyboarding	2
BIS	M61 Introduction to Word	1
BIS	M70 Introduction to the Internet	1
BIS	M71 Intermediate Internet	1
MAN	205 Principles of Management	3
COM	206 Interpersonal Communication	
	or	
	285 Business & Professional Communications	3
MAT	105 Business Mathematics	4
BIS	105 Introduction to Computers	3
	TOTAL	18
SECOND QUARTER		
ENG	131 Business Communications I	3
	or	
	111 English Composition I	
ECO	105 General Economics	3
	or	
	201 Principles of Economics I	
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
	Humanities Elective*	3
	TOTAL	17
THIRD QUARTER		
ENG	132 Business Communications II	3
	or	
	112 English Composition II	
ACC	111 Principles of Accounting I	3
BIS	M63 Advanced Word	1
BIS	M51 Introduction to PowerPoint	1
BIS	M52 Intermediate PowerPoint	1
BIS	117 Electronic Files Management	2
BIS	115 Work Place Technology	2
CIS	107 Introduction to Operating Systems	3
BIS	M21 Introduction to Desktop Publishing	1
BIS	M22 Intermediate Desktop Publishing	1
	TOTAL	18
FOURTH QUARTER		
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	3
	or	
MRK	Marketing Elective	
ACC	115 Personal Computer Applications in Accounting	3
	TOTAL	17

FIFTH QUARTER

CIS		CIS Elective	3
MAN	245	Office Management	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 QUARTER

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
		TOTAL	16

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
ECO	201 Principles of Economics I	3
ENG	111 English Composition I	3
	or	
	131 Business Communications I	
BIS	160 Introduction to Word, Powerpoint & Excel	3
MAT	121 Mathematics for Business Analysis	5
	or	
	116 College Algebra	
PUR	201 Purchasing Principles	3
	TOTAL	17
SECOND QUARTER		
ACC	111 Principles of Accounting I	3
ECO	202 Principles of Economics II	3
ENG	112 English Composition II	3
	or	
	132 Business Communications II	
MAT	122 Statistics I	4
PUR	202 Advanced Purchasing	3
	TOTAL	16

continued next page

THIRD QUARTER

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
TOTAL			18

FOURTH QUARTER

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 Control	3
—	—	Humanities Elective*	3
TOTAL			18

FIFTH QUARTER

MAN	216	Managing Operations	3
MRK	202	Marketing II	3
MAN	225	Human Relations & Organizational Behavior	3
PUR	295	Purchasing Problems	3
TRA	120	Transportation Logistics	3
TOTAL			15

SIXTH QUARTER

PUR	270	Purchasing Internship or Business Electives (see advisor's list)	6
—	—	Business Elective	3
IET	—	Industrial Engineering Technology Elective or General Education Elective*	3
MAN	260	Management Science I	3
MAN	278	Management Capstone	3
TOTAL			18

* See page 62.

Procurement & Materials Management Production & Inventory Control Option (101 Total Credit Hours)

Manufacturing firms and businesses controlling large inventories effectively require personnel who can visualize company operations as a smooth flow of connected activities. These professionals ensure the on-time delivery performance of their company which today is vital in supplier performance. Students develop skills in maintaining and increasing productivity, and materials control in an industrial setting. Employment opportunities in manufacturing include capacity planners, shop dispatchers, expeditors, and first-line supervisors in inventory control for manufacturing.

Course & Title		Credit Hours	
FIRST QUARTER			
BIS	160	Introduction to Word, PowerPoint & Excel	3
ENG	111	English Composition I or 131 Business Communications I	3
LAW	101	Business Law I	3
MAN	205	Principles of Management	3
MAT	121	Mathematics for Business Analysis or 116 College Algebra I	5
TOTAL			17

continued next column

SECOND QUARTER

ACC	111	Principles of Accounting I	3
ENG	112	English Composition II or 132 Business Communications II	3
ECO	201	Principles of Economics I	3
MAT	122	Statistics I	4
PUR	201	Purchasing Principles	3
TOTAL			16

THIRD QUARTER

ACC	112	Principles of Accounting II	3
TRA	120	Transportation Logistics	3
PUR	202	Advanced Purchasing	3
ENG	113	English Composition III or General Education Elective*	3
ECO	202	Principles of Economics II	3
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 QUARTER

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	3
TOTAL			15

SIXTH QUARTER

IET	237	Capacity Planning & Control	3
MAN	260	Management Science I	3
MAN	278	Management Capstone	3
PUR	270	Purchasing Internship or Business Electives	6
—	—	Humanities Elective*	3
TOTAL			18

* See page 62.

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. In smaller firms, positions exist for buyers specializing in transportation of goods.

continued next page

Course & Title		Credit Hours
FIRST QUARTER		
ACC 111	Principles of Accounting I	3
BIS 160	Introduction to Word, PowerPoint & Excel	3
MAN 205	Principles of Management	3
PUR 201	Purchasing Principles	3
TRA 120	Transportation Logistics	3
ENG 111	English Composition I	3
131	Business Communications I	
	TOTAL	18
SECOND QUARTER		
ACC 112	Principles of Accounting II	3
LAW 101	Business Law I	3
MAT 121	Mathematics for Business Analysis	5
116	College Algebra I	
TRA 205	Principles of Transportation Pricing	3
ENG 112	English Composition II	3
132	Business Communications II	
	TOTAL	17
THIRD QUARTER		
ACC 113	Principles of Accounting III	3
	General Education Elective*	3
ECO 201	Principles of Economics I	3
PUR 202	Advanced Purchasing	3
MAT 122	Statistics I	4
	TOTAL	16
FOURTH QUARTER		
COM 211	Effective Speaking I	3
ECO 202	Principles of Economics II	3
MAN 110	Introduction to International Business	3
MRK 201	Marketing I	3
TRA 270	Transportation Management Internship	6
	or	
	Business Electives	
	TOTAL	18
FIFTH QUARTER		
MAN 216	Managing Operations	3
MRK 202	Marketing II	3
PUR 220	Supplier Relationships	3
PUR 295	Purchasing Problems	3
TRA 215	Export-Import Distribution Management	3
	TOTAL	15
SIXTH QUARTER		
	Humanities Elective*	3
MAN 260	Management Science I	3
MAN 278	Management Capstone	3
TRA 210	Transportation Claims Procedures	3
TRA 230	Transportation Regulations	3
	General Education Elective*	3
	TOTAL	18

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
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
SECOND QUARTER		
ACC 112	Principles of Accounting II	3
ECO 201	Principles of Economics I	3
ENG 112	English Composition II	3
RES 122	Real Estate Abstracting II	3
RES 202	Real Estate Law	4
PLS 101	American Federal Government I	3
	TOTAL	19
THIRD QUARTER		
ACC 113	Principles of Accounting III	3
ECO 202	Principles of Economics II	3
MAN 205	Principles of Management I	3
MAT 105	Business Mathematics	4-5
	or	
116	College Algebra	
RES 203	Real Estate Finance	2
	TOTAL	15-16
FOURTH QUARTER		
BIS 160	Introduction to Word, PowerPoint & Excel	3
PSY 121	General Psychology I	3
MRK 201	Marketing I	3
RES 204	Real Estate Appraisal I	2
LAW 101	Business Law I	3
	TOTAL	14
FIFTH QUARTER		
RES 205	Real Estate Appraisal II	3
RES 210	Real Estate Practice Seminar	3
RES 221	Property Management	3
RES 270	Real Estate Internship	3
	or	
	Business Elective	
MRK 202	Marketing II	3
SOC 111	General Sociology I	3
	TOTAL	18
SIXTH QUARTER		
ECO 215	Corporation Finance	3
COM 211	Effective Speaking I	3
RES 215	Real Estate Investing	3
RES 278	Real Estate Capstone	1
MAN 225	Human Relations & Organizational Behavior	3
	Humanities Elective*	3
	TOTAL	16

* See page 62.

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Travel & Tourism

(100 Total Credit Hours)

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.

Course & Title	Credit Hours
FIRST QUARTER	
TNT 100 Introduction to Travel & 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 & Excel	3
or	
119 P.C. Applications: MS Works**	—
TOTAL	16

SECOND QUARTER	
TNT 104 Tariff & Ticketing North America	3
TNT 108 Accommodations, Cars, Tours & Rail	2
TNT 122 Airline Computer I	3
ACC 111 Accounting I	3
ENG 131 Business Communications or English 111	3
TNT 131 Destinations II	3
TOTAL	17

THIRD QUARTER	
TNT 102 Travel Sales & Telephone Techniques	1
TNT 114 International Travel	3
TNT 123 Airline Computer II	2
ENG 132 Business Communications or English 112	3
MRK 201 Marketing I	3
TNT 109 Cruises	2
COM 287 Effective Listening	3
TOTAL	17

FOURTH QUARTER	
TNT 224 Advanced Computer I	2
TNT 250 Travel Sales Practicum	3
COM 206 Interpersonal Communication	3
MAN 105 Introduction to Business or MAN 205	3
Foreign Language Elective	3
PSY 105 Survey of Psychology or PSY 121	3
TOTAL	17

FIFTH QUARTER	
TNT 106 Employment Guidelines for the Travel Industry	1
TNT 201 Tourism for the Travel Industry	3
TNT 215 Managing a Travel Agency	3
TNT 225 Advanced Computer II	2
Career Elective ***	3
TNT 270 Internship	3
Foreign Language Elective	3
TOTAL	18

SIXTH QUARTER	
TNT 210 Management of Travel Sales Personnel	3
TNT 202 Marketing for the Travel Agency	3
TNT 278 Travel & Tourism Capstone	3
HUM 115 International Environments Culture & Business	3
General Education Elective*	3
TOTAL	15

* See page 62.

** Choose from BIS 160, 119, or M41, M51, M61, M70 to equal 3 credit hours

*** TNT 297, HMT 105, HMT 210, BUO 105, BUO 120, COM 211 or HIS 218

Certificate Programs

Business Management

(50 Total Credit Hours)

With this program, students gain an understanding of business procedures to prepare them for a management position, or update the management skills of those currently employed in a managerial, administrative or office support role.

Course & Title	Credit Hours
FIRST QUARTER	
MAN 105 Introduction to Business	3
MAN 205 Principles of Management	3
BIS 160 Introduction to Word, PowerPoint & Excel	3
ENG 131 Business Communications I	3
MAT 121 Mathematics for Business Analysis	5
TOTAL	17

SECOND QUARTER	
MAN 225 Human Relations & Organizational Behavior	3
MAN 216 Managing Operations	3
or	
245 Office Management	3
ENG 132 Business Communications II	3
ECO 105 General Economics	3
or	
201 Principles of Economics	3
COM 211 Effective Speaking I	3
MRK 201 Marketing I	3
TOTAL	18

THIRD QUARTER	
MAN 201 Introduction to Supervision	3
or	
226 Human Relations Problems	3
MAN 295 Management Seminar	3
MRK 202 Marketing II	3
COM 285 Business & Professional Communication	3
or	
Humanities Elective*	3
Business Elective	3
TOTAL	15

* See page 62.

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	Credit Hours
FIRST QUARTER	
ACC 111 Principles of Accounting I	3
BIS 160 Introduction to Word, PowerPoint & Excel	3
HMT 112 Basic Food Preparation	4
ENG 131 Business Communications I	3
MAN 105 Introduction to Business	3
TOTAL	16

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BUS

SECOND QUARTER

ACC	112	Principles of Accounting II	3
HMT	205	Food Service Sanitation & Safety	3
HMT	114	Advanced Food Preparation	4
MAN	205	Principles of Management	3
HMT	—	Hospitality Management Elective	3
TOTAL			16

THIRD QUARTER

HMT	201	Food Service Equipment & Design Maintenance	3
HMT	215	Food & Labor Cost Controls	3
HMT	225	Organization & Administration of Food Service	3
HMT	226	Purchasing for the Hospitality Industry	3
HMT	110	Menu Planning & Dining Service	3
—	—	Business Elective	3
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, work place technology and electronic files management to provide administrative support in a variety of entry level office positions.

Course & Title

FIRST QUARTER

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

SECOND QUARTER

ENG	132	Business Communications II	
		or	
	112	English Composition II	3
BIS	102	Document Formatting	2
COM	206	Interpersonal Communication	3
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
BIS	114	Filing Applications	2
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
TOTAL			14

THIRD QUARTER

BIS	103	Advanced Document Formatting/Skillbuilding	4
	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
TOTAL			13

FOURTH QUARTER

BIS	202	Online Customer Service	3
BIS	117	Electronic Files Management	2
BIS	115	Work Place Technology	2
BIS	M11	Pretranscription Skills	1
BIS	135	Machine Transcription	3
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
TOTAL			13

Labor Studies

(49 Total Credit Hours)

Theoretical background is combined with realistic simulations of union management relations for careers such as union shop stewards, committee persons, elected officers, business representatives or international representatives.

Course & Title

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

SECOND QUARTER

ACC	111	Principles of Accounting I	3
ENG	132	Business Communications II	3
LAS	125	Union Structure & Administration	3
LAS	215	Labor Law	3
PLS	101	American Federal Government I	3
PSY	121	General Psychology I	3
TOTAL			18

THIRD QUARTER

BIS	105	Introduction to Computers	3
ECO	105	General Economics	3
LAS	135	Union Leadership Skills	3
PSY	122	General Psychology II	3
—	—	Humanities Elective *	3
TOTAL			15

* See page 62.

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 QUARTER

ENG	131	Business Communications I	3
MAT	105	Business Mathematics	4
BIS	101	Personal Computer Keyboarding	2
BIS	136	Introduction to Medical Terminology	4
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
TOTAL			15

SECOND QUARTER

BIS	102	Document Formatting	2
ENG	132	Business Communications II	3
MAN	205	Principles of Management	3
BIS	137	Intermediate Medical Terminology	4
BIS	M41	Introduction to Excel	1
TOTAL			13

THIRD QUARTER

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	4
TOTAL			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.

FIRST QUARTER

BIS	M15	Introduction to Windows	1
ACC	111	Principles of Accounting I	3
ENG	131	Business Communications I	3
		or	
	111	English Composition I	
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

SECOND QUARTER

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	Work Place Technology	2
COM	_____	Communication Arts Elective	3
CIS	107	Introduction to Operating Systems	3
TOTAL			18

THIRD QUARTER

BIS	M33	Advanced Access	1
BIS	M43	Advanced Excel	1
BIS	M53	Advanced PowerPoint	1
BIS	172	Integrated Solutions	2
BIS	207	Telecommunications	2
CIS	130	Web Page Development	3
CIS	162	MS Office Troubleshooting	3
CIS	_____	CIS Elective	3
TOTAL			16

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.

Course & Title	Credit Hours
FIRST QUARTER	
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

SECOND QUARTER

MAT 122 Statistics I	4
ENG 111 English Composition I	3
	or
	131 Business Communications I
MAN 205 Principles of Management	3
PUR 202 Advanced Purchasing	3
PUR _____ Purchasing Elective	3
TOTAL	16

THIRD QUARTER

ENG 112 English Composition II	3
	or
	132 Business Communications II
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.

Course & Title	Credit 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		Credit Hours
FIRST QUARTER		
CIS 210	Computer Systems Analysis	3
COM 225	Small Group Communication	3
CIS 233	Programming in "C"	3
TOTAL		9

SECOND QUARTER		
CIS 234	Object-oriented Programming in C++	3
CIS 112	Object-oriented Concepts	3
CIS 265	Database Management Systems	3
TOTAL		9

THIRD QUARTER		
Enterprise Option		
CIS 225	Systems Software	3
CIS 280	Java Programming I	4
CIS 236	Visual C++	3
TOTAL		10

OR		
Web Development Option		
CIS 130	Introduction to Web Development	3
CIS 280	Java Programming I	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, P.C. Technician and Help Desk Technician/Analyst.

Course & Title		Credit Hours
FIRST QUARTER		
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
TOTAL		14

continued next column

THIRD QUARTER

BIS M70	Introduction to Internet	1
BIS M71	Intermediate Internet	1
CIS 264	A+ Certification	3
CIS 230	Computer Networks	3
CIS 238	P.C. Installation Management	3
BIS 202	Online Customer Service	3
TOTAL		14

Human Resource Management

(18 Total Credit Hours)

This certificate provides the opportunity to develop and refine human resources skills. The curriculum covers laws and regulations related to employment, implications of decisions and their effect on employee motivation as well as the major functional areas of Human Resource Management. Also addresses human resources applications in benefits, training and development, recruitment and selection, compensation, performance planning, discipline and labor relations.

Course & Title		Credit Hours
MAN 237	Human Resource Management	3
MAN 238	Human Resource Management Applications	3
MAN 225	Human Relations & Organizational Behavior	3
	or	
	230 Motivational Concepts & Applications	1
	231 Leadership in Work Groups	1
	232 The Organizational System	1
FIN 260	Employee Benefits	3
COM 235	Principles of Interviewing	3
TOTAL		15

Java Enterprise Development

(23-29 Total Credit Hours)

The Java Enterprise certificate is designed for professional programmers who need to learn to develop applications in a Java Enterprise environment. This certificate focuses on designing and deploying enterprise application using Java related technologies.

Course & Title		Credit Hours
FIRST QUARTER		
CIS 112	Object-oriented Concepts	3
	or	
	113 Object-oriented Design	4
CIS 266	Client/Server Database	4
	or	
	265 Database Management Systems	3
TOTAL		6 - 8

SECOND QUARTER		
CIS 283	Advanced Java	4
	or	
	280 Java I and Java II	8
CIS 285	Web Application Development with Java	4
TOTAL		8 - 12

THIRD QUARTER		
CIS 286	Enterprise Java	4
CIS 288	Java Enterprise Development Final Project	5
TOTAL		9

Software Applications for the Professional

(21 Total Credit Hours)

This certificate provides office workers, managers, professionals, and those interested in acquiring knowledge for personal use the opportunity to develop and refine their skills in a variety of current software common in today's work environments. Software applications included are word processing, spreadsheet, database, business presentations, desktop publishing, and Internet browser.

Course & Title			Credit Hours
FIRST QUARTER			
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
BIS	M41	Introduction to Excel	1
BIS	M42	Intermediate Excel	1
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
TOTAL			10

SECOND QUARTER

BIS	M21	Introduction to Desktop Publishing	1
BIS	M22	Intermediate Desktop Publishing	1
BIS	M53	Advanced PowerPoint	1
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
BIS	M43	Advanced Excel	1
BIS	M44	Expert Excel	1
BIS	M33	Advanced Access	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.

Course & Title			Credit Hours
FIRST QUARTER			
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
SECOND QUARTER			
BIS	160	Introduction to Word, PowerPoint & Excel	3
CIS	130	Introduction to Web Development	3
VIS	147	Digital Imaging	3
VIS	115	Digital Graphics I	3
TOTAL			12
THIRD QUARTER			
CIS	131	Intermediate Web Development	3
VIS	265	3D Digital Graphics I	3
MAT	105	Business Mathematics	4
ENG	121	Technical Composition I	3
TOTAL			13

Web Programming

(31-35 Total Credit Hours)

The Web Programming certificate is designed to provide an individual with state-of-the-art web application development skills. It focuses on designing, writing and deploying web applications using the latest technologies. It is designed for experienced programmers to update their skills and for individuals wishing to make a career change into the Information Technology field. The certificate will focus on web application development in a client/server networked environment.

Course & Title			Credit Hours
FIRST QUARTER			
CIS	129	Introduction to HTML/JavaScript	3-4
		or	
	136	HTML and JavaScript	
	137	JavaScript	
CIS	130	Introduction to Web Development	3
CIS	265	Database Management Systems	3-4
		or	
	266	Client/Server Database	
TOTAL			9-11

SECOND QUARTER

Visual Basic Track

CIS	131	Intermediate Web Development	3
CIS	147	Visual Basic	3
CIS	284	Client/Server Web Tools	3
TOTAL			9

OR

Java Track

CIS	131	Intermediate Web Development	3
CIS	280	Java I	4
CIS	285	Web Application Development with Java	4
TOTAL			11

THIRD QUARTER

CIS	224	Web Server Administrator & Security	4
CIS	223	XML	3
CIS	143	Cold Fusion	3
CIS	144	Perl/CGI	3
TOTAL			13

BUS

Business Technologies

Software Used in Specific Courses

Internet Explorer BIS M70 BIS M71 BIS 104 BIS 105	Microsoft Word, PowerPoint, & Excel BIS 160 BIS 161 BIS 162
Microsoft Word BIS 101 BIS M61 BIS 102 BIS M62 BIS 103 BIS M63 BIS M64	Microsoft Word, PowerPoint, Excel & Access BIS 172 BIS 215
Microsoft Access BIS M31 BIS M33 BIS M32 BIS M34	
Microsoft Excel BIS M41 BIS M43 BIS M42 BIS M44	
Microsoft PowerPoint BIS M51 BIS M52 BIS M53	
Microsoft Publisher BIS M21 BIS M22	
Microsoft Project BIS M81 BIS M82	
Microsoft Works BIS 119 BIS 120	
Corel WordPerfect BIS 223	

CIS Software Used in Specific Courses

Windows / DOS / Unix CIS 107 CIS 225	Microsoft Office CIS 162
Windows XP Professional CIS 108	Oracle CIS 266 CIS 268
Active Perl CIS 144	Rational Rose or Rational XDE CIS 112 CIS 113
Cold Fusion CIS 143	Visual Age for Java CIS 283 CIS 288
Internet Explorer Admin Kit CIS 276	Visual Basic CIS 111 CIS 147 CIS 148
JDK CIS 280 CIS 281	Visual C++ CIS 233 CIS 234 CIS 236
Macromedia Dreamweaver CIS 130 CIS 131	Visual InterDev 6.0 CIS 284
Macromedia Flash CIS 134 CIS 138	WebSphere Studio CIS 285
MCSE Program Windows 2000	
COBOL CIS 221 CIS 222	
Microsoft Access CIS 265	

Distance Learning

www.sinclair.edu



***Distance Learning
delivers...how and where
YOU want to learn!***

***Take classes at convenient
neighborhood learning centers
or in the comfort of your own
home. High quality courses,
dedicated faculty, and respon-
sive support services make
Sinclair Distance Learning
the right choice for busy
students.***

—Sherry McAndrew, Interim Dean

Academic Counseling Office Hours:

Monday-Friday
8:00 a.m. - 5:00 p.m.

Walk-in counseling is available throughout each quarter, 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.

1-888-226-2457 (toll-free)
(937) 512-2891 (FAX number)

Sherry McAndrew, Interim Dean
(937) 512-2990, Room 14318

Don Smith
Manager, Distance Learning
Technical Support Services
(937) 512-2379, Room 14324

Alice Renner
Interim Coordinator,
Web Course Development Team
(937) 512-2013, Room 14223

Linda PaHud
Coordinator, Distance Learning Services
(937) 512-2694, Room 14321

Sandee Arehart
Distance Services Coordinator
(937) 512-2990, Room 14321

Dodie Munn
Academic Counselor
(937) 512-2990, Room 14321

Robert Rice
Coordinator of Education Programs
(DCI/MEPRC)
(937) 512-3093, Room 14324

John Tomoser
Coordinator, Off-Campus Sites
(937) 512-3262, Room 14321

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 alone.

Students register for any Distance Learning course in the same manner they register for other Sinclair courses: telephone, online, mail-in, or in-person registration. The cost for Distance Learning courses is the same as for other for credit courses and all course work must be completed within the quarter it is taken.

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 200 courses in a variety of study formats as well as a full complement of courses at neighborhood learning centers and via interactive broadcast video.

Transfer 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.

Tips for the Distance Learner

For those who decide to try a distance learning course, it is 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 online (via the Internet), and through video 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/print/CD-ROM formats do not. D.L. instructors are accessible via e-mail or phone, but response time may not be as immediate.

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: online (via the Internet), videotape, 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-credit-hour course would require ten to 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 Internet. 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 videotaped 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.

System Requirements for Online Courses

The basic hardware, software and access requirements for all web courses is as follows:

- A Pentium-based computer (or higher) or Macintosh equivalent
- A 56 kps modem (or higher)
- An Internet account with access to the World Wide Web
- Windows 98 or higher
- Netscape Version 4.5 to 4.77 (versions 4.78 and 6.x are not supported) or,
 - Explorer version 5.0 and 5.5-SP2 (versions 5.5 SP1 and 6.0 are not supported)
- 16 MB RAM (or higher)
- 20-500 MB free hard-disk space
- An e-mail account is recommended
- CD Drive

Some web courses have a higher level of system requirements. The courses that need this support are:

- BIS 201 Customer Service
- CIS 110 Program Design & Logic
- DEV 085 Basic Mathematics II
- DRT 196 Technical Graphics Communication

- EBE 170 Introduction to Cooperative Education/ Internship & Career Skills
- ENG113 English Composition III
- PTA 116 Movement Science I
- PTA 118 Movement Science II

Students taking these courses need the following:

- A 56 kps modem (or higher)
- An Internet account with access to the World Wide Web
- Windows 98 or higher
- Pentium II equivalent (or higher) or Macintosh equivalent
- 64 MB RAM (or higher)
- CD drive 24x (or higher)
- Plugins: Flash, Shockwave, QuickTime, and Windows Media Player
- Sound card
- Headphones or speakers
- Netscape Version 4.5 to 4.77 (versions 4.78 and 6.x are not supported)
- Or, Explorer Version 5.0 and 5.5 SP2 (versions 5.5 SP1 and 6.0 are not supported)

NOTE: Sinclair has two state-of-the-art Teleports for students to use for web course work. These Teleports are located in Rooms 11346 and 13223.

Videotape/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 videotapes 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:

Butler High School
600 North Dixie Drive
Vandalia, OH

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

Northmont High School
4916 West National Road
Dayton, OH

Wayne High School
5400 Chambersburg Road
Huber Heights, OH

Wright-Patterson Air Force Base
(All classes are held in areas B and C)

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 at 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.

Dayton Correctional Institution and Montgomery Education and Pre-Release Center

Distance Learning coordinates all advanced job training program offerings at the Dayton Correctional Institution (DCI) located at 4104 Germantown Pike and the Montgomery Education and Pre-Release Center (MEPRC) at 1901 South Gettysburg Avenue. These programs are offered through the Ohio Penal Education Consortium, which is an organization made up of all colleges and universities that are under contract with the Ohio Department of Rehabilitation and Correction to provide advanced job training to inmates. Sinclair maintains a satellite office at both prison facilities. Also, a job training coordinator provides additional information to other colleges and universities at both the state and national levels concerning distance learning and provides a medium for inmates to obtain information about the realistic opportunities concerning distance learning options while incarcerated.

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Liberal Arts & Sciences Degree

Associate of Arts (94 Total Credit Hours)

Below are the degree course requirements listed by categories and the delivery mode to complete this Associate of Arts degree in Liberal Arts & Sciences. The program is designed to transfer to four-year institutions and completes the first two years of a four-year degree program. 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 quarter credit hours.

For more detailed information, refer to the Liberal Arts & Sciences section of the Sinclair Community College catalog for additional information about transferring to a four-year institution. Or, students may want to talk with an academic counselor in the Liberal Arts & Sciences division. Counselors are located in Room 6120 and/or can also be reached by calling (937) 512-5134.

DELIVERY METHODS (not every course is available in each of these formats and students can mix and match these methods as needed):

- DL** Distance Learning (Internet, videotape or print-based) (937) 512-2990 or 1-888-226-2457 toll-free, Room 14321
- CWW** College Without Walls, (937) 512-2791, Room 6130
- I** Independent Study (available through the individual departments)

NOTES:

- The Natural & Physical Science sequence is not available via distance due to hands-on lab requirements. Those credits can be transferred back to Sinclair from an accredited institution or taken in the classroom at Sinclair Community College.
- All English and/or Mathematics courses have prerequisites and require either a placement test score or transferable ENG/MAT credits from another accredited institution.
- —*: Will accept as transfer credit from another accredited institution or students may take the courses in the classroom at Sinclair Community College.
- —** These courses have an on-campus lab requirement. Only the lecture portion of these courses is available through Distance Learning.

Course Number / Title	Cr. Hrs.	Delivery Mode	Transfer Module (TM)
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I. English - 9 hours required

ENG 111 English Composition I	3	DL	TM & A.A. Degree
ENG 112 English Composition II	3	DL	TM
ENG 113 English Composition III	3	DL	TM

II. Math - 3 hours minimum required (Choose one math course to fulfill the Transfer Module.)

MAT 108 Mathematics & the Modern World	3	CWW	TM
MAT 116 College Algebra	5	CWW	TM

continued next column

Course Number / Title	Cr. Hrs.	Delivery Mode	Transfer Module (TM)
MAT 117 Trigonometry	4	CWW	TM
MAT 122 Statistics I	4	CWW	TM
MAT 151 Introduction to Mathematical Modeling	3	I	TM
MAT 201 Calculus & Analytical Geometry I	5	CWW	TM
MAT 202 Calculus & Analytical Geometry II	5	CWW	TM
MAT 203 Calculus & Analytical Geometry III	5	CWW	TM
MAT 204 Calculus & Analytical Geometry IV	5	CWW	TM
MAT 215 Differential Equations	5	CWW	TM
MAT 216 Elements of Linear Algebra	4	CWW	TM
MAT 218 Calculus for Business & Economics	5	CWW	TM

III. Natural and Physical Science Series - 12 credit hours (Courses must be taken as a sequence in the same discipline and with required labs.)

Astronomy

AST 111/Introduction to Astronomy 117 (lab)	4	—*	TM
AST 112/The Solar System 118 (lab)	4	—*	TM
AST 113/Stars, Galaxies & Cosmology 119 (lab)	4	—*	TM

Biology

BIO 111/General Biology I 117 (lab)	4	—*	TM
BIO 112/General Biology II 118 (lab)	4	—*	TM
BIO 113/General Biology III 119 (lab)	4	—*	TM

OR

BIO 225/Ecology 226 (lab)	4	—*	TM
BIO 235/Introduction to Genetics 236 (lab)	4	—*	TM
BIO 240/Field & Botany 246 (lab)	4	—*	TM

Chemistry

CHE 141/College Chemistry I 147 (lab)	4	—*	TM
CHE 142/College Chemistry II 148 (lab)	4	—*	TM
CHE 143/College Chemistry III 149 (lab)	4	—*	TM

OR

CHE 151/General Chemistry I 157 (lab)	5	—*	TM
CHE 152/General Chemistry II 158 (lab)	5	—*	TM
CHE 153/General Chemistry III 159 (lab)	5	—*	TM

OR

CHE 201/Organic Chemistry I 207 (lab)	5	—*	TM
CHE 202/Organic Chemistry II 208 (lab)	5	—*	TM
CHE 203/Organic Chemistry III 209 (lab)	5	—*	TM

Geology

GLG 141/General Geology I 147 (lab)	4	—*	TM
GLG 142/General Geology II 148 (lab)	4	—*	TM
GLG 143/General Geology III 149 (lab)	4	—*	TM
GLG 144 Geographical Field Trips	4	—*	TM

Physics

PHY 100/Introduction to Physics 110 (lab)	4	DL**	TM
PHY 104/ Sound, Light & Modern Physics 119 (lab)	4	DL**	TM

continued next page

Course Number / Title	Cr. Hrs.	Delivery Mode	Transfer Module (TM)
AST 101/Survey of Astronomy 107 (lab)	4	DL**	TM
OR			
PHY 141/lab College Physics I	4	---	TM
PHY 142/lab College Physics II	4	---	TM
PHY 143/lab College Physics III	4	---	TM
OR			
PHY 151 Mechanical Universe I	4	---	TM
PHY 152 Mechanical Universe II	4	---	TM
PHY 153 Mechanical Universe III	4	---	TM
OR			
PHY 201/General Physics I 207 (lab)	6	---	TM
PHY 202/General Physics II 208 (lab)	6	---	TM
PHY 203/General Physics III 209 (lab)	6	---	TM
PHY 204 General Physics IV	4	---	TM

IV. Social and Behavioral Sciences - 15 credit hours (9 hours needed to fulfill the Transfer Module and 6 additional hours for the A.A. degree.) Choose courses from at least two areas listed below.

Economics

ECO 201 Principles of Economics I	3	DL	TM
ECO 202 Principles of Economics II	3	DL	TM
ECO 203 Principles of Economics III	3	DL	TM

Geography

GEO 101 Physical Geography	3	---	TM
GEO 102 Human Geography	3	CWW	TM
GEO 201 World Regional Geography I	3	CWW	TM
GEO 202 World Regional Geography II	3	CWW	TM

Political Science

PLS 101 American Federal Government I	3	CWW	TM
PLS 102 American Federal Government II	3	CWW	TM
PLS 103 State Government	3	CWW	TM
PLS 104 Urban Government	3	CWW	TM
PLS 200 Political Life, Systems & Issues	3	CWW	TM
PLS 201 International Relations I	3	I	TM

Psychology

PSY 119 General Psychology	5	DL	TM
PSY 121 General Psychology I	3	DL	TM
PSY 122 General Psychology II	3	DL	TM
PSY 205 Child Development	4	DL	TM
PSY 206 Adolescent & Adult Psychology	3	DL	TM
PSY 207 Psychology of Aging	3	DL	TM
PSY 208 Life Span & Human Development	5	DL	TM
PSY 217 Abnormal Psychology	4	DL	TM
PSY 225 Social Psychology	4	CWW	TM
PSY 228 Psychology in the Work Place	4	CWW	TM

Sociology

SOC 111 General Sociology I	3	DL	TM
SOC 112 General Sociology II	3	DL	TM
SOC 120 General Sociology	5	DL	TM
SOC 145 Comparing Cultures	3	DL	TM
SOC 160 Social Patterns in Aging	3	CWW	TM
SOC 205 Social Problems	4	DL	TM
SOC 208 The Urban Environment	3	CWW	TM
SOC 215 Cultural Diversity	4	DL	TM
SOC 226 Criminology	3	CWW	TM

V. Arts & Humanities - 15 credit hours (9 hours needed to fulfill the Transfer Module; 6 additional hours for the A.A. degree.) Choose courses from at least two areas listed below.

Art

ART 101 Art Appreciation I and Art Appreciation II (Must take both courses concurrently)	6	DL	TM
ART 125 African Art	3	DL	TM
ART 231 Art of Ancient World	3	CWW	TM
ART 232 Art of Medieval & Renaissance Worlds	3	CWW	TM
ART 233 Art of Modern World	3	CWW	TM
ART 235 History of Photography	3	DL	TM
ART 236 History of Women Artists	3	DL	TM

Dance

DAN 155 Dance History	3	I	TM
DAN 157 Dance Appreciation	3	I	TM

History

HIS 101 U.S. History I: 1607 to 1815	3	DL	TM
HIS 102 U.S. History II: 1815 to 1919	3	DL	TM
HIS 103 U.S. History III: 1919 to present	3	DL	TM
HIS 111 Western Civilization I: 0 to 1300	3	DL	TM
HIS 112 Western Civilization II: 1300 to 1815	3	DL	TM
HIS 113 Western Civilization III: 1815 to present	3	DL	TM
HIS 105 African-American History	4	CWW	TM
HIS 214 History of Southeast Asia	3	DL	TM
HIS 215 Survey of African History	3	CWW	TM
HIS 216 Survey of Latin American History	3	CWW	TM

Humanities

HUM 125 The Human Image	3	DL	TM
HUM 130 Humanity & the Challenge of Technology	3	DL	TM
HUM 131 The Search for Utopia	3	CWW	TM
HUM 255 People & Religion	3	CWW	TM

Literature

LIT 201 Survey of English Literature: 0 -1660	3	CWW	TM
LIT 202 Survey of English Literature: 1660 -1832	3	CWW	TM
LIT 203 Survey of English Literature:1832 - present	3	CWW	TM
LIT 211 Survey of American Literature I	3	CWW	TM
LIT 212 Middle American Literature II	3	CWW	TM
LIT 217 Images of Women in Literature	3	I	TM
LIT 227 Introduction to Shakespeare	3	I	TM
LIT 230 Great Books of the Western World	3	CWW	TM
LIT 234 Literature of Africa, Asia & Latin America	3	CWW	TM

Music

MUS 115 Music Appreciation	3	---	TM
MUS 131 Survey of Musical Styles I	3	---	TM
MUS 132 Survey of Musical Styles II	3	---	TM
MUS 133 Survey of Musical Styles III	3	---	TM

Philosophy

PHI 204 Great Books: Philosophy	3	---	TM
PHI 205 Introduction to Philosophy	3	CWW	TM
PHI 206 Personal Ethics	3	CWW	TM

Religion

REL 111 Eastern Religions	3	CWW	TM
REL 112 Western Religions	3	CWW	TM
REL 135 American Religious Movements	3	CWW	TM

Theatre

THE 105 Introduction to Theatre	3	---	TM
THE 201 History of Theatre I	3	I	TM
THE 202 History of Theatre II	3	I	TM
THE 203 History of Theatre III	3	I	TM

Course Number / Title	Cr. Hrs.	Delivery Mode	Transfer Module (TM)
VI. Communication - 3 hours required			
COM 206 Interpersonal Communication	3	CWW	A.A. Degree Only
COM 211 Effective Speaking I	3	CWW	A.A. Degree Only
COM 225 Small Group Communication	3	—*	A.A. Degree Only

VII. Computer Competency - 3 hours required

CIS 111 Introduction to Computer Programming	3	DL	A.A. Degree Only
BIS 119 P.C. Applications: MS Works	3	DL	A.A. Degree Only
BIS 160 Introduction to Word, PowerPoint & Excel	3	DL	A.A. Degree Only
CHE 152/General Chemistry II	5	—**	A.A. Degree Only
158 (lab)			
MAT 220 Statistics II	4	I	A.A. Degree Only

VIII. Multicultural – 3 hours required

GEO 102 Human Geography	3	CWW	TM
GEO 201 World Regional Geography I	3	CWW	TM
GEO 202 World Regional Geography II	3	CWW	TM
LIT 217 Images of Women in Literature	3	I	TM
LIT 234 Literature of Africa, Asia & Latin America	3	CWW	TM
PLS 200 Political Life, Systems & Issues	3	CWW	TM
PSY 225 Social Psychology	4	CWW	TM
SOC 145 Comparing Cultures	3	DL	TM
SOC 215 Cultural Diversity	4	DL	TM

IX. Freshman Experience – 2 hours required

ASE 101 LAS Freshman Experience	2	DL	
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X. Electives for A.A. Degree – 31 hours required

Mathematics

MAT 132 Technical Mathematics II	5	CWW	A.A. Degree Only
MAT 133 Technical Mathematics III	5	CWW	
MAT 134 Technical Mathematics IV	5	CWW	

Natural & Physical Sciences

BIO 104 HIV/AIDS	3	DL	
BIO 141/Principles of Anatomy & Physiology I	4	—**	
147 (lab)	4	—**	
BIO 142/Principles of Anatomy & Physiology II	4	—**	
148 (lab)	4	—**	
BIO 143/Principles of Anatomy & Physiology III	4	—**	
149 (lab)	4	—**	
BIO 205/Microbiology	4	—**	TM
206 (lab)			
CHE 120/Introduction to Chemistry	4	—**	
126 (lab)			
CHE 121/Introduction to Organic Chemistry	4	—**	
127 (lab)			
CHE 122/Introduction to Biochemistry	4	DL**	
128 (lab)			

Social & Behavioral Sciences

AFR 111 African-American Studies I	3	CWW	
AFR 112 African-American Studies II	3	CWW	
FIN 215 Corporation Finance	3	CWW	
PSY 160 African-American Psychology	3	CWW	
PSY 218 Principles of Counseling	4	CWW	
PSY 223 Cognitive Psychology	4	CWW	TM
PSY 228 Psychology in the Work Place	4	CWW	TM
PSY 229 Work Group Dynamics	3	—*	
PSY 235 Research Methods for Social Sciences	4	CWW	
PSY 236 Behavioral Science Statistics	4	CWW	
PSY 242 Educational Psychology	4	CWW	TM
SOC 115 Today's Changing Family	4	DL	
SOC 117 Popular Culture	3	—*	
SOC 125 Drug Implications	3	CWW	

continued next column

Course Number / Title	Cr. Hrs.	Delivery Mode	Transfer Module (TM)
SOC 130 Family Violence	3	DL	
SOC 209 Futuristics: Life Experiences in the Future	3	—*	
SOC 210 Rural Communities	3	DL	
SOC 216 Human Sexuality I	3	CWW	
SOC 225 Juvenile Delinquency	3	DL	
SOC 227 Probation & Parole	3	DL	
SOC 235 African-American Family	3	—*	

Arts & Humanities

ART ___ Any Art course	3	DL(some)	TM (some)
DAN ___ Any Dance course	3	—*	TM (some)
EGR/132 Connecting Technology & Our Lives	3	—*	
HUM			
LIT 236 African-American Literature	3	CWW	
LIT 238 Appalachian Literature	3	I	
MUS ___ Any Music course	3	—*	TM (some)
PHI 207 Logic	3	CWW	
THE ___ Any Theater course	3	I	TM (some)

Other Electives

ACC 111 Accounting, Principles I	3	DL	
ACC 112 Accounting, Principles II	3	DL	
ACC 113 Accounting Principles III	3	DL	
COM ___ Any Communications course	3	CWW	(select courses)
JOU 101 Journalism I	3	CWW	
JOU 102 Journalism II	3	CWW	
LAW 101 Business Law I	3	DL	
LAW 102 Business Law II	3	DL	
MAC 111 Beginning American Sign Language I	3	—**	
MAC 112 Beginning American Sign Language II	3	—**	
MAC 113 Beginning American Sign Language III	3	—**	
MAC 131 Intermediate American Sign Language I	4	—**	
MAC 132 Intermediate American Sign Language II	4	—**	
MAC 133 Intermediate American Sign Language III	4	—**	
MAN 105 Introduction to Business	3	DL	
MAN 205 Principles of Management	3	DL	
MRK 201 Marketing I	3	DL	
MRK 202 Marketing II	3	DL	

Modern Languages

FRE 101 Elementary French I	3	—**	
FRE 102 Elementary French II	3	—**	
FRE 103 Elementary French III	3	—**	
FRE 201 Intermediate French I	3	—**	
FRE 202 Intermediate French II	3	—**	
FRE 203 Intermediate French III	3	—**	
GER 101 Elementary German I	3	—**	
GER 102 Elementary German II	3	—**	
GER 103 Elementary German III	3	—**	
SPA 101 Elementary Spanish I	3	—**	
SPA 102 Elementary Spanish II	3	—**	
SPA 103 Elementary Spanish III	3	—**	
SPA 201 Intermediate Spanish I	3	—**	
SPA 202 Intermediate Spanish II	3	—**	
SPA 203 Intermediate Spanish III	3	—**	

Physical Education

PED 200 First Aid & Safety	2	—**	
PED 208 CPR	1	—**	
PED ___ Any Activity Course	1	—**	

NOTES:

- A maximum of two hours of PED may be applied to the A.A. degree.
- In addition to the courses listed above, any course on the Transfer Module (TM) list that is not used to meet the TM requirements may be used as an elective.
- Substitutions to the electives listed above may only be made with the permission of the academic counselor or dean of Liberal Arts & Sciences, Room 6121 or at (937) 512-5134.

continued next page

Business Administration Degree

Associate of Science

(98 Total Credit Hours)

Listed below are the degree course requirements and the delivery mode to complete an Associate of Science degree in Business Administration. The program is designed to transfer to four-year institutions and completes the first two years of a four-year degree program by providing the basic core of business and general education requirements.

Please refer to the Business Technologies section of the Sinclair Community College catalog for additional information about transferring to a four-year institution. Other degree programs in the Business Technologies division may also be completed through a combination of distance learning courses and other independent study options.

Students who have questions regarding their academic program or if they want to apply transfer credits previously earned at another institution to this degree program, it is strongly recommended that they first contact an academic counselor in the Business Technologies division. Counselors are located in Room 6131 and can be reached by phone at (937) 512-3054.

DELIVERY METHODS (not every course is available in each of these formats and students can mix and match these methods as needed):

- DL** Distance Learning (Internet, videotape or print-based) (937) 512-2990 or 1-888-226-2457 toll-free, Room 14321
- CWW** College Without Walls, (937) 512-22791, Room 6130
- I** Independent Study (available through the individual departments)

- The Natural & Physical Science sequence is not available via distance due to hands-on lab requirements. Those credits can be transferred back to Sinclair from an accredited institution or taken in the classroom at Sinclair Community College.
- All English and/or Mathematics courses have prerequisites and require either a placement test score or transferable ENG/MAT credits from another accredited institution.
- * - Will accept as transfer credit from another accredited institution or students may take in the classroom at Sinclair Community College.

Required Courses

Course Number / Title	Cr. Hrs.	Delivery Mode
ACC 111 Principles of Accounting I, II, III 112/113	9	DL
BIS 160 Introduction to Word, PowerPoint & Excel	3	DL
COM 211* Effective Speaking I	3	CWW
ECO 201 Principles of Economics I, II, III 202/203	9	DL
ENG 111 English Composition I, II, III 112/113**	9	DL
MAN 105 Introduction to Business	3	DL
MAT 116* College Algebra	5	CWW
MAT 122* Statistics I	4	CWW

continued next column

Course Number / Title	Cr. Hrs.	Delivery Mode
MAT 218* Calculus for Business & Economics	5	CWW
Natural Science Sequence I*, II*, III*	12	Transfer from another accredited institution or take on Sinclair campus

Elective Courses

_____ Humanities Electives***	9	DL / I / CWW
PSY/SOC Electives***	9	DL / CWW
_____ General Education Electives***	18	DL / I / CWW

** Course has entry level prerequisite, as noted in the college bulletin. See course descriptions section.

*** See approved Transfer Module (TM) course listing found in the college bulletin to satisfy this requirement.

Recommended Elective Courses

Humanities

ART 101 Art Appreciation I and 102 Art Appreciation II	6	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
HIS 101 U.S. History, I, II, III 102/103	9	DL
HIS 111 Western Civilization I, II, III 112/113	9	DL
HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL

Psychology/Sociology

PSY 119 General Psychology	5	DL
PSY 121 General Psychology I and 122 General Psychology II	6	DL
SOC 111 General Sociology I and 112 General Sociology II	6	DL

General Education

ART 236 History of Women Artists	3	DL
ART 263 Business of Art	3	DL
BIO 104 HIV/AIDS	3	DL
ENG 121 Technical Composition I	3	DL
ENG 131 Business Communications I	3	DL
ENG 245 Introduction to Linguistics	3	CWW
HIS 106 Civil Rights Era in the U.S.	3	DL
HIS 140 The Civil War	3	DL
HIS 214 History of Southeast Asia	3	DL
HUM 135 Environmental Ethics	3	DL
MUS 125 History of Rock Music	3	DL
PHI 207 Logic	3	CWW
PHI 209 Business Ethics	3	CWW
PSY 126 Stress Management	3	DL
PSY 135 Living with Loss, Death & Grief	3	DL
PSY 141 Love & Personal Growth	3	DL
PSY 205 Child Development	4	DL
PSY 206 Adolescent & Adult Psychology	4	DL
PSY 207 Psychology of Aging	3	DL
PSY 208 Life Span of Human Development	5	DL
PSY 217 Abnormal Psychology	4	DL
SOC 115 Today's Changing Family	4	DL
SOC 130 Family Violence	3	DL
SOC 145 Comparing Cultures	3	DL
SOC 210 Rural Communities	3	DL
SOC 215 Cultural Diversity	4	DL
SOC 225 Juvenile Delinquency	3	DL
SOC 227 Probation & Parole	3	DL

Certificate Program

Software Applications for the Professional

(21 Total Credit Hours)

Listed below are the degree requirements and the delivery modes available to complete the certificate program in Software Applications for the Professional. This certificate is designed for office workers, managers, professionals and those personally interested in developing and refining their skills in a variety of current software used in today's work environment. Software applications included are word processing, spreadsheet, database, business presentations, desktop publishing and Internet browser.

Each of these modules* requires that students have access to a computer with Office XP 2002 to complete all assignments/tests.

* M21 & M22 require Microsoft Publisher 2002; this is not part of the Office XP Suite.

Course & Title	Credit Hours	Delivery Mode
BIS M21 Introduction to Desktop Publishing	1	Online
BIS M22 Intermediate Desktop Publishing	1	Online
BIS M31 Introduction to Access	1	Online
BIS M32 Intermediate Access	1	Online
BIS M33 Advanced Access	1	Online
BIS M34 Expert Access	1	Online
BIS M41 Introduction to Excel	1	Online
BIS M42 Intermediate Excel	1	Online
BIS M43 Advanced Excel	1	Online
BIS M44 Expert Excel	1	Online
BIS M51 Introduction to PowerPoint	1	Online
BIS M52 Intermediate PowerPoint	1	Online
BIS M53 Advanced PowerPoint	1	Online
BIS M61 Introduction to Word	1	Online
BIS M62 Intermediate Word	1	Online
BIS M63 Advanced Word	1	Online
BIS M64 Expert Word	1	Online
BIS M70 Introduction to the Internet	1	Online
BIS M71 Intermediate Internet	1	Online
BIS 172 Integrated Solutions	2	Online
TOTAL	21	

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.



As our economy and work force continue to change dramatically at increasingly rapid rates, businesses must make a greater investment in advanced technology, improve their processes and hire more educated workers. That's where Sinclair's Engineering & Industrial Technologies division comes in. We've developed innovative programs and initiatives, designed new facilities and used a modular approach to instruction—to ensure that you're one of the most sought after and successful professionals in your chosen field.

—Dr. George Sehi, Dean

Academic Counseling Office Hours:

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 (ASEP)
Chrysler Dealer Apprenticeship Program (CAP)
American Honda Certificate Program
Ford Maintenance & Light Repair Certificate
Automotive High Performance 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

Tooling & Machining 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 does not mail grade reports automatically to students. Grades are mailed to students only upon request through the grade telephone reporting system.

Student grades are available by telephone and on the 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 are also 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

continued next page

high school 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	Civil Engineering Chemical Engineering Computer Engineering Electrical Engineering Mechanical Engineering MEE - Aeronautical Engineering
Kettering University	Computer Science Applied Mathematics Applied Physics Applied Environmental Chemistry Engineering
Miami University (Oxford)	Engineering Management Manufacturing Engineering
Ohio Northern University	Industrial Technology
Wright State University	Biomedical Engineering Computer Engineering Electrical Engineering Human Factors Engineering Mechanical Engineering Materials Science/Engineering Engineering Physics

Section II + Engineering & Industrial Technologies

University of Cincinnati College of Applied Science	Architectural Engineering Technology Civil Engineering Technology Construction Management Option Electronics & Computer Engineering Technology Mechanical Engineering Technology Open Learning Fire Science Technology
University of Dayton	Electronics & Computer Engineering Technology Industrial Engineering Technology Manufacturing Engineering Technology Mechanical Engineering Technology
DeVry Institute of Tech.	Electronics & Computer Engineering Technology
Ferris State University	Facilities Management Automotive Engineering Technology Construction Management Electrical/Electronics Engineering Technology Manufacturing Engineering Technology Product Design Engineering Technology Plastics Engineering Technology Mechanical Engineering Technology HVACR Engineering Technology
University of S. Colorado	Automotive Technology
Miami University (Middletown)	Automation & Control Technology Electronics & Computer Engineering Technology Mechanical Engineering Technology
Northern Kentucky University	Architectural Engineering Technology Civil Engineering Technology Construction Management Option Industrial Engineering Technology Manufacturing Engineering Technology Option Industrial Design & Graphic Technology Mechanical Engineering Technology
Purdue University	Electronics & Computer Engineering Technology
University of Toledo	Civil Engineering Technology Construction Management Option Electronics & Computer Engineering Technology

High School Outreach Activities

Throughout the year, the Engineering & Industrial Technologies division supports recruiting activities in the greater Dayton area high schools. Engineers' Day is held each February on the Sinclair campus. This event provides an opportunity for students to see labs and hear about different career paths. In June, the division hosts the Women In Engineering Technologies (WIET) Institute for high school girls entering grades 11 and 12. This free, two-week event involves hands-on lab experiences in many different program areas. For further information regarding these programs, contact Deborah Shuler at (937) 512-5342.

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 one-third 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.

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Associate of Science Engineering Science

(104 Total Credit Hours)

Admission Requirements:

EGR 160 Succeeding in Engineering Technology
Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
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
SECOND QUARTER		
ENG 112	English Composition II	3
IET 198	Computer Program Apps. in Technology	2
MAT 202	Calculus & Analytic Geometry II	5
PHY 202	General Physics II	6
— —	Social Science Elective*	3
TOTAL		19
THIRD QUARTER		
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
FOURTH QUARTER		
CHE 152	General Chemistry II	5
COM 211	Effective Speaking I	3
DRT 198	Introduction to CAD Concepts	2
MAT 216	Elements of Linear Algebra	3
MET 260	Engineering Technology Applications with Computers	3
TOTAL		16
FIFTH QUARTER		
MET 211	Engineering Mechanics I	5
MAT 215	Differential Equations	5
— —	Social Science Elective*	3
— —	Humanities Elective*	3
TOTAL		16
SIXTH QUARTER		
MET 212	Engineering Mechanics II	5
— —	Social Science Elective*	3
— —	Humanities Elective*	6
EGR — —	Engineering Elective	3
TOTAL		17

* See page 62.

continued next column

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

(104 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology
Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
ARC 101	Architectural Drafting	3
ARC 105	Properties of Construction Materials	4
COM 206	Interpersonal Communication	3
MAT 131	Technical Mathematics I	5
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		17
SECOND QUARTER		
ARC 102	Architectural Detail Drafting	5
CCT 103	Civil Blueprints & Drafting	3
DRT 198	Introduction to Computer Aided Drafting Concepts	2
ENG 121	Technical Composition I	3
MAT 132	Technical Mathematics II	5
TOTAL		18
THIRD QUARTER		
ARC 103	Architectural 3-D Drafting	3
ARC 107	Architectural Building Codes	3
ARC 199	Advanced 2-D CAD	2
CCT 105	Construction Methods & Materials	3
ENG 122	Technical Composition II	3
PHY 131	Technical Physics I	4
TOTAL		18

continued next page

EGR

FOURTH QUARTER

ARC	240	Computer Aided Architectural Drafting I	4
CCT	216	Construction Estimating	4
MET	203	Statics	4
—	—	Technical Elective	3
ARC	—	Architectural Community Elective	3
			<u>TOTAL</u>
			18

FIFTH QUARTER

ARC	211	Building Systems Drafting	5
ARC	241	Computer Aided Architectural Drafting II	4
MET	207	Strength of Materials	4
—	—	Social Science Elective*	3
			<u>TOTAL</u>
			16

SIXTH QUARTER

ARC	278	Architectural Technology Capstone	4
CCT	206	Reinforced Concrete Design	4
ARC	270	Architectural Internship	3
ARC	—	Architectural Community Elective	3
—	—	Humanities Elective*	3
			<u>TOTAL</u>
			17

* See page 62.

Automation & Control Technology

(109-111 Total Credit Hours)

The Automation & Control Technology program builds knowledge in the application of electrical and mechanical skills for developing, installing, programming, and troubleshooting the complex machinery found in the modern manufacturing environment.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
EER 126 D.C. Circuits	4
EGR 100 Fundamental Mechanical Skills	3
EGR 128 Robotics in CIM systems	4
IET 198 Computer Programming Applications in Engineering Technology	2
MAT 131 Technical Mathematics I	5
<u>TOTAL</u>	
18	
SECOND QUARTER	
EER 127 A.C. Circuits	4
EGR 252 KAREL Robot Programming	3
ENG 121 Technical Composition I	3
— — Humanities Elective*	3
or	
EGR 132 Connecting Technology & Our Lives	5
MAT 132 Technical Mathematics II	5
<u>TOTAL</u>	
18	
THIRD QUARTER	
EER 128 Discrete Electronics	4
EER 139 Electrical Machinery	4
EGR 220 Machine Vision	3
EGR 257 Handling Tool & TPP Programming	3
ENG 122 Technical Composition II	3
<u>TOTAL</u>	
17	

continued next column

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
			<u>TOTAL</u>
			19

FIFTH QUARTER

COM	—	Communication Elective	3
EGR	251	Robot Controller Diagnostics	3
EGR	254	KAREL Advanced Programming	3
EGR	255	Machine Communication Protocols	3
EGR	115	Human Factors Engineering	3
or			
EGR	206	Engineering Technology Economics	3
or			
EGR	208	Engineering Computer Graphics	3
or			
EGR	249	Robotic Application Programming	3
or			
EGR	262	Advanced C Programming Engineering Applications	3
or			
EGR	270	Engineering Internship	3
or			
MAT	133	Technical Mathematics III	5
PHY	131	Technical Physics I	4
			<u>TOTAL</u>
			19-21

SIXTH QUARTER

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*	3
or			
ENG	113	English Composition III	3
—	—	Social Science Elective*	3
			<u>TOTAL</u>
			18

* See page 62.

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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

continued next page

Course & Title		Credit Hours
FIRST QUARTER		
AUT 125	Electrical & Electronic Systems	7
AUT 165	Brake Systems	5
INT 141	Applied Shop Mathematics	3
AUT 102	Dealership Principles for ASEP/CAP**	3
EGR 160	Succeeding in Engineering Technology	1
	TOTAL	16-19
SECOND QUARTER		
AUT 115	Fuel & Emission Systems	7
AUT 108	Engine Systems	5
COM 206	Interpersonal Communication	3
— —	General Education Elective*	3
	TOTAL	18
THIRD QUARTER		
AUT 142	Manual Transmissions & Drive Line	5
AUT 146	Heating & Air Conditioning	5
INT 111	Tool & Manufacturing Processes I	3
ENG 121	Technical Composition I	3
MET 198	P.C. Applications in Engineering Tech.	2
	TOTAL	18
FOURTH QUARTER		
AUT 241	Automatic Transmissions	7
AUT 210	Steering, Suspension & Alignment	5
AUT 111	Automotive Management I	3
PSY 229	Work Group Dynamics	3
	TOTAL	18
FIFTH QUARTER		
AUT 245	Performance & Driveability	7
ECO 201	Principles of Economics I	3
ENG 122	Technical Composition II	3
SRM 211	Industrial Safety I	3
	TOTAL	16
SIXTH QUARTER		
AUT 215	Automotive Service Operations	10
— —	Humanities Elective*	3
— —	Engineering Elective	3
	TOTAL	16

* See page 62.

** AUT 102 is for General Motors ASEP and Chrysler CAP students only.

The Automotive Technology program also supports the General Motors ASEP (Automotive Service Education Program), the Chrysler CAP (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 FAA 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

continued next column

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
	or	
	Technical Composition I	
MET 198	Personal Computer Applications in Engineering Technology	2
MAT 116	College Algebra	5
	or	
	Technical Mathematics I	
AVT 105	Orientation to Aviation	3
AVT 125	Developments in Aviation	3
	TOTAL	16
SECOND QUARTER		
AVT 111	Navigation Science I	3
AVT 245	Aviation Law	3
MAT 117	Trigonometry	5
	or	
	Technical Mathematics II	
— —	Humanities Elective*	3
	TOTAL	14
THIRD QUARTER		
ENG 112	English Composition II	3
	or	
	Technical Composition II	
PHY 131	Technical Physics I	4
	or	
	College Physics	
AVT 119	Meteorology	3
AVT 238	Aircraft Avionics	3
AVT 270	Aviation Internship	3
	TOTAL	16
FOURTH QUARTER		
AVT — —	AVT Track I/II/III Elective	3-4
E/IT — —	Elective	3
E/IT — —	Elective	3
E/IT — —	Elective	3
AVT 211	Navigation Science II	3
	TOTAL	15-16
FIFTH QUARTER		
AVT — —	AVT Track I/II/III Elective	3-4
AVT 242	Aircraft Accident Investigation	3
AVT 240	Human Factors in Aviation	3
— —	Social Science Elective*	3
AVT 206	Aerodynamics	3
	TOTAL	15-16
SIXTH QUARTER		
COM 206	Interpersonal Communication	3
AVT 247	Flight Control Systems	3
AVT — —	AVT Track I/II/III Elective	3-4
AVT 205	Aviation Management	3
AVT — —	AVT Track I/II/III Elective	3-4
	TOTAL	15-17

AVT Track Technical Electives:

Track I Flight

AVT 110	Ground School Primary Flight
AVT 120	Primary Flight
AVT 160	Ground School Instrument
AVT 220	Instrument Flight Training

Track II Maintenance

AVT 143	Aircraft Maintenance
AVT 202	Aircraft Pneumatics & Hydraulics
AVT 228	Aircraft Engines
AVT 248	Aircraft Structures

Track III Management

AVT 230	Airport Planning & Management
EGR 206	Engineering Technology Economics
MAN 105	Introduction to Business
MRK 225	Sales Fundamentals

* See page 62.

Aviation Technology Maintenance Option (103-104 Total Credit Hours)

This option under the primary program is designed for students who have completed Sinclair's three certificate Aviation Maintenance Technology program or hold Airframe and Powerplant certificates granted by the Federal Aviation Administration (FAA). This degree program improves the student's career options in the aviation maintenance technology field by expanding on the student's fundamental knowledge of aviation maintenance, honing critical thinking skills, and developing management ability.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I or	3
	121 Technical Composition I	
MET 198	Personal Computer Applications in Engineering Technology	2
MAT 116	College Algebra or	5
	131 Technical Mathematics I	
AVT 115	Ground Operations & Servicing	3
AVT 112	Performance Calculations	2
TOTAL		15
SECOND QUARTER		
AVT 111	Navigation Science I	3
MAT 117	Trigonometry or	4
	132 Technical Mathematics II	5
AVT 105	Orientation to Aviation** Humanities Elective*	3 3
AVT 117	Fluid Lines & Fittings	3
AVT 245	Aviation Law	3
TOTAL		19-20
THIRD QUARTER		
ENG 112	English Composition II or	3
	122 Technical Composition II	
PHY 141	College Physics I or	4
	131 Technical Physics I	
AVT 229	Aircraft Finishes	3
AVT 238	Aircraft Avionics**	3
AVT 119	Meteorology	3
TOTAL		16
FOURTH QUARTER		
AVT 218	Landing Gear	4
AVT 237	Airframe Inspections	2
AVT 206	Aerodynamics	3
AVT 247	Flight Controls	3
AVT 217	Hydraulics & Pneumatics Systems	3
TOTAL		15

FIFTH QUARTER

AVT 234	Reciprocating Engines III	3
AVT 242	Aircraft Accident Investigation	3
AVT 219	Turbine Engines	4
AVT 240	Human Factors in Aviation Social Science Elective*	3 3
AVT 125	Developments in Aviation	3
TOTAL		19

SIXTH QUARTER

COM 206	Interpersonal Communication	3
AVT 129	Propellers	5
AVT 138	Engine Fuel & Fuel Metering	5
AVT 205	Aviation Management	3
AVT 270	Aviation Internship	3
TOTAL		19

* See page 62.

** AVT 105 & 238 are not required for the A & P certification by the FAA.

Aviation Technology Professional Pilot & Airway Science Option (106-107 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 (FAA). There are minimum flight hours, as well as practical test standards that students must pass.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I or	3
	121 Technical Composition I	
MET 198	P. C. Applications in Engineering Technology	2
MAT 116	College Algebra or	5
	131 Technical Mathematics I	
AVT 110	Ground School/Primary Flight	3
AVT 120/124	Primary Flight	4
TOTAL		17
SECOND QUARTER		
AVT 111	Navigation Science I	3
MAT 117	Trigonometry or	5
	132 Technical Mathematics II	
AVT 105	Orientation to Aviation Humanities Elective*	3 3
AVT 160	Ground School/Instrument	4
AVT 245	Aviation Law	3
TOTAL		21

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THIRD QUARTER

ENG	112	English Composition II	3
		or	
	122	Technical Composition II	
PHY	131	Technical Physics I	4
		or	
	141	College Physics	
AVT	220/224	Instrument Flight Training	4
AVT	238	Aircraft Avionics	3
AVT	119	Meteorology	3
		TOTAL	17

FOURTH QUARTER

AVT	250	Commercial Pilot Ground School	3
AVT	253/263	Commercial Flight	5
AVT	206	Aerodynamics	3
AVT	247	Flight Controls	3
AVT	211	Navigation Science II	3
		TOTAL	17

FIFTH QUARTER

AVT	255	Multi-engine Operations	3
AVT	242	Aircraft Accident Investigation	3
AVT	256/266	Multi-engine Flight	3
AVT	240	Human Factors in Aviation	3
		Social Science Elective*	3
AVT	125	Developments in Aviation	3
		TOTAL	18

SIXTH QUARTER

COM	206	Interpersonal Communication	3
AVT	258	Instructor Ground	4
AVT	259/269	Instructor Flight	4
AVT	205	Aviation Management	3
AVT	270	Aviation Internship	3
		TOTAL	17

* See page 62.

Civil Engineering Technology

(102 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
ARC 138 Architectural Blueprint Reading	3
CCT 102 Basic Construction Surveying	4
COM 206 Interpersonal Communication	3
MAT 131 Technical Mathematics I	5
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	17

continued next column

SECOND QUARTER

CCT	103	Civil Construction Blueprints & Drafting	3
CCT	105	Properties of Construction Materials	3
MAT	132	Technical Mathematics II	5
DRT	198	Introduction to CAD Concepts	2
ENG	121	Technical Composition I	3
		TOTAL	16

THIRD QUARTER

CCT	246	Topographic Mapping	4
CCT	256	Construction Management	3
CCT	270	Civil Construction Internship	3
ENG	122	Technical Composition II	3
PHY	131	Technical Physics I	4
		TOTAL	17

FOURTH QUARTER

CCT	216	Construction Estimating	4
CCT	247	Highway Surveying & Design	3
MET	203	Statics	4
PHY	132	Technical Physics II	4
		Social Science Elective*	3
		TOTAL	18

FIFTH QUARTER

CCT	203	Subdivision Design	4
CCT	245	Soil Mechanics	4
CCT	258	Project Management Techniques	3
		Humanities Elective*	3
MET	207	Strength of Materials	4
		TOTAL	18

SIXTH QUARTER

CCT	206	Reinforced Concrete Design	4
CCT	248	Advanced Construction Layout	3
CCT	278	Civil Construction Capstone	4
MAT	133	Technical Mathematics III	5
		TOTAL	16

* See page 62.

Civil Engineering Technology Construction Management Option

(102-105 Total Credit Hours)

This option in Civil Engineering Technology concentrates on developing technicians who can work in the construction process as drafters, surveyors, inspectors or management trainees with a curriculum that prepares an individual to progress to a management level in the exciting field of construction.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
ARC 138 Architectural Blueprint Reading	3
CCT 102 Basic Construction Surveying	4
COM 206 Interpersonal Communication	3
MAT 131 Technical Mathematics I	5
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	17

continued next page

SECOND QUARTER

CCT	_____	Civil Track Elective	3-4
CCT	105	Properties of Construction Materials	3
ENG	121	Technical Composition I	3
DRT	198	Introduction to Computer Aided Drafting	2
MAT	132	Technical Mathematics II	5
		TOTAL	16

THIRD QUARTER

CCT	_____	Civil Track Elective	4
CCT	256	Construction Management	3
CCT	270	Civil Construction Internship	3
ENG	122	Technical Composition II	3
PHY	131	Technical Physics I	4
		TOTAL	17

FOURTH QUARTER

CCT	216	Construction Estimating	4
CCT	240	Construction Law & Specifications	3
CCT	_____	Civil Track Elective	3-4
MET	203	Statics	4
_____	_____	Social Science Elective*	3
		TOTAL	17

FIFTH QUARTER

CCT	_____	Civil Track Elective	4
CCT	245	Soil Mechanics	4
CCT	258	Project Management Techniques	3
MET	207	Strength of Materials	4
_____	_____	Humanities Elective*	3
		TOTAL	18

SIXTH QUARTER

ARC	107	Architectural Building Codes	3
CCT	242	Construction Management Personnel Issues	3
CCT	_____	Civil Track Elective	3-4
CCT	278	Civil Construction Capstone	4
SRM	231	OSHA Construction Standards	4
		TOTAL	17*

* See page 62.

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 TAC/ABET 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title Credit Hours

FIRST QUARTER

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

SECOND QUARTER

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
_____	_____	Social Science Elective**	3
		TOTAL	18

THIRD QUARTER

EET	155	Electrical Circuits & Instruments II	4
EET	259	Programming for Electronics Technology	3
MAT	133	Technical Mathematics III	5
PHY	131	Technical Physics I	4
_____	_____	Humanities Elective**	3
		TOTAL	19

FOURTH QUARTER

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 QUARTER

EET	202	Electronics II	3
EET	207	Linear Integrated Circuits	4
EET	251	Digital Systems I	4
EET	261	Microprocessor/Microcontroller Systems	4
EET	_____	EET Elective***	3
		TOTAL	18

SIXTH QUARTER

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.

** See page 62.

***Approved EET electives:

Course & Title	Credit 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

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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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
EET 114 Basic Electronic Measurements	3
EET 121 Electronics Workshop I	3
ENG 121 Technical Composition I	3
COM 206 Interpersonal Communication	3
MAT 131 Technical Mathematics I	5
TOTAL	17
SECOND QUARTER	
EET 150 Electrical Circuits & Instruments I	4
EET 116 Electronics Schematics & Layouts	3
ENG 122 Technical Composition II	3
MAT 132 Technical Mathematics II	5
_____ Social Science Elective*	3
TOTAL	18
THIRD QUARTER	
MET 198 P.C. Applications for Engineering Technology	2
EET 155 Electrical Circuits & Instruments II	4
EET 259 Programming for Electronics Technology	3
MAT 133 Technical Mathematics III	5
PHY 131 Technical Physics I	4
TOTAL	18
FOURTH QUARTER	
EET 201 Electronics I	4
EET 231 Digital Logic & Circuits	4
PHY 132 Technical Physics II	4
_____ Humanities Elective*	3
_____ General Education Elective*	3
TOTAL	18
FIFTH QUARTER	
EET 207 Linear Integrated Circuits	4
EET 226 Communication Systems I	3
EET 251 Digital Systems I	4
EET 283 Introduction to Lasers	3
EET 284 Optoelectronics	3
TOTAL	17
SIXTH QUARTER	
EET 227 Communication Systems II	3
EET 261 Microprocessors/Microcontrollers Systems	4
EET 285 Digital Communication	3
EET 287 Telecommunications Project	6
TOTAL	16

* See page 62.

Environmental Engineering Technology

(104-110 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
EVT 120 Environmental Sampling & Analysis	3
EVT 110 Environmental Compliance	3
MAT 131 Technical Mathematics I	5
CHE 131 Technical Chemistry	4
ENG 121 Technical Composition I	3
TOTAL	18
SECOND QUARTER	
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
THIRD QUARTER	
MAT 133 Technical Mathematics III	5
EVT 200 Waste Management/Pollution Prevention	4
HUM 135 Environmental Ethics	3
CHE 134 Environmental Chemistry	4
COM 211 Effective Speaking	3
TOTAL	19
FOURTH QUARTER	
MAT 122 Statistics	4
PHY 131 Technical Physics	4
SRM 151 OSHA 1910.120 Hazardous Waste Op.	5
_____ Track Electives	3-5
TOTAL	16-18
FIFTH QUARTER	
EVT 106 Air Pollution	3
EVT 107 Water Management Technology	3
EVT 210 Environmental Site Assessment	4
EVT 260 Hazardous Waste Storage, Treat & Disp.	3
_____ Track Electives	3-5
TOTAL	16-18
SIXTH QUARTER	
EVT 240 Groundwater/Fluid Mechanics	4
EVT 278 Capstone	3
EVT 265 Remediation	3
EVT 180 Solid Waste Management	3
_____ or	
_____ 270 Internship	
_____ Track Electives	3-5
TOTAL	16-18

continued next page

Track Electives - Chemical

Fourth Quarter

CHE 201 Organic Chemistry I 5

Fifth Quarter

CHE 202 Organic Chemistry II 5

Sixth Quarter

CHE 203 Organic Chemistry III 5

Track Electives – Industrial Hygiene

Fourth Quarter

SRM 215 Industrial Hygiene 3

Fifth Quarter

SRM 217 Industrial Toxicology 3

Sixth Quarter

SRM 219 Industrial Hygiene Instrumentation 3

Track Electives – Hazardous Material Management

Fourth Quarter

EVT 215 Asbestos Management 3

Fifth Quarter

EVT 216 Lead Management 3

Sixth Quarter

EVT 217 Confined Space Management 2

SRM 152 OSHA 1910.120 Hazardous Waste 1

Operations & Emergency Response Refresher

Fire Science Technology

(104 Total Credit Hours)

This program provides a full range of courses which address fire and safety issues. The program prepares students for careers in fire protection, inspection, arson investigation, emergency response, and fire administration. Courses include fire protection systems, fire investigation, fire codes, safety management, building construction, hazardous materials, and administrative issues. Real-world experience is gained through internship with a fire department. Students may also receive certification in Fire Science Technology and Fire Administration.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
FST 101 Introduction to Fire Science	4
FST 102 Fire Protection Organization	4
MAT 131 Technical Mathematics I	5
ENG 111 English Composition I	3
EGR 164 Survey of Engineering Careers	1
TOTAL	17
SECOND QUARTER	
FST 125 Fire Investigation Procedures	4
FST 116 Fire Protection Systems I	3
MAT 132 Technical Mathematics II	5
MET 198 P.C. Applications in Engineering Technology	2
FST 202 Building Construction	4
TOTAL	18

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THIRD QUARTER

FST 103	Fire Prevention Fundamentals Codes & Ordinances	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

FOURTH QUARTER

FST 201	Fire Hydraulics	5
PHY 132	Technical Physics II	4
ENG 112	English Composition II	3
SRM 221	Safety Management I	4
TOTAL		16

FIFTH QUARTER

FST 204	Water Suppression Systems I	4
COM 211	Effective Speaking I	3
SRM 230	Occupational Safety & Health Humanities Elective*	4
PLS 101	American Government	3
TOTAL		17

SIXTH QUARTER

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 62.

Fire Science Technology

Fire Administration Option

(106 Total Credit Hours)

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours	
FIRST QUARTER		
FST 193	Firefighter Level IC	7
MAT 102	Intermediate Algebra	5
ENG 121	Technical Composition I	3
ACC 111	Principles of Accounting	3
MET 198	P.C. Applications in Engineering Technology	2
TOTAL		20
SECOND QUARTER		
FST 251	Fire Officer I	8
CHE 131	Technical Chemistry	4
ENG 122	Technical Composition II	3
FST	FST Elective	3
TOTAL		18
THIRD QUARTER		
FST 252	Fire Officer II	4
MAN 205	Principles of Management	3
COM 211	Effective Speaking I	3
MAT 116	College Algebra	5
FST	FST Elective	3
TOTAL		18

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FOURTH QUARTER

FST	253	Fire Officer III	4
MAT	122	Statistics	4
ECO	201	Principles of Economics I	3
PLS	103	State Government	3
FST	_____	FST Elective	3
		TOTAL	17

FIFTH QUARTER

FST	254	Fire Officer IV	4
PLS	104	Urban Government	3
FST	_____	FST Electives	8
		TOTAL	15

SIXTH QUARTER

PSY/	_____	Electives	6
SOC	_____	Humanities Elective*	3
FST	_____	FST Electives	9
		TOTAL	18

FST ELECTIVES

Choose 26 credit hours from the following:

FST	102	Fire Protection Organization	4
FST	115	Fire Apparatus & Equipment	3
FST	116	Protective Systems I	3
FST	120	Fire Safety Inspector	6
FST	125	Fire Investigation Procedures	4
FST	201	Fire Hydraulics	5
FST	202	Building Construction	4
FST	204	Water Suppression Systems I	4
FST	208	Incident Command System II	4
FST	209	Fire Safety Instructor	3
SRM	151	Hazardous Waste Operations	5

* See page 62.

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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title

FIRST QUARTER

DRT	110	Design Processes	2
DRT	196	Technical Graphics Communication	3
INT	109	Fund. Tool & Manufacturing Processes	4
MAT	131	Technical Mathematics	5
MET	198	P.C. Application in Engineering Technology***	2
		TOTAL	16

continued next column

SECOND 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	Technical Mathematics II	5
		TOTAL	16

THIRD QUARTER

DRT	199	Advanced Computer Aided Drafting	3
DRT	234	Tool Design	4
INT	125	Word Class Manufacturing	3
ENG	121	Technical Composition I	3
PHY	131	Technical Physics I	4
		TOTAL	17

FOURTH QUARTER

DRT	200	Engineering Technology Graphics	5
DRT	245	Software Integration for Design Analysis	5
ENG	122	Technical Composition II	3
MET	203	Statics	4
		TOTAL	17

FIFTH QUARTER

DRT	260	Rapid Prototyping Manufacturing	3
DRT	265	Unigraphics I	5
ENG	122	Technical Physics II	3
MET	207	Strength of Materials	4
_____	_____	Social Science Elective**	3
		TOTAL	18

SIXTH QUARTER

DRT	278	Design Graphics Capstone	4
MET	230	Elements of Machine Design	3
PHY	132	Technical Physics II	4
DRT	270	Industrial Design Internship	3
_____	_____	Humanities Elective**	3
		TOTAL	17

* Accredited by the National Association of Industrial Technology

** See page 62.

***MET 198 should be taken the first half of the quarter and DRT 198 the second half; or

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

Industrial Engineering Technology

(108 Total Credit Hours)

Industrial Engineering Technology (IET) graduates work in manufacturing settings and in service organizations such as hospitals, banks, communications companies, consulting firms, and the federal government. This program allows graduates to help optimize processes and reduce costs for an employer. This can include looking at ergonomics (machine interface), floor layout, work measurement, and robotic work-cell layouts (among others). Students take part in lecture-lab structured courses and hands-on demonstrations of course principles assuring student will gain practical knowledge as well as the fundamentals. The program is TAC/ABET accredited assuring quality education in modern state-of-the-art equipped laboratories with highly qualified faculty. Those who wish to further their studies may transfer to the best four-year college and universities. An articulation agreement exists between Sinclair's IET program and the University of Dayton's with a tuition reduction.

continued next page

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title			Credit Hours
FIRST QUARTER			
IET	101	Work Methods Analysis & Improvement	3
ENG	111	English Composition I	3
DRT	196	Introduction to Print Reading, Sketching & CAD	3
MAT	131	Technical Mathematics I	5
IET	115	Survey of Production & Inventory	2
TOTAL			16
SECOND QUARTER			
IET	126	Supervision & Work Team Leadership	3
IET	111	Work Measurement Techniques	4
ENG	121	Technical Composition I	3
MAT	132	Technical Mathematics II	5
IET	198	Computer Programming Applications in Engineering Technology	2
TOTAL			17
THIRD QUARTER			
DRT	198	Introduction to Computer Aided Drafting Concepts	2
ENG	122	Technical Composition II	3
MAT	133	Technical Mathematics III	5
PHY	131	Technical Physics I	4
IET	125	Introduction to World Class Manufacturing	3
MET	198	Personal Computer Applications in Engineering Technology	2
TOTAL			19
FOURTH QUARTER			
EGR	252	KAREL Robot Programming	3
IET	130	Just-In-Time Production Systems	3
IET	205	Manufacturing Process	3
PSY	229	Work Group Dynamics	3
PHY	132	Technical Physics II	4
QET	101	Survey of Total Quality Management	3
TOTAL			19
FIFTH QUARTER			
IET	135	Manufacturing Cost Analysis	3
EGR	115	Industrial Ergonomics	3
IET	207	Manufacturing System Analysis	3
IET	202	Computer Integrated Workcells II	3
QET	201	Statistical Process Control	3
_____	_____	IET Elective	3
TOTAL			18
SIXTH QUARTER			
IET	216	Industrial Facilities Layout	4
_____	_____	General Education Elective*	3
EGR	206	Engineering Technology Economics	3
COM	211	Effective Speaking I	3
EGR	132	Connecting Technology & Our Lives or Humanities Elective*	3
IET	278	Manufacturing Capstone Experience	3
TOTAL			19

* See page 62.

IET Tech Prep Substitute Courses

IET Tech Prep students will make several course substitutions in their curriculum. Due to special preparation at the high school level, IET Tech Prep students **WILL NOT TAKE** DRT-106 (3 credits), DRT-198 (2 credits), IET-198 (2 credits), and MET-198 (2 credits). In place of these courses, they **WILL TAKE** the following series of courses: IET-161 (1 credit), IET-162 (1 credit), IET-163 (1 credit), IET-277 (3 credits) and IET-297 (3 credits of this course must be taken). The total number of credit hours in the IET curriculum will not change due to these substitutions.

IET Track Electives

The student will select 6 credit Track Electives from one of the following tracks. All prerequisites must be followed. Changes, substitutions and student designed tracks can be made with department chair approval.

Robotics Systems Track

EER	115	Essentials of Electricity	3
EGR	217	Fluid Power Applications & Control	3
EGR	220	Machine Vision	3
EGR	256	Automated Data Acquisition Systems	3
EGR	261	Engineering Problem Solving Using "C"	4
IET	190	IET Workshop	3
IET	297	Special Topics in IET	3

Industrial Processes Track

INT	204	CNC Lathe Programming	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
IET	297	Special Topics in IET	3

Quality Technology Track

QET	111	Metrology I	3
QET	112	Metrology II	3
QET	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

Drafting/Design Track

DRT	220	Engineering Graphics I	3
DRT	221	Engineering Graphics II	3
DRT	222	Engineering Graphics III	5
IET	190	IET Workshop	3
IET	297	Special Topics in IET	3

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Industrial Engineering Technology Manufacturing Engineering Technology Option

(108 Total Credit Hours)

Sinclair's Manufacturing Engineering Technology program provides students the opportunity to acquire these highly valued skills in an innovative, hands-on learning environment. The program features integrating manufacturing experiences through which students participate in all aspects of a manufacturing enterprise. Armed with these skills, graduates can pursue rewarding, growth oriented careers in such diverse industries as plastics, automotive, medical product, electronics, machining, and other high-value manufacturing sectors.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours	
FIRST QUARTER			
DRT 196	Introduction to Print Reading, Sketching & CAD	3	
IET 101	Work Methods Analysis & Improvement	3	
IET 125	Introduction to World-class Manufacturing	3	
MAT 131	Technical Mathematics I	5	
MET 198	Personal Computer Applications in Engineering Technology	2	
QET 101	Survey of Total Quality Management	3	
TOTAL		19	
SECOND QUARTER			
CHE 131	Technical Chemistry I	4	
DRT 198	Introduction to Computer Aided Drafting Concepts	2	
ENG 111	English Composition I	3	
INT 109	Fundamentals of Tool & Manufacturing Processes	4	
MAT 132	Technical Mathematics II	5	
TOTAL		18	
THIRD QUARTER			
ENG 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	3	
TOTAL		18	
FOURTH QUARTER			
EET 119	Basic Electric Circuits & Controls	4	
ENG 122	Technical Composition II	3	
IET 115	Survey of Production & Inventory Control	2	
PLA 106	Introduction to Plastics Technology	3	
MET 203	Statics	4	
TOTAL		16	
FIFTH QUARTER			
COM 211	Effective Speaking I	3	
EGR 128	Robotics CIM Systems	3	
		General Education Elective*	3
IET 126	Supervision & Work Team Leadership	3	
IET 205	Engineering Processes	3	
MET 207	Strength of Materials	4	
TOTAL		19	

continued next column

SIXTH QUARTER

		Humanities Elective*	3
IET 130		Just-In-Time Production Systems	3
IET 278		Manufacturing Capstone Experience	3
DRT 217		Introduction to Geometric Dimensioning & Tolerancing	3
QET 201		Statistical Process Control	3
		Track Elective	3
TOTAL			18

* See page 62.

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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
PLA 106	Introduction to Plastics Technology	4
MAT 131	Technical Mathematics I	5
IET 101	Work Methods Analysis & Improvement	3
DRT 196	Technical Graphics Communication	3
QET 101	Survey of Total Quality Management	3
TOTAL		17
SECOND QUARTER		
PLA 150	Plastics Processing Equipment Fundamentals	4
208	Plastic Materials Process I	4
ENG 121	Technical Composition I	3
IET 198	Computer Programming Applications in Engineering Technology	2
CHE 131	Technical Chemistry I	4
TOTAL		17
THIRD QUARTER		
PLA 220	Extrusion (Process II)	4
		or
225	Injection Molding (Process II)	
DRT 198	Introduction to Computer Aided Drafting Concepts	2
IET 205	Process Engineering	3
QET 201	Statistical Process Control	4
TOTAL		13

continued next page

EGR

FOURTH QUARTER

ENG	111	English Composition I	3
IET	110	Integrated Manufacturing	3
IET	125	Introduction to Manufacturing Management	3
MAT	132	Technical Mathematics II	5
IET	—	Plastics Elective	3
TOTAL			17

FIFTH QUARTER

IET	115	Survey of Production & Inventory Control	2
IET	206	Value Engineering	3
or			
EGR	206	Engineering Economics	
—	—	Social Science Elective*	3
—	—	Humanities Elective*	3
ENG	122	Technical Composition II	3
IET	—	Plastics Elective	3
TOTAL			17

SIXTH QUARTER

IET	216	Industrial Facilities Layout	4
—	—	Humanities Elective*	3
IET	135	Manufacturing Costs Analysis	3
—	—	General Education Elective*	3
COM	211	Effective Speaking I	3
TOTAL			16

* See page 62.

Mechanical Engineering Technology*

(101 Total Credit Hours)

Sinclair graduates in Mechanical Engineering Technology have a long history of successful employment with very competitive salaries in local industry. Students develop hands-on lab experience using modern equipment and problem solving skills based on common sense, practical experience and non-calculus based analytical skills. The program prepares students to work as engineering technicians in many different industries or continue their education and obtain a bachelor's degree in mechanical engineering technology. Since the program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, transfer to a four-year university is straightforward.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title

FIRST QUARTER

			Credit Hours
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

continued next column

SECOND QUARTER

ENG	122	Technical Composition II	3
DRT	196	Technical Graphics Communication	3
MAT	132	Technical Mathematics II	5
MET	104	Design Realization	3
PHY	131	Technical Physics I	4
TOTAL			18

THIRD QUARTER

ENG	113	English Composition III	3
IET	198	Computer Program Applications in Engineering Technology	2
MAT	133	Technical Mathematics III	5
DRT	198	Introduction to CAD Concepts	2
MET	203	Statics	4
TOTAL			16

FOURTH QUARTER

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 with Computers	3
QET	132	Metallurgy	3
or			
	133	Non-Metallic Materials	
TOTAL			18

FIFTH QUARTER

CHE	131	Technical Chemistry	4
MET	205	Fluid Mechanics	3
MET	228	Equipment Measurement & Control	3
MET	231	Machine Design I	3
PHY	132	Technical Physics II	4
TOTAL			17

SIXTH QUARTER

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

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

** See page 62.

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.

continued next page

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title			Credit Hours
FIRST QUARTER			
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	
DRT	196	Technical Graphics Communication	3
ENG	121	Technical Composition I	3
MAT	131	Technical Mathematics I	5
MET	106	Introduction to HVAC	3
TOTAL			17
SECOND QUARTER			
DRT	198	Introduction to CAD Concepts	2
ENG	122	Technical Composition II	3
MAT	132	Technical Mathematics II	5
MET	115	Boilers in HVAC	3
MET	125	HVAC Distribution Systems	3
MET	198	P.C. Applications in Engineering Technology	2
TOTAL			18
THIRD QUARTER			
ARC	139	Mechanical Systems Blueprint Reading	2
ENG	113	English Composition III	3
MAT	133	Technical Mathematics III	5
MET	145	HVAC Loads & Psychrometrics	3
PHY	131	Technical Physics I	4
TOTAL			17
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 QUARTER			
CHE	131	Technical Chemistry	4
MET	228	Equipment Measurement & Control	3
MET	224	Industrial Ventilation	3
MET	242	Computer Applications in HVAC	3
PHY	132	Technical Physics II	4
TOTAL			17
SIXTH QUARTER			
MET	229	Controls for HVAC Systems	4
MET	244	HVAC Applications Project	3
PSY	229	Work Group Dynamics	3
		or	
		Social Science Elective**	
EGR	132	Connecting Technology & Our Lives	3
		or	
		Humanities Elective**	
TOTAL			13

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

** See page 62.

Quality Engineering Technology

(104 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title			Credit Hours
FIRST QUARTER			
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	
DRT	196	Technical Graphics Communications	3
MAT	131	Technical Mathematics I	5
ENG	121	Technical Composition I	3
QET	100	Tooling & Machining Metrology	2
MET	198	P.C. Applications in Engineering Tech.	2
QET	M30	Introduction to Materials & Manufacturing Processes	1
TOTAL			19
SECOND QUARTER			
ENG	122	Technical Composition II	3
QET	101	Introduction to TQM	3
QET	113	Coordinate Measurement	3
MAT	132	Technical Mathematics II	5
QET	120	Process Metrology	3
DRT	198	Introduction to CAD Concepts	2
TOTAL			19
THIRD QUARTER			
ENG	113	English Composition III	3
QET	105	Packaging Concepts & Materials	3
MET	104	Design Realization	3
QET	131	Introduction to Material Science	3
QET	201	Statistical Process Control	3
QET	123	Eddy Current Testing	2
TOTAL			17
FOURTH QUARTER			
QET	223	ISO 9000/16949 Quality Systems	3
QET	202	Advanced Statistical Quality Control	4
QET	211	Design & Process FMEAs	2
QET	221	Quality Assurance	4
QET	126	Liquid Penetrant & Magnetic Particle Testing	3
TOTAL			16

continued next page

FIFTH QUARTER

QET	217	Measurement & Calibration	3
CHE	131	Technical Chemistry	4
QET	231	ISO 9000/16949 Internal Auditor	3
QET	212	Reliability Testing & Analysis	2
PSY	229	Work Group Dynamics	3
QET	124	Industrial Radiography	3
	125	or Ultrasonic Testing	
		TOTAL	18

SIXTH QUARTER

		General Education Elective*	3
QET	295	Quality Control Seminar	3
EGR/HUM	132	Connecting Technology in Our Lives	3
		or Humanities Elective*	
QET		QET Technical Electives	3
QET	133	Non Metallic Materials	3
		TOTAL	15

QET Electives (17 hours required)

QET	231	ISO 9000/16949 Internal Auditor	3
QET	123	Eddy Current Testing	2
QET	124	Industrial Radiography	3
QET	125	Ultrasonic Testing	3
QET	126	Liquid Penetrant & Magnetic Particle Testing	3
QET	133	Non-Metallic Materials	3
QET	235	CQA Review Course	3
QET	200	Certified Quality Technician Review	3
QET	245	Certified Quality Manager Review	3
QET	215	Certified Reliability Engineer Review	3
QET	114	Advanced Coordinate Measurements	3
QET	224	ISO 9000/16949 Documentation	3
QET	270	Quality Control Internship	1
IET	240	Six Sigma I	4
INT	109	Fundamentals of Tooling & Manufacturing Processes	4
SRM	211	Industrial Safety I	3

* See page 62.

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 TAC/ABET accredited QET associate degree in the United States.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title Credit Hours

FIRST QUARTER

COM	211	Effective Speaking I	3
ENG	111	English Composition I	3
MAT	131	Technical Mathematics I	5
MET	198	Personal Computer Applications in Engineering Technology	2
ILM	102	Quality Foundations	2
ILM	103	Teamwork	1
ILM	104	Basic Statistical Variation	1
		TOTAL	17

SECOND QUARTER

CHE	131	Technical Chemistry I	4
MAT	132	Technical Mathematics II	5
MET	104	Design Realization	3
QET	111	Metrology I	3
QET	112	Metrology II	3
		TOTAL	18

THIRD QUARTER

DRT	106	Essentials of Machine Drawing	3
DRT	198	Introduction to CAD Concepts	2
MAT	133	Technical Mathematics III	5
QET	133	Non-Metallic Materials	3
QET	201	Statistical Process Control	3
		TOTAL	16

FOURTH QUARTER

ENG	121	Technical Composition I	3
PHY	131	Technical Physics I	4
QET	105	Introduction to Packaging	3
QET	120	Process Metrology	3
QET	134	Packaging Materials	2
QET	211	Reliability I	3
		TOTAL	18

FIFTH QUARTER

ENG	122	Technical Composition II	3
PHY	132	Technical Physics II	4
QET	212	Reliability II	3
QET	221	Quality Assurance	3
QET	250	Packaging Systems	3
QET	252	Packaging Development	3
		TOTAL	19

SIXTH QUARTER

IET	198	Computer Program Applications in Engineering Technology	2
PSY	229	Work Group Dynamics	3
QET	254	Shock & Vibration	3
EGR/HUM	132	Connecting Technology & Our Lives	3
		or Humanities Elective**	
		Technical Elective	3
		General Education Elective**	3
		TOTAL	17

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

** See page 62.

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Quality Engineering Technology*

Quality Assurance Option

(109 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 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 TAC/ABET accredited QET associate degree in the United States.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
COM 206 Interpersonal Communication	3
or	
211 Effective Speaking I	
DRT 196 Technical Graphics Communications	3
MAT 131 Technical Mathematics I	5
ENG 121 Technical Composition I	3
QET 100 Tooling & Machining Metrology	2
MET 198 Personal Computer Applications in Engineering Technology	2
QET M30 Introduction to Materials & Manufacturing Processes	1
TOTAL	19
SECOND QUARTER	
ENG 122 Technical Composition II	3
QET 101 Introduction to TQM	3
QET 113 Coordinate Measurement	3
MAT 132 Technical Mathematics II	5
QET 120 Process Metrology	3
DRT 198 Introduction to CAD Concepts	2
TOTAL	19
THIRD QUARTER	
MAT 133 Technical Mathematics III	5
QET 105 Packaging Concepts & Materials	3
MET 104 Design Realization	3
CHE 131 Technical Chemistry	4
QET 201 Statistical Process Control	3
TOTAL	18
FOURTH QUARTER	
PHY 131 Technical Physics I	4
QET 202 Advanced Statistical Quality Control	4
QET 211 Design & Process FMEAs	2
QET 221 Quality Assurance	4
IET 130 Just-in-Time Production Systems	3
TOTAL	17

continued next column

FIFTH QUARTER

QET 217	Measurement & Calibration	3
PHY 133	Technical Physics	4
QET 261	Continuous Process Improvement	4
QET 132	Metallurgy	3
	or	
133	Non-Metallic Materials	
QET 212	Reliability Testing & Analysis	2
QET 223	ISO 9000/16949 Quality Systems	3
	TOTAL	19

SIXTH QUARTER

IET 198	Computer Programming Applications in Engineering Technology	2
PSY 229	Work Group Dynamics	3
	or	
	Social Science Elective**	
ENG 113	English Composition III	3
QET 295	Quality Control Seminar	3
EGR 132	Connecting Technology & Our Lives	3
	or	
	Humanities Elective**	
QET	QET Technical Electives	3
	TOTAL	17

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

** See page 62.

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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours	
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
	TOTAL	19
SECOND QUARTER		
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

continued next page

THIRD QUARTER

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
			<hr/>
TOTAL			17

FOURTH QUARTER

SRM	219	Industrial Hygiene Instrumentation	4
PHY	131	Technical Physics I	3
SRM	151	OSHA 1910.120 Hazardous Waste Operations	5
—	—	Technical Electives	5-6
			<hr/>
TOTAL			17-18

FIFTH QUARTER

MAT	122	Statistics	4
—	—	Humanities Elective*	3
EVT	260	Storage, Transportation, & Disposal of Hazardous Wastes/Materials	3
SRM	230	General Standards for Industry	4
—	—	Technical Electives	3-4
			<hr/>
TOTAL			17-18

SIXTH QUARTER

SRM	278	SRM Capstone	3
PSY	—	Psychology Elective	3
—	—	Technical Electives	9-10
			<hr/>
TOTAL			15-16

TECHNICAL ELECTIVES

Select 17-20 credit hours from these courses:

SRM	211	Industrial Safety I	3
SRM	212	Industrial Safety II	3
SRM	221	Safety Management I	4
SRM	222	Safety Management II	4
SRM	231	OSHA Construction Standards	4
SRM	232	Construction Work Site Safety	3
SRM	—	DOT Transportation Safety	2
FST	101	Introduction to Fire Science	4
FST	103	Fire Prevention Codes & Ordinances	4
FST	116	Fire Protections Systems I	3
FST	201	Fire Hydraulics	5
FST	204	Water Suppression Systems I	4
EGR	115	Human Factors	3
QET	101	Survey of Total Quality Management	3

* See page 62.

Tooling & Machining Technology

(107 Total Credit Hours)

Course work includes tool and manufacturing processes, computers in engineering technology, quality control, and CNC applications, to name a few. Facilities and equipment rank among the best in the nation with over four million dollars in conventional machining equipment and computer numerical control machines for laboratory use by the students. Employment opportunities are available as planners, methods specialists, technicians, and computer numerical control programmers.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

				Credit Hours
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FIRST QUARTER

DRT	196	Technical Graphics Communication	3
ENG	121	Technical Composition I	3
IET	101	Work Methods Analysis & Improvement	3
INT	131	Basic Moldmaking	3
IET	198	Computer Programming Applications in Engineering Technology	2
INT	111	Tool & Manufacturing Processes I	3
			<hr/>
TOTAL			17

SECOND QUARTER

IET	125	World Class Manufacturing	3
DRT	198	Introduction to Computer Aided Drafting Concepts	2
ENG	122	Technical Composition II	3
INT	132	Advanced Moldmaking	3
INT	112	Tool & Manufacturing Processes II	3
QET	101	Survey of Total Quality Management	3
			<hr/>
TOTAL			17

THIRD QUARTER

DRT	199	Computer Aided Drafting II	3
INT	165	Advanced Tool & Manufacturing Processes	4
MAT	131	Technical Mathematics I	5
IET	126	Supervision & Work Team Leadership	3
INT	113	Fundamentals of CNC	3
			<hr/>
TOTAL			18

FOURTH QUARTER

QET	111	Metrology I	3
IET	205	Process Engineering	3
INT	114	Jig & Fixture Design	3
INT	211	Advanced CNC	3
HUM/			
EGR	132	Connecting Technology to Our Lives	3
INT	151	Principles of Welding	3
			<hr/>
TOTAL			18

FIFTH QUARTER

COM	211	Effective Speaking I	3
QET	112	Metrology II	3
INT	225	Tool Design	3
INT	204	CNC Lathe Programming	3
INT	212	Computer Assisted CNC Programming	3
ENG	111	English Composition I	3
			<hr/>
TOTAL			18

SIXTH QUARTER

QET	113	Coordinate Measurement	3
IET	213	CNC Applications	3
INT	209	CNC Wire EDM Programming	3
IET	216	Industrial Facilities Layout	4
—	—	Social Science Elective*	3
—	—	General Education Elective*	3
			<hr/>
TOTAL			19

* See page 62.

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Tooling & Machining Technology Machining Technology Option

(103-104 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.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
DRT 196 Technical Graphics Communication	2
INT 109 Fundamentals of Tool & Manuf. Processes	4
INT 141 Applied Shop Mathematics I	3
INT 161 Machine Operations Lab I	8
QET 100 Tooling & Machining Metrology	2
TOTAL	19
SECOND QUARTER	
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
THIRD QUARTER	
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
FOURTH QUARTER	
ENG 121 Technical Communication I	3
IET 198 Computer Programming Applications in Engineering Technology	2
INT 114 Jig & Fixture Design	3
INT 211 Advanced CNC	3
MAT 101 Elementary Algebra	5
TOTAL	16
FIFTH QUARTER	
ENG 122 Technical Communication II	3
IET 205 Process Engineering	3
INT 212 Computer Assisted CNC Programming	3
INT 225 Tool Design	3
MAT 131 Technical Mathematics I	5
TOTAL	17
SIXTH QUARTER	
COM 211 Effective Speaking I	3
_____ Humanities Elective*	3
IET 206 Value Engineering	3
INT _____ INT Elective	3
INT 213 CNC Applications	3
_____ Social Science Elective*	3
TOTAL	18

* See page 62.

Tooling & Machining Technology Mechanical Option

(105 Total Credit Hours)

This option is designed to place greater emphasis and understanding on the more theory-oriented areas of engineering technology. Courses include such areas as: work methods analysis, computer program applications in engineering, value engineering, process engineering, industrial facilities layout, and statistical process control. Several credit hours of industrial electives are offered to allow the student an opportunity to specialize in specific areas such as computer numerical control programming, and computer integrated workcells.

Admission Requirements:

EGR 160 Succeeding in Engineering Technology

Possible substitutions:

- 12 credit hours of college level course work with a grade of "C" or better
- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title	Credit Hours
FIRST QUARTER	
IET 101 Work Methods Analysis & Improvement	3
ENG 111 English Composition I	3
IET 125 Introduction to Manufacturing Management	3
DRT 196 Technical Graphics Communications	3
INT 151 Principles of Welding	3
QET 131 Introduction to Material Science	3
TOTAL	18
SECOND QUARTER	
IET 198 Computer Programming Applications in Engineering Technology	2
ENG 121 Technical Communications I	3
IET 126 Supervision & Work Team Leadership	3
QET 101 Survey of Total Quality Management	3
MAT 131 Technical Mathematics I	5
IET 105 Industrial Metrics Conversion	2
TOTAL	18
THIRD QUARTER	
ENG 122 Technical Communications II	3
IET 205 Process Engineering	3
MET 104 Introduction to Design Realization Process	3
QET 132 Metallurgy	3
INT _____ Electives	6
TOTAL	18
FOURTH QUARTER	
IET 206 Value Engineering	3
EER 115 Essentials of Electricity	3
INT _____ Electives	6
_____ Social Science Elective*	3
TOTAL	15
FIFTH QUARTER	
EGR 206 Engineering Technology Economics	3
INT _____ Electives	9
COM 211 Effective Speaking I	3
_____ Humanities Elective*	3
TOTAL	18
SIXTH QUARTER	
IET 216 Industrial Facilities Layout	4
QET 201 Statistical Process Control	4
_____ General Education Elective*	3
INT _____ Electives	7
TOTAL	18

* See page 62.

Certificate Programs

Airframe Aviation Maintenance

(54 Total Credit Hours)

The Airframe Aviation Maintenance certificate will prepare the student in the Federal Aviation Administration knowledge and hours required for the Airframe license. The subjects covered are welding, sheet metal, fabric and wood structures, finishes, assembly and rigging, airframe electrical, cabin atmosphere control systems, instruments, communication, navigation, hydraulics, pneumatics, landing gear systems, position and warning, fuel systems, ice and rain, fire protection, and airframe inspections.

Course & Title	Credit Hours
FIRST QUARTER	
AVT 136 Sheet Metal I	4
AVT 227 Fabric & Wood Structures	3
AVT 229 Aircraft Finishes	3
TOTAL	10
SECOND QUARTER	
AVT 236 Sheet Metal II	4
AVT 121 Assembly & Rigging	5
AVT 108 Ice & Rain: Fire Protection	3
TOTAL	11
THIRD QUARTER	
AVT 132 Electrical Systems I	4
AVT 214 Cabin Atmosphere Control Systems	3
AVT 133 Instrument Systems	2
AVT 134 Communications & Navigation Systems	2
AVT 107 Fuel Systems	3
TOTAL	14
FOURTH QUARTER	
AVT 232 Electrical Systems II	4
AVT 218 Landing Gear	4
AVT 106 Position & Warning Systems	2
TOTAL	10
FIFTH QUARTER	
AVT 137 Welding	4
AVT 217 Hydraulics & Pneumatics Systems	3
AVT 237 Airframe Inspections	2
TOTAL	9

Automotive Technology

(55 Total Credit Hours)

This program is designed for students who want to become automotive technicians 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.

Course & Title	Credit Hours
FIRST QUARTER	
AUT 210 Steering, Suspension, & Alignment	5
AUT 108 Engine Systems	5
AUT 125 Electrical & Electronic Systems	7
TOTAL	17
SECOND QUARTER	
AUT 241 Automatic Transmissions	7
AUT 115 Fuel & Emission Systems	7
AUT 165 Brake Systems	5
TOTAL	19

continued next column

THIRD QUARTER

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

Electrical & Electronics Repair Technology

(53 Total Credit Hours)

This program prepares students for entry level electronics technicians. They will get the basics in computers, D.C. and A.C. circuits, analog, digital electronics and microprocessor areas with introduction to robotics with electronic CAD to assemble, troubleshoot and repair electronic circuits. This certificate program transfers into the electromechanical associate degree program.

Course & Title	Credit Hours	
FIRST QUARTER		
EER 121	Electronic Problem Solving	4
EER 126	D.C. Circuits	4
MET 198	P.C. Applications in Engineering Technology	2
EET 116	Electronics Schematics & Layouts	3
TOTAL		13
SECOND QUARTER		
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
THIRD QUARTER		
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
FOURTH QUARTER		
EER 137	Linear Integrated Circuits	3
EER 147	Industrial Wiring & NEC	4
EER 165	Electronic Diagnostics & Repair	3
EER 166	Industrial Machine Wiring & Standards	3
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.

Course & Title	Credit Hours	
FIRST QUARTER		
FST 193	Firefighter II Transition	7
FST 251	Fire Officer Level I	8
MET 198	P.C. Applications in Engineering Technology	2
TOTAL		17

continued next page

SECOND QUARTER

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

TECHNICAL ELECTIVES

Choose 14 credit 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.

Course & Title

FIRST QUARTER

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

SECOND QUARTER

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

THIRD QUARTER

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
—	—	Humanities Elective*	3
TOTAL			17

* See page 62.

General Aviation Maintenance

(46 Total Credit Hours)

The General Aviation Maintenance certificate provides the Federal Aviation Administration knowledge and skill required for the general knowledge area required for FAA certification as an airframe and powerplant maintenance technician. Students will learn to apply mathematics and physics principles to practical aircraft maintenance problems, read and interpret aircraft drawings, conduct aircraft ground operations and servicing, interpret maintenance publications, understand maintenance technician responsibilities, understand FAA regulations, and perform weight and balance calculations.

Course & Title		Credit Hours	
FIRST QUARTER			
AVT	105	Orientation to Aviation*	3
AVT	112	Performance Calculations	2
AVT	113	Drawings	4
AVT	114	Fluids & Gasses	2
AVT	115	Ground Operations & Servicing	3
TOTAL		14	

SECOND QUARTER

AVT	116	Regulations & Documentation	4
AVT	117	Fluid Lines & Fittings	3
AVT	213	Corrosion Control	4
AVT	110	Ground School Primary Flight*	3
TOTAL		14	

THIRD QUARTER

AVT	131	Electrical	5
AVT	118	Weight & Balance	4
AVT	135	Material & Processes	6
AVT	238	Avionics*	3
TOTAL		18	

*AVT 105, 110 and 238 are not required for the A & P certification by FAA.

Plastics & Composites Engineering Technology

(51 Total Credit Hours)

With the ever-increasing uses of plastics and composites, there exists a need for technicians who understand the unique properties and manufacturing procedures associated with non-metallic materials. From sporting equipment, bicycles, skis, boating equipment, to aircraft, automobiles, and even spacecraft, there is a growing emphasis being placed on lightweight and strong materials. In a word: plastics. The program has been designed to emphasize practical applications and manufacture of plastics rather than stressing polymer chemistry. Students will learn on the state-of-the-art plastics and composite machinery.

Course & Title		Credit Hours	
FIRST QUARTER			
PLA	106	Introduction to Plastics Technology	4
MAT	131	Technical Mathematics I	5
IET	101	Work Methods Analysis & Improvement	3
DRT	100	Engineering Drawing Interpretation	2
QET	101	Survey of Total Quality Management	3
TOTAL		17	

continued next page

SECOND QUARTER

PLA	150	Plastics Processing Equipment Fundamentals	4
PLA	208	Plastic Materials Process I	4
ENG	121	Technical Communications I	3
IET	198	Computer Programming Applications in Engineering Technology	2
CHE	131	Technical Chemistry I	4
		TOTAL	17

THIRD QUARTER

PLA	220	Extrusion (Process I)	4
		or	
	225	Injection Molding (Process II)	
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

Powerplant Aviation Maintenance

(53 Total Credit Hours)

The Powerplant Aviation Maintenance certificate will prepare the student with the knowledge and hours required for the Federal Aviation Administration's Powerplant license. The subjects covered include reciprocating and turbine engine operation theory, lubrication, powerplant electricity, ignition, starting, fire protection, auxiliary power units, engine instruments, induction, exhaust, cooling, fuel systems and fuel metering, propeller operation and overhaul, and powerplant inspection.

Course & Title

FIRST QUARTER

AVT	126	Reciprocating Engines I	5
AVT	128	Instruments & Fire Protection	3
AVT	139	Induction, Exhaust, Cooling	4
		TOTAL	12

SECOND QUARTER

AVT	226	Reciprocating Engines II	5
AVT	231	Engine Electrical	4
		TOTAL	9

THIRD QUARTER

AVT	234	Reciprocating Engines III	3
AVT	122	Engine Ignition & Starting I	4
AVT	239	Powerplant Inspections	2
		TOTAL	9

FOURTH QUARTER

AVT	222	Engine Ignition & Starting II	4
AVT	219	Turbine Engines	4
AVT	129	Propellers	5
		TOTAL	13

FIFTH QUARTER

AVT	127	Lubrication	5
AVT	138	Engine Fuel & Fuel Metering	5
		TOTAL	10

Quality Control Technology

(51 Total Credit Hours)

Students are prepared to apply the mathematics and basic laws of physics to the non-destructive testing and quality inspection of mechanical and electronic systems. It is geared both to students who desire an entry level position in the area of mechanical inspection or to skilled workers desiring upgrade training.

Course & Title

FIRST QUARTER

INT	109	Fundamentals of Tooling & Manufacturing Process	4
INT	141	Applied Shop Mathematics I	3
QET	101	Introduction to TQM	3
QET	120	Process Metrology	3
QET	131	Survey of Metallurgy	3
		TOTAL	16

SECOND QUARTER

DRT	196	Technical Graphics Communications	3
INT	142	Applied Shop Mathematics II	3
QET	111	Metrology I	3
QET	112	Metrology II	3
QET	124	Industrial Radiography	3
QET	125	Ultrasonic Testing	3
		TOTAL	18

THIRD QUARTER

DRT	217	Introduction to Geometric Tolerancing	3
INT	143	Applied Shop Mathematics III	3
QET	113	Coordinate Measurement	3
QET	123	Eddy Current Testing	2
QET	126	Liquid Penetrant & Magnetic Particle Test	3
QET	201	Statistical Processing Control	3
		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.

Course & Title

FIRST QUARTER

SRM	101	Introduction to Safety & Risk Management	3
FST	101	Introduction to Fire Science	4
BIO	101	Body Structure & Functions	4
MAT	116	College Algebra	5
ENG	111	Technical Composition I	3
		TOTAL	19

SECOND QUARTER

SRM	211	Industrial Safety I	3
ENG	122	Technical Composition II	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

THIRD QUARTER

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.

Course & Title		Credit Hours
FIRST QUARTER		
ARC 105	Construction Methods & Materials	4
ARC 101	Architectural Drafting	3
CCT 201	Introduction to Surveying	3
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		12
SECOND QUARTER		
ARC 102	Architectural Detail Drafting	3
CCT 226	Heavy Highway Construction	3
DRT 198	Introduction to Computer Aided Drafting	2
MAT 131	Technical Mathematics I	5
TOTAL		13
THIRD QUARTER		
CCT 202	Construction Surveying	5
DRT 199	Computer Aided Drafting II	3
— —	General Education Elective*	3
— —	Technical Elective	3
TOTAL		14
FOURTH QUARTER		
CCT 246	Topographic Drawing & Mapping	4
CCT 203	Advanced Applications of Surveying	4
CCT 235	Legal Principles for Surveyors	4
TOTAL		12

* See page 62.

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.

Course & Title		Credit 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
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 114	Jig & Fixture Design	3
INT 165	Advanced Tool & Manufacturing Process	4
INT 143	Applied Shop Mathematics III	3
INT 225	Tool Design	3
DRT 199	Advanced Computer Aided Drafting	3
TOTAL		19

Tooling & Machining

(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.

Course & Title		Credit Hours
FIRST QUARTER		
DRT 196	Technical Graphics Communications	3
INT 109	Fundamentals of Tool & Manuf. Processes	4
INT 141	Applied Shop Mathematics I	3
INT 161	Machine Operations Lab I	8
QET 100	Tooling & Machining Metrology	2
TOTAL		20
SECOND QUARTER		
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
THIRD QUARTER		
DRT 217	Introduction to Geometric, Dimensioning & Tolerancing	3
INT 143	Applied Shop Mathematics III	3
INT 163	Machine Operations Lab III	8
INT —	Technical Elective	3-4
TOTAL		17-18

* Program start date is each September (fall quarter)

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Short Term Certificates

3D CAD Design Software

(20 Total Credit Hours)

Training in the design process using three-dimensional computer aided design software. Students will concentrate in one of three softwares and receive certification of mastery in that software's latest release. A one-hour refresher course will be available at the time a new release of the software is available so that students may update the certification to the latest release. The certificate will be offered in AutoDesk Inventor, Solidworks and Unigraphics. Industry professionals should contact the Industrial Design department to review prerequisites.

Course & Title		Credit Hours
FIRST QUARTER		
DRT 110	Design Process	2
TOTAL		2

SECOND QUARTER		
DRT	DRT Elective One (see below)	5
DRT 255	Software Integration for Design Analysis	5
TOTAL		10

THIRD QUARTER		
DRT 260	Rapid Prototyping & Manufacturing	3
DRT	DRT Elective Two (see below)	5
TOTAL		8

DRT ELECTIVE ONE (Choose one)

DRT 200	Engineering Technology Graphics
DRT 247	Solidworks Basics
DRT 265	Unigraphics Level I

DRT ELECTIVE TWO (Choose one)

DRT 205	Advanced AutoDesk Parametric Design
DRT 248	Solidworks Advanced
DRT 266	Unigraphics Level II

Advanced Construction Technician

(43 Total Credit Hours)

This course provides advanced training in carpentry, concrete work, and iron working as a follow on to the Construction Technician certificate. Students who successfully complete this program may receive certification in the National Center for Construction Education and Research registry.

Course & Title		Credit Hours
FIRST QUARTER		
CCT 131	Ironworker Level 1-A	3.5
CCT 142	Portland Cement Concrete Level 2-A	3.5
ARC 101	Architectural Drafting	3
CCT 270	Civil Engineering Technology Internship	3
TOTAL		13

SECOND QUARTER		
CCT 132	Ironworker Level 1-B	3.5
CCT 143	Portland Cement Concrete Level 3-A	3.5
MET 198	P. C. Applications in Engineering Technology	2
CCT 270	Civil Engineering Technology Internship	3
TOTAL		12

continued next column

THIRD QUARTER

CCT 133	Ironworker Level 2-A	3.5
CCT 134	Ironworker Level 2-B	3.5
DRT 198	Introduction to Computer Aided Drafting Concepts	2
CCT 270	Civil Engineering Technology Internship	3
TOTAL		12

FOURTH QUARTER

COM 206	Interpersonal Communication	3
SRM 232	Construction Work Site 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 ASE (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		Credit Hours
FIRST QUARTER		
AUT 221	High Performance Blocks & Rotating Assemblies	7

SECOND QUARTER

AUT 222	High Performance Cylinder Head & Valve Train	7
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THIRD QUARTER

AUT 223	High Performance Engine Assembly & Dyno Testing	7
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FOURTH QUARTER

AUT 224	High Performance Fuel Induction	7
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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 placed on safety requirements. Upon completing this program, crafts people will be qualified to move into management positions in the construction industry.

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Course & Title		Credit Hours
FIRST QUARTER		
ARC 138	Architectural Blueprint Reading	3
ARC 139	Mechanical Systems Blueprint Reading	2
CCT 105	Properties of Construction Materials	3
COM 206	Interpersonal Communication	3
MET 198	P. C. Applications in Engineering Technology	2
TOTAL		13

SECOND QUARTER		
ARC 107	Building Codes	3
CCT 216	Construction Estimating	4
CCT 240	Construction Law & Specifications	3
CCT 256	Construction Management	3
QET 101	Survey of TQM	3
TOTAL		16

THIRD QUARTER		
CCT 102	Basic Construction Surveying	4
CCT 242	Construction Management Personnel Issues	3
CCT 258	Project Management Techniques	3
SRM 231	OSHA Construction Standards	4
TOTAL		14

Construction Technician

(44 Total Credit Hours)

The purpose of this certificate is to develop knowledgeable construction workers with basic skills in a variety of disciplines. With a combination of classroom education, practical lab exercises, and co-op internships, students will exit this certificate program with a solid introduction into carpentry, concrete finishing, electrical and HVAC.

Course & Title		Credit Hours
FIRST QUARTER		
CCT 120	Introduction to Construction Trades	4
CCT 152	Light Frame Construction	3
CCT 154	Commercial Interiors	4
EGR 160	Succeeding in Engineering Technology	1
TOTAL		12

SECOND QUARTER		
CCT 141	Portland Cement Concrete Level I	4
CCT 154	Light Frame Structural Systems	4
MET 103	HVAC Installation Techniques	4
TOTAL		12

THIRD QUARTER		
ARC 138	Architectural Blueprint Reading	3
EER 119	Basic Electrical Circuits & Controls	4
SRM 231	OSHA Installation Techniques	4
— —	Technical Elective	3
TOTAL		14

FOURTH QUARTER		
CCT 270	Civil Engineering Technology Internship	6
TOTAL		6

Drafting & Design

(35 Total Credit Hours)

Introduction to the industrial design process and computer aided drafting and design. The latest version of AutoCAD software is used in training students.

Course & Title		Credit Hours
FIRST QUARTER		
DRT 110	Design Process	2
DRT 196	Technical Graphics Communications	3
TOTAL		5

continued next column

SECOND QUARTER

COM 206	Interpersonal Communication	3
DRT 198	Introduction to CAD Concepts	2
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		7

THIRD QUARTER

DRT 199	Computer Aided Drafting II	3
DRT 217	Introduction to Geometric Dimensioning & Tolerances	3
MAT 131	Technical Mathematics I	5
TOTAL		11

FOURTH QUARTER

DRT 200	Engineering Technical Graphics (3D CAD)	5
DRT 234	Tool Design	4
ENG 121	Technical Composition	3
TOTAL		12

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.

Course & Title		Credit 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

(31 Total Credit Hours)

Training for full-time, part-time, and volunteer firefighters and fire safety inspectors to apply skills needed for public fire protection; apply emergency management skills needed for common incidents; develop expertise to handle hazardous materials; identify, evaluate, and abate life threatening hazards; understand the importance of teamwork and coordination; and apply fire suppression skills.

Course & Title		Credit Hours
FST 180	Firefighter II	16
FST 120	Fire Safety Inspector	6
SRM 151	OSHA 1910.120 Hazardous Waste Operations	5
FST 206	Incident Command System	4
TOTAL		31

Optional Courses

FST 181	Firefighter I	8
FST 191	Volunteer Firefighter	3
FST 192	Firefighter I Transition	5
FST 193	Firefighter II Transition	8

NOTE:

FST 191, 192 and 193 may be taken in lieu of FST 180.
 FST 181 may be taken in lieu of FST 191 and FST 192.
 FST 181 and FST 193 may be taken in lieu of FST 180.

Ford Maintenance & Light Repair

(22 Total Credit Hours)

This short term technical certificate prepares service technicians to work in Ford dealerships. Students will be trained to service Ford vehicles in the areas of brakes, steering/suspension, air conditioning and electrical/electronic systems. Apprenticeships at Ford dealerships are not required to participate in this program but job opportunities are available for those that would like to work full or part-time. Graduates receive "Ford Service Technician Specialty Training" credentials from Ford Motor Corporation. Students desiring to continue their education can do so by completing the requirements for the associate degree in comprehensive automotive technology program.

Course & Title	Credit Hours
AUT 125 Electrical & Electronic Systems	7
AUT 210 Steering, Suspension & Alignment Systems	5
AUT 165 Automotive Brake Systems	5
AUT 146 Automotive Heating & Air Conditioning	5
TOTAL	22

Industrial Maintenance Technician

(39 Total Credit Hours)

The Industrial Maintenance Technician certificate provides the knowledge and skill required for installing, maintaining, and troubleshooting modern industrial machinery. Students will learn to solve practical maintenance problems, read and interpret mechanical drawings, and interpret maintenance publications.

Course & Title	Credit Hours
FIRST QUARTER	
EGR 160 Succeeding in Engineering Technology	1
EGR 164 Survey of Engineering Technology	1
INT 141 Applied Shop Mathematics I	3
EET 119 Basic Electrical Circuits & Controls	4
EGR 100 Fundamental Mechanical Skills	3
INT 109 Fundamentals of Tool & Manufacturing Processes	4
TOTAL	16
SECOND QUARTER	
INT 142 Applied Shop Mathematics II	3
EER 139 Electrical Machinery	4
EER 166 Industrial Machine Wiring & Standards	3
EET 281 Programmable Logic Controllers	3
TOTAL	13
THIRD QUARTER	
EGR 217 Fluid Power & Control	4
EGR 244 Automation & Control Devices	3
EGR 255 Machine Communication Protocols	3
TOTAL	10

Industrial Robot Technician

(38 Total Credit Hours)

The Industrial Robot Technician certificate provides the knowledge and skill required to meet the needs of industries incorporating robotic equipment within their production facilities. This certificate program will provide the education necessary to operate and program industrial robots, diagnose system faults, and perform maintenance necessary to return faulty equipment to service.

Course & Title	Credit Hours
FIRST QUARTER	
EGR 160 Succeeding in Engineering Technology	1
INT 141 Applied Shop Mathematics I	3
EER 126 D.C. Circuits	4
EGR 100 Fundamental Mechanical Skills	3
EGR 128 Robotics in CIM Systems	4
TOTAL	15
SECOND QUARTER	
INT 142 Applied Shop Mathematics II	3
EER 127 A.C. Circuits	4
EGR 252 KAREL Robot Programming	3
EGR 250 Robot Mechanical Unit Repair	3
TOTAL	13
THIRD QUARTER	
EGR 217 Fluid Power & Control	4
EGR 251 Robot Controller Diagnostics	3
EGR 257 Handling Tool/TPP Programming	3
TOTAL	10

Light Commercial HVAC Service

(41 Total Credit Hours)

This program is intended for entry level students or residential service technicians desiring careers as light commercial HVAC service technicians. This program is a hands-on troubleshooting and service program geared to the light commercial HVAC industry including convenience stores, restaurants, strip malls, and any other type of small business concern. Students learn the basics of heating, cooling, distribution, and the control of these systems. The hands-on component uses the type of equipment actually installed in the field.

Course & Title	Credit Hours
FIRST QUARTER	
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	3
TOTAL	15
SECOND QUARTER	
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
THIRD QUARTER	
ARC 139 Mechanical Systems Blueprint Reading	2
EER 139 Electrical Machinery	4
MAT 150 Testing, Adjusting & Balancing in HVAC	2
MET 157 Basic Light Commercial HVAC Troubleshooting	3
MET 158 Advanced Light Commercial HVAC Troubleshooting	3
TOTAL	14

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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, teamwork, and cost analysis. In addition, an elective provides the student an opportunity to customize the program according to their individual needs and interests.

Course & Title		Credit Hours
IET 101	Work Methods Analysis & Improvement	3
IET 115	Survey of Production & Inventory Control	2
IET 125	World Class Manufacturing	3
IET 126	Supervision & Work Team Leadership	3
IET 135	Manufacturing Cost Analysis	3
MAN 105	Introduction to Business	3
PSY 229	Work Group Dynamics	3
QET 101	Survey of Total Quality Management	3

Students may select one of the following courses to use as a substitution for a course in the Manufacturing Management certificate

COM 211	Effective Speaking 1	3
ENG 121	Technical Communications 1	3
LAS 105	Introduction to Organized Labor in America	3
MAN 210	Introduction to Project Management	3
PHI 209	Business Ethics	3
QET 223	ISO/QS 9000 Quality Systems	3
SRM 211	Industrial Safety I	3
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.

Course & Title		Credit Hours
FIRST QUARTER		
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.

Course & Title		Credit Hours
FIRST QUARTER		
FST 171	Introduction to BERT	1
FST 172	Vehicle Extrication	2
FST 173	Line Rescue	2
TOTAL		5
SECOND QUARTER		
FST 174	Confined Space Rescue	2
FST 175	Machinery Extrication	2
FST 176	Trench Rescue	2
FST 177	Structural Collapse	2
FST 178	Top Water Rescue	2
FST 179	Urban Search & Rescue	2
TOTAL		12
THIRD QUARTER		
FST 206	Incident Command System I	4
ALH 100	EMT: Basic Theory & Practice I	5
TOTAL		9
FOURTH QUARTER		
FST 208	Incident Command System II	4
ALH 102	EMT: Basic Theory & Practice II	3
TOTAL		7

Top Gun Academy

(12 Total Credit Hours)

The Top Gun Machining Academy is an advanced level, critical thinking program designed to elevate good technicians into top performers. The certificate consists of three foundation courses, Advanced Design Interpretation, Advanced Job Processing, and Advanced Quality followed by specialized courses in Tooling and Machining such as Advanced CNC Milling and Advanced CNC Mill Programming. Students are expected to have substantial industrial experience prior to entering this certificate program.

Course & Title		Credit Hours
QET 117	Advanced Quality & Inspection	3
DRT 218	Advanced Design Interpretation	3
INT 226	Advanced Job Processing	3
INT 227	Advanced CNC Mill Programming	3
	or	
228	Advanced CNC Milling	3
TOTAL		12

Engineering & Industrial Technologies

Software Used in Specific Courses

AutoCAD 2004

DRT 198
DRT 199
INT 114
INT 225

Inventor 6.0

DRT 200
DRT 205
DRT 206

AutoCAD 2002 with 3D Studio V.2

DRT 223

AutoCAD 2002 with Architectural Desktop

ARC 240
ARC 241

AutoCAD 2002 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
MET 244

Electronics Multisim/Workbench

EET 114, 150, 155, 201, 202, 205, 207
EER 126, 127, 128, 137

Elite PCATD V.6.1

Garman 400 and 500 GPS Trainer

Gleim FAA Test Prep, FBO Edition

GW-BASIC

IET 198

Jeppesen FlitePro Flight Simulator

Jeppesen FlitePro IFR Course

Jeppesen Flight Star

MathCAD

MET 260

Microcontrollers (Motorola 68HC11)

EET 261
EET 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

Pro CAM

INT 113
INT 211
INT 212
INT 213

Radio Comm 1 IFR & VFR

Solid Edge

DRT 231

Solidworks

DRT 247
DRT 248
DRT 249

Unigraphics

DRT 265
DRT 266
DRT 267

VISIO

IET 216

Visual BASIC

IET 198

3D-Studio Max

DRT 223

Extended Learning & Human Services

www.sinclair.edu



Not only does our division offer a large variety of programs, we also provide a wide range of career options for you to choose from, including: Community Based Corrections, Disabilities Intervention Services, Early Childhood Education, Law Enforcement, Manual Communication, Physical Education, Urban Administration, Publics Services and more.

—Dr. Helen Grove, Dean

Academic Counseling Office Hours:

Monday-Thursday
8:00 a.m. - 7:00 p.m.

Friday
8:00 a.m. - 5:00 p.m.

Counselors
Building 9,
Room 9301

Building 6,
Room 6222A

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.**

Students should identify themselves as students. The counselor will review **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.

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
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
Chairperson
(937) 512-2860, Room 8023

Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing costs to students, Sinclair does not mail grade reports automatically to students. Grades are mailed to students only upon request through the telephone grade reporting system.

Student grades are available by telephone and on the 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 are also available on the web at <http://www.sinclair.edu/departments/rsr/home.htm>. Access to grades is available through the InTouch information kiosks. Check the quarterly class bulletin for details.

Planning the Program

The student is required to complete the course work outlined on the following pages for each degree/certificate program. Some courses have prerequisites. Others must be taken in special sequences. **The student should plan a course of studies with an academic counselor or faculty advisor.**

Programs in Extended Learning & Human Services include early childhood education, disabilities interven-

continued next page

tion 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. 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 non-traditional methods to earn credit for college courses; Room 6130.
- **Associate of Individualized Study (A.I.S.)** 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 (A.T.S.)** 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.
- **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 and 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.

A new 2 + 2 articulation agreement between Sinclair and Wright State University (WSU) in Physical Education is now available. Students interested in transferring to WSU from Sinclair should contact Dr. Drew Pringle, WSU, (937) 775-3223. Sinclair Physical Education majors with questions about possible articulation to WSU may contact the Physical Education department at (937) 512-2860.

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
PED 235	Introduction to Physical Education	3
PED 200	First Aid & Safety	2
PSY 121	General Psychology I	3
PED ____	Elective **	3
TOTAL		14
SECOND QUARTER		
ENG 112	English Composition II	3
PED 236	Personal & Community Health	3
PSY 122	General Psychology II	3
COM 206	Interpersonal Communication	3
____ ____	General Education Elective*	3
TOTAL		15
THIRD QUARTER		
ENG 113	English Composition III	3
PED 237	Organization & Administration of Intramurals	2
PSY 242	Educational Psychology****	4
PED ____	Electives** (Coaching and Officiating)	4
____ ____	Arts or Humanities Elective*	3
TOTAL		16
FOURTH QUARTER		
BIO 111	General Biology I	4
HIS 101	U.S. History I****	3
PED 199	Computer Applications in Physical Education	2
PED 238	Physical Education for Elementary School	3
PED 270	Physical Education Internship ***	2
____ ____	Arts or Humanities Elective*	3
TOTAL		17
FIFTH QUARTER		
BIO 112	General Biology II	4
HIS 102	U.S. History II	3
PED 239	Athletic Injuries	3
COM 211	Effective Speaking I	3
PED ____	Elective ** (Activity Class)	1
____ ____	Arts or Humanities Elective*	3
TOTAL		17

continued next page

SIXTH QUARTER

BIO 113	General Biology III	4
HIS 103	U.S. History III	3
PED ____	Electives ** (Activity Class)	4
MAT ____	Elective (see advisor)	5
TOTAL		16

* See page 62 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.

Course & Title		Credit Hours
FIRST QUARTER		
BIS 105	Introduction to Computers	3
ENG 111	English Composition I*	3
GRN 111	Human Services with the Elderly I	3
PSY 121	General Psychology I	3
COM 206	Interpersonal Communication	3
SOC 111	General Sociology I	3
TOTAL		18

SECOND QUARTER

ENG 112	English Composition II	3
GRN 112	Human Services with the Elderly II	3
PSY 122	General Psychology II	3
SWK 211	Introduction to Social Work Practice	3
MAT ____	Elective*	3-5
TOTAL		15-17

THIRD QUARTER

ART 151	Art as Therapy I	3
ENG 113	English Composition II	3
GRN 115	Aging & Health	3
ALH 125	Therapeutic Recreation	3
SOC 160	Social Patterns of Aging	3
____ ____	Arts or Humanities Elective*	3
TOTAL		18

FOURTH QUARTER

ART 152	Art as Therapy II	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 QUARTER

BIO 112	General Biology II	4
GRN 135	Family Relations in Later Years	3
GRN 212	Field Practicum with the Elderly II	5
____ ____	Arts or Humanities Elective*	3
TOTAL		15

SIXTH QUARTER

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		16

* See page 62 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.

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
COM 211	Effective Speaking	3
PSY 121	General Psychology I	3
BIS 105	Introduction to Computers	3
____ ____	Arts or Humanities Elective*	3
TOTAL		15

SECOND QUARTER

ENG 112	English Composition II	3
PSY 122	General Psychology II	3
SOC 111	General Sociology I	3
BIO 111	General Biology I	4
____ ____	Arts or Humanities Elective*	3
TOTAL		16

THIRD QUARTER

ENG 113	English Composition III	3
SOC 112	General Sociology II	3
BIO 112	General Biology II	4
PSY 218	Counseling Principles	4
____ ____	Arts or Humanities Elective*	3
TOTAL		17

FOURTH QUARTER

SOC 145	Comparing Cultures	3
BIO 113	General Biology III	4
MAT ____	Elective	3-5
SWK 206	Introduction to Social Welfare	4
____ ____	Arts or Humanities Elective*	3
TOTAL		17-19

FIFTH QUARTER

SOC 205	Social Problems	4
SWK 211	Introduction to Social Work Practice	3
____ ____	Arts or Humanities Elective*	6
PSY/SOC ____	Elective	3
TOTAL		16

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SIXTH QUARTER

SWK 212	Basic Helping Skills in Social Work Practice	3
	Humanities Elective*	3
EBE 270	Internship	3
PSY/SOC	Elective	3-4
TOTAL		12-13

* See page 62 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.

Course & Title	Credit Hours
FIRST QUARTER	
MAN 105 Introduction to Business	3
ENG 111 English Composition I	3
SOC 111 General Sociology I	3
PLS 101 American Federal Government I	3
_____ Arts or Humanities Elective*	3
TOTAL	15
SECOND QUARTER	
PSY 121 General Psychology I	3
ENG 112 English Composition II	3
PLS 102 American Federal Government II	3
COM 211 Effective Speaking I	3
SOC 112 General Sociology II	3
TOTAL	15
THIRD QUARTER	
ENG 113 English Composition III	3
PLS 103 State Government	3
PSY 122 General Psychology II	3
MAT _____ Elective*	3-5
PLS 104 Urban Government	3
TOTAL	15-17
FOURTH QUARTER	
ACC 111 Principles of Accounting I	3
BIS 105 Introduction to Computers	3
MAN 205 Principles of Management	3
SOC 145 Comparing Cultures	3
BIO 111 General Biology I	4
TOTAL	16
FIFTH QUARTER	
_____ Internship	3
ACC 112 Principles of Accounting II	3
BIO 112 General Biology II	4
_____ Arts or Humanities Elective*	6
TOTAL	16
SIXTH QUARTER	
BIO 113 General Biology III	4
SOC 205 Social Problems	4
_____ Arts or Humanities Electives*	6
PSY/SOC _____ Elective	3
TOTAL	17

* See page 62 and check with counselor.

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

Career Degree Programs

Corrections

Community Based Option (93 Total Credit Hours)

This program prepares students to work in areas relating to the diversion of potential offenders and the rehabilitation of convicted offenders in a community based setting. Students develop on-the-job counseling techniques, gain an understanding of the civil and constitutional rights of prisoners, and develop the knowledge to interpret the justice system.

Course & Title	Credit Hours
FIRST QUARTER	
ENG 111 English Composition I	3
SOC 111 General Sociology I	3
LEP 101 Constitutional Law	3
COR 105 Alternatives to Prison	3
COR 106 Introduction to Corrections	3
TOTAL	15
SECOND QUARTER	
ENG 112 English Composition II	3
PSY 121 General Psychology I	3
COR 101 Corrections Ethics	3
COR 103 Legal Issues in Correctional Institutions	3
MAT _____ Elective	4
TOTAL	16
THIRD QUARTER	
ENG 113 English Composition III	3
_____ or 131 Business Communications I	
PSY 122 General Psychology II	3
COR 104 Written Communications in Corrections	3
SOC 226 Criminology	3
COR 126 Correctional Services in the Community	3
TOTAL	15
FOURTH QUARTER	
SOC 205 Social Problems	4
PHS/BIO _____ Elective	3
COR 205 Law & the Juvenile Offender	3
PSY 218 Counseling Principles	4
COM 206 Interpersonal Communication	3
_____ or 211 Effective Speaking I	
TOTAL	17
FIFTH QUARTER	
COR 270 Corrections Internship or a Career Related Course	3
PLS 103 State Government	3
MAN _____ Elective	3
SOC 225 Juvenile Delinquency	3
_____ or Social Science Elective*	
COR 206 Institutional Procedures, Jails & Detention	3
TOTAL	15

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SIXTH QUARTER

COR 270	Corrections Internship	3
	or	
295	Corrections Seminar	
SOC 227	Probation & Parole	3
	or	
_____	Social Science Elective*	
PLS 104	Urban Government	3
COR 226	Contemporary Practices in Corrections	3
_____	Humanities Elective*	3
	TOTAL	15

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
COR 101	Correctional Ethics	3
COR 106	Introduction to Corrections	3
ENG 111	English Composition I	3
LEP 101	Constitutional Law	3
SOC 111	General Sociology I	3
	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 QUARTER		
COR 102	Crisis Intervention	3
ENG 113	English Composition III	3
	or	
131	Business Communications I	
COR 126	Correctional Services in the Community	3
PSY 122	General Psychology II	3
SOC 226	Criminology	3
	TOTAL	15
FOURTH QUARTER		
COM 206	Interpersonal Communication	3
	or	
211	Effective Speaking	
COR 104	Written Communications in Corrections	3
PSY 217	Abnormal Psychology	4
SOC 205	Social Problems & Community Resources	4
PHS/BIO_____	Elective	3
	TOTAL	17
FIFTH QUARTER		
COR 206	Institutional Procedures, Jails & Detention	3
COR 270**	Corrections Internship	3
	or	
_____	Career Related Course	
MAN _____	Management Elective	3
PLS 103	State Government	3
SOC 225	Juvenile Delinquency	3
	or	
_____	Social Science Elective*	
	TOTAL	15

continued next column

SIXTH QUARTER

COR 226	Contemporary Practices in Corrections	3
COR 270**	Corrections Internship	3
	or	
295	Corrections Seminar	
PLS 104	Urban Government	3
SOC 227	Probation & Parole	3
	or	
_____	Social Science Elective*	
_____	Humanities Elective*	3
	TOTAL	15

* See page 62.

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

Disabilities Intervention Services
(100 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.

Course & Title		Credit Hours
FIRST QUARTER		
DIS 105	Introduction to Developmental Disabilities	4
DIS _____	Elective	4
ENG 111	English Composition I	3
PSY 121	General Psychology I	3
SOC 111	General Sociology I	3
	TOTAL	17
SECOND QUARTER		
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS _____	Elective	3
ENG 112	English Composition II	3
DIS 126	Collaboration with Families	3
PSY 122	General Psychology II	3
	TOTAL	17
THIRD QUARTER		
DIS 201	Field Practicum I***	5
	or	
270	Internship	
DIS 108	Principles/Techniques Behavior Management & Learning Environments	4
SOC 112	General Sociology II	3
ENG 113	English Composition III	3
DIS 206	Computer Literacy	1
	TOTAL	16
FOURTH QUARTER		
DIS 209	Team Processes	3
DIS _____	Elective	3
DIS 207	Health & Safety Aspects of Learners with Special Needs	3
COM 206	Interpersonal Communication	3
	or	
211	Effective Speaking	
PSY 208	Life Span Human Development**	5
	TOTAL	17

continued next page

ELHS

FIFTH QUARTER

DIS 208	Language Development & Communication Techniques	4
DIS	Elective	3
	Humanities Elective*	3
MAT	100 Level Math or Higher	4
DIS	Elective	3
	TOTAL	17

SIXTH QUARTER

DIS 202	Field Practicum II or	7
	270 Internship	
PED 200	First Aid	2
PSY/SOC	Elective	3
DIS 210	Assistive Technology	1
	General Education Elective*	3
	TOTAL	16

* See page 62. See an 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	Credit Hours	
FIRST QUARTER		
ECE 101	Introduction to ECE	3
ECE 106	Childhood Nutrition, Health, & Safety	3
ECE 120	Observing Young Children	3
ECE 117	Language Experiences in ECE	4
ECE 111	Child Abuse Recognition & Prevention	1
ENG 111	English Composition I	3
	TOTAL	17
SECOND QUARTER		
ECE 145	Guidance & Discipline	3
ECE 129	Interaction with Children	5
MUS 121	Piano Class I	3
ECE 150	The Young Child	4
ENG 112	English Composition II	3
	TOTAL	18
THIRD QUARTER		
ECE 118	Math & Science Experiences in ECE	3
ECE 119	Art & Music in ECE	4
ECE 107	Movement Experiences in ECE	2
PSY 121	General Psychology I	3
SOC 111	General Sociology I	3
ENG 113	English Composition III	3
	TOTAL	18

FOURTH QUARTER

ECE 160	Teaching Techniques in ECE	3
PSY 122	General Psychology II	3
	General Education Elective***	3
ECE/HAS/ITE/MAC	Elective	3
SOC 145	Comparing Cultures	3
COM 211	Effective Speaking I or	
	206 Interpersonal Communication	3
	TOTAL	18

FIFTH QUARTER

ECE 182	Student Teaching I**	6
	Humanities Elective***	3
MAT	MAT 101 (or higher)	4
ECE 112	ECE First Aid	1
ECE	Elective	3
	TOTAL	17

SIXTH QUARTER

ECE 281	ECE Student Teaching II**	7
ECE 215	Interaction with Families	3
PSY/SOC	Elective	3
ECE 113	Communicable Diseases: Prevention & Recognition	
ECE/DIS/ITE/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 62.

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 & Title	Credit Hours	
FIRST QUARTER		
ENG 111	English Composition I	3
COR 101	Corrections Ethics	3
LEP 105	Introduction to Law Enforcement & Criminal Justice	3
	or	
COR 106	Introduction to Corrections	
LEP 101	Constitutional Law	3
LEP 115	Police Operations	3
	TOTAL	15
SECOND QUARTER		
ENG 112	English Composition II	3
PSY 121	General Psychology I	3
PLS 104	Urban Government	3
LEP 102	Criminal Law	3
LEP 125	Police Organization & Administration	3
	TOTAL	15

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THIRD QUARTER

ENG 113	English Composition III or	3
131	Business Communications I	
PSY 122	General Psychology II	3
SOC 111	General Sociology I	3
LEP 104	Criminal Evidence & Procedures	3
LEP 205	Criminal Investigation	3
	TOTAL	15

FOURTH QUARTER

PLS 103	State Government	3
PHS/BIO	Elective	3
SOC 205	Social Problems	4
LEP 215	Introduction to Forensic Science	3
LEP 225	Intergroup Relations for Police Officers	3
	TOTAL	16

FIFTH QUARTER

BIS 119	P. C. Applications: Microsoft Works	3
MAN	Elective	3
COM 211	Effective Speaking I or	3
206	Interpersonal Communication	
SOC 225	Juvenile Delinquency or	3
130	Family Violence	
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 or	4
226	Criminology	3
	Humanities Elective*	3
	TOTAL	16-17

* See page 62.

**Departmental permission.

**Law Enforcement
Industrial/Retail Security Option
(95 Total Credit Hours)**

This program prepares students for careers within the private security sector. It is designed for student who are new to Industrial/Retail security as well as students who have experience as practitioners. Students will learn the various security duties required in corporate industrial, retail and contract work sites.

Course & Title

FIRST QUARTER

		Credit Hours
ENG 111	English Composition I	3
FST 101	Introduction to Fire Science	4
PLS 101	American Federal Government I	3
LEP 101	Constitutional Law	3
LEP 107	Security Administration	3
	TOTAL	16

SECOND QUARTER

ENG 112	English Composition II	3
PSY 121	General Psychology I	3
PLS 102	American Federal Government II	3
LEP 102	Criminal Law	3
LEP 117	Principles of Loss Prevention	3
	TOTAL	15

continued next column

THIRD QUARTER

ENG 113	English Composition III	3
PSY 122	General Psychology II	3
LEP 104	Criminal Evidence & Procedures	3
FST 125	Fire Investigation Procedure	4
SOC 111	General Sociology I	3
	TOTAL	16

FOURTH QUARTER

PLS 103	State Government	3
PHS/BIO	Elective	3
SRM 211	Industrial Safety I	3
LEP 217	Current Security Problems	3
SOC 205	Social Problems	4
	TOTAL	16

FIFTH QUARTER

PLS 104	Urban Government	3
MAT	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

LEP	Law Enforcement Elective	3
MAN	Management Elective	3
LEP 295	Seminar in Law Enforcement & Administration of Criminal Justice	3
SOC 226	Criminology	3
	Humanities Elective*	3
	TOTAL	15

* See page 62.

**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.

Course & Title **Credit Hours**

FIRST QUARTER

MAC 101	Orientation to Deafness	3
MAC 131	Intermediate American Sign Language I	4
ENG 111	English Composition I	3
PSY 121	General Psychology I	3
COM 211	Effective Speaking I	3
	TOTAL	16

SECOND QUARTER

MAC 102	Interpreting for the Deaf I	3
MAC 116	Community Resources for the Deaf	3
MAC 132	Intermediate American Sign Language II	4
ENG 112	English Composition II	3
PSY 122	General Psychology II	3
	TOTAL	16

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ELHS

THIRD QUARTER

MAC 103	Interpreting for the Deaf II**	3
MAC 133	Intermediate American Sign Language III**	4
MAC 201	Sign-to-Voice Interpreting I**	4
MAC 207	Role of the Interpreter**	3
ENG 116	Advanced Vocabulary Building	3
	TOTAL	17

FOURTH QUARTER

MAC	Elective	3
MAT 105	Business Mathematics	4
DIS 206	Computer Literacy & Assistive Technology	1
	Humanities Elective*	3
	TOTAL	11

FIFTH QUARTER

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 QUARTER

MAC 203	Sign-to-Voice Interpreting III	4
MAC 211	Medical, Technical, Legal Interpreting	4
MAC 232	Advanced American Sign Language II	4
MAC 262	Practicum II	3
	TOTAL	15

SEVENTH QUARTER

MAC 204	Sign-to-Voice Interpreting IV	4
MAC 212	Specialized Interpreting	4
MAC 233	Advanced American Sign Language III	4
MAC 263	Practicum III**	3
	TOTAL	15

* See academic counselor.

** All students must receive a grade of "C" or better.

Associate of Individualized Study (93 Total Credit Hours)

The Associate of Individualized Study (A.I.S.) 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 A.I.S. 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 two to three distinct areas of study.

General Education

English	First of sequence	3 hours
English	Second of sequence	3 hours
Communication	Elective	3 hours
Mathematics	at 100 level or above	3 hours
Social Science	Elective	3 hours
Computer Literacy	Elective	2-3 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	A.T.S./A.I.S. Capstone	3 hours

Total Experience Based Education (EBE)

A minimum of 6 quarter hours.

Related Electives

A minimum of 21 hours.

A minimum of 93 total hours required to earn the A.I.S. degree.

Associate of Technical Study (93 Total Credit Hours)

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 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 A.T.S. 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 no more than three distinct areas of study.

General Education

English	First of sequence	3 hours
English	Second of sequence	3 hours
Communication	Elective	3 hours
Mathematics	100 level or above	3 hours
Social Science	Elective	3 hours
Computer Literacy	Elective	2-3 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	A.T.S./A.I.S. Capstone	3 hours

Total Experience Based Education (EBE)

A minimum of 6 quarter hours

Related Electives

A minimum of 21 hours

A minimum of 93 total hours required to earn the A.T.S. degree.

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Certificate Programs

Adult Services Specialist

(50 Total Credit Hours)

The Adult Services Specialist certificate prepares individuals to work with adults with developmental disabilities in a variety of settings. These settings may include community based supportive employment, adult production facilities, residential settings, or community based supportive living environments. Courses prepare the individual to plan and implement age-appropriate activities in the area of independent living skills, vocational skills, and functional academics. Theory and strategies for interaction techniques appropriate for adults with diverse backgrounds and their families are also addressed. Policies and procedures related to health, safety, confidentiality, and group dynamics are also included in the program. The courses completed for the Adult Services Specialist certificate may be applied toward completion of the Disabilities Intervention Services Associate of Applied Science degree.

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
PSY 121	General Psychology I	3
DIS 105	Introduction to Developmental Disabilities	4
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS 131	Counseling Principles	3
TOTAL		18
SECOND QUARTER		
DIS 108	Principles & Techniques Behavior Management & Learning Environments	4
DIS 115	Human Service Delivery Systems	3
DIS 124	Residential Services	3
DIS 130	Principles of Production	3
DIS 206	Computer Literacy	1
DIS 210	Assistive Technology	1
TOTAL		15
THIRD QUARTER		
DIS 126	Collaboration with Families	3
DIS 140	Fundamentals of Supervision in Human Services	3
DIS 201	Field Practicum I	5
	or	
	270 Internship	
DIS 207	Health & Safety Aspects of Learners with Special Needs	3
DIS 209	Team Processes	3
TOTAL		17

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.

Course & Title		Credit Hours
FIRST QUARTER		
DIS 105	Introduction to Developmental Disabilities	4
DIS 106	Program Planning	4
ENG 111	English Composition I*	3
PSY 121	General Psychology I	3
PED 200	First Aid	2
TOTAL		16
SECOND 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	3
DIS 206	Computer Literacy & Assistive Technology I	1
DIS 210	Assistive Technology & Developmental Disabilities	1
DIS 109	Independent Living Skills	3
TOTAL		15
THIRD QUARTER		
DIS 207	Health Aspects of Developmental Disabilities	4
DIS 201	Field Practicum I	5
DIS 208	Communication Skills & Developmental Disabilities	4
DIS 124	Residential Services & Developmental Disabilities	3
TOTAL		16

* Students entering this program need to complete the mathematics and English/reading placement test and, if indicated, must enroll in DEV (Developmental Studies) courses prior to taking ENG 111.

Early Childhood Education

(55 Total Credit Hours)

This program prepares individuals to work with young children in a variety of education settings. Those individuals completing this certificate will meet state of Ohio Child Day Care Center requirements for child care staff training.

Course & Title		Credit Hours
FIRST QUARTER		
ECE 101	Introduction to ECE	3
ECE 106	Childhood Nutrition, Health & Safety	3
ECE 120	Observing Young Children	3
ECE 117	Language Experience in ECE	4
ENG 111	English Composition I	3
ECE 111	Child Abuse Recognition & Prevention	1
ECE 112	Early Childhood Education First Aid	1
TOTAL		18
SECOND QUARTER		
ECE 145	Guidance & Discipline	3
ECE 129	Interaction with Children	5
MUS 121	Piano Class I	3
ECE 150	The Young Child	4
PSY 121	General Psychology I	3
TOTAL		18

continued next page

ELHS

THIRD QUARTER

ECE 113	Communicable Diseases: Prevention & Recognition	1
ECE 160	Teaching Techniques in ECE	3
ECE 119	Art & Music Experiences in ECE	4
ECE 182	Student Teaching I	6
ECE 107	Movement Experiences in ECE	2
ECE 118	Math & Science Experiences in ECE	3
	TOTAL	19

Early Intervention Specialist

(51 Total Credit Hours)

The Early Intervention Specialist certificate prepares individuals to work with young children ages three to five in a variety of educational settings. These settings may include early childhood inclusion classrooms, early childhood special education classrooms, and Head Start classrooms.

Courses prepare the individual to work with both groups and individual students and provide a variety of exceptionality and developmentally appropriate activities and experiences. Theory and strategies for interaction with culturally diverse families is also addressed. Policies and procedures related to health, safety and programming are also included in the curriculum. The courses completed for the Early Intervention Specialist certificate may be applied toward the Disabilities Intervention Services Associate of Applied Science degree or the Early Childhood Education Associate of Applied Science degree.

Course & Title	Credit Hours
FIRST QUARTER	
DIS 105	Introduction to Developmental Disabilities 4
DIS 205	Inclusion: Principles & Practices 4
ECE 101	Introduction to Early Childhood Education 3
ENG 111	English Composition I 3
PSY 121	General Psychology I 3
	TOTAL 17

SECOND QUARTER

DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS 126	Collaboration with Families or	3
ECE 216	Interaction with Families	
DIS 225	Instructional techniques: Literacy Through Literature	3
ECE 150	The Young Child	4
ECE 129	Teaching Techniques in Early Childhood Education	3
	TOTAL	18

THIRD QUARTER

DIS 108	Principles & Techniques Behavior Management & Learning Environments	4
DIS 201	Field Practicum I or	5
270	Internship	
DIS 206	Computer Literacy	1
ECE 145	Guidance & Discipline	3
ECE 220	Assessment of Young Children	3
	TOTAL	16

Gerontology

(47 Total Credit Hours)

This certificate adds value to a resume, provides opportunities for entry level jobs, and is an excellent springboard to continuing education. The gerontology option under the Public Services Associate of Arts degree is the program most often followed by students after completion of the Gerontology certificate.

Course & Title	Credit Hours
FIRST QUARTER	
COM 206	Interpersonal Communication 3
ENG 111	English Composition I* 3
GRN 111	Human Services with the Elderly I 3
PSY 121	General Psychology I 3
SOC 111	General Sociology I 3
	TOTAL 15

SECOND QUARTER

ALH 125	Therapeutic Recreation 3
GRN 112	Human Services with the Elderly II 3
GRN 115	Aging & Health 3
PED 200	First Aid & Safety 2
PSY 122	General Psychology II 3
— —	General Education Elective ** 3
	TOTAL 17

Third Quarter

GRN 135	Family Relations in Later Years 3
GRN 211	Field Practicum with the Elderly I 5
PED 208	Cardiopulmonary Resuscitation 1
PSY 135	Living with Loss, Death & Grief 3
PSY 207	Psychology of Aging 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 62.

Human Services

(45-46 Total Credit Hours)

This certificate adds value to a resume as well as provides a springboard to continuing education. The Human Services option under the associate of arts degree in Public Services is the program most often followed by the students after completion of the Urban Studies certificate.

Course & Title	Credit Hours
FIRST QUARTER	
COM 211	Effective Speaking 3
PSY 121	General Psychology I 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 QUARTER

SOC 215	American Minorities**	4
PSY/SOC —	Elective	3
MAT —	Elective*** (MAT 100 Series)	4-5
— —	General Education Elective *	3
	TOTAL	14-15

continued next page

* See page 62.

** HIS 105 or SOC 145, may be substituted for SOC 215.

***Placement test results may indicate need for developmental mathematics, reading, and/or English. The student must complete DEV courses if indicated.

Infant/Toddler Education

(46 Total Credit Hours)

This program prepares individuals to work with infant and toddler children in a variety of education settings. Those individuals completing this certificate will meet state of Ohio Child Day Care Center requirements for child care staff training.

Course & Title		Credit Hours
FIRST QUARTER		
ECE 101	Introduction to Early Childhood Education	3
ECE 104	Prenatal Life & Birth	3
ECE 106	Childhood Health Nutrition & Safety	3
ECE 120	Observing Young Children	3
ECE 150	The Young Child	4
ECE 111	Child Abuse Recognition & Prevention	1
TOTAL		17
SECOND QUARTER		
ECE 135	Group Care of Infants/Toddlers	3
ECE 155	Infant/Toddler Activities	3
ECE 117	Language Experiences in ECE	4
ECE 112	ECE First Aid	1
ECE 113	Communicable Disease Prevention & Recognition	1
ENG 111	English Composition I	3
TOTAL		15
THIRD QUARTER		
ECE 156	Relating to Infants & Toddlers	5
ECE/DIS/ COM/PSY/ _____	Social Science Electives*	9
TOTAL		14

* See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
MAC 101	Orientation to Deafness	3
MAC 131	Intermediate American Sign Language I	4
PSY 117	Psychology of Deafness	3
MAC _____	Elective (MAC 111, 112, 113, or 190)	3
TOTAL		16

continued next column

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 Technology	1
MAC 133	Intermediate American Sign Language III	4
MAC 201	Sign-to-Voice Interpreting I	4
MAC _____	Elective	4
PSY 122	General Psychology II	3
TOTAL		16

Paraeducator Instruction Specialist

(48 Total Credit Hours)

The Paraeducator Instruction Specialist certificate prepares individuals to work with children in a variety of educational settings. These settings may include public or private school classrooms in general education, special education classrooms and special day or residential programs. Courses prepare the individual to work with both groups and individual students and provide a variety of age and developmentally appropriate activities and experiences. The paraeducator works under the supervision of a licensed teacher and supports the instructional goals for students in all areas of academic and non-academic preparation. The courses completed for the Paraeducator Instruction Specialist certificate may be applied toward completion of the Disabilities Intervention Services Associate of Applied Science degree.

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
PSY 121	General Psychology I	3
DIS 105	Introduction to Developmental Disabilities	4
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	4
DIS 126	Collaboration with Families	3
TOTAL		17
SECOND QUARTER		
DIS 108	Principles & Techniques Behavior Management & Learning Environments	4
DIS 205	Inclusion: Principles & Practices	4
DIS 206	Computer Literacy	1
DIS 208	Language Development & Communication Techniques	4
DIS 220	Foundations of Reading Instruction	4
TOTAL		17
THIRD QUARTER		
DIS 201	Field Practicum I or	5
DIS 270	Internship	3
DIS 209	Team Processes	3
DIS 225	Instructional Techniques: Literacy through Literature	3
DIS 226	Instructional Techniques: Mathematics, Science, Social Studies	3
TOTAL		14

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.

Course & Title		Credit Hours
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
_____	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	3
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	3
TOTAL		15

* See page 62 and check with counselor.

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

Short Term Certificates

Adult Services

(31 Total Credit Hours)

The Adult Services short term certificate prepares individuals to work with adults with developmental disabilities in a variety of settings. These settings may include community based supportive employment, adult production facilities, residential settings, or community based supportive living environments. Courses prepare the individual to plan and implement age appropriate activities in the area of independent living skills, vocational skills, and functional academics. Theory and strategies for interaction techniques appropriate for adults with diverse backgrounds and their families are also addressed. Policies and procedures related to health, safety confidentiality, and group dynamics are also included in the program.

The courses completed for the Adult Services short term certificate may be applied toward the certificate in Adult Services and ultimately toward completion of the Disabilities Intervention Services Associate of Applied Science degree.

Course & Title		Credit Hours
FIRST QUARTER		
DIS 105	Introduction to Developmental Disabilities	4
DIS 115	Human Service Delivery Systems & Resources	3
DIS 124	Residential Services	3
TOTAL		10
SECOND QUARTER		
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS 130	Principles of Production	3
DIS 140	Fundamentals of Supervision in Human Services	3
TOTAL		11
THIRD QUARTER		
DIS 108	Principles & Techniques Behavior Management & Learning Environments	4
DIS 131	Counseling Principles	3
DIS 209	Team Processes	3
TOTAL		10

Corrections

(44 Total Credit Hours)

This certificate is designed to provide the student with the basics necessary for entry level employment in a correctional facility. These courses can be applied to the associate degree in Institutional Corrections if desired.

Course & Title		Credit Hours
FIRST QUARTER		
LEP 101	Constitutional Law	3
COR 106	Introduction to Corrections	3
BIS 119	P.C. Applications: Microsoft Works	3
ENG 131	Business Communications I	3
COR 101	Corrections Ethics	3
TOTAL		15
SECOND QUARTER		
COR 102	Crisis Intervention	3
COR 103	Legal Issues in Corrections	3
COR 104	Written Communications in Corrections	3
COR 105	Alternatives to Prison	3
COR 206	Institutional Procedures, Jails & Detention	3
TOTAL		15
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

continued next column

Early Intervention

(30 Total Credit Hours)

The Early Intervention short term certificate prepares individuals to work with young children ages three to five in a variety of educational settings. These settings may include early childhood inclusion classrooms, early childhood special education classrooms, and Head Start classrooms. Courses prepare the individual to work with both groups and individual students and provide a variety of exceptionality and developmentally appropriate activities and experiences. Theory and strategies for interaction with culturally diverse families is also addressed. Policies and procedures related to health, safety and programming are also included in the curriculum. The courses completed for the Early Intervention short term certificate may be applied toward the certificate in Early Intervention Studies and ultimately to the Disabilities Intervention Services Associate of Applied Science degree or the Early Childhood Education Associate of Applied Science degree.

Course & Title		Credit Hours
FIRST QUARTER		
DIS 105	Introduction to Developmental Disabilities	4
DIS 205	Inclusion: Principles & Practices	4
ECE 150	The Young Child	4
TOTAL		12
SECOND QUARTER		
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS 126	Collaboration with Families or	3
ECE 215	Interaction with Families	8
TOTAL		8
THIRD QUARTER		
DIS 108	Principles & Techniques Behavior Management & Learning Environments	4
DIS 225	Instructional Techniques: Literacy through Literature	3
ECE 160	Teaching Techniques in Early Childhood Education	3
TOTAL		10

Exercise Specialist

(44 Total Credit Hours)

This certificate is designed to provide students with the knowledge and skills for employment in the fitness and exercise industry. Students will be trained scientifically with the goal of being able to administer basic fitness assessments and health risk appraisals. Students will also be trained to communicate current information on exercise, nutrition and wellness.

Course & Title		Credit Hours
FIRST QUARTER		
BIO 107	Human Biology	5
COM 206	Interpersonal Communication	3
ENG 111	English Composition I	3
PED 106	Weight Training	1
PED 154	Aerobic Conditioning	1
PED 200	First Aid & Safety	2
TOTAL		15

SECOND QUARTER

ENG 112	English Composition II	3
PED 193	Physical Fitness Evaluation	3
PED 199	Computer Applications in PED	2
PED 234	Concepts of Total Fitness	3
PED 236	Personal & Community Health	3
TOTAL		14

THIRD QUARTER

COM 211	Effective Speaking	3
DIT 111	Nutrition for a Healthy Lifestyle	3
ENG 113	English Composition III	3
PED 239	Athletic Injuries	3
PED 297	Special Topics in PED	3
TOTAL		15

Paraeducator Instruction

(30 Total Credit Hours)

The Paraeducator Instruction short term certificate prepares individuals to work with children in a variety of educational settings. These settings may include public or private school classrooms in general education; and special education classrooms and special day or residential programs. Courses prepare the individual to work with both groups and individual students and provide a variety of age and developmentally appropriate activities and experiences. The paraeducator works under the supervision of a licensed teacher and supports the instructional goals for students in all areas of academic and non-academic preparation. The courses completed for the Paraeducator Instruction short term certificate may be applied toward the certificate in Paraeducator Instruction and ultimately toward completion of the Disabilities Intervention Services Associate of Applied Science degree.

Course & Title		Credit Hours
FIRST QUARTER		
DIS 105	Introduction to Developmental Disabilities	4
DIS 205	Inclusion: Principles & Practices	4
TOTAL		8
SECOND QUARTER		
DIS 106	Assessment, Curriculum, Instruction for Learners with Special Needs	5
DIS 209	Team Processes	3
DIS 220	Foundations of Reading Instruction	4
TOTAL		12
THIRD QUARTER		
DIS 225	Instructional Techniques: Literacy through Literature	3
DIS 226	Instructional Techniques: Mathematics, Science, Social Studies	3
DIS 106	Principles & Techniques Behavior Management & Learning Environments	4
TOTAL		10

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Fine & Performing Arts

www.sinclair.edu



***Want to act, dance or sculpt?
We can teach you how. Always
dreamed of being in front of an
audience or behind the scenes?
We can put you there. At
Sinclair, you can explore your
artistic side—whatever it is—
with state-of-the-art equip-
ment and an excellent faculty
of accomplished professionals.
So whether you want to brush
up on your communication
skills, become certified in
photography or start a career
in interior design, Sinclair's
Fine & Performing Arts divi-
sion is the place to be.***

—Dr. Sally Struthers, Dean

Academic Counseling Office Hours:

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. Sally Struthers, 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
Kevin Harris, Interim 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
Dr. Kathleen Cleary, Chairperson
(937) 512-4580, Room 2220

Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair does not mail grade reports automatically to students. Grades are mailed to students only upon request through the telephone grade reporting system.

Student grades are available by telephone and on the 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 are also 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 four-year 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

Articulation Agreements

Art Academy of Cincinnati
Visual Communications, Art

Central State University
Communication

University of Dayton
Music, Communication

Wright State University
Music, Communication, Art

continued next page

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.

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.

I. Ohio Transfer Module (54 hours)

Completion of the Ohio Transfer Module as follows:

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 - ART 231, 232, 233

Plus 6 additional credits, 3 of which must be other than ART

II. Computer (3 hours)

BIS 105 Introduction to Computers

or

BIS 160 Introduction to Word, PowerPoint & Excel

or

M41, M51, M61

III. Communication (3 hours)

COM 211

IV. Foundation Art & Design (15 hours)

ART 111, 112, 113

ART 108

ART 131

V. Fine Art Core (6 hours)

ART 161

ART 195, 295

ART 270 (1 hour)

VI. Fine Art Concentration (9 hours)

One sequence required:

ART 121, 122, 123

ART 132, 133, 251

ART 141, 142, 143

ART 162, 163 and photography elective

ART 211, 212, 213

ART 216, 217, 218

VII. Elective (12 hours)

Chose 12 hours of ART courses not used above.

*Sinclair's Art department is accredited by the National Association of Schools of Art and Design (NASAD).

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

II. Computer (3 hours)

BIS 160 (3 hours) or BIS M41, M51, M61

one 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.

continued next column

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 (one 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 (one credit hour, repeatable credit)
- III. **Music Theory and Sight Singing & Dictation (24 hours)**
MUS 111, 112, 113 MUS 141, 142, 143
MUS 211, 212, 213 MUS 241, 242, 243
- IV. **Survey of Musical Styles (9 hours)**
MUS 131, 132, 133
- V. **Ensemble (6 hours, 1 credit hour, repeatable credit)**
MUS 166, 194, 195, or 296
- VI. **Vocal Diction (6 hours)***
MUS 106, 107, 108
- VII. **Communication (12 hours)**
ENG 111, 112, 113
COM Elective ***
- VIII. **Natural Sciences & Mathematics (15-17 hours)**
One sequence with lab required:
AST 111, 112, 113
BIO 111, 112, 113
CHE 141, 142, 143
CHE 151, 152, 153
GLG 141, 142, 143 or 144
PHY 141, 142, 143
PHY 201, 202, 203
Math Elective ***
- IX. **Social Sciences (9 hours)*****
- X. **Music Elective (6 hours)*****

* For voice majors and minors only.

** Voice for piano majors, piano for all others.

*** See academic counselor.

****Sinclair's Music program is accredited by the National Association of Schools of Music (NASM).

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
or
MUS 171 (one credit hour, repeatable credit)
- III. **Music Theory and Sight Singing & Diction (24 hours)**
MUS 111, 112, 113 MUS 141, 142, 143
MUS 211, 212, 213 MUS 241, 242, 243
- IV. **Survey of Musical Styles (9 hours)**
MUS 131, 132, 133
- V. **Ensemble (6 hours)**
MUS 166, 194, 195 or 296 (one credit hour, repeatable credit)
- VI. **Vocal Diction (6 hours)**
(Voice majors and minors only)
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 (NASM).

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

Theatre Performance

(109 Total Credit Hours)

This degree is designed as a university parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on student development and performance training. Classroom theory is applied in a multiple performance theatre season.

- I. **Theatre Historical Perspective (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 two quarters)
THE 278
THE 240 or 245
THE 255
Choose one from the following:
THE 215 (Shakespeare) or 218 (Musical Theatre)
- III. **Technical Theatre (15 hours)**
THE 106, 115
THE 126
THE 198 (one credit hour/6 hours repeatable credit)
- IV. **Dance (6 hours)**
DAN 172 or 173
DAN 174 or 175
- V. **Communication (12 hours)**
ENG 111, 112, 113
COM 215
- VI. **Natural Science, Mathematics, Computer Skills (18 hours)**
Natural Science sequence (12 hours – AST, BIO, GLG, CHE, PHY from Ohio Transfer Module) MAT 108
BIS 160 (3 hours) or BIS M41, M51, M61 or BIS 105 (one hour each)
- VII. **Social Science, Humanities (18 hours)**
PSY 121, 122
LIT 227
Social Science Elective (9 hours from Ohio Transfer Module, 3 hours must be in an area other than psychology)

Theatre Technical

(110 Total Credit Hours)

This degree is designed as a university parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on the application of rigorous classroom theory and laboratory experience in theatrical productions.

- I. **Theatre Historical Perspective (12 hours)**
THE 105, 201, 202, 203
- II. **Theatre Technical Concentration (23 hours)**
THE 106, 115, 116, 235
THE 125 or 126
THE 198
(one 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

continued next page

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
 (one 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

Interior Design*

(100 Total Credit Hours)

Recognize, understand and use the language and jargon of interior design. Discuss the history, fundamentals and basic theories of interior design. Apply critical thinking and creative problem solving skills to a variety of interior design problems. Communicate design concepts at various stages of development using the design process, drawing skills and/or appropriate software. Develop floor plans, interior views, and other relevant interior design documents using traditional and computer-based design tools. Develop professional quality presentations and demonstrate adequate written and oral communication skills. Demonstrate an understanding the business fundamentals of interior design.

Course & Title		Credit Hours
FIRST QUARTER		
BIS 160	Introduction to Word, PowerPoint & Excel	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
SECOND QUARTER		
VIS 107	Design Basics: 3D	3
IND 132	Interior Design II	3
ENG 112	English Composition II	3
ARC 102	Architectural Detail Drafting	5
TOTAL		14
THIRD QUARTER		
VIS 109	Design Drawing	3
DRT 198	Introduction to Computer Aided Drafting Concepts	2
IND 133	Interior Design III	3
ENG 113	English Composition III	3
ART 101	Art Appreciation Introduction to Art	3
TOTAL		14

continued next column

FOURTH QUARTER

MAN 205	Introduction to Business	3
ART 102	Art Appreciation: Art Media	3
PSY 121	General Psychology I	3
MAT —	Mathematics Elective	4
TOTAL		13

FIFTH QUARTER

IND 231	Advanced Interior Design I	4
ARC 199	Advanced 2-D CAD	2
MKT 225	Sales Fundamentals	3
PSY 122	General Psychology II	3
IND 240	History of Furniture	3
TOTAL		15

SIXTH QUARTER

IND 134	Textiles & Materials	3
IND 232	Advanced Interior Design II	4
MKT 201	Marketing I	3
SOC 111	General Sociology I	3
ARC 116	Architectural History & Preservation	3
TOTAL		16

SEVENTH QUARTER

IND 233	Advanced Interior Design III	4
VIS 276	Portfolio Development	3
COM 206	Interpersonal Communication	3
— —	Technical Elective	3
TOTAL		13

* Sinclair's Interior Design program is accredited by the National Association of Schools of Art and Design (NASAD).

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		Credit Hours
FIRST QUARTER		
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 —	Mathematics Elective	4
TOTAL		16
SECOND QUARTER		
ENG 112	English Composition II	3
131	Business Communications 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

continued next page

THIRD QUARTER

ENG	113	English Composition III or Business Communications II	3
MAN	105	Introduction to Business	3
PSY	140	Psychology of Interaction & Human Potential or Patterns of Human Relations	3
PRT	222	Offset Presswork II	3
VIS	148	Digital Page Layout	3
TOTAL			15

FOURTH QUARTER

PRT	270	Graphic Arts Internship	3
PRT	271	Digital Prepress I	3
COM	206	Interpersonal Communication	3
VIS	108	Typography	3
—	—	General Education Elective*	3
TOTAL			15

FIFTH QUARTER

PRT	270	Graphic Arts Internship	3
PRT	272	Digital Prepress II	3
PRT	120	Screen Printing I	3
—	—	Humanities Elective*	3
—	—	Business Elective	3
TOTAL			15

SIXTH QUARTER

ACC	111	Principles of Accounting I	3
PRT	270	Graphic Arts Internship	3
PRT	278	Printing Technologies Capstone PRT or VIS Elective	4
—	—		3
TOTAL			13

* See page 62.

Visual Communications**

(102 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 job-seeking strategies are incorporated into the curriculum.

Credit Hours

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

SECOND QUARTER

ENG	112	English Composition II or Business Communication I	3
VIS	107	Design Basics: 3D	3
VIS	108	Typography	3
VIS	115	Digital Video	3
VIS	146	Digital Illustration	3
TOTAL			15

continued next column

THIRD QUARTER

ENG	113	English Composition III or Business Communication II	3
VIS	109	Design Drawing	3
VIS	116	Digital Animation	3
VIS	147	Digital Imaging	3
VIS	148	Digital Page Layout	3
PRT	101	Graphic Arts Processes I or Tech Prep Seminar I and Tech Prep Seminar II and Tech Prep Seminar III	3
VIS	101		
VIS	102		
VIS	103		
TOTAL			18

FOURTH QUARTER

MAT	101	Elementary Algebra or Business Mathematics	4
VIS	206	Design Principles I	4
VIS	236	Design Applications I	4
PRT	271	Digital Prepress I	3
PRT	221	Offset Presswork I or Web Page Design	3
VIS	117		
TOTAL			18

FIFTH QUARTER

COM	206	Interpersonal Communication	3
VIS	207	Design Principles II	4
VIS	237	Design Applications II	4
VIS	265	Digital Authoring	3
PRT	272	Digital Prepress II	3
TOTAL			17

SIXTH QUARTER

PSY	121	Psychology I	3
ART	161	Photography I	3
VIS	276	VisCom Portfolio Development	3
VIS	278	VisCom Capstone Elective	4
—	—		3
TOTAL			16

* VIS 101, 102 and 103 for Tech Prep students only.

**Sinclair's Visual Communications program is accredited by the National Association of Schools of Art and Design (NASAD)

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.

I. Music Theory		
MUS 111	Music Theory I	3
MUS 112	Music Theory II	3
MUS 113	Music Theory III	3
II. Sight Singing & Dictation		
MUS 141	Singing & Dictation I	1
MUS 142	Singing & Dictation II	1
MUS 143	Singing & Dictation III	1
III. History of Church 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
IV. Choral Conducting		
MUS 136		2
V. Church Service Playing		
MUS 245	Church Service Playing I	2
MUS 246	Church Service Playing II	2
VI. Applied Music Practicum (organ instruction)		
MUS 299	(Repeatable for three quarters)	12
VII. Church Music Practicum		
MUS 275		2
VIII. Music Electives		
		4

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.

Course & Title	Credit Hours
COM 206 Interpersonal Communication	3
ENG 131 Business Communications I	3
COM 285 Professional Communication	3
225 Group Communication	3
MAN 105 Introduction to Business	3
MAN 201 Introduction to Supervision	3
MAN 265 Introduction to E-Commerce	3
BIS M41 Introduction to Excel	1
BIS M31 Introduction to Access	1
BIS M61 Introduction to Word	1
MRK 201 Marketing I	3
MRK 225 Sales Fundamentals	3
ART 263/ Business of Art	3
MAN 263	
FPA 278 Capstone	1

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 credit hours form the following (no repeat credit):			4
MUS 194	Wind Symphony		
MUS 195	Concert Band		
THE 111	Acting I		
THE 106	Stagecraft		
DAN 172	Ballet I		
DAN 173	Modern Dance I		
DAN 174	Jazz I		
DAN 175	Tap Dance I		
ART 106	Studio Art		
ART 111	Art Drawing I		
ART 131	Sculpture I		
ART 141	Ceramic Art I		
ART 161	Photography I		

Two credit hours from the following (no repeat credit):			3
ART 270	Fine Arts Internship		
MUS 270	Music Internship		
THE 198	Applied Theatre Technology		

Basic Drawing

(13 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 his or her work, whether the individual is a graphic designer or freelance illustrator.

Course & Title	Credit Hours
ART 111 Art Drawing I	3
ART 112 Art Drawing II	3
or	
VIS 109 Design Drawing	
ART 113 Art Drawing III	3
ART 121 Painting I	4
or	
216 Life Drawing & Anatomy I	
or	
211 Advanced Drawing I	
or	
221 Advanced Painting I	
TOTAL	13

continued next column

Ceramics & Sculpture Technology

(31 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.

Course & Title		Credit Hours
ART 141	Ceramic Art I	4
ART 142	Ceramic Art II	4
ART 143	Ceramic Art III	4
ART 241	Advanced Ceramic Art I	4
ART 131	Sculpture I	3
ART 132	Sculpture II	4
ART 133	Sculpture III	4
ART 251	Advanced Sculpture	4
TOTAL		31

Dance

(44 Total Credit Hours)

The purpose of this short term certificate is to equip the dance student with the basic skills necessary to work in a dance studio or to be a good teacher/choreographer. These skills include: ballet, modern dance, jazz dance, tap dance techniques, dance composition, performance, and pedagogy. Students should meet with an academic counselor to ensure correct sequencing of courses.

Course & Title		Credit Hours
DAN 145	Dance Practicum 3X	3
DAN 178	Technical Theatre for Dancers	2
DAN 180	Music for Dancers	3
DAN 155	Dance History	3
DAN 157	Dance Appreciation	3
DAN 204	Ballet Pedagogy	1
DAN 205	Modern Dance Pedagogy	1
DAN 206	Jazz Dance Pedagogy	1
DAN 241	Dance Composition I	3
DAN 242	Dance Composition II	3
DAN 272	Ballet II 2X	6
DAN 273	Modern Dance II	3
DAN 274	Jazz Dance II	3
DAN 275	Tap Dance II	3
MAN 105	Introduction to Business	3
BIS 160	Introduction to Word, PowerPoint & Excel	3
or		
BIS M61	Introduction to Word	
BIS M41	Introduction to Excel	
BIS M51	Introduction to PowerPoint	
or		
BIS 105	Introduction to Computers	

Desktop Publishing

(18 Total Credit Hours)

The desktop publishing certificate provides an introduction to the fundamental skills, techniques and software used to create a variety of printed items, including stationery, brochures, newsletters and advertisements. The course work is designed to accommodate the needs of the novice and business professionals whose jobs include desktop publishing tasks.

Course & Title		Credit Hours
FIRST QUARTER		
VIS 104	Computer Basics	3
VIS 106	Design Basics: 2D	3
TOTAL		6
SECOND QUARTER		
VIS 146	Digital Illustration	3
VIS 108	Typography	3
TOTAL		6
THIRD QUARTER		
VIS 147	Digital Imaging	3
VIS 148	Digital Page Layout	3
TOTAL		6

Digital Prepress

(28 Total Credit Hours)

The digital prepress certificate program provides an introduction to fundamental and advanced techniques and the software used to prepare page layouts and designs for printing. The course work includes a variety of digital prepress techniques and the use of computer hardware and software commonly used in the industry. The course work is designed to accommodate the needs of the novice and business professionals whose jobs require these skills.

Course & Title		Credit Hours
FIRST QUARTER		
VIS 104	Computer Basics	3
PRT 101	Graphic Arts Processes I	3
VIS 108	Typography	3
TOTAL		9
SECOND QUARTER		
VIS 146	Digital Illustration	3
VIS 147	Digital Imaging	3
PRT 102	Graphic Arts Processes II	4
TOTAL		10
THIRD QUARTER		
VIS 148	Digital Page Layout	3
PRT 271	Digital Prepress I	3
PRT 272	Digital Prepress II	3
TOTAL		9

Multimedia

(27 Total Credit Hours)

The multimedia certificate program provides an introduction to the fundamentals skills, techniques and software used to create a variety of interactive components of multimedia. The course work includes digital sound, digital video development, 2D and 3D animations, and multimedia authoring.

Course & Title		Credit Hours
FIRST QUARTER		
VIS 104	Computer Basics	3
VIS 106	Design Basics: 2D	3
VIS 108	Typography	3
TOTAL		9
SECOND QUARTER		
VIS 147	Digital Imaging	3
VIS 146	Digital Illustration	3
VIS 115	Digital Video	3
TOTAL		9
THIRD QUARTER		
VIS 117	Web Page Design	3
VIS 116	Digital Animation	3
VIS 265	Digital Authoring	3
TOTAL		9

Offset Printing

(19 Total Credit Hours)

The offset printing certificate program provides an introduction to the fundamental skills, techniques and equipment/software used in printing processes. The course work includes digital prepress techniques and will develop an understanding of various printing processes including letterpress, gravure, flexographic, offset, digital and silkscreen.

Course & Title		Credit Hours
FIRST QUARTER		
VIS 104	Computer Basics	3
PRT 101	Graphic Arts Processes I	3
TOTAL		6
SECOND QUARTER		
PRT 102	Graphic Arts Processes II	4
PRT 221	Offset Presswork I	3
TOTAL		7
THIRD QUARTER		
PRT 120	Silk Screen Printing	3
PRT 222	Offset Presswork II	3
TOTAL		6

Photographic Technology

(40 Total Credit Hours)

This certificate is designed for the serious photographer or student who desires to find a job in the photo studio/photo processing industry. The certificate ensures proficiency in composing a good photograph in the studio or field, and developing and printing photographs in black and white and color. The student will learn studio techniques, and how to operate both manual 35 mm and digital cameras. Basic computer imaging techniques and photographic restoration will also be covered. The completion of the certificate will ensure that the student has a well rounded knowledge of photographic techniques and applications.

Course & Title		Credit Hours
ART 161	Photography I	4
ART 162	Photography II	4
ART 163	Photography III	4
ART 164	Photo Restoration	3
ART 170	Non-Silver Photography	4
Art 171	Studio Photography	4
ART 175	Computer Photography	3
ART 265	Color Photography I	4
ART 266	Color Photography II	4
ART 267	Color Photography III	4
ART 194	Portfolio Development I	1
ART 294	Portfolio Development II	1
TOTAL		40

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 work place. When asked of employers what characteristics they seek in job candidates, interpersonal skills topped the list, with teamwork skills and communication skills followed immediately behind.

Course & Title		Credit Hours
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	Business & Professional Communication	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 above list.

Liberal Arts & Sciences

www.sinclair.edu



If you're interested in pursuing a Bachelor of Arts or Sciences degree at a university, Liberal Arts & Sciences at Sinclair is a great place to start. You can transfer your first two years of course work to almost any four-year institution. And because Sinclair offers the lowest tuition in the state, you can save money and receive a high quality education at the same time.

As a Liberal Arts & Sciences student, the only problem you'll have is trying to decide which fascinating subject to study.

—Dr. Richard Jones, Dean

Academic Counseling Office Hours:

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

Note: Please call (937) 512-5134 to make an appointment to ensure that a counselor will be available. These hours may vary each quarter.

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

Susan Spacht
Academic Counselor
(937) 512-5134, Room 6121C

Biology
Phyllis Williams, Chairperson
(937) 512-2747, Room 3041B

Chemistry, Geography, Geology
Michael Canestaro, Chairperson
(937) 512-2890, Room 12301B

English
Gary Mitchner, Chairperson
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Humanities, Government, Modern Languages
Dr. Laurel Mayer, Chairperson
(937) 512-2844, Room 4142B

Mathematics
Al Giambrone, Chairperson
(937) 512-2767, Room 1341C

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

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

Sociology
Dona Fletcher, Chairperson
(937) 512-2944, Room 12351A

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

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

Grade Report Process Changed

In an effort to provide more convenient and secure access to grades while reducing production costs to students, Sinclair does not mail grade reports automatically to students. Grades are mailed to students only upon request through the telephone grade reporting system.

Student grades are available by telephone and on the 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 are also 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

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 169) 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

continued next page

offered in the Liberal Arts & Sciences program will parallel those offered in the freshman and sophomore years at a four-year institution.

Since students are required to take specific course sequences and electives to earn degrees in Liberal Arts & Sciences, they should plan their program of study with an academic counselor. Call (937) 512-5134 or come to Room 6121 to meet with an academic counselor.

Articulation Agreements

Antioch University	College of Arts & Sciences
Bowling Green State University	College of Arts & Sciences
Capital University	Core General Education Requirements
Central State University	Elementary Education Secondary Education
University of Cincinnati	College of Arts & Sciences Raymond Walters College: Veterinary Tech. Program
University of Dayton	College of Arts & Sciences
Indiana University East	College of Arts & Sciences Elementary Education
McGregor School of Antioch University	
Miami University	College of Arts & Sciences
Ohio University	College of Arts & Sciences
The Ohio State University	College of Arts & Sciences
University of Toledo	College of Arts & Sciences
Urbana University	College of Arts & Sciences
Wilberforce University	CLIMB Program
Wittenberg University	College of Arts & Sciences
Wright State University	College of Liberal Arts College of Education College of Science & Mathematics
Xavier University	College of Arts & Sciences

Associate of Arts

(94 Total Credit Hours)

The Associate of Arts degree program in Liberal Arts & Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as Education, English, Geography, History, Modern Languages, Philosophy, Political Science, Psychology, Social Work, Sociology, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module at other Ohio public colleges and universities.

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I. English (9 hours required)

English (ENG)

111	Composition I	3
112	Composition II	3
113	Composition III	3

Credit Hours

Credit Hours

II. Mathematics (3 hours minimum required)

Mathematics (MAT)

108	Math & the Modern World	3
116	College Algebra	5
117	Trigonometry	4
122	Statistics I	4
151	Introduction to Mathematical Modeling	3
201	Calculus & Analytic Geometry I	5
202	Calculus & Analytic Geometry II	5
203	Calculus & Analytic Geometry III	5
204	Calculus & Analytic Geometry IV	5
215	Differential Equations	5
216	Elements of Linear Algebra	4
218	Calculus for Business & Economics	5

III. Natural & Physical Sciences

One sequence required with labs; 12 hours minimum required

Astronomy (AST)

111	Introduction to Astronomy	4
112	The Solar System	4
113	Stars, Galaxies, & Cosmology	4

Biology (BIO)

111	General Biology I	4
112	General Biology II	4
113	General Biology III	4
225	Ecology	4
235	Introduction to Genetics	4
240	Field Botany	4

Chemistry (CHE)

141	College Chemistry I	4
142	College Chemistry II	4
143	College Chemistry III	4
151	General Chemistry I	5
152	General Chemistry II	5
153	General Chemistry III	5

201	Organic Chemistry I	5
202	Organic Chemistry II	5
203	Organic Chemistry III	5

Geology (GLG)

141	General Geology I	4
142	General Geology II	4
143	General Geology III	4
	or	
144	Geological Field Trips	4

Physics (PHY)

100	Introduction to Physics	4
104	Sound, Light & Modern Physics	4
AST 101	Survey of Astronomy	4

	Credit Hours
141 College Physics I	4
142 College Physics II	4
143 College Physics III	4
151 Mechanical Universe I	4
152 Mechanical Universe II	4
153 Mechanical Universe III	4
201 General Physics I	5
202 General Physics II	5
203 General Physics III	5
204 General Physics IV	4
IV. Social & Behavioral Sciences	
<i>15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list. Choose courses from at least two areas listed below.</i>	
Economics (ECO)	
201 Principles of Economics I	3
202 Principles of Economics II	3
203 Principles of Economics III	3
Geography (GEO)	
101 Introduction to Geography I	3
102 Introduction to Geography II	3
201 World Regional Geography I	3
202 World Regional Geography II	3
Political Science (PLS)	
101 American Federal Government I	3
102 American Federal Government II	3
103 State Government	3
104 Urban Government	3
200 Political Life, Systems & Issues	3
201 International Relations I	3
Psychology (PSY)	
119 General Psychology	5
or	
121 General Psychology I and	3
122 General Psychology II	3
208 Life Span & Human Development	5
or	
205 Child Development and	4
206 Adolescent & Adult Psychology	3
207 Psychology of Aging	3
217 Abnormal Psychology	4
225 Social Psychology	4
228 Psychology in the Work Place	4
Sociology (SOC)	
120 General Sociology	5
or	
111 General Sociology I and	3
112 General Sociology II	3
145 Comparing Cultures	3
160 Social Patterns in Aging	3

continued next column

	Credit Hours
205 Social Problems	4
208 The Urban Environment	3
215 Cultural Diversity	4
226 Criminology	3
V. Arts & Humanities	
<i>15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list. Choose courses from at least two areas listed below.</i>	
Art (ART)	
101 Art Appreciation I	3
102 Art Appreciation II	3
125 African Art	3
231 Art of the Ancient World	3
232 Art of the Medieval & Renaissance Worlds	3
233 Art of the Modern World	3
235 History of Photography	3
236 History of Women Artists	3
Dance (DAN)	
155 Dance History	3
157 Dance Appreciation	3
History (HIS)	
101 U.S. History (1607-1815)	3
102 U.S. History (1815-1919)	3
103 U.S. History (1919-Present)	3
105 African-American History	4
111 Western Civilization (0-1300)	3
112 Western Civilization (1300-1815)	3
113 Western Civilization (1815-Present)	3
214 History of Southeast Asia	3
215 Survey of African History	3
216 Survey of Latin American History	3
Humanities (HUM)	
125 The Human Image	3
130 Humanities & Challenge Technology	3
131 Search for Utopia	3
255 People & Religion	3
Literature (LIT)	
201 Survey of English Literature (to 1660)	3
202 Survey of English Literature (1660-1832)	3
203 Survey of English Literature (1832-Present)	3
211 Survey of American Literature I	3
212 Middle American Literature	3
213 Modern American Literature	3
217 Images of Women in Literature	3
227 Introduction to Shakespeare	3
230 Great Books of the Western World	3
234 Literature of Africa, Asia, & Latin America	3
Music (MUS)	
115 Music Appreciation	3
131 Survey of Musical Styles I	3
132 Survey of Musical Styles II	3
133 Survey of Musical Styles III	3

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	Credit Hours
Philosophy (PHI)	
204 Great Books: Philosophy	3
205 Introduction to Philosophy	3
206 Personal Ethics	3
Religion (REL)	
111 Eastern Religions	3
112 Western Religions	3
135 American Religious Movements	3
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
VI. Communication (3 hours required)	
Communication (COM)	
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	3
CHE 152 General Chemistry II	5
MAT 220 Statistics II	4
VIII. Multicultural (3 hours required)*	
GEO 102 Human Geography	3
GEO 201 World Regional Geography I	3
GEO 202 World Regional Geography II	3
LIT 217 Images of Women in Literature	3
LIT 234 Lit. of Africa, Asia & Latin America	3
PLS 200 Political Life, Systems & Issues	3
PSY 225 Social Psychology	4
SOC 145 Comparing Cultures	3
SOC 215 Cultural Diversity	4
IX. Freshman Experience (2 hours required)	
ASE 101 LAS Freshman Experience	2
X. Electives (31 hours maximum required)	
Students select elective courses from the following areas to complete their degree:	
— Emphasis area list(s)	
— List of electives	
— Any course within the Transfer Module not used to meet a Transfer Module requirement	

* 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.

Electives for the Associate of Arts Degree

	Credit Hours	Credit Hours	
Arts & Humanities		Social & Behavioral Sciences	
ART (any course)	3	AFR 111	3
DAN (any course)	3	AFR 112	3
HUM/		FIN 215	3
EGR 132	3	PSY 160	3
LIT 236	3	PSY 218	4
LIT 238	3	PSY 223	4
PHI 207	3	PSY 228	4
MUS (any course)	3	PSY 229	3
THE (any course)	3	PSY 235	4
		PSY 236	4
Modern Languages		PSY 242	4
FRE 101	4	SOC 115	4
FRE 102	4	SOC 117	3
FRE 103	4	SOC 125	3
FRE 201	4	SOC 130	3
FRE 202	4	SOC 209	3
FRE 203	4	SOC 210	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		
SPA 103	4	Other	
SPA 201	4	ACC 111	3
SPA 202	4	ACC 112	3
SPA 203	4	ACC 113	3
		COM (any course)	3
Mathematics		JOU 101	3
MAT 132 (A.A. only)	5	JOU 102	3
MAT 133	5	LAW 101	3
MAT 134	5	LAW 102	3
		MAC 111	3
Natural & Physical Sciences		MAC 112	3
BIO 104	3	MAC 113	3
BIO 141 *	4	MAC 131	4
BIO 142 *	4	MAC 132	4
BIO 143 *	4	MAC 133	4
BIO 205	5	MAN 105	3
CHE 120	4	MAN 205	3
CHE 121	4	MRK 201	3
CHE 122	4	MRK 202	3
* "old" 121,122			
		Physical Education	
		PED 200	2
		PED 208	1
		PED (any activity course)	1

Note: A maximum of two hours of PED activity courses may be applied to the A.A. or A.S. degree.

Substitutions to the electives listed above may only be made by the **academic counselor** by permission of the dean of Liberal Arts & Sciences.

Associate of Arts Degree Emphasis Areas

An area of emphasis is a group of courses recommended for inclusion in the associate of arts degree program for students interested in pursuing the first two years of a program leading to a baccalaureate degree in the following areas:

African-American Studies
Creative Writing
Education
English
Geography
History
Modern Languages
Philosophy
Political Science
Psychology
Social Work
Sociology

Students interested in pursuing the first two years of a program leading to a professional degree (Pre-Law) should meet with a Liberal Arts & Sciences academic counselor to plan their program.

Completion of all courses listed in the emphasis area will lead to notation of the emphasis area on the students' degrees. While these courses have been selected based upon ease of transferability, requirements may vary with each transfer institution. Therefore, it is recommended that students meet with a Liberal Arts & Sciences academic counselor for assistance.

African-American Studies

AFR 111, 112	African-American Studies
HIS 105	History of Black America
HIS 106	History of Civil Rights
HIS 215	African-American History
LIT 236	African-American Literature
SOC 215	American Racial Groups
PSY 119 or (121 & 122)	General Psychology
PSY 160	African-American Psychology
SOC 120 or (111 & 112)	General Sociology

Creative Writing (English)

ENG 250	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

GEO 101, 102	Introduction to Geography
GEO 201, 202	World Geography
PLS 101, 102	Federal Government
ECO 201, 202	Principle of Economics
SOC 120 or (111 & 112)	General Sociology

History

HIS 101, 102, 103	U.S. History
HIS 111, 112, 113	Western Civilization
HIS 105	History of Black America
HIS 214, 215, 216, 217	Non-Western History

Modern Languages

SPA 101, 102, 103	Elementary Spanish
SPA 201, 202, 203	Intermediate Spanish
FRE 101, 102, 103	Elementary French
FRE 201, 202, 203	Intermediate French
GER 101, 102, 103	Elementary German

Select two sequences of one language and one of another.

HIS 111, 112, 113	Western Civilization
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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

Psychology

PSY 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 Work Place/ 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 Work

PSY 119 or (121 & 122)	General Psychology
SOC 120 or (111 & 112)	General Sociology
SOC 145	Comparative Cultures
SWK 206	Social Welfare
SWK 211	Introduction to Social Work
SWK 212	Social Work Practice

Sociology

PSY 119 or (121 & 122)	General Psychology
SOC 120 or (111 & 112)	General Sociology
SOC 145	Comparative Cultures
SOC 160	Social Patterns in Aging
SOC 205	Social Problems
SOC 215	Cultural Diversity
SOC 115	Today's Changing Family

Associate of Science

(94 Total Credit Hours)

The Associate of Science degree program in Liberal Arts & Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as Biology, Chemistry, Environmental Sciences, Geology, Mathematics, Physics, Psychology and Pre-professional programs, i.e. Medicine, Dentistry, Pharmacy, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module at other Ohio public colleges and universities.

I. English (9 hours required)

English (ENG)

	Credit 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.

II. Mathematics (4 hours minimum required)

Mathematics (MAT)

	Credit Hours
116 College Algebra	5
117 Trigonometry	4
122 Statistics I	4
201 Calculus & Analytic Geometry I	5
202 Calculus & Analytic Geometry II	5
203 Calculus & Analytic Geometry III	5
204 Calculus & Analytic Geometry IV	5
215 Differential Equations	5
216 Elements of Linear Algebra	4
218 Calculus for Business & Economics	5

III. Natural & Physical Sciences

One sequence required with labs; 12 hours minimum required

Astronomy (AST)

111 Introduction to Astronomy	4
112 The Solar System	4
113 Stars, Galaxies, & Cosmology	4

Biology (BIO)

111 General Biology I	4
112 General Biology II	4
113 General Biology III	4
225 Ecology	4
235 Introduction to Genetics	4
240 Field Botany	4

Chemistry (CHE)

141 College Chemistry I	4
142 College Chemistry II	4
143 College Chemistry III	4
151 General Chemistry I	5
152 General Chemistry II	5
153 General Chemistry III	5
201 Organic Chemistry I	5
202 Organic Chemistry II	5
203 Organic Chemistry III	5

Geology (GLG)

141 General Geology I	4
142 General Geology II	4
143 General Geology III	4
or	
144 Geological Field Trips	4

	Credit Hours
Physics (PHY)	
100 Introduction to Physics	4
104 Sound, Light & Modern Physics	4
AST 101 Survey of Astronomy	4
141 College Physics I	4
142 College Physics II	4
143 College Physics III	4
151 Mechanical Universe I	4
152 Mechanical Universe II	4
153 Mechanical Universe III	4
201 General Physics I	6
202 General Physics II	6
203 General Physics III	6
204 General Physics IV	4

IV. Social & Behavioral Sciences

15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list.

Choose courses from at least two areas listed below.

Economics (ECO)

201 Principles of Economics I	3
202 Principles of Economics II	3
203 Principles of Economics III	3

Geography (GEO)

101 Introduction to Geography I	3
102 Introduction to Geography II	3
201 World Regional Geography I	3
202 World Regional Geography II	3

Political Science (PLS)

101 American Federal Government I	3
102 American Federal Government II	3
103 State Government	3
104 Urban Government	3
201 International Relations I	3
200 Political Life, Systems & Issues	3

Psychology (PSY)

119 General Psychology	5
or	
121 General Psychology I and	3
122 General Psychology II	3
208 Life Span & Human Development or	5

	Credit Hours
205 Child Development and	4
206 Adolescent & Adult Psychology	3
207 Psychology of Aging	3
217 Abnormal Psychology	4
225 Social Psychology	4
228 Psychology in the Work Place	4

Sociology (SOC)

120 General Sociology or	5
111 General Sociology I and	3
112 General Sociology I	3
145 Comparing Cultures	3
160 Social Patterns in Aging	3
205 Social Problems	4
208 The Urban Environment	3
215 Cultural Diversity	4
226 Criminology	3

V. Arts & Humanities

15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list.

Choose courses from at least two areas listed below.

Art (ART)

101 Art Appreciation I	3
102 Art Appreciation II	3
125 African Art	3
231 Art of the Ancient World	3
232 Art of the Medieval & Renaissance Worlds	3
233 Art of the Modern World	3
235 History of Photography	3
236 History of Women Artists	3

Dance (DAN)

155 Dance History	3
157 Dance Appreciation	3

History (HIS)

101 U.S. History (1607-1815)	3
102 U.S. History (1815-1919)	3
103 U.S. History (1919-Present)	3
111 Western Civilization (0-1300)	3
112 Western Civilization (1300-1815)	3
113 Western Civilization (1815-Present)	3
105 African-American History	4
214 History of Southeast Asia	3
215 Survey of African History	3

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	Credit Hours
Humanities (HUM)	
125 The Human Image	3
130 Humanities & the Challenge Technology	3-
131 Search for Utopia	3
255 People & Religion	3
Literature (LIT)	
201 Survey of English Literature (to 1660)	3
202 Survey of English Literature (1660-1832)	3
203 Survey of English Literature (1832-Present)	3
211 Survey of American Literature	3
212 Middle American Literature	3
213 Modern American Literature	3
217 Images of Women in Literature	3
227 Introduction to Shakespeare	3
230 Great Books of the Western World	3
234 Literature of Africa, Asia, & Latin America	3
Music (MUS)	
115 Music Appreciation	3
131 Survey of Musical Styles I	3
132 Survey of Musical Styles II	3
133 Survey of Musical Styles III	3
Philosophy (PHI)	
204 Great Books: Philosophy	3
205 Introduction to Philosophy	3
206 Personal Ethics	3
Religion (REL)	
111 Eastern Religions	3
112 Western Religions	3
135 American Religious Movements	3
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
VI. Communication (3 hours required)	
Communication (COM)	
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	3
CHE152 General Chemistry II	5
MAT220 Statistics II	4

	Credit Hours
VIII. Multicultural (3 hours required) *	
GEO 102 Human Geography	3
GEO 201 World Regional Geography I	3
GEO 202 World Regional Geography II	3
LIT 217 Images of Women in Literature	3
LIT 234 Literature of Africa, Asia & Latin America	3
PLS 200 Political Life, Systems, & Issues	3
PSY 225 Social Psychology	4
SOC 145 Comparing Cultures	3
SOC 215 Cultural Diversity	4

IX. Freshman Experience (2 hours required)

ASE 101 LAS Freshman Experience	2
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X. Electives (17 hours maximum required)

Students select elective courses from the following areas to complete their degree:

- ___ Emphasis Area List(s)
- ___ List of Electives
- ___ Any course within the Transfer Module not used to meet a Transfer Module requirement

*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.

Electives for the Associate of Science Degree

	Credit Hours		Credit Hours
Arts & Humanities		Social & Behavioral Sciences	
HUM/			
EGR 132	3	AFR 111	3
LIT 236	3	AFR 112	3
LIT 238	3	FIN 215	3
PHI 207	3	PSY 160	3
ART (any course)	3	PSY 218	4
DAN (any course)	3	PSY 223	4
MUS (any course)	3	PSY 229	3
THE (any course)	3	PSY 235	4
		PSY 236	4
		PSY 242	4
Modern Languages		SOC 115	4
FRE 101	4	SOC 117	3
FRE 102	4	SOC 125	3
FRE 103	4	SOC 130	3
FRE 201	4	SOC 209	3
FRE 202	4	SOC 216	3
FRE 203	4	SOC 225	3
GER 101	4	SOC 227	3
GER 102	4	SOC 235	3
GER 103	4		
SPA 101	4	Other	
SPA 102	4	ACC 111	3
SPA 103	4	ACC 112	3
SPA 201	4	ACC 113	3
SPA 202	4	COM (any)	3
SPA 203	4	JOU 101	3
		JOU 102	3
Mathematics		LAW 101	3
MAT 132 (A.A. only)	5	LAW 102	3
MAT 133	5	MAC 111	3
MAT 134	5	MAC 112	3
MAT 220	4	MAC 113	3
		MAC 131	4
Natural & Physical Sciences		MAC 132	4
BIO 104	3	MAC 133	4
BIO 141 *	4	MAN 105	3
BIO 142 *	4	MAN 205	3
BIO 143 *	4	MRK 202	3
BIO 205	5	PED 200	2
CHE 120	4	PED 208	1
CHE 121	4	PED (any activity course)	1
CHE 122	4	Substitutions to the electives listed above may only be made by the academic counselor by permission of the dean of Liberal Arts & Sciences.	
GLG 145	4		

* "old" 121,122

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

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Geology

GLG 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
MAT 201, 202, 203, 204	Calculus I, II, III, IV

Mathematics

MAT 117	Trigonometry
MAT 201, 202, 203, 204	Calculus I, II, III, IV
MAT 215	Differential Equations
MAT 216	Linear Algebra

Physics

PHY 201, 202, 203, 204	General Physics I, II, III, IV
MAT 201, 202, 203, 204	Calculus I, II, III, IV
CHE 151, 152, 153	General Chemistry I, II, III
EET/MET 260	Engineering Tech. Applications with Computers

Psychology

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 Work Place/Work Group Dynamics
PSY 207 or 218	Psychology of Aging/Principles of Counseling
SOC 120 or (111 & 112)	General Sociology
BIO 111, 112, 113	General Biology I, II, III
CHE 151, 152, 153	General Chemistry I, II, III
PHI 207	Logic

Career Degree Program Biotechnology

(99-100 Total Credit Hours)

The Associate of Applied Science degree in Biotechnology provides a full range of courses to prepare students for entry level positions in the biotechnology field. The curriculum provides a background in historical development of biotechnology, bioethics, safety, reagent preparation, cell culture techniques, protein purification and analysis techniques, microbiology and fermentation methods, molecular biology (DNA) techniques and bioinformatics.

Course & Title		Credit Hours
FIRST QUARTER		
BIO 111	General Biology I	4
ENG 111	English Composition I	3
MAT 106	Allied Health Mathematics	4
	or	
	116 College Algebra	5
BTN 110	Biotechnology & Bioethics	3
	TOTAL	14-15
SECOND QUARTER		
BIO 112	General Biology II	4
ENG 112	English Composition II	3
CHE 131	Technical Chemistry I	4
	or	
	120 Introduction to Chemistry	4
BTN 120	Radioactive Detection Methods & Biosafety	3
	TOTAL	14
THIRD QUARTER		
BIO 113	General Biology III	4
ENG 113	English Composition III	3
CHE 122	Introduction to Biochemistry	4
BTN 130	Biological Reagents Preparation	3
BTN 140	Cell Culture	3
	TOTAL	17
FOURTH QUARTER		
COM 206	Interpersonal Communication	3
	or	
	211 Effective Speaking I	
	or	
	225 Small Group Communication	
BIS 119	P.C. Applications: MS Works	
	or	
	160 Introduction to Word, PowerPoint, & Excel	3
___	Arts/Humanities Elective*	3
___	Elective	3
	TOTAL	12
FIFTH QUARTER		
BIO 107	Human Biology	5
___	Multicultural Elective	3
BTN 210	Protein Purification & Analysis	6
	TOTAL	14
SIXTH QUARTER		
BTN 220	Microbiology & Fermentation Techniques	4
BTN 230	Molecular Biology Techniques	6
___	Arts/Humanities Elective*	3
___	SOC/BEH Elective*	3
	TOTAL	16
SEVENTH QUARTER		
BTN 240	Bioinformatics	3
BTN 270	Internship	6
___	Elective	3
	TOTAL	12

*See page 62.

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.

Course & Title		Credit Hours
FIRST QUARTER		
SOC 111	General Sociology I	3
BIS 101	Personal Computer Keyboarding	3
	or	
119	P.C. Applications: Microsoft Works	
	or	
160*	Introduction to Word, PowerPoint & Excel	—
	TOTAL	6
SECOND QUARTER		
SOC 112	General Sociology II	3
SWK 206	Introduction to Social Welfare	4
	TOTAL	7
THIRD QUARTER		
SOC 115	Today's Changing Family	4
SWK 211	Introduction to Social Work Practice	3
	TOTAL	7
FOURTH QUARTER		
SWK 212	Theory & Method in Social Work Practice	3
	TOTAL	3
*Or Substitute:		
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.

Course & Title		Credit Hours
FIRST QUARTER		
COM 211	Effective Speaking	3
SOC 111	General Sociology I	3
	TOTAL	6
SECOND QUARTER		
COM 286	Public Relations	3
SOC 205	Social Problems	4
SOC 215	Cultural Diversity	4
	TOTAL	11

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THIRD QUARTER

SOC 130	Family Violence	3
SWK 206	Introduction to Social Welfare	4
MHT 140	Child & Adolescent Mental Health	3
	TOTAL	10

FOURTH QUARTER

LEP 297	Special Topics: Juvenile Justice System	3
SOC 297	The Capstone Experience	3
	TOTAL	6

Sinclair Community College Transfer Module

The Transfer Module must include 54-60 credit hours of introductory courses in these areas: English Composition, Mathematics, Natural and Physical Sciences, Social and Behavioral Sciences and Arts/Humanities.

English Composition

(9 quarter hours)

ENG 111	(3)
ENG 112	(3)
ENG 113	(3)

Mathematics

(minimum of 3 quarter hours)

MAT 108	(3)
MAT 116	(5)
MAT 117	(4)
MAT 122	(4)
MAT 151	(3)
MAT 201	(5)
MAT 202	(5)
MAT 203	(5)
MAT 204	(5)
MAT 215	(5)
MAT 216	(4)
MAT 218	(5)

Natural & Physical Sciences

(minimum of 12 quarter hours

3 courses from one sequence)

AST 101	(4)
AST 111/117	(4)
AST 112/118	(4)
AST 113/119	(4)
BIO 111/117	(4)
BIO 112/118	(4)
BIO 113/119	(4)
BIO 171/177	(5)
BIO 172/178	(5)
BIO 173/179	(5)
BIO 205/206	(4)
BIO 225/226	(4)
BIO 235/236	(4)
CHE 141/147	(4)
CHE 142/148	(4)
CHE 143/149	(4)
CHE 151/157	(5)
CHE 152/158	(5)
CHE 153/159	(5)

continued next page

CHE	201/207	(5)
CHE	202/208	(5)
CHE	203/209	(5)
GLG	141/147	(4)
GLG	142/148	(4)
GLG	143/149	(4)
GLG	144	(4)
PHY	100/110	(4)
PHY	104/119	(4)
PHY	141	(4)
PHY	142	(4)
PHY	143	(4)
PHY	201	(5)
PHY	202	(5)
PHY	203	(5)

Social & Behavioral Sciences
(minimum of 9 quarter hours from
at least two areas)

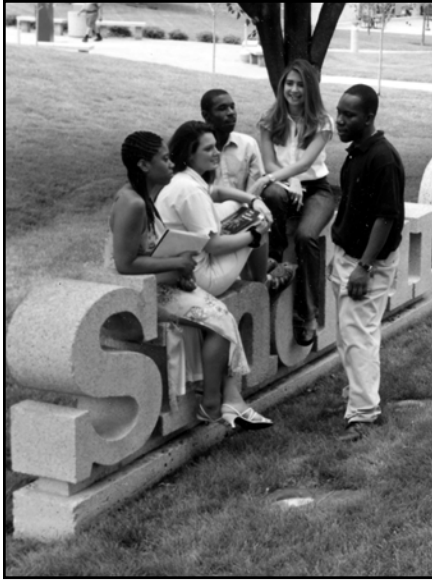
ECO	201	(3)
ECO	202	(3)
ECO	203	(3)
GEO	101	(4)
GEO	102	(3)
GEO	201	(3)
GEO	202	(3)
PLS	101	(3)
PLS	102	(3)
PLS	103	(3)
PLS	104	(3)
PLS	200	(3)
PLS	201	(3)
PSY	119	(5)
PSY	121	(3)
PSY	122	(3)
PSY	205	(4)
PSY	206	(3)
PSY	207	(3)
PSY	208	(5)
PSY	217	(4)
PSY	223	(4)
PSY	225	(4)
PSY	228	(4)
PSY	242	(4)
SOC	111	(3)
SOC	112	(3)
SOC	120	(5)
SOC	145	(3)
SOC	160	(3)
SOC	205	(4)
SOC	208	(3)
SOC	215	(4)
SOC	226	(3)

Arts & Humanities
(minimum of 9 quarter 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)
HIS	112	(3)
HIS	113	(3)
HIS	214	(3)
HIS	215	(3)
HIS	216	(3)
HIS	217	(3)
HIS	218	(3)
HUM	125	(3)
HUM	130	(3)
HUM	131	(3)
HUM	135	(3)
HUM	255	(3)
LIT	201	(3)
LIT	202	(3)
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)
MUS	132	(3)
MUS	133	(3)
PHI	204	(3)
PHI	205	(3)
PHI	206	(3)
REL	111	(3)
REL	112	(3)
REL	135	(3)
REL	204	(3)
THE	105	(3)
THE	201	(3)
THE	202	(3)
THE	203	(3)

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Course Descriptions



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: Competency beyond 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

216 Payroll Accounting: Theory & Practice

3 Cr. Hrs.

Payroll preparation theory and dealing with payroll law and regulations, tax compliance, control procedures and payroll specific decision making as it affects profitability.

Prerequisite: ACC 111

221 Federal Taxes I

3 Cr. Hrs.

Beginning course in federal income taxation. ACC 112 is recommended.

222 Federal Taxes II

3 Cr. Hrs.

Continuation of ACC 221 with emphasis on corporate income taxation.

Prerequisite: ACC 221

235 Auditing Theory & Practice

3 Cr. Hrs.

Auditing principles, standards, and procedures employed by the internal auditor and the independent public accountant.

Prerequisite: ACC 201

240 Microcomputer Accounting Systems

3 Cr. Hrs.

Hands-on microcomputer experience with an integrated software package.

Prerequisite: ACC 113, ACC 115

270 Accounting Internship

R

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

R

0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only 6 credit hours earned by Special Topics courses can apply toward an associate degree in Business.

African-American Studies (AFR)

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.

AFR 112 African-American Studies II

3 Cr. Hrs.

Practical exercises and simulated problems on recent advancements and expansions of African-American studies, including black psychology, creative production, Afrocentricity, black women studies, blacks in science, and multicultural studies.

297 Special Topics R

1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.

Allied Health (ALH)

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, medicolegal, 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, micro-collection techniques, routine processing, and special testing procedures. Two lecture, two lab (ALH 112) hours per week.

Prerequisite: DEV 065, 075, 085 or equivalents

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, micro-collection 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.

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

R 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 experience. Includes the role, job description, legal/ethical issues, personal

care and treatments performed by the patient care assistant in an acute, or sub-acute 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

R 0.5-1 Cr. Hr.

Theory and techniques of basic life support as established by the American Heart Association.

Prerequisite: Open only to ALH students or health care professionals and current CPR card required for 0.5 credit hour sections.

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. Open only to ALH students in their final quarter of training, or licensed health care professions at health care provider level.

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 R

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 the 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-maleficence, 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 I

2 Cr. Hrs.

Pathology 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 work place violence in long-term 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

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

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's Disease: Understanding & Management 3 Cr. Hrs.

Alzheimer's Disease: In-depth look at disease process, diagnosis process, communication techniques, management of activities of daily living and behavior, developing activity programs, working with families/family impact, evaluating community resources.

203 Health Care Wellness & Promotion 2 Cr. Hrs.

Developing health behaviors and behavioral change using a holistic, multi-disciplinary approach.

Prerequisite: IMT chairperson or ALH 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 Care 1 Cr. Hr.

Continuous quality improvement (CAI) techniques are used to analyze and improve health care practice in the current

competitive and regulatory environment. Focus is on practical application of CQI processes and tools.

278 Supervisory Applications in Health Care 3 Cr. Hrs.

Assessment of achievement by Allied Health Management Certificate students in attaining program outcomes by completing a project demonstrating principles and practices of supervisory management.

Prerequisite: ALH 230, MAN 230, MAN 231, MAN 232, MAN 237

297 Special Topics R 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.

M25 Intravenous Therapy R 1 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 & Preservation 3 Cr. Hrs.

Architectural achievements from the ancient world, Asia and America. Practice with preservation techniques in a laboratory environment. Two lecture, two lab hours per week.

117 Architectural Restoration & Rehabilitation 3 Cr. Hrs.

Demonstration of the best use of a Dayton area vacated historic building, involving field measuring, investigation of zoning and building codes and cost estimating. Verbal and graphic presentation of project. Two lecture, two lab hours per week.

Prerequisite: ARC 116

138 Architectural Blueprint Reading 3 Cr. Hrs.

Basic techniques for reading and interpreting construction plans and specifications, both residential and commercial. Includes all major building uses and types of construction as defined by the building code.

139 Mechanical Systems Blueprint Reading 2 Cr. Hrs.

Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC, and fire protection systems. One lecture, two lab hours per week.

199 Advanced 2-D CAD 2 Cr. Hrs.

Study and application of advanced drawing using computer graphic systems. Major emphasis on 2D commands and page layout. One lecture, two lab hours per week.

Prerequisite: DRT 198, MET 198

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 R 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

278 Architectural Technology Capstone 4 Cr. Hrs.

Assessment of achievement by Architectural Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. One lecture, six lab hours per week.

Prerequisite: ARC 211, ARC 241 and MET 207

297 Special Topics R 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom-seminar setting or in a non-traditional format such as television, videotapes, etc.

ART (ART)

101 Art Appreciation: Introduction to Art 3 Cr. Hrs.

Emphasis on the language of art, exposure to many different art forms and formulative ideas about what is viewed.

102 Art Appreciation: Art Media 3 Cr. Hrs.

Exploration of art through specific media including painting, sculpture, and architecture. Analysis and evaluation through class discussion and written assignments.

106 Studio Art 4 Cr. Hrs.

Creativity enhancement for the non-art major. Studio experience in drawing, design fundamentals and three-dimensional processes, including clay.

107 Beginning PhotoShop 3 Cr. Hrs.

Introductory course in the PhotoShop imaging program. Basic introduction to scanning, capturing, and altering images for the art major or non-art major.

108 Design Basics: Color 3 Cr. Hrs.

Color theory applied to utilizing design principles and color psychology emphasizing the Josef Albers color theories. One lecture, four lab hours per week.

109 Elements of Composition 3 Cr. Hrs.

Composition and visual elements in a studio setting with emphasis on hands-on learning. One lecture, four lab hours per week.

111 Art Drawing I 3 Cr. Hrs.

Studio drawing develops visual skills relative to the drawing process, with emphasis on traditional as well as contemporary problems on representation and composition.

112 Art Drawing II 3 Cr. Hrs.

Traditional as well as contemporary approaches to mixed media drawing with an emphasis on ink; still life objects and the human form as subjects for exploration.

Prerequisite: ART 111

113 Art Drawing III 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 three-dimensional 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

143 Ceramic Art III 4 Cr. Hrs.

Focus on personal development and expression in pursuing individual projects; contemporary issues in clay.

Prerequisite: ART 142

146 Video Production 4 Cr. Hrs.

Mechanics and techniques of video camera operation, including editing with emphasis on the planning needed for translating this electronic media format into an art form through a series of assignments. One lecture, four lab hours per week.

151 Art as Therapy I 3 Cr. Hrs.

Art in the therapeutic process utilizing exploration of art media, basic art therapy techniques, and art related diagnostic tools. Also offered as MHT 151; students may enroll in either course, but not both.

152 Art as Therapy II 3 Cr. Hrs.
Clinical art therapy experiences with varied populations; development of professional observation, assessment, and motivational skills. Also offered as MHT 152; students may enroll in either course but not both.

Prerequisite: ART 151

161 Photography I 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 4 Cr. Hrs.
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: ARV 161 or ART 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: ARV 161 or ART 161

176 Computer Photography II 3 Cr. Hrs.
Advanced computer software to create fine art in the digital medium. Advanced photoshop techniques include layers, color correction, masking and special effects. One lecture, four lab hours per week.

Prerequisite: ART 175 or ARV 175

181 Fiber Fabric Design 4 Cr. Hrs.
Traditional needlework in original and creative art forms with emphasis on fashion design, clothing embellishment, and accessories with a history of various needle arts. Students explore the use of new and unusual materials.

194 Photography Portfolio I R 1 Cr. Hr.
One-to-one instruction regarding the student's photography portfolio, establishing groundwork for remaining courses. Instructor will meet once each week to review the student's portfolio and its progression. Suggestions for direction and improvement will be given in regard to image content, critical theory and final presentation. This is a pass/fail course and is required of each student in the Photography certificate program. It is taken after completing the first four photography courses, halfway through the program. Course may be repeated up to three times to receive a passing mark. Students failing to pass the course will be dropped from the program. Failure to take and pass this course will make the student ineligible for the Photography certificate

Prerequisite: 12 credit hours in Photography

195 Portfolio Development in Fine Arts 1 Cr. Hr.

Mechanics and techniques of preparing slides of art work; matting and framing of art work; artist resume writing and overall presentation needed for development of portfolio.

Prerequisite: 45 total hours earned, 21 of which must be in ART

205 Professional Problems in Art 3 Cr. Hrs.

Information to help the visual artist identify challenges of making a living as an artist. Includes legal aspects and copyright laws.

Prerequisite: 12 hours of ART courses

211 Advanced Drawing I 4 Cr. Hrs.
Personal expression developed through a variety of 2-D media, cubistic techniques; gestural and figure studies.

Prerequisite: ART 113

212 Advanced Drawing II 4 Cr. Hrs.
Definition of a personal expression through the drawing process; traditional and modern approaches to drawing the figure, still life, and other contemporary subjects.

Prerequisite: ART 211

213 Advanced Drawing III 4 Cr. Hrs.
Emphasis on the technical process and the language of drawing; a variety of media and techniques focusing on personal expression.

Prerequisite: ART 212

216 Life Drawing & Anatomy 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 4 Cr. Hrs.
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 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.
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 4 Cr. Hrs.
Examines the philosophy, history and techniques of multiple image preparation as well as woodcut, lithographic, intaglio, and serigraphic processes. Two lecture, four lab hours per week.
Prerequisite: ART 111

270 Fine Arts Internship R 1-12 Cr. Hrs.
Practicum providing student with experience in organizing and hanging of art exhibits, assisting in studios,

278 Fine & Performing Arts Capstone R 1 Cr. Hr.

A course designed to allow students to demonstrate proficiency in the program learning outcomes of the Arts Administration certificate.
Prerequisite: 20 hours completed toward Arts Administration certificate.

294 Photography Portfolio II R 1 Cr. Hr.
One-on-one instruction regarding the student's final graduating photography portfolio. Instructor will meet with student during final quarter of study to help the student compose their final graduating portfolio. This is a pass/fail course that must be completed successfully. Student may repeat course up to three times to achieve a passing grade. Failure to take and pass this course will make the student ineligible for the Photography certificate.
Prerequisite: Photography certificate major, 28 hours of photography courses and/or taken during final quarter of study

295 Pre-Graduation Exhibition 1 Cr. Hr.
Graduating Fine Arts majors will have a formal gallery exhibition of their work to be followed by an open oral discussion with a panel of three faculty members to evaluate presentation and techniques within the work. One-fourth of work shown will be created specifically for exhibition. Student will be responsible for presentation and installation.
Prerequisite: 75 credit hours earned

297 Special Topics R 0.5-6 Cr. Hrs.
Provides opportunities to offer special interest content within the discipline, as well as receive credit for instruction delivered in a non-traditional format such as TV.

Arts & Sciences Education (ASE)

101 The Freshman Experience 2 Cr. Hrs.
Team taught interdisciplinary course integrating various learning strategies to familiarize students with the competencies and skills necessary to achieve Liberal Arts & Sciences degree program outcomes. This course will connect students to all levels of student support services designed to improve academic success. Required for all Liberal Arts & Sciences A.A. and A.S. degree programs, effective Winter 2002.
Prerequisite: DEV 065 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 ASE/CAP 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 R 0.1-5 Cr. Hrs.

Engine operation, nomenclature, measurements and tolerances, including service and overhaul procedures of cooling, lubrication, and valve train systems (basic engine machining practices). Basic hand tools required. Three lecture, four lab hours per week.

111 Automotive Management 3 Cr. Hrs.

Introduction to an automotive service department as it pertains to management. Skill development for operating an automotive business, including service consulting, service management and communication practices. Instruction in federal, state and local regulations for operating a service department.

112 Service Consultant II 3 Cr. Hrs.

Introduction to automotive selling service, importance of maintenance schedules, warranties, and accounting procedures. Includes legal aspects of running a dealership related to city, state and federal laws.

Prerequisite: AUT 111

115 Fuel & Emission Systems R 0.1-7 Cr. Hrs.

Operation and service of carburetion, and fuel injection (including computer control) and fuel delivery systems, emission control systems and engine fuels. Basic hand tools required. Three lecture, eight laboratory hours per week.

125 Electrical & Electronic Systems R 0.1-7 Cr. Hrs.

Basic electricity, Ohm's Law, series and parallel circuits, and operation of starting and charging systems. Ignition systems including electronic ignition and automotive electronic systems as well as lighting and accessories circuits and dash instrumentation. Basic hand tools required. Three lecture, eight lab hours per week.

128 Advanced Engine Systems 5 Cr. Hrs.
Measurements and tolerances, advanced diagnosis of engine problems, complete engine blueprinting and machining, performance analysis and measurement; total rebuilding and machining of automotive engines; preparation for ASE Engine Machinist Tests. Complete set of hand tools required. Three lecture, four lab hours per week.

Prerequisite: AUT 108 or equivalent

142 Manual, Transmissions & Drive Line R 0.1-5 Cr. Hrs.

Theory and operation of manual transmission, clutch, transaxle, drive shaft, universal joint, rear axle, limited slip differential and axle shaft, diagnosis, and repair. Basic hand tools required. Three lecture, four lab hours per week.

146 Automotive Heating & Air Conditioning R 0.1-5 Cr. Hrs.

Theory and operation of automotive heating and air conditioning systems. Includes lab activity in diagnosis and repair procedures. Basic hand tools required. Three lecture, four lab hours per week.

165 Automotive Brake System 1-5 Cr. Hrs.

Theory and operation of hydraulic braking systems; 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.

221 High Performance Engine Blocks & Rotating Assemblies 7 Cr. Hrs.

Measurement and tolerances, diagnosis, disassembly, and machining of engine blocks for high performance applications. Race preparation and balancing of internal components. Theory and discussion of choices for high 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 superchargers. Evaluation, testing and tuning using a flow bench, engine dynamometer and or chassis dynamometer. Three lecture, eight lab hours per week.

Prerequisite: AUT 115 or chairperson's signature

226 Introduction to High Performance Fabrication 7 Cr. Hrs.

Basic chassis design and construction for high performance racing applications. Suspension design, types, and fabrication. Interior and exterior sheet metal design and fabrication. 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.

Prerequisite: Permission of chairperson

297 Special Topics R 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

106 Position & Warning Systems
2 Cr. Hrs.

How to operate, inspect, repair and service different indicating systems. Landing gear, speed, configuration, anti-skid, and other remote indicating systems also included. One lecture, two lab hours per week.

107 Fuel Systems 3 Cr. Hrs.

Inspection, operational checkout and repair of fuel system components, fuel tanks, fuel transfer and dumping, fuel indicating systems, fuel temperature indicating, fuel heating, proper leak checking of fuel manifolds, and proper servicing. Two lecture, two lab hours per week.

108 Ice & Rain, Fire Protection 2 Cr. Hrs.

Different types of aircraft ice and rain protection and removal systems including the study of fire protection systems, indicating systems and carbon monoxide detectors. One lecture, two lab hours per week.

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.

112 Performance Calculations
2 Cr. Hrs.

Aviation maintenance performance calculations including determining areas and volumes of various geometrical shapes, performing of algebraic operations, extracting roots and raise numbers to a given power, interpreting various horsepower and other performance charts. One and one half lecture, one lab hour per week.

113 Drawings for Aviation Maintenance
4 Cr. Hrs.

Knowledge and skill development in using aircraft drawings and graphs of different types; includes symbols for drawings and electrical schematics, drawing repairs, and alterations to industry standards. One and one-half lecture hours, five lab hours per week.

114 Fluids & Gasses 2 Cr. Hrs.

Provides the aviation mechanic with an in depth study of aerodynamics, pressure, gas laws, light, vibration and sound, heat and temperature, stress and strain, force and motion, work and power, energy, and weight, and mass, and matter. One lecture, two lab hours per week.

115 Ground Operations & Servicing
3 Cr. Hrs.

Engine starting, engine operation, ground towing and movement of aircraft, taxiing, identify ground operations hazards, hand and radio signals, safety on the flight line, safety in the shop environment, ice protection, jacking and hoisting. One lecture, four lab hours per week.

116 Regulations & Documentation
4 Cr. Hrs.

Provides the aviation mechanic with critical knowledge necessary in the following areas: mechanics privileges, FAA regulations regarding aircraft record entries, maintenance publications, all repair manuals, wiring diagrams, structural repair manuals, corrective action entries in aircraft records, and inspection reports. Three lecture, two lab hours per week.

117 Fluid Lines & Fittings 3 Cr. Hrs.

Tube bending, cutting and flaring, MS flare less fittings, repair of rigid fluid lines, identification of fluid lines, fabrication of hose lines both high and low pressure, pipe fittings, and universal bulkhead fittings. One lecture, four lab hours per week.

118 Weight & Balance 4 Cr. Hrs.

Theory of aircraft weight and balance including documentation, weighing the aircraft, locating the center of gravity, adverse loaded center of gravity checks, large aircraft weight and balance computations, determination of ballast needs.

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. Three lab hours per week.

Prerequisite: AVT 110 or instructor approval

121 Assembly & Rigging 5 Cr. Hrs.

Proper adjustment of cables and torque tubes, proper alignment of primary and secondary control surfaces, proper inspection and alignment of landing gear and the associated controls, correct alignment of all structures in both fixed wing and rotary aircraft. Two lecture, six lab hours per week.

122 Engine Ignition & Starting I 4 Cr. Hrs.

Inspection, repair and overhaul of magnetos; removal and installation of magnetos; inspection and repair of ignition wiring and harness; starter overhaul and installation. Two lecture, four lab hours per week.

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

126 Reciprocating Engines I 5 Cr. Hrs.

Reciprocating engine removal, engine requirements for operation, various engine configurations, firing orders, inspections, critical engine parts measurements, use of overhaul manual for dimensions. Two lecture, six lab hours per week.

127 Lubrication 5 Cr. Hrs.

Functions of the lubrication system, reciprocating engine oils, turbine engine oils, lubrication system components, turbine engine lubrication systems, servicing and spectrometric oil analysis, wet and dry sump systems, oil viscosity index, oil screen and filter inspection, and hazardous material concerns of oil. Four lecture, two lab hours per week.

128 Instruments & Fire Protection

3 Cr. Hrs.

Troubleshooting of electrical wiring and connections on instruments, legal repairs allowed on instruments by A & P mechanics, different types of fire protection systems, different extinguishing agents used, auxiliary power units use, inspection, operation, removal and replacement of units requiring servicing and troubleshooting, and a discussion of unducted fan engines. Two lecture, two lab hours per week.

129 Propellers

5 Cr. Hrs.

Inspection, removal and installation, repair and dressing of propellers. Installation, pitch and angle of attack, forces on a propeller, wood propellers, fixed pitch metal propellers, controllable pitch adjustment and systems, constant-speed propellers, feathering systems, governor systems, reversing systems, propeller auxiliary systems, over speed systems, composite blades, and storage of propellers. Two lecture, six lab hours per week.

131 Electrical Aviation Maintenance

5 Cr. Hrs.

Electrons, direction of electrical flow, production of electricity, ohms law, direct current, alternating current, batteries, electrical circuit components, solid state devices, integrated circuits, electrical load circuits, electrical power circuits, and changing chemical to electrical energy associated with aviation maintenance. Three lecture, four lab hours per week.

132 Electrical Systems I

4 Cr. Hrs.

Electrical distribution, controls, switches, devices, and transformers. Use of electrical measuring devices in troubleshooting and repairing wires, and terminal ends. Two lecture, four lab hours per week.

*Prerequisite: AVT 131***133 Instrument Systems**

2 Cr. Hrs.

Mechanical and electronic flight control systems inspection, operation, troubleshooting, and repair. Legal repairs allowed on instruments including: altitude, temperature, pressure, and positioning gages; include how to perform a pitot/static system check. One lecture, two lab hours per week.

134 Communication & Navigation Systems

2 Cr. Hrs.

Inspection, operation, checking, and servicing communication/navigation systems and components including the passenger address, static discharger devices, VOR/ILS/MB, radar beacon transponders, flight management computers and GPWS, antennas, and electronic equipment installations. One lecture, two lab hours per week.

135 Materials & Processes

6 Cr. Hrs.

Selection and proper use of nondestructive inspection, basic heat treatments, identification and selection of correct aircraft hardware, inspection of welds, and precision measurements. Three lecture, six lab hours per week.

136 Sheet Metal I

4 Cr. Hrs.

Identification, cleaning, preparation, forming, layout, bending, cutting, dimpling, countersinking, drilling, installing special fasteners and rivets in sheet metal. Fabrication of sheet metal projects is required. One lecture, six lab hours per week.

137 Aircraft Structural Welding

4 Cr. Hrs.

Structural welding including soldering, brazing, gas welding, fabrication of tubular structures, soldering stainless steel, welding stainless steel, aluminum, magnesium, and titanium. One lecture, six lab hours per week.

138 Engine Fuel & Fuel Metering

5 Cr. Hrs.

Fuel system components for turbine and reciprocating engines, carburetor adjustment and overhaul, installation and removal of carburetors, repair fuel metering components, repair and installation of fuel system components, inspection, adjustment, and servicing of engine fuel metering system components. Two lecture, six lab hours per week.

139 Induction, Exhaust & Cooling

4 Cr. Hrs.

Powerplant ice protection, reciprocating engine induction system, superchargers, turbochargers, heat exchangers, turbine engine inlet designs, exhaust system inspection, repairs, removals, installations, and thrust reversers. Two lecture, four lab hours per week.

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. One lecture, four lab hours per week.

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. Three lecture, two lab hours per week.

*Prerequisite: AVT 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. One lecture, six lab hours per week.

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 in-depth instruction on the concepts of lift coefficient, drag, stall icing, turbulence, flaps, spoilers, center of lift, chord, span, and aspect ratios. Two lecture, two lab hours per week.

*Prerequisite: PHY 131 or permission of instructor/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***213 Corrosion Control**

4 Cr. Hrs.

Causes of corrosion, the chemical process, types of corrosion, locations susceptible to corrosion, detecting corrosion, removing and treating corrosion, cleaning of the interior and exterior of the airplane, polishing of windshields and windows, paint removal and protection of bare metal surfaces. Two lecture, four lab hours per week.

214 Cabin Atmosphere Control Systems

3 Cr. Hrs.

Inspection, operation, troubleshooting, repair, and service of the following items: heating, cooling, air conditioning, pressurization, air cycle machines, and gaseous oxygen systems. Two lecture, two lab hours per week.

217 Hydraulics & Pneumatics Systems

3 Cr. Hrs.

Aviation maintenance hydraulic systems operation, trouble shooting, fluid identification and safety precautions, seals, filters, and valves. Pneumatics systems operation, high pressure compressed air use and safety: valves, lines, electrical servos, identification marks for seals, lines, and fittings. One lecture, four hours lab per week.

218 Landing Gear

4 Cr. Hrs.

Inspection, system checkout, removal, overhaul of the landing gear and retraction systems, oleo shock struts, steering systems, wheels, brakes, tires and tubes. Two lecture, four hours lab per week.

- 219 Turbine Engines** 4 Cr. Hrs.
Physics of gas turbine engines, air and non-air breathing engine types, production of thrust, engine sections, types of accessories, engine operations, maintenance requirements, inspections, repair of electrical connections, troubleshooting electrical and pneumatic systems, and testing and trimming of engines. Three lecture, two lab hours per week.
- 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
- 222 Engine Ignition & Starting II** 4 Cr. Hrs.
Pneumatic starters and generators, turbine engine starting systems, exciter boxes and leads, removal, inspection, cleaning, and installation of spark plugs, and igniters for turbine engines. Two lecture, four lab hours per week.
Prerequisite: AVT 122
- 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. Three lab hours per week.
- 226 Reciprocating Engines II** 5 Cr. Hrs.
Dimensional inspection of internal parts, non-destructive inspection of engine parts, supercharges and turbochargers, engine overhaul rebuilding, propeller reduction gear system, and engine installation. Two lecture, six lab hours per week.
Prerequisite: AVT 126
- 227 Fabric & Wood Structures** 3 Cr. Hrs.
Wood structures and fabric coverings including identification of types of wood structures, inspection of wood structures, defects in wood structures, and repair of wood structures for aviation maintenance. Also, fabric selection, fiberglass coverings, inspection and testing of fabric and fiberglass covering. Two lecture, two lab hours per week.
- 228 Aircraft Engines** 3 Cr. Hrs.
Basics of propulsion systems including piston, turbine, turboprop, turbojet, turbochargers, turbosuperchargers, and accessory drives. One lecture, four lab hours per week.
- 229 Aircraft Finishes** 3 Cr. Hrs.
Identification letters and numbers, selecting proper aircraft finishes, inspection before applying finishes, inspection of applied finishes, application of different finishes, identification of defects in and below finishes. One lecture, four lab hours per week.

- 231 Engine Electrical** 4 Cr. Hrs.
Identification and repair of wiring using wiring diagrams and standard practices manuals, installation of A.C. and D.C. generators, alternators, wiring, controls, relays, switches, indicators, temperature sensors, circuit breakers, and fuses. Three lecture, two lab hours per week.
- 232 Electrical Systems II** 4 Cr. Hrs.
Troubleshooting load limiting devices, inspections, checking and repairing wiring in compliance with manufactures maintenance manuals, integrated speed drive generators, and auxiliary power unit electrical connections. Two lecture, four hours per week.
Prerequisite: AVT 131, AVT 132
- 234 Reciprocating Engines III** 3 Cr. Hrs.
Engine part inspection and measurement, engine assembly, engine installation in aircraft, accessory installation, installation of baffle material around engine, magneto installation and correct timing, engine electrical troubleshooting, and engine troubleshooting. One lecture, four lab hours per week.
Prerequisite: AVT 226
- 236 Sheet Metal II** 4 Cr. Hrs.
Removal and installation of windows, doors, and furnishings. Repair of composites, fiberglass, and bonded structures; inspection of bonded structures, and laminated surfaces. One lecture, six lab hours per week.
Prerequisite: AVT 136
- 237 Airframe Inspections** 2 Cr. Hrs.
Inspecting an airframe and its components for compliance with regulations, manufacturers' manuals, and operation instructions for compliance with airworthiness standards. One lecture, two lab hours per week.
- 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.). Two lecture, two lab hours per week.
Prerequisite: DEV 085 and DEV 065 or ENG 111, 121 or 131 or permission of chairperson or instructor.
- 239 Powerplant Inspections** 2 Cr. Hrs.
Perform inspections including conformity, one hundred hour, preflight, and annual. Compression check, lubrication, ignition, fuel, induction, exhaust, turbocharger, cooling, engine electrical repair of wiring and connectors, electronic inspection of engines, turbine engine sec-

tions, hot section inspections, foreign object damage, turbine engine over speed, propellers, and engine accessories. One lecture, two lab hours per week.

- 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
- 241 Blind Flying Hazards** 2 Cr. Hrs.
Provides pilots and other aviation professionals with an understanding of spatial disorientation and the hazards of blind flying. Through a laboratory using the General Aviation Trainer (GAT II) simulator, students will experience the effects of various types of spatial disorientation and learn to deal with them. One lecture, two lab hours per week.
- 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-engine aircraft to commercial systems. One lecture, four lab hours per week.

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 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

254 GAT II Instruction 2 Cr. Hrs.
Provides pilots with individual instruction using Sinclair's General Aviation Trainer (GAT II) full motion flight simulator. Course emphasizes instrument skills and spatial disorientation scenarios. Lessons are tailored to meet the student's specific training needs. This course has a program fee.
Prerequisite: Faculty 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

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

258 Flight Instructor Ground School 4 Cr. Hrs.
Flight instruction methods. Aviation concepts and principles to primary for advanced students.
Prerequisite: AVT 250

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 Administration (FAA) practical test requirements for the Commercial Pilot certificate.

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.

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's signature

297 Special Topics R 1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar or other non-traditional manner.

Biology (BIO)

101 Body Structure & Function 4 Cr. Hrs.
Basic anatomy and physiology background for ancillary medical personnel emphasizing basic principles of the structure and function of the human body.

104 HIV/AIDS 3 Cr. Hrs.
Balanced view of the biological, medical, social, and legal issues associated with HIV disease and AIDS.

105 Introduction to Biology 4 Cr. Hrs.
Focuses on cell structure and function, processes of metabolism, 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 I
5 Cr. Hrs.

Structure and function of the human body and radiographic appearance: osteology, nervous system, cytology, histology. Four lecture, two lab hours (BIO 137) per week. *Prerequisite: DEV 065, DEV 075, DEV 085 or equivalent acceptance into RAT program*

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 and 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 and 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. Hrs.

Morphology and physiology of microorganisms and selected human parasites, mechanisms of disease production, host responses, spread of infectious diseases. Three lecture, three lab hours (BIO 206) per week. *Prerequisite: BIO 107, BIO 111, BIO 121, BIO 115, BIO 161, BIO 141, CHE 117 or CHE 122*

206 Lab for BIO 205

Laboratory must be taken with BIO 205.

211 Human Physiology 5 Cr. Hrs.

Essentials of human physiology for nursing students in the LPN Fast Track Program who have had an anatomy and physiology course in LPN school; therefore, this course

substitutes for the departmental anatomy and physiology sequence (BIO 141, 142, and 143). Other students who have completed one of the course prerequisites may take this course to gain a background in the functioning of the human body at a more advanced level. Four lecture, three lab hours (BIO 212) per week.

Prerequisite: BIO 107 or BIO 112 or BIO 121 or BIO 141 or permission of instructor

212 Lab for BIO 211

Laboratory must be taken with BIO 211.

213 Essentials of Exercise Physiology
3 Cr. Hrs.

Study of how the major body systems are affected by exercise and how systems adapt to long term fitness, strength, and performance training.

Prerequisite: BIO 107, BIO 113 or BIO 143

222 Evolution 3 Cr. Hrs.

Emphasis on Charles Darwin, speciation, fossils, radiometric dating, natural selection, mutations, macroevolution, mass extinctions, coevolution, sexual reproduction, human evolution, religious issues.

225 Ecology 4 Cr. Hrs.

Basic concepts in ecology and application to current environmental issues. Focuses on terrestrial and aquatic communities, species diversity, succession, population dynamics (ecological efficiency), conservation of natural resources, field experiences, data collection, analysis of environment. Three lecture and three lab hours per week.

226 Lab for BIO 225

Laboratory must be taken with BIO 225.

227 Tropical Ecology 5 Cr. Hrs.

Exploration of tropical ecosystems including the tropical rainforest, coral reef, and mangrove communities. A two-week travel/study component within a neotropical country (such as Belize, Costa Rica) is required. The course covers concepts of biodiversity, community interactions, plant and animal adaptations, conservation, collaborative field projects, multicultural exposure.

Prerequisite: Permission of instructor

235 Introduction to Genetics 4 Cr. Hrs.

Mendelian genetics, gene action, regulation of gene action, mutations, population genetics. Three lecture, two lab hours (BIO 236) per week.

Prerequisite: BIO 113, BIO 121, BIO 131 or BIO 141

236 Lab for BIO 235

Laboratory must be taken with BIO 235.

240 Field Botany 4 Cr. Hrs.

Field identification of local vascular plant species and factors influencing their habitat distribution. Three lecture, four lab hours per week. Lab (BIO 246) includes field trip.

Prerequisite: BIO 105 or BIO 113

246 Lab for BIO 240*Laboratory must be taken with BIO 240.***270 Biology Internship 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 established learning outcomes and prepare related reports and/or projects each quarter.

297 Special Topics R 1-6 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses, workshops, and special interest topics in Biology.

Prerequisite: Varies according to topic area

Business Information Systems (BIS)

101 Personal Computer Keyboarding 2 Cr. Hrs.

Development of "touch" keyboarding using word processing software on a personal computer; development of competency on the ten key pad; minimum of 20 wpm expected. Out-of-class lab work required.

102 Document Formatting 2 Cr. Hrs.

Introduction to word processing software and continued development of personal computer skills; format and produce reports, letters, memos, multiple-column tables, and other business documents; minimum speed of 35 wpm expected. Completion of BIS 101 or OIS 101 or 118, and completion of or concurrently taking BIS M61 and BIS M62 or OIS M61 and OIS M62. Out-of-class lab work required.

*Prerequisite: BIS 101 or OIS 101 or OIS 118 and BIS M61 or OIS M61 or BIS 160 or OIS 160***103 Advanced Document Formatting, Skillbuilding 4 Cr. Hrs.**

Use of personal computer word processing software to produce correctly formatted letters and memos, complicated tables, reports, and other business documents; minimum of 50 wpm expected. Out-of-class lab work required.

*Prerequisite: BIS 102 and BIS M62***104 Introduction to P.C. Usage 2 Cr. Hrs.**

Introduction to personal computers, software, peripheral devices, and other hardware and software elements within the home or office setting. Provides an introduction to the Windows graphic user interface, including the use of the mouse and understanding icons, buttons, and menus. Includes creating directories, copying and moving files, changing and enhancing desktop features. Introduces application software and the World Wide Web. Elementary P.C. assignments require lab time outside of class.

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 personal computer 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 Work Place Technology 2 Cr. Hrs.

An introduction of the newer technologies that have gained acceptance within the work place: 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 Works 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-to-date word processing software package, emphasizing English grammar skills.

*Prerequisite: BIS 103 and one of the following: 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 commonly used commands and strategies for formatting, editing, and revising text. Not for BIS majors. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. POWERPOINT: Basic features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows and paper based printouts. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. EXCEL: Basic spreadsheet applications emphasizing formatting procedures in generating reports fundamentals of creating, entering data into spreadsheet, storing, using formulas, and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-class lab work required.

161 Intermediate Word, PowerPoint, & Excel 3 Cr. Hrs.

Course is a combination of three modules: BIS M62 (Word), BIS M52 (PowerPoint), and BIS M42 (Excel) WORD: Intermediate concepts and applications of Microsoft Word for Windows for professional and/or personal use emphasizing intermediate commands and strategies for formatting, editing, and revising text. Assumes experience with Microsoft Word and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required. POWERPOINT: Intermediate features, commands, and capabilities of PowerPoint; fundamentals of creating business presentations for delivery via overhead transparencies, electronic slide shows, paper based printouts, 35 mm slides, and the Internet. Assumes experience with 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/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 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 clipart from the web. Skills will also be developed using PowerPoint's web features, Office integration, PowerPoint macros, and the use of add-in programs. Out-of-class lab work required. EXCEL: This section covers advanced competencies associated with Microsoft Excel. Skills and activities covered within this module include analyzing list data, enhancing charts, incorporating WordArt and data tables, and mapping data. It will also include using the What-if Analysis through creating scenarios and data tables, as well as working with pivot tables. This module builds on the introductory and intermedi-

ate 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: Take one group: 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 BISM61 and BISM31 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 2 Cr. Hrs.

Basic office applications of Word Perfect software, emphasizing commonly used commands and strategies for formatting, editing, and revising text. Out-of-class lab work is required.

250 Medical Transcription Skills 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 and BIS 137 or BIS 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 and BIS 138 or BIS 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 R 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 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.

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 necessary. Out-of-class lab work required.

M32 Intermediate Access

1 Cr. Hr.

Intermediate database features and applications used to search through databases, create reports, create subforms and update forms and report designs. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisite: BIS M31, OIS M68 or CIS M68

M33 Advanced Access

1 Cr. Hr.

Advanced competencies associated with Microsoft Access. Skills and activities include integration of Microsoft Access with other programs, creating advanced queries, adding complex objects to forms, and creating advanced forms and reports. This module builds on the introductory and intermediate skills and competencies covered in the prerequisites.

Prerequisite: BIS M32, OIS M69 or CIS M69

M34 Expert Access

1 Cr. Hr.

Expert competencies associated with Microsoft Access. Skills and activities include managing database objects, creating, running, and troubleshooting macros; creating modules using Visual Basic; and managing the database through backup procedures, password, and security issues. This course builds on the introductory, intermediate, and advanced skills and competencies covered in the prerequisites.

Prerequisite: BIS M33

M41 Introduction to Excel

1 Cr. Hr.

Basic spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheet, storing, using formulas, and printing a spreadsheet. Keyboarding skills necessary. Assumes experience with computers and Microsoft Windows. Out-of-class lab work required.

M42 Intermediate Excel

1 Cr. Hr.

Spreadsheet applications emphasizing formatting procedures in generating reports; fundamentals of creating, entering data into spreadsheets, storing, using formulas, printing a spreadsheet, creating

charts, sorting and filtering lists, developing macros, and linking workbooks. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisite: BIS M41, BIS 160, OIS M64 or OIS 160

M43 Advanced Excel

1 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, BIS 161 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 add-in programs.

Prerequisite: BIS M52, BIS 161 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 online services, attaching files to e-mail, basic web page building, and Internet security issues. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisite: BIS M70, OIS M70 or CIS M70

M81 Introduction to Microsoft Project

1 Cr. Hr.

Basic skills and competencies of the Microsoft Project software: managing tasks, time management, management of resources, handling multiple projects, tracking, graphics, and customizing.

M82 Intermediate Microsoft Project 1 Cr. Hr.

Intermediate skills and competencies of the Microsoft Project software: Project Family Management, Labor Overtime and Interim Plans, Macros, and Consolidating Projects.
Prerequisite: BIS M81

Biotechnology (BTN)

110 Biotechnology & Bioethics 3 Cr. Hrs.
Historical perspective of 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 115 or equivalent and 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. Two lecture, two lab (BTN 131) hours per week.
Prerequisite: MAT 106 or MAT 116 or equivalent and CHE 120 or CHE 131 or equivalent.

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 and MAT 106 or MAT 116

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 propagation. Two lecture, four lab hours (BTN 221) per week.
Prerequisite: BIO 112, CHE 122, BTN 120, BTN 130 and MAT 106 or MAT 116

221 Lab for BTN 220
Laboratory must be taken with BTN 220.

230 Molecular Biology Techniques 6 Cr. Hrs.
Structure of nucleic acids, DNA replication mechanisms, DNA cloning, genetic engineering techniques, use of plasmids and viruses as vectors, nucleic acid analysis by electrophoresis, Southern and Northern hybridization, DNA amplification and sequencing. Three lecture, six lab hours (BTN 231) per week.
Prerequisite: BIO 112, CHE 122, BTN 120, BTN 130 and MAT 106 or MAT 116 or equivalent

231 Lab for BTN 230
Laboratory must be taken with BTN 230.

240 Bioinformatics 3 Cr. Hrs.
Introduction to public domain DNA sequence databases, use of software and Internet resources for database searching, use of database information in sequence comparisons, sequence alignment, structure prediction, gene prediction, and genome analysis. Two lecture, two lab hours (BTN 241) per week.
Prerequisite: BIO 113, BTN 210 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 work place skills for success, professionalism at the work place, small group interactions.
Prerequisite: Instructor signature

297 Special Topics R 1-3 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses, workshops and special interest topics in Biotechnology.
Prerequisite: Instructor signature

Business Ownership (BUO)

105 Business Ownership Orientation 3 Cr. Hrs.

General nature of business ownership and the opportunities, advantages, disadvantages, and personal requirements of owning and operating a small business.

108 Tax Compliance & Recordkeeping 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 the use of surveying equipment with appropriate math concepts. Automatic levels, laser levels and total stations will be used in practical surveying projects. Two lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent math score

103 Civil Construction Blueprints & Drafting 3 Cr. Hrs.

Understanding civil and construction blueprints by sketching and drafting. Two lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent

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 Work Place 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 3 Cr. Hrs.

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

121 Carpentry Level 1-A 2 Cr. Hrs.

Introduction to the craft of carpentry with strong emphasis in hands-on learning exercises.

Prerequisite: CCT 119, CCT 120

122 Carpentry Level 1-B 3.5 Cr. Hrs.

Advanced instruction in the carpentry trade with emphasis on pre-manufactured systems—floors, walls and roofs. Advanced concrete framework is also studied. Emphasis is on hands-on learning experiences.

Prerequisite: CCT 121

123 Carpentry Level 2-A 3.5 Cr. Hrs.

Learning experiences in carpentry skills with emphasis on exterior site construction.

Prerequisite: CCT 122

124 Carpentry Level 2-B 3.5 Cr. Hrs.

Carpentry work associated with placing Portland Cement concrete.

Prerequisite: CCT 123

125 Carpentry Level 3-A 3.5 Cr. Hrs.

Advanced skills in carpentry with emphasis on exterior finishes.

Prerequisite: CCT 122

126 Carpentry Level 3-B 3.5 Cr. Hrs.

In-depth study of the materials used and the skills required to finish an interior building space. Research and lab exercises are used to explore the aesthetics of building interiors.

Prerequisite: CCT 125

127 Carpentry Level 4-A 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 & surveying equipment.

Prerequisite: CCT 133

141 Portland Cement Concrete Level-1 4 Cr. Hrs.

Introduction to the craft of working with concrete with strong emphasis on hands-on learning exercises. Two lectures, six lab hours per week.

Prerequisite: CCT 118 or CCT 120

142 Portland Cement Concrete Level 2-A 3.5 Cr. Hrs.

Hands-on training in placing and finishing Portland cement concrete.

Prerequisite: CCT 141

143 Portland Cement Concrete Level 2-B 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

152 Light Frame Construction 4 Cr. Hrs.

Introduction to the technology of light frame construction with introduction to carpentry. Review of construction terminology, job site safety, and blueprints. Two lecture, six lab hours per week.

Prerequisite: CCT 118 or CCT 120

153 Light Frame Structural Systems 4 Cr. Hrs.

Hands-on applications to understand the construction of light frame construction. Two lecture, six lab hours per week.

Prerequisite: CCT 152

154 Commercial Interiors 4 Cr. Hrs.

An orientation to the special construction trade area known as commercial interiors. Two lecture, six lab hours per week.

Prerequisite: CCT 118 or CCT 120

201 Introduction to Surveying 3 Cr. Hrs.

Distance measurement via taping to third order accuracy and making appropriate corrections. Profiles, cross-sections topographic 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 4 Cr. Hrs.
Research of courthouse records for deed transfers and descriptions. Study of subdivision regulations for a finished plat. Grading and storm water control. Two lecture, two lab hours per week.
Prerequisite: CCT 247

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: CCT 105, MAT 131, MET 198, and ARC 101 and ARC 105 or ARC 138

226 Heavy Highway Construction 3 Cr. Hrs.
Highway engineering design utilizing the Ohio Department of Transportation (ODOT) manuals and specifications. Interpretation of the relationships of plans, elevations, sections and details along with the coordination with published specifications. Two lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent

235 Legal Principles for Surveyors 4 Cr. Hrs.
Advanced course in surveying. Gives working knowledge of real property, systems used to describe land, simultaneous conveyances created by state law, reversion rights, riparian and littoral owners, and retracements.
Prerequisite: CCT 202

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 203

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 databases for the creation of profiles, cross sections, and volumes. Two lecture, four lab hours per week.
Prerequisite: CCT 102, CCT 103, DRT 198 and MAT 131

247 Highway Surveying & Design 3 Cr. Hrs.
Design and surveying concepts of highways including horizontal and vertical alignment along with principles of open channel flow including storm sewers and culverts. Two lecture, two lab hours per week.
Prerequisite: CCT 246 and MAT 132

248 Advanced Construction Layout 3 Cr. Hrs.
Solving complex surveying for construction layout of buildings, sites and roads using appropriate mathematical calculations and surveying equipment. Two lecture, two lab hours per week.
Prerequisite: ARC 138, CCT 203

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: Take one group: ARC 138, CCT 105, MET 198; or ARC 10,1 ARC 105, CCT 105, MET 198

258 Project Management Techniques 3 Cr. Hrs.
Theory, nomenclature and practical applications of management techniques using computer software. Practical planning and project control with critical path methods, financial planning and cost control. Two lecture, two lab hours per week.
Prerequisite: MAT 132 and CCT 216

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 and 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: CCT 245, CCT 247, CCT 258, MET 207. Approval of chairperson.

297 Special Topics R 1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as TV, videotapes, etc.
Prerequisite: Permission of instructor

Chemistry (CHE)

116 Introduction to Scientific Glassblowing R 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, organometallic 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 R** 1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in the discipline. Objectives will vary with the particular content area.

Chinese (CHN)

- 100 Conversational Chinese** 3 Cr. Hrs.
Basic Chinese conversational skills through situational dialogues and command of the phonic pinyin system and essential idiomatic expressions. Mastery of written Chinese characters is not required.
- 105 Conversational Chinese II** 3 Cr. Hrs.
Advanced conversational skills through situational dialogues and idiomatic expressions within complex cultural settings. Mastery of written Chinese characters is not required.
Prerequisite: CHN 100

Computer Information Systems (CIS)

107 Introduction to Operating Systems 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 assumed that students have keyboarding and mouse skills. It is recommended that all Developmental Studies 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 Studies (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 mak-

ing 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 and Design (OOA & D) tools and models including Unified Modeling Language (UML) will be introduced. Students will apply their skills in mini design sessions. *Prerequisite: CIS 111*

113 Object Oriented Design 4 Cr. Hrs.

Concepts and vocabulary of object oriented design with an investigation into the three pillars of object oriented programming: inheritance, encapsulation, and polymorphism. Design case studies are an essential component of this course. *Prerequisite: Signature of chairperson and five or more years programming experience or equivalent education and experience.*

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: Take two groups: CIS 130 or CIS 136, CIS 137 or CIS 129*

134 Macromedia Flash 3 Cr. Hrs.

Development of interactive, animated, digital creations appropriate for disk, C.D. or web delivery. The primary authoring tool is Macromedia's Flash with other authoring tools being reviewed. The course is best described as a community of learners who develop collaborative project skills as they develop Flash Expertise. *Prerequisite: CIS 130 or equivalent*

136 Introduction to HTML 2 Cr. Hrs.

Introduction to HyperText Markup Language (HTML) and design issues involved in creating documents for distribution on the World Wide Web. The standard HTML tags will be covered, including basic formatting, headers, body attributes, page layout, links tables, frames, and forms. *Prerequisite: OIS M71, BIS M71, or CIS M71*

137 Introduction to JavaScript 2 Cr. Hrs.

Introduction to the JavaScript programming language that is used to create dynamic, interactive effects on web pages. Standard programming language concepts will be covered, including variables, branching, looping, functions, and parameter passing. Projects will include pop-up windows, scrolling messages, validating forms, and cookies. *Prerequisite: CIS 136 and CIS 111 or equivalent*

138 Advanced Macromedia Flash 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*

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, CIS 112; CIS 107 or CIS 108*

- 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 Visual Basic applications a typical business environment. Uses the latest technology/architecture software and techniques. Programming assignments require lab time outside of class.
Prerequisite: CIS 147
- 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
- 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; table-handling 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 136 and CIS 137 (or CIS 129) CIS 111 and CIS 130
- 230 Computer Networks** 3 Cr. Hrs.
Fundamentals of network and data communication including protocols, hardware, software, and local and area-wide networks with emphasis on network analysis, design, management, and applications; balances technical aspects of both data communications and managerial issues by incorporating current models such as the seven layer open systems interconnection (OSI) and systems network architecture (SNA).
Prerequisite: CIS 107 or CIS 108
- 231 UNIX I** 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.
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 they can develop efficient programs.
Prerequisite: CIS 281, MAT 116 or equivalent
- 238 P.C. 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** 3 Cr. Hrs.
Advanced networking concepts for designing, installing and configuring network systems which include the effective use of hardware and network/application software for peer-to-peer and client/server environments. Students will demonstrate their working network solutions.
Prerequisite: CIS 230

241 Cisco Networking Fundamentals

7 Cr. Hrs.

First course in the four-course Cisco Certified Networking Associate (CCNA) sequence. Foundation skills needed for the mastering of the basic concepts of networking in an Internet/Intranet networking environment. Includes both hardware and software installation and management.

Prerequisite: CIS 107

242 Cisco Router Fundamentals

7 Cr. Hrs.

Second course in four-course sequence, building on the concepts of the Cisco Networking Fundamentals course (CIS 241). Adds the fundamental concepts of router configuration and management, and basic router hardware and software components. Additional assignments will require lab time outside of class.

Prerequisite: CIS 241

243 Cisco Routing in LANs

7 Cr. Hrs.

Third course in four-course sequence, building on the concepts of previous courses. Topics include advanced router configurations, LAN switching theory, VLANs, advanced LAN and LAN switched design, Novell IPX, and threaded case studies. Additional assignments will require lab time outside of class.

Prerequisite: CIS 242

244 Cisco Routing in WANs

7 Cr. Hrs.

Fourth course in a four-course sequence, building on the concepts of previous courses. Topics include WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, Network troubleshooting, National SCANS Skills, and treaded case studies. Additional review and practice for the Cisco Certified Network Associate and the Network+industry standard exams. Additional assignments will require lab time outside of class.

Prerequisite: CIS 243

245 Remote Access for CCNP®

4 Cr. Hrs.

Building, configuring and troubleshooting a remote access network to interconnect central sites to branch offices and home offices. Also includes learning how to control access to the central site, as well as to maximize bandwidth utilization over the remote links. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.

Prerequisite: CIS 244 or CCNA certification

246 Router Internetworking for CCNP®

4 Cr. Hrs.

Routing principles of both distance vector and link-state routing protocols; IP addressing techniques; the theory behind the various routing protocols; and configuration and troubleshooting information for each protocol. Includes hands-on exercises to practice configuration and troubleshooting knowledge and to acquire the skills necessary to configure protocols in customer networks. Part of the recom-

mended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.

Prerequisite: CIS 244 or CCNA certification

247 Multilayer Switching for CCNP®

4 Cr. Hrs.

Building campus networks using multilayer switching technologies over high speed Ethernet. Includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. Includes hands-on lab exercises to practice configuration, apply troubleshooting knowledge, and acquire the skills necessary to configure these technologies in customer networks. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.

Prerequisite: CIS 244 or CCNA certification

248 Network Support & Troubleshooting for CCNP®

4 Cr. Hrs.

Baseline and troubleshooting in an environment using routers and switches for multiprotocol client hosts and servers connected with the various Local Area Network and Wide Area Network technologies. Includes methodical practice using IOS software and Catalyst software tools to diagnose and correct problems. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.

Prerequisite: CIS 244 or CCNA certification

251 php Web Programming

3 Cr. Hrs.

php web programming language and php web applications. Includes php program development by individuals and teams to modify and create larger php web applications as well as publishing and testing php programs and applications on a live web server.

Prerequisite: CIS 111 and CIS 137; recommended CIS 233 or CIS 280

260 MCSE Exchange Server

4 Cr. Hrs.

Skills needed to implement, administer, and troubleshoot information systems that incorporate Microsoft Exchange Server 2000. Install, configure and manage Exchange Server 2000 on an Intel-based computer platform running Microsoft Windows 2000 Server network operating system version 4.0.

Prerequisite: CIS 272

263 Managing a Windows 2000

Network Environment 4 Cr. Hrs.

Managing the physical and logical elements of large networks including client and server computers using the Windows 2000 Operating System. Administering network resources and providing logical network services to access those resources. Problem solving and troubleshooting common network and system issues. Actual hands-on network experience to reinforce theoretical concepts.

Prerequisite: CIS 271, 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 225, CIS 264

265 Data Base 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)

267 Administering Windows XP

Professional 4 Cr. Hrs.

Installing and administering information systems that incorporate Microsoft Windows XP Professional as a desktop operating system. Administering shared resources including files, folders and printers; installing, managing and troubleshooting hardware devices; monitoring and optimizing system performance and reliability; implementing network protocols and configuring security elements.

268 Introduction to Oracle: SQL & PL/

SQL 3 Cr. Hrs.

Introduction to Oracle DBMS in a client/server environment. The course covers SQL and PL/SQL programming languages. Students are taught to create and maintain database objects and to store, retrieve and manipulate data. Students learn to create PL/SQL blocks of application code that can be shared by multiple forms, reports and data management applications.

Prerequisite: CIS 265 or CIS 266

270 Computer Information Systems Internship R 1-9 Cr. Hrs.

See EBE 270 Internship for course description.

271 MCSE 2000 Professional 4 Cr. Hrs. Intermediate and advanced aspects of the administration and support functions of a Windows 2000 Professional administrator. Outcomes include installation and setup of the Windows 2000 Professional, setup and administer a peer-to-peer network and in-depth knowledge of the Windows 2000 Professional Operating System. Prepares students for the Industry certification exam. Assignments require computer lab time outside of class.
Prerequisite: CIS 108; CIS 230 or CIS 241

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 or CIS 241

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

277 Microsoft Windows 2000 Designing a Network Infrastructure 4 Cr. Hrs.

Analysis of existing and planned business models and their implications for a network design is presented. Fault tolerance and redundancy are discussed as important design objectives. Major elements of a network infrastructure are examined in detail including network topology; routing; Internet Protocol (IP) addressing; name resolution services; virtual private networks (VPNs); and remote access.
Prerequisite: CIS 272, CIS 273

278 CIS Capstone 4 Cr. Hrs.

Assessment of skills and competencies by CIS students through project based activities. Demonstration of achievement of degree option outcomes via oral and written presentations and creation of a professional growth plan. Course should be taken in the last quarter prior to graduation.
Prerequisite: CIS 225

280 Java Programming I 4 Cr. Hrs.

Basics of java programming and object-oriented software. Objects, attributes, and methods in Java are covered. The basics of programming structures are covered: selection, looping and arrays.
Prerequisite: CIS 111, CIS 112

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 R 0.5-7 Cr. Hrs.

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

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

260 Effective Video Conferencing

3 Cr. Hrs.

Basics of the communication process as connected to the technology and process of video conferencing such as verbal and nonverbal communication behaviors, camera work, switching graphics, meeting preparation and basic technology needs will be covered.

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 Broadcasting

3 Cr. Hrs.

Survey of the history, current issues and trends of commercial and public broadcasting including government regulations and philosophy, structure and general operation of the broadcasting industry.

295 Independent Study in

Communication R 1-3 Cr. Hrs.

Independent exploration of issues, problems and/or areas of special interest in the field of communication under the direction of the Communication faculty. Open only to second year students. May be repeated but not to exceed three (3) credit hours.

297 Special Topics

R 1-6 Cr. Hrs.

Selected topics related to current communications issues, trends or problems offered through regular class schedules, television, newspaper or many workshops.

Prerequisite: Permission of instructor

Corrections (COR)

101 Corrections Ethics

3 Cr. Hrs.

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.

Prerequisite: Approval of chairperson

205 Law & the Juvenile Offender 3 Cr. Hrs.

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 R 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.

Prerequisite: Department signature

Dance (DAN)

105 Beginning Dance R 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.

Prerequisite: Permission of instructor

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 R 1 Cr. Hr.

Classes in basic point technique.

Prerequisite: DAN 272

171 Character Dance R 1 Cr. Hr.

Character dance steps and national styles used in ballet and modern dance.

Prerequisite: DAN 172

172 Ballet I R 3 Cr. Hrs.

Basic fundamentals and theory of classical ballet for beginning students. Class work consists of barre work and center combinations and steps.

173 Modern Dance I 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 R 3 Cr. Hrs.

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

175 Tap Dance I R 3 Cr. Hrs.

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

176 Men's Technique Class R 1 Cr. Hr.

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

177 Folk & Ethnic Dance R 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 theatre personnel related to dance productions.

180 Music for Dancers R 3 Cr. Hrs.

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

204 Ballet Pedagogy R 1 Cr. Hr.

For intermediate second year students, this course pursues the techniques and goals of learning how to teach dance, the relation of music structure to dance, and the problems of dance production as it pertains to ballet.

Prerequisite: DAN 272 or intermediate skill level

205 Modern Dance Pedagogy R 1 Cr. Hr.

For intermediate second year students, this course pursues the techniques and goals of learning how to teach dance, the relation of music structure to dance, and the problems of dance production. Offered for repeatable credit.

Prerequisite: DAN 273 or intermediate skill level

206 Jazz Pedagogy R 1 Cr. Hr.

For intermediate students, this course defines the techniques and goals needed for the teaching of jazz dance. Content will include the structural relationship between music and dance, and the theatrical/technical aspects of a jazz performance.

Prerequisite: DAN 274 or intermediate skill level.

207 Dance Class Accompanying R 1 Cr. Hr.

Techniques essential for the accompanist's role in the dance class. Must audition using own intermediate level repertoire.

Prerequisite: Permission of instructor

241 Dance Composition I R 3 Cr. Hrs.

Rules and theory of basic dance composition.

Prerequisite: One year of dance or permission of instructor

242 Dance Composition II R 3 Cr. Hrs.

Continuation of Dance Composition I, adding studies in improvisation, small groups, and further use of music with compositional forms.

Prerequisite: DAN 241

272 Ballet II R 3 Cr. Hrs.

Intermediate ballet level. Working knowledge of basic barre and center work required.

Prerequisite: DAN 111 or DAN 172 or previous training

273 Modern Dance II R 3 Cr. Hrs.

Intermediate modern level. Working knowledge of modern dance technique required.

Prerequisite: DAN 173 or previous training

274 Jazz II R 3 Cr. Hrs.

Intermediate jazz level stressing techniques and styles needed for musical theatre performance.

Prerequisite: DAN 174 or permission of instructor

275 Tap Dance II R 3 Cr. Hrs.
Intermediate tap level stressing tap turns, rhythmic combinations and styles needed for musical theatre performance.
Prerequisite: DAN 175 or permission of instructor

297 Special Topics R 1-3 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as television, videotape, etc.

Dental Hygiene (DEH)

103 Head & Neck Anatomy 4 Cr. Hrs.
Gross anatomy of the head and neck region including the oral cavity. Three lecture, two lab hours per week.
Prerequisite: BIO 107

104 Dental Anatomy for Dental Auxiliaries 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 3 Cr. Hrs.
Historical, professional, legal and ethical aspects of the dental hygiene profession. Includes basic vocabulary; preventive dental health concepts; infection control; related health and safety, commonly known as exposure control. Two lecture, two lab hours per week.
Prerequisite: BIO 107

106 Nutrition & Oral Health 3 Cr. Hrs.
Basic nutrition principles in dental hygiene care, including principles of nutrition, application of basic nutrition principles through the lifespan, nutritional aspects of oral health and disease, systemic disease and nutrition status, and nutrition assessment and counseling for the dental hygiene client.
Prerequisite: BIO 107

109 Lab for DEH 103
Laboratory must be taken with DEH 103.

111 Pre-Clinical Dental Hygiene I 4 Cr. Hrs.
Scientific principles of dental hygiene practice with emphasis on data collection, client assessment, oral health education, and basic instrumentation. Practice of infection control standards and regulations are an integral component.
Prerequisite: DEH 103, DEH 105

112 Pre-Clinical Dental Hygiene II 4 Cr. Hrs.
Scientific 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 therapeutic dental hygiene procedures in the clinical setting.
Prerequisite: DEH 112, DEH 106

117 Lab for DEH 111
Laboratory must be taken with DEH 111.

118 Lab for DEH 112
Laboratory must be taken with DEH 112.

119 Lab for DEH 113
Laboratory must be taken with DEH 113.

125 Dental Materials 3 Cr. Hrs.
General knowledge, proper manipulation and use of various dental materials used in the dental practice setting and how to educate and inform patients about materials used for their dental care.
Prerequisite: DEH 113

126 Lab for DEH 125
Laboratory must be taken with DEH 125.

135 Dental Radiology 4 Cr. Hrs.
Scientific principles of radiation and radiographic production in dental practice. Three lecture, three lab hours per week.
Prerequisite: DEH 103

136 Lab for DEH 135
Laboratory must be taken with DEH 135.

155 Oral Histology, Embryology & Pathology 4 Cr. Hrs.
Development, microscopic anatomy and congenital/acquired abnormalities of oral and paraoral tissues. Selected principles of general histology and embryology are offered for comparison. Three lecture, two lab hours per week.
Prerequisite: DEH 103

156 Dental Hygiene Research Project 1 Cr. Hr.
Preparation of a scientific literature review of a health care related topic with relevance to the clinical practice of dental hygiene. Two lab hours per week.
Prerequisite: ALH 104, DEH 155

157 Research Methodology 2 Cr. Hrs.
Overview of biostatistical and epidemiological terminology and notations needed for dental hygiene research and literature review.
Prerequisite: DEH 105

210 Drug Therapy in Dentistry 2 Cr. Hrs.
Overview of conventional drug classes with emphasis on actions, effects and indications for dental practice.
Prerequisite: BIO 107 or equivalent

211 Clinical Dental Hygiene II 7 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 2 Cr. Hrs.
Principles of first aid and the management of medical emergencies in dental care settings. One lecture, two lab hours per week.
Prerequisite: ALH 140 or current BLS certification, ALH 220, DEH 103

235 Community Dental Health I 3 Cr. Hrs.
Introduction to public health concepts, principles and practices in oral health promotion and disease prevention. This course will provide the student with a broad understanding of the health care system and the social, political, cultural, behavioral and economic forces directing the system. Students will be introduced to their roles as community health educators through didactic and experiential learning opportunities.
Prerequisite: DEH 113

236 Community Dental Health II 2 Cr. Hrs.
Application of dental health education within the community. This will provide the dental hygiene student with specific knowledge and skills required to plan and evaluate dental health promotion/disease prevention programs in school and community settings. Principles of public health practice will be emphasized using community outreach processes for community health promotion and disease prevention activities and the application of research methodology.
Prerequisite: DEH 235

247 Expanded Functions for Dental Auxiliary I 6 Cr. Hrs.

Typodont experience of placing cavity bases and liners, matrices, rubber dams, placing and contouring amalgam and tooth colored restorations, and the technique of instrument transfer.

248 Expanded Functions for Dental Auxiliary II 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 R 4 Cr. Hrs.

For non-native speakers of English: basic grammar patterns in speaking and writing, including verb tenses, modifiers, sentence structure, and punctuation; listening and reading techniques for comprehension of expository language. Requires a basic understanding of spoken and written English. (Not an intensive course.)

Prerequisite: Permission of instructor. NOTE: For placement, consult instructor or DEV counselor.

046 English as a Second Language: Basic II R 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 R 4 Cr. Hrs.

For non-native speakers of English: reading and writing paragraphs using topic sentences and supporting sentences; grammatical patterns including comparison, condition, direct and indirect speech, and listening and speaking in structured discussion. (Not an intensive course.)

Prerequisite: DEV 046

048 English as a Second Language: Intermediate I 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 R 4 Cr. Hrs.

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 R 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 paragraphs and articles.

065 Developmental Reading 4 Cr. Hrs.

Reading and study skills essential for college, emphasizing comprehension, vocabulary, textbook reading, marking, notetaking techniques and rate improvement.

Prerequisite: Placement test referral

074 Fundamentals of Sentence Structure 4 Cr. Hrs.

Review of basic grammar and writing skills with emphasis on creating proper sentence structure through combining, coordinating, and subordinating ideas in correct sentence form including application of the basic principles of grammar.

075 Fundamentals of English 4 Cr. Hrs.

Introduction to the basic forms of written communication — the sentence, controlling idea, and paragraph as well as the principles of correct grammar, usage, punctuation, and mechanics.

084 Basic Mathematics I 4 Cr. Hrs.

Provides instruction in basic arithmetic for whole numbers, fractions and decimals with the goal of developing computational skills, number sense, and problem solving skills. Prepares students for further study in mathematics by employing effective study strategies and a variety of teaching/learning experiences.

085 Basic Mathematics II 4 Cr. Hrs.

Review of basic arithmetic skills in whole numbers, decimals, and fractions with emphasis on problem solving situations. Instruction into the meaning and use of percentages, ratios, proportions, measurements, and data interpretation. Brief introduction into signed numbers as well as one- and two-dimensional geometric formulas.

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.

Introduction to beginning algebra concepts including operations with rational numbers, identifying and combining like terms, solving one variable linear equations/inequalities, and laws of exponents. Additional topics include the recognition of simple algebraic patterns and the study and use of some basic geometric formulas.

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, philosophical and legal foundations. Service delivery models, legislation, issues and skills related to disabilities careers and the role of the para-educator. Field observation required.

106 Assessment, Curriculum, Instruction: Learners With Special Needs 5 Cr. Hrs.

Program planning for learners with special needs including assessment, legal and ethical issues, age and developmentally appropriate curriculum and instructional techniques, structuring learning environments, selection of appropriate materials, technology and equipment to enhance learning. Field observation required.

Prerequisite: HAS 105 or DIS 105

108 Principles, Techniques Behavior Management & Learning Environments 4 Cr. Hrs.

Orientation to behavior prevention and intervention techniques used with learners with special needs. Application of these techniques based on procedural safeguards, policies, legal responsibilities and ethics. Factors in environment and impact of disabilities upon behavior.

Prerequisite: HAS 105 or DIS 105

115 Human Service Delivery Systems & Resources 3 Cr. Hrs.

Orientation to social services and community resources available to persons with developmental disabilities; historical, philosophical and legal foundations for services, referral procedures, current trends and issues; confidentiality, legal and ethical responsibilities of human service employees.

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

124 Residential Services & Developmental Disabilities 3 Cr. Hrs.

Historical, philosophical and legal foundations of residential services, current options for learners with developmental disabilities, development of goals, active treatment plans, use of appropriate instructional strategies in residential settings, maintaining safe and healthy environments, collaboration with team and families.

Prerequisite: DIS 105 or permission of instructor

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

126 Collaboration with Families 3 Cr. Hrs.

Effects of culture, disability, socioeconomic status on collaboration and interaction with families; effect of family environment on learner; strategies to promote effective collaboration with families with emphasis on communication, confidentiality and ethics and role as a team member. Field observation/participation required.

130 Principles of Production in Adult Services 3 Cr. Hrs.

Theoretical and legal foundations of basic management and production procedures in employment settings with adults with developmental disabilities including management and production, bidding, contract procurement, job analysis, layout, quality control; application of appropriate instructional strategies with appropriate materials and technology in safe and health work environments. Ethical and professional standards as team member.

Prerequisite: HAS 105 or DIS 105

131 Counseling Principles & Developmental Disabilities 3 Cr. Hrs.

Introduction to principles of counseling with individuals with developmental disabilities. Counseling techniques appropriate for groups and individuals with developmental disabilities and the impact of a developmental disability upon techniques; ethical, cultural and professional issues in using counseling techniques and the role of the para-educator as a collaborative team member.

Prerequisite: HAS 105 or DIS 105

140 Fundamentals of Supervision in Human Services 3 Cr. Hrs.

Orientation to the principles and practices of supervision in a human services work environment. Areas include adjusting to supervision, supervisory functions, leadership, employee relations, and individual development planning.

Prerequisite: DEV 105 or permission of instructor

190 Disabilities Intervention Services 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 learners with special needs. Weekly seminar addresses topical issues and professional development. Written application required one quarter in advance. Three lecture, ten directed practice hours per week.

Prerequisite: DIS 108 and DIS 206

202 Field Practicum II 7 Cr. Hrs.

Supervised practical experience in a setting with learners with special needs. Weekly seminar addresses topical issues and professional development. Written application required one quarter in advance. Three lecture, 20 directed practice hours per week.

Prerequisite: DIS 201, DIS 207, DIS 208

205 Inclusion: Principles & Practices 4 Cr. Hrs.

Orientation to philosophical, historical and legal foundations of inclusion of learners with special needs including learning characteristics, use of appropriate instructional and behavioral strategies in safe and healthy settings. Role as team member in effective collaboration.

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 & Safety Aspects of Learners With Special Needs 3 Cr. Hrs.

Overview of typical physical development of learner. Impact of disabilities and health impairments upon physical development, health and safety issues. Specific techniques related to lifting, transferring and positioning; independent living skills and mobility; use of adaptive equipment and technology; universal precautions, role as team member in adhering to policies and procedures, ethics and professionalism.

Prerequisite: HAS 201 or DIS 201

208 Language Development & Communication Techniques 4 Cr. Hrs.

Overview of typical language development and role of language and communication in learning. Effects of developmental disabilities upon language and communication; techniques for assessment and facilitating communication including verbal and nonverbal strategies, augmentative and alternative communication; role of collaborative team.

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; team approach including collaboration, transdisciplinary strategies, conflict resolution, effective listening and communication, problem solving and stress management. Role of confidentiality and ethics; importance of culture related to team processes.

Prerequisite: HAS 201, HAS 270, DIS 201 or DIS 270

210 Assistive Technology 1 Cr. Hr.
Overview of assistive technology used by individuals with special needs; community resources and related procedures; criteria for selection of software and switches. Field participation required.
Prerequisite: HAS 206 or DIS 206

220 Foundations in Reading Instruction 4 Cr. Hrs.

Theories and approaches to foundations of reading instruction including decoding, skill, whole language, phonetic, etc. Analysis of reading skills and use of instructional strategies and technology as team member to support reading, role of language development and reading; use of informal assessments to determine areas for instruction.

Prerequisite: DIS 105 or permission of instructor

225 Instructional Techniques: Literacy Through Literature 3 Cr. Hrs.

Utilization of literature to facilitate development of literacy skills, including reading, print, and writing. Criteria for selection of diverse, quality literature and its use in addressing phonological, visual, syntactic and semantic cues while reading for meaning, techniques for supporting the learner with special needs.

Prerequisite: DIS 105 or permission of instructor

226 Instructional Techniques in Mathematics, Science, Social Studies 3 Cr. Hrs.

Foundations of instructional practices in mathematics, science, and social studies for students in elementary schools. Emphasis on constructivist approaches and active learning.

Prerequisite: DIS 105 or permission of instructor

270 Internship: Disabilities Intervention Services R 2-4 Cr. Hrs.

Utilize student's employment responsibilities while employed full time in approved setting; incorporates learning outcomes through activities related to Disabilities Intervention Services program outcomes. Written approval of employer required. Written agreement of employer to supervise internship experience required. Application required on quarter in advance.

Prerequisite: 12 credit hours within CFE department. Written permission of CFE chairperson.

295 Special Topics in Disabilities Intervention Services R 1-5 Cr. Hrs.

Overview of current topics in developmental disabilities, learning, curriculum or instruction.

Dietetics Technology (DIT)

108 Introduction to Foods & Nutrition 3 Cr. Hrs.

An overview of basic nutrition principles and meal management with consideration to food choices as they relate to nutrition and health.

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.

Prerequisite: Permission of instructor

111 Nutrition for a Healthy Lifestyle 3 Cr. Hrs.

Overview of basic diet planning principles, with emphasis on healthy food choices and disease prevention. Includes fad diets, herb and supplemental strategies, and issues of supplements as ergogenic aids; effective use of nutrition information from professional organizations and reliable sources; and personal responsibility.

Prerequisite: Signature of chairperson

112 Medical Terminology for DIT 2 Cr. Hrs.

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 7 Cr. Hrs.

Principles of supervision for the dietary/foodservice manager; planning, staffing, directing, controlling, and budgeting functions as well as ethics and labor relations. Four lecture hours and a six-hour weekly practicum.

Prerequisite: DIT 110, DIT 216, DIT 217; permission of instructor

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.

Prerequisite: Permission of DIT chairperson

135 Nutrition in the Life Cycle 4 Cr. Hrs.

Nutritional needs from conception to maturity, including the physiological, psychological and sociological factors during the life cycle. Three lecture and two hours of weekly directed practice.

Prerequisite: DIT 129 or permission of chairperson and must be taken with DIT 224

137 Principles of Food Sanitation & Safety 3 Cr. Hrs.

In-depth study of food sanitation and safety, including food microbiology, food-borne illnesses and gastroenteric outbreaks. Emphasis on correct sanitary practices including the Hazard Analysis Critical Control Point (HACCP) to ensure quality in food procurement, storage, preparation, service, and disposal.

138 Serve/Safe 2 Cr. Hrs.

Food sanitation and safety including an overview of the microworld and food-borne 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 for regularly scheduled classes.

Prerequisite: Food service work

140 Diet for Life R 1-2 Cr. Hrs.

A program of weight management consisting of sound nutritional practices, food patterns, menus and exercise promoting overall health and wellness as well as ongoing lifestyle behavioral changes. Includes weighing in.

205 Food & Meal Management 3 Cr. Hrs.

Study of foods, their selection, storage, uses and preparation; physical and chemical principles; and sanitation/safety. Three hours lecture per week. Must be taken with DIT 207.

Prerequisite: Permission of instructor

207 Laboratory for DIT 205 2 Cr. Hrs.

This laboratory component of the DIT 205 course addresses cooking principles, recipe standardization, and food safety, including menu planning, food purchasing, and meal preparation. Four lab hours per week.

Prerequisite: DIT 137 or DIT 138

216 Food Preparation & Dietary Service 4 Cr. Hrs.

Food preparation in institutions including quantity cooking principles, recipe standardization, equipment layout/design and menu planning. Three lecture and two laboratory hours.

Prerequisite: DIT 205 or DIT 110, permission of instructor

218 Direct Practice for DIT 216 2 Cr. Hrs.

A hands-on course related to food preparation in institutions including quantity cooking principles, recipe standardization, equipment layout/design and menu planning. Four hours in directed practice site per week.

Prerequisite: DIT 137 or DIT 138

221 Medical Nutrition Therapy I 3 Cr. Hrs.

Medical 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 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 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 chairperson and must be taken with DIT 228

224 Community Nutrition 3 Cr. Hrs.

Food and nutrition issues related to families and special needs groups living in defined geographic areas. Directed practice includes participation in and evaluation of community nutrition programs that provide access to food sources; food and nutrition education; and health related care. One lecture and four hours directed practice.

Prerequisite: Permission of chairperson

225 Educational Methods & Materials 4 Cr. Hrs.

Teaching/learning methods and materials that maximize the role of the educators including technology, the use and care of media resources, equipment, print and non-print materials.

226 Dietetics Directed Practice I 4 Cr. Hrs.

Clinical experience related to topics in DIT 221 including diet writing, patient interviews, nutritional assessments, and care plans. Eight hours per week.

Prerequisite: DIT 135 or permission from the chairperson and to be taken concurrently with DIT 221

227 Dietetics Directed Practice II 4 Cr. Hrs.

Clinical experience related to topics in DIT 222 including diet writing, patient interviews, nutritional assessments, and care plans. Eight hours per week.

Prerequisite: DIT 221 and to be taken concurrently with DIT 222

228 Directed Dietetics Practice III 4 Cr. Hrs.

Clinical experience related to topics in DIT 223 including diet writing, patient interviews, nutritional assessments/protocols, care plans, minimum data sets and counseling. Eight hours per week.

Prerequisite: DIT 222, DIT 227 or permission from the chairperson to be taken concurrently with DIT 223

236 Dietary Organization & Management 6 Cr. Hrs.

Management principles and practice for the dietary/foodservice supervisors; planning, staffing, directing, controlling, and budgeting functions as well as labor relations. Three lecture and six practicum hours.

Prerequisite: DIT 216, permission of the chairperson

240 Food & Culture 5 Cr. Hrs.

Relationship between food and culture, including geography, religion, mores, and life cycle rituals. Ingredients, flavor profiles, preparation techniques representative of the cuisines in Asia, Middle East, Africa, Europe, Mediterranean, and the Americas will be explored.

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; interviewing techniques, resume writing and comprehensive dietetic technology examination.

Prerequisite: Permission of chairperson

297 Special Topics R 0.5-6 Cr. Hrs.

Topics and trends in nutrition and dietetics for personal enrichment and continuing education for students and practitioners.

Experience Based Education (EBE)

100 Prior Learning Portfolio Development 3 Cr. Hrs.

A course to help students prepare a portfolio describing and documenting their learning from experience. Upon completion, the portfolio is evaluated and college credit is awarded to the extent the learning is college equivalent. See the EBE department for details regarding the evaluation process and procedure. There is a fee charged for each evaluation.

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 students' time schedule.

130 Degree Planning Seminar 3 Cr. Hrs.
Development of the individual plan of study to be followed for successful completion of the A.T.S./A.I.S. degrees, involving curriculum design, career and life/work planning, and reflection on adult learner characteristics. Open only to A.T.S./A.I.S. students.

Prerequisite: Acceptance into A.T.S./A.I.S. degree program required

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 R 1-9 Cr. Hrs.

Non-traditional education related to independent study and contract learning. Topics: non-traditional vs. traditional study; learning contracts; interpersonal/intrapersonal skill development; journal writing. Workshop format provides skills and insights associated with adult learning patterns. College Without Walls students should register for three (3) credit hours. Classes meet on three Saturdays during quarters offered.

Prerequisite: Acceptance into the College Without Walls program

200 Portfolio Update R 1 Cr. Hr.

A continuation of Portfolio Development I, facilitated through individual sessions with a portfolio faculty person.

Prerequisite: EBE 100 or CWE 100

260 Cross-Cultural Awareness R 3 Cr. Hrs.

Acculturation experiences designed to provide multiple perspectives for students planning to work within a particular culture, environment or geographic region; cultural focus identified each term.

261 Cross-Cultural Internship R 1-3 Cr. Hrs.

Utilization of cultural awareness perspectives in an internship/volunteer field experience; three one-credit modules covering cross-cultural experiences, work-learning objectives, and fundraising.

Prerequisite: EBE 260

270 Cooperative Education R 1-13 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.

Prerequisite: EBE 170 or departmental approval

275 Student Leadership Field Experience R 1-12 Cr. Hrs.

Student leadership field experience credit offered for preparation to participate and/or lead organizations.

Prerequisite: Departmental approval

276 Tutorial Services Field Experience R 1-12 Cr. Hrs.

Tutorial Services field experience credit offered for provision of tutorial assistance.

Prerequisite: Departmental approval

277 Military Internship R 2-6 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.

278 A.T.S./A.I.S. 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 A.T.S./A.I.S. degree.

Prerequisite: EBE 130

297 Special Topics R 0.5-10 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline and selected modules and customized training package.

Prerequisite: Departmental approval

Early Childhood Education (ECE)

101 Introduction to Early Childhood Education 3 Cr. Hrs.

Professional issues in the field of early childhood education; review of related historical and current trends; types of early childhood programs and career options. Center participation required.

104 Prenatal Life & Birth 3 Cr. Hrs.

Prenatal development progressing from conception through birth.

106 Childhood, Nutrition, Health & Safety 3 Cr. Hrs.

Nutritional, health, and safety needs of young children; developing and implementing nutritional, health, and safety activities with young children; Ohio child day care laws and rules relating to nutrition, health, and safety. Center participation required.

107 Movement Experiences in Early Childhood Education 2 Cr. Hrs.

Basic knowledge of motor development of young children; planning and implementation of developmentally appropriate experiences in a safe and enriched environment. Center participation required.

Prerequisite: ECE 129, ECE 150

111 Child Abuse Recognition & 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, independence and pro-social behaviors; practical application of guidance and discipline techniques. Center participation required.

150 The Young Child 4 Cr. Hrs.

Promoting positive growth of infants, toddlers, and preschoolers in a child care setting; impact of the child's development on the learning environment.

160 Teaching Techniques in Early Childhood Education 3 Cr. Hrs.

Teacher characteristics, attitudes and skills; teaching techniques; curriculum planning, learning environments, and daily schedules.

Prerequisite: ECE 107, ECE 117, ECE 118, ECE 119

182 Student Teaching I 6 Cr. Hrs.

Supervised student teaching experience in the Sinclair Community College Early Childhood Education Center. Written application required one quarter in advance. Student must earn a grade of "C" or better to receive credit in degree program. Two lecture, eight lab hours per week.

Prerequisite: ECE 145, ECE 160, ENG 111 or equivalents

190 Early Childhood Education Workshop R 0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

191 Early Childhood Education Workshop R 0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

192 Early Childhood Education Workshop R 0.5-6 Cr. Hrs.

Workshops offered on and off campus for persons in, and interested in the field of Early Childhood. Workshops will be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

215 Interaction with Families 3 Cr. Hrs.
Trends in family demographics and their relationship to child care; strategies for working with parents including parent-teacher 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 R 1-4 Cr. Hrs.

Utilizes students' experiences while working with young children. Learning outcomes related to principles and theories of early childhood education. An advisor is assigned to work with the student and monitor the internship experience.
Prerequisite: Written permission of the CFE chairperson plus a minimum of 12 credits within the CFE department

281 Early Childhood Education Student Teaching II 7 Cr. Hrs.

Supervised student teaching experience in an assigned child care facility. Written application required one quarter in advance. Student must earn a grade of "C" or better to receive credit in degree program.
Prerequisite: Minimum of 75 credits including ECE 182 and ENG 112

295 Special Topics in Early Childhood 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 R 1-5 Cr. Hrs.

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297 Special Topics in Early Childhood Education R 1-5 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

Economics & Finance (ECO)

105 General Economics 3 Cr. Hrs.

Beginning economic principles following a micro-economic sequence. Focus is on GNP analysis, fiscal and monetary policy and price theory.

201 Principles of Economics I 3 Cr. Hrs.

Basic economic principles with micro-macro 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.

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 third-world 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 multi-

national enterprises in the area of global competition.

Prerequisite: ECO 201 or permission of instructor

297 Special Topics R 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 series-parallel 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** R 3-8 Cr. Hrs.
Basic safety procedures, use of hand and power tools; electrical circuit theory; use of test equipment; basics of residential, commercial and industrial wiring observing National Electric Code.
- 182 Electrical Construction II** R 3-8 Cr. Hrs.
Alternating current theory, motors, grounding, conduit bending, conductor

installation, NEC for cables, terminations and splices, electrical single and three phase installation, circuit breakers and fuses, contactors and relays.
Prerequisite: EER 181

- 183 Electrical Construction III** R 3-8 Cr. Hrs.
Load calculations for branch circuits, overcurrent protection, wiring devices, distribution equipment, transformers, calculations for motor circuits; motor maintenance and controls; and basics of HVAC.
Prerequisite: EER 182
- 184 Electrical Construction IV** R 3-8 Cr. Hrs.
Calculation 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** R 1-12 Cr. Hrs.
See EBE 270 Internship for course description. Students must consult the department chairperson in the Engineering & Industrial Technologies division for the specific degree requirement.
- 297 Special Topics** 3-12 Cr. Hrs.
Basic safety procedures, use of hand and power tools; electrical circuit theory; use of test equipment; basics of residential, commercial and industrial wiring observing National Electric Code
Prerequisite: Permission of chairperson
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- ## Electronics Engineering Technology (EET)
- 104 Introduction to Electronics** 3 Cr. Hrs.
A non-mathematical survey course providing a comprehensive coverage of the field of electronics, its history, evolution, theory, and application.
- 114 Basic Electronic Measurements** 3 Cr. Hrs.
Measurement techniques; types of error in measurement; use of measuring instruments; digital multimeter, function generator, D.C. power supplies, timers and counters, analog and digital storage oscilloscopes and sweep generators. Two lecture, two lab hours per week.
Prerequisite: DEV 108 or equivalent
- 116 Electronics Schematics & Layouts** 3 Cr. Hrs.
Basic computer literacy skills with applications for electronic drafting using ORCAD software, electronic symbols, schematic diagrams, printed circuit board layout and design. Two lecture, two lab hours per week.

119 Basic Electrical Circuits & Controls 4 Cr. Hrs.

Principles of direct and alternating current circuits, diodes and transistors, digital logic, electric motors and control, electrical test equipment. Three lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent

121 Electronics Workshop 3 Cr. Hrs.

A manual skills training course covering safety, soldering, wiring, electronic component identification, schematic symbols, wiring diagrams, blueprint reading, resistor color code, and use of tools.

150 Electrical Circuits & Instruments I 4 Cr. Hrs.

Electrical units of measure, electrical laws, power and energy, circuit theorems, resistive networks, R.L. and R.C. circuits and D.C. measuring instruments. Three lecture, two lab hours per week.

Prerequisite: EET 114, MAT 101 or equivalent

155 Electrical Circuits & Instruments II 4 Cr. Hrs.

Capacitors, inductors, R.C. and R.L. circuits with D.C. excitation; alternating voltage and current phasors, phasor algebra, reactance, impedance, A.C. power, A.C. instruments and the oscilloscope. Three lecture, two lab hours per week.

Prerequisite: EET 105 or EET 150

197 Tech Prep Seminar 1-4 Cr. Hrs.

A review course for electronics tech prep freshman students covering D.C. circuits, A.C. circuits, and discrete electronics.

201 Electronics I 4 Cr. Hrs.

Physics of conduction with emphasis on semiconductors, a study of electronic devices and their characteristics, biasing and basic D.C. and A.C. amplifiers. Three lecture, two lab hours per week.

Prerequisite: EET 155

202 Electronics II 3 Cr. Hrs.

Field effect transistors; large signal amplifiers; A.C. equivalent circuits; class A-, B-, C-amplifiers; amplifier frequency response; power amplifiers and troubleshooting techniques. Two lecture, two lab hours per week.

Prerequisite: EET 201

205 Electrical Circuits & Instruments III 3 Cr. Hrs.

Series-parallel A.C. circuits; power in A.C. circuits; Wye-Delta transformation; low-pass 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 Systems I 3 Cr. Hrs.

Methods of communications, communication circuits, amplitude modulation, angle modulation, radio receivers, transmission lines, radio wave propagation. Two lecture, two lab hours per week.

Prerequisite: EET 201 or EER 128

227 Electronic Communication Systems II 3 Cr. Hrs.

Antennas, telephone systems, and pulse modulation techniques; basic principles of microwaves, data, two-way and satellite communications. Two lecture, two lab hours per week.

Prerequisite: EET 226

231 Digital Logic & Circuits 4 Cr. Hrs.

Number systems, codes, Boolean algebra, Karnaugh mapping, exclusive circuits or arithmetic circuits. Three lecture, two lab hours per week.

Prerequisite: EET 114, EET 116

242 Television Systems 4 Cr. Hrs.

Principles of color television, the color camera, color receivers, video systems and video recording. Three lecture, two lab hours per week.

Prerequisite: EET 226

251 Digital Systems I 4 Cr. Hrs.

Basic TTL gates, Flip-Flops, clocks, counters, shift-registers, multiplexers and demultiplexers. Three lecture, two lab hours per week.

Prerequisite: EET 231, EET 201

252 Digital Systems II 4 Cr. Hrs.

Arithmetic Logic Units, memory devices, parallel and serial input-output devices. Analog-to-digital converters, digital-to-analog converters, communication protocols, keyboard decoders and CRT displays. Three lecture, two lab hours per week.

Prerequisite: EET 251

259 Programming for Electronics Technology 3 Cr. Hrs.

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-to-digital 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 4 Cr. Hrs.

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 R 1-12 Cr. Hrs.

See EBE 270 Internship for course description. Student must consult the department chairperson in the Engineering & Industrial Technologies division for the specific degree requirement.

278 Electronics Project Capstone 4 Cr. Hrs.

Review of electrical circuits, analog and digital electronics, microprocessors; design, fabrication and testing of an electronics project including schematics, wiring diagrams, printed circuit board layout and fabrication; brief presentation and demonstration of working prototype. Two lecture, four lab hours per week.

Prerequisite: EET 231, EET 261

281 Programmable Logic Controllers 3 Cr. Hrs.

Theory and operation of a programmable controller (P.C.) terminology, memory structure, input and output sections, the processor unit, programming devices and counters, Ladder Logic diagrams and logic control. Two lecture, two lab hours per week.

Prerequisite: EET 231 or EER 136

282 Advanced Programmable Logic Controllers 3 Cr. Hrs.

A hands-on approach to the advanced theory and operation of programmable logic controller (PLC), memory structure, advanced programming instruction, PLC networking, and advanced ladder logic diagrams and logic control. Two lecture, two lab hours per week.

Prerequisite: EET 281

283 Introduction to Lasers 3 Cr. Hrs.

Basic concepts and principles associated with characteristics and measurements involving lasers in varied professional and industrial applications. Two lecture, two lab hours per week.

Prerequisite: EER 128 or EET 201

284 Optoelectronics 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 cross-talk, 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 R 1-8 Cr. Hrs.

Provides opportunities to receive credit for special interest topics within the discipline. Brief description of the topics will be given and prerequisites identified when offered. Lab time will be part of some content.

Prerequisite: Permission of chairperson

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 Industrial Ergonomics 3 Cr. Hrs.

Introduces students to the application of ergonomic design principles to the industrial environment. Includes subject matter on ergonomic planning and implementation for a variety of work environments, repetitive strain injuries, National Institute of Occupational Safety and Health (NIOSH) work standards, and the impact of these factors on workstation and equipment design. 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 hour 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.

Prerequisite: MET 198, MAT 131 or equivalent

208 3D Workcell Simulation 3 Cr. Hrs.

Introduces students to 3-D modeling of industrial workcells using Autodesk's Inventor software. 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.
Prerequisite: EGR 252
- 236 Electrical Network Analysis** 4 Cr. Hrs.
Fundamental, calculus based network analysis techniques for direct and alternating current circuits, analyzing transient and steady state responses of simple RLC networks, while utilizing engineering analysis software for problem solving assistance. Four lecture, one lab hours per week.
Prerequisite: MAT 215
- 237 Engineering Design Reliability** 3 Cr. Hrs.
Topics in reliability, function, component life, standby systems, series and parallel systems, reliability testing, failure rates, reliability allocations and human reliability. Emphasis on design aspects.
Prerequisite: MAT 133 or equivalent
- 244 Automation & Control Devices** 3 Cr. Hrs.
How to wire, connect, test, program, and interface industrial control devices, peripheral sensors, and computer controlled

systems found in Computer Integrated Manufacturing (CIM), Flexible Manufacturing (FM) and robotic workcells. Includes message displays; touch screen I/O devices, barcode readers, sensors; hall effect devices, reed relay, set point modules, micro Programmable Logic Controllers, visual and audio awareness devices; robotic input and output systems. Two lecture, two lab hours per week.
Prerequisite: EER 136

246 Robotic Fundamentals 3 Cr. Hrs.
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 Industrial Networking 3 Cr. Hrs.
Covers the 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. Two lecture, two lab hours per week.
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 Programming 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.

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 R 1-12 Cr. Hrs.

See EBE 270 Internship for course description. Student must consult the department chairperson in the Engineering & Industrial Technologies division for the specific degree requirement.

278 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 preventive 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 R 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar or other non-traditional manner.

Prerequisite: Permission of chairperson

Emergency Medical Services (EMS)

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 and 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.

118 Lab for EMS 117

Laboratory must be taken with EMS 117.

120 EMT: Basic Refresher R 2.5-3 Cr. Hrs.

Ohio EMS Board approved content. Includes key content from National Standard Training Curriculum for EMT-Basics for National Registry recertification. Emphasis on assessment and initial basic management of the critically ill and injured patient including medical and traumatic emergencies. Two lecture and one lab hour per week.

Prerequisite: Current Certification as EMT-Basic through National Registry of EMT-s and/or Ohio Department of Public Safety, Division of Emergency Medical Services

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, empha-

sis 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.
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 R 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 Writing 3 Cr. Hrs.
Advanced study of traditional short story elements in a workshop setting; the mechanics of manuscript submission.

Prerequisite: ENG 256

259 Writing the Novel 3 Cr. Hrs.
Study of traditional novel elements and the mechanics of manuscript submission in a workshop setting.

Prerequisite: ENG 256 or permission of instructor

264 Advanced Poetry Writing 3 Cr. Hrs.
Advanced study of the elements of poetry, including the mechanics of manuscript submission, in a workshop setting.

Prerequisite: ENG 255

297 Special Topics R 1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special topics within the discipline.

Environmental Technology (EVT)

106 Air Pollution Control 3 Cr. Hrs.
Chemicals that are air pollutants; sources of air pollution particularly chemical; monitoring techniques and control methods with applicable federal and state air pollution acts, amendments and standards. Two lecture, two lab hours per week.

Prerequisite: EVT 110, CHE 131

107 Water Management Technology 3 Cr. Hrs.
Causes of water pollution; methods of contaminate identification and source site identification; Clean Water Act and applicable state regulations. Two lecture, two lab hours per week.

Prerequisite: EVT 110, CHE 131, 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 ground water. Two lecture, two lab hours per week.

180 Solid Waste Management 3 Cr. Hrs.
Identify, describe and use the various methods and basic design concepts of solid waste treatment and disposal. Design concepts include landfilling, incineration, recycling and composting. Federal and state regulations are also presented and discussed. Two lecture, two lab hours per week.

200 Environmental Waste Management 4 Cr. Hrs.

Environmental reduction of hazardous waste that is generated prior to treatment, storage, or disposal in industry and the public sector; methods to minimize waste production for small and large quantity generators.

Prerequisite: EVT 110

210 Environmental Site Assessment 4 Cr. Hrs.

Environmental liability aspects of property transfer; environmental liability reduction; records review; on-site inspection; site assessment for transfer of single family, multiple family, and commercial properties required by private and governmental organizations. Three lecture, two lab hours per week.

215 Asbestos Management 3 Cr. Hrs.
Instruction in the management, identification and removal of asbestos. Emphasis on management, safety, affects asbestos on the human body, asbestosis disease, identification and removal techniques, personal protective equipment, decontamination and disposal techniques. Two lecture, two lab hours per week.

216 Lead Management 3 Cr. Hrs.
Instruction in the management, identification and removal of lead. Emphasis on management, safety, affects of lead on the human body, associated diseases, identification and removal techniques, personal protective equipment, decontamination and proper disposal techniques. Two lecture, two lab hours per week.

217 Confined Space Management 2 Cr. Hrs.

A detailed examination of the regulations and procedures required for entry into confined spaces. Analysis of the hazards of confined spaces and below ground environments as well as the application of confined space entry techniques are covered. One lecture, two lab hours per week.

240 Groundwater: Basic Fluid Mechanics 4 Cr. Hrs.

Examination of the basic concepts of the hydrologic cycle, hydrogeology, aquifers, ground water supply and demand, contamination and decontamination. Techniques of ground water 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 analyzed. 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 Environmental 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 lecture, two lab hours per week.
Prerequisite: Permission of chairperson

Extended Learning (EXL)**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. Hrs.

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 R 1-6 Cr. Hrs.

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 non-professional investors interested in expanding their knowledge and awareness of the stock market and its environment.

255 Money & Capital Markets 3 Cr. Hrs.

Fundamentals of money and how it functions in the United States and world economies. This course explores money as a medium of exchange. Students are introduced to the concept of money supply and the role of banks as money creators and participants in the nation's payment mechanism. Different financial institutions are analyzed.
Prerequisite: ECO 202

260 Employee Benefits 3 Cr. Hrs.

Exploration of the range of benefits available to employees through group plans in order to make students educated consumers and prepare them for employment in financial institutions. An examination of employee benefits in relationship to an employee's financial health.

270 Financial Management Internship 3 Cr. Hrs.

Credits toward degree requirements for work experiences. Learning experiences relate to the financial services industry.
Prerequisite: Twelve hours of FIN courses including FIN 105, 255 and 256 and permission of co-op office

297 Special Topics R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline.

French (FRE)

100 Conversational French 3 Cr. Hrs.
Understanding and speaking in conversational settings, using knowledge of French-speaking cultures. May not be taken for credit if the student has completed FRE 101 or any other first or second year French course.

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

102 Elementary French II 4 Cr. Hrs.
Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.
Prerequisite: FRE 101

103 Elementary French III 4 Cr. Hrs.
Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.
Prerequisite: FRE 102

201 Intermediate French I 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 103

202 Intermediate French II 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 201

203 Intermediate French III 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: FRE 202

Fire Science Technology (FST)

101 Introduction to Fire Science 4 Cr. Hrs.
Principles of combustion, extinguishment, ventilation calculations, heat transfer, and the combustible properties of fuels. The history of life and property loss by fire.

102 Fire Protection & Organization 4 Cr. Hrs.
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.
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 181 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 physics concepts needed for technical rescue and the application of the Incident Management System within the framework 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.
Prerequisite: FST 171, FST 173

175 Machinery Extrication 2 Cr. Hrs.
An examination of the extrication of a victim trapped from an accident involving heavy machinery. Covered will be the proper use of the appropriate rescue equipment, the Incident Management System requirements of machinery rescue and the disassembling of complex machines. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 172

176 Trench Rescue 2 Cr. Hrs.
Examination of the extrication of an individual trapped in a collapsed excavation trench. Covered will be the trench settings and environment, proper use of rescue tools and apparatus, proper shoring techniques, stabilization of the trench area and the Incident Management requirements of a trench rescue. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 173, FST 174

177 Structural Collapse 2 Cr. Hrs.

An examination of the rescue needs of victims trapped during a structural collapse. Covered will be assessing structural integrity, stabilizing structural members, proper use of rescue equipment during structural collapse rescue and the Incident Management System requirements during structural collapse operations. Completion of a practical exercise is required. This course is a component of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171

178 Top Water Rescue 2 Cr. Hrs.

An examination of the rescue needs of victims involved in water emergencies that are primary on the surface of either a static or dynamic water body. Course will cover assessing water emergencies, weather considerations, rigging, water craft needs and limitations, victim removal and Incident Management Systems requirements. This course is part of the Basic Emergency Rescue Technician (BERT) program.
Prerequisite: FST 171, FST 173

179 Urban Search & Rescue 2 Cr. Hrs.

An examination of the procedures needed to locate missing individuals due to actions that might or might not be within their control. The course will cover fundamentals of search operations, search tactics and strategies and Incident Management Systems requirements. Completion of a practical exercise is required. The course is a component the Basic Emergency Rescue Technician (BERT) program.

180 Firefighter II 16 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 8 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.

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 5 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 191

193 Firefighter II Transition 8 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.
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.

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 4 Cr. Hrs.

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

218 Plans Review For Fire Safety 3 Cr. Hrs.

Role of a plans examiner and the part played in a fire protection environment; identification of code requirements; the analysis and abatement of building/fire code violations.
Prerequisite: ARC 107

251 Fire Officer Level I 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 multi-company situations are examined. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Level II.
Prerequisite: FST 251

253 Fire Officer Level III 4 Cr. Hrs.

Administration of fire department operations and the management of facilities and resources needed to provide a public fire protection delivery system. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications, Fire Officer Level III.
Prerequisite: FST 252

254 Fire Officer Level IV 4 Cr. Hrs.
Assesses the public fire protection needs of a community including the planning, developing, and implementation of a public fire protection delivery system. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications, Fire Officer Level IV.
Prerequisite: FST 253

270 Fire Science Technology Internship R
1-12 Cr. Hrs.

Internship is designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgement 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 3 Cr. Hrs.

Introduction to aspects of geography concerned with the efforts of humans to cope with their environment: population and settlement forms; utilization of resources; spatial distribution of language and religion; the influence of political systems on culture; and the origin and dispersal of cultural elements among the various world realms.

145 Introduction to Meteorology
4 Cr. Hrs.

Survey of major atmospheric elements such as temperature, pressure, moisture, and precipitation and the concepts of me-

teorology 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.

204 Political Geography 3 Cr. Hrs.

This course will introduce students to the field of political geography and focus on the spatial characteristics of political phenomena; emphasis includes the evolution of state, nation, and nation-state as well as the global economy, uneven development, and power politics.

Prerequisite: GEO 102 or instructor signature

297 Special Topics R 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 4 Cr. Hrs.

Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.

102 Elementary German II 4 Cr. Hrs.

Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.

Prerequisite: GER 101

103 Elementary German III 4 Cr. Hrs.

Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.

Prerequisite: GER 102

Geology (GLG)

100 Introduction to Earth Sciences
4 Cr. Hrs.

A survey of rocks and minerals, internal and external Earth processes, nature of the atmosphere, characteristics of the oceans, origin and development of the biosphere, Earth in space. Three lecture, two lab (GLG 110) hours per week.

110 Lab for GLG 100

Laboratory must be taken with GLG 100.

141 General Geology I 4 Cr. Hrs.

Identification of rocks, minerals, their origin, destruction, recycling, surface processes of wind, water and ice in changing Earth's surface, interior forces that cause earthquakes, mountain building, plate tectonics. Three lecture, two lab (GLG 147) hours per week.

142 General Geology II 4 Cr. Hrs.

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.

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 day-long field trips to different locations with direct observation of rocks and fossils, on-site 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 quarter. See EBE 270 Internship for course description.

Prerequisite: Departmental permission

297 Special Topics R 1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses such as courses by TV and newspaper as well as special interest topics in the discipline. Objectives will vary with the particular content area.

Gerontology (GRN)

111 Human Services 3 Cr. Hrs.
Surveys the historical development of human services with appropriate goals, functions, and structure. The role of human service workers and their involvement in the delivery of such services. Southern Regional Educational Board (SREB) guidelines and other national organizations for human services workers.

112 Human Services with the Elderly 3 Cr. Hrs.
Analysis of current services and delivery systems for the elderly at national, state, and local levels, including legislative effects, employment and retirement, legal factors related to the elderly, environmental considerations regarding physical designs of facilities, and the American with Disabilities Act as they relate to the elderly.

115 Aging & Health 3 Cr. Hrs.
Aspects of human aging: biological, psychological, and sociological. Insight into the health of the well elderly, diseases of the various body systems that affect the elderly based on the Minimum Data Set (MDS).

135 Family Relations in Later Years 3 Cr. Hrs.
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; department permission

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

297 Special Topics in Gerontology R 1-5 Cr. Hrs.
Provides opportunities for students to pursue special interest topics within the discipline in traditional and non-traditional delivery formats.

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 110) hours per week.
Prerequisite: DEV 065 or equivalent; permission of chairperson

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. Additional time outside of class required for testing.
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. Additional time outside of class required for testing.
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.
Prerequisite: Permission of chairperson

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; permission of chairperson

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 2 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. Hr.
Organization and operation of a hospital cancer registry under guidelines of the American College of Surgeons emphasizing case finding, accession, indexing, abstracting and follow-up of cancer data.
Prerequisite: Permission of chairperson

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 in Long Term Care
3 Cr. Hrs.

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.

228 Clinical Abstracting 3 Cr. Hrs.

Introduction to disease diagnoses and treatment as documented in the medical record. Application of Uniform Hospital Discharge Data Set abstracting guidelines for diagnoses and procedures in the acute care setting. Two lecture, two lab hours per week.
Prerequisite: ALH 142, ALH 201; permission of chairperson

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 hours of lecture and four hours of lab (HIM 233) per week.
Prerequisite: HIM 236 or HIM 262; permission of chairperson

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.
Prerequisite: Permission of chairperson

236 Ambulatory Coding for Hospitals
3 Cr. Hrs.

Theory and application of skills required to assign and sequence codes for hospital ambulatory services for reimbursement using CPT and ICD-9-CM classification systems. Additional time outside of class required for testing. One lecture, two lab (HIM 238) hours per week.
Prerequisite: HIM 260, HIM 261 and permission of chairperson

238 Lab for HIM 236

Laboratory must be taken with HIM 236.

239 Lab for HIM 235

Laboratory must be taken with HIM 235.

244 Health Care Quality Improvement
3 Cr. Hrs.

Organization and use of data in health care quality improvement programs including quality assessment and monitoring, case management, risk management and credentialing under current external and internal guidelines. Previous course work or experience in the health care industry is required. Two lecture, four lab (HIM 247) hours per week.
Prerequisite: Permission of chairperson

245 Health Information Resource Management
3 Cr. Hrs.

Planning, staffing and analysis of management systems along with job standards and performance evaluations emphasizing development of supervisory skills. Two lecture, two lab hours per week.
Prerequisite: DEV 065 and permission of chairperson

247 Lab for HIM 244

Laboratory must be taken with HIM 244.

250 Supervised Professional 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, permission of chairperson

251 Supervised Professional 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 Supervised Professional Practice III
4 Cr. Hrs.

Practical application and reinforcement of knowledge previously learned including statistical reporting, hospitalwide and HIM department quality assurance, critical pathways, utilization review, risk management and trauma, cardiac, burn and tumor registries. Eight hours per week in full term.
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. Students should process proficiency in basic medical terminology. Additional out-of-class assignments required. Three lecture hours per week.
Prerequisite: HIM 121, OIS 137 or BIS 137 or permission of chairperson

261 CPT Medical Office Coding 3 Cr. Hrs.

Basic rules, regulations and principles for assigning CPT codes to patient encounters for billing physician services. Students should process proficiency in basic medical terminology. Additional out-of-class assignments required. Three lecture hours per week.
Prerequisite: HIM 121, OIS 137 or BIS 137 or permission of chairperson

262 Advanced Medical Office Coding
4 Cr. Hrs.

Advanced theory and practice of ICD-9-CM and CPT coding for the medical office environment. Three lecture hours, two lab hours per week.
Prerequisite: HIM 260, HIM 261, HIM 122, BIO 107 or permission of chairperson

264 Hospital Coding Practicum 2 Cr. Hrs.

Advanced theory and practical experience coding ICD-9-CM and CPT for reimbursement in the hospital environment. Four lab hours per week.
Prerequisite: HIM 231, permission of HIM chairperson

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, APCs, 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, permission of chairperson

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 Asia 3 Cr. Hrs.

Survey of Indo-China, Indonesia, and the Philippines, with emphasis on economic, political, and religious evolution tracing ancient and colonial influences on modern nations of the area.

215 Survey of African History 3 Cr. Hrs.

Overview of the history of Africa from prehistoric times to the present from an Afrocentric perspective; special emphasis on twentieth century issues and problems.

216 Survey of Latin American History 3 Cr. Hrs.

Overview of Latin American history from prehistoric times to the present, tracing ancient and colonial influences on modern nations of the area.

217 Survey of East Asia 3 Cr. Hrs.

Survey of East Asia (China, Korea, and Japan) from earliest times to the present, with special emphasis on twentieth century issues and problems.

218 History of Ohio 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.

219 Survey of the Middle East 3 Cr. Hrs.

A survey of the Middle East concentrating on historical developments since the nineteenth century, tracing the development of Zionism, Arab, Turkish, Kurdish and Iranian nationalisms, the involvement of the super powers and the U.N. and the resulting crises.

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 3 Cr. Hrs.

Food sanitation topics including food spoilage, microorganisms, food illnesses and outbreaks, and HACCP (Hazard Analysis Critical Control Point) controls, proper handling of equipment and personal hygiene.

Prerequisite: DEV 065, DEV 110 or equivalent

108 Introduction to Foods & Nutrition 3 Cr. Hrs.

An overview of basic nutrition principles, food legislation, sanitation and meal management with consideration of food choices as they relate to nutrition and health. This course is also offered as DIT 108.

110 Menu Planning & Dining Services 3 Cr. Hrs.

Menu development and design including investigation and evaluation of food delivery systems.

Prerequisite: HMT 105

112 Basic Food Preparation 5 Cr. Hrs.

Kitchen orientation, culinary terms, methods of cookery; soups, sauces, vegetables, grains, farinaceous dishes and salad preparation; interpretation of menus and recipe structure. Two lecture; six lab (HMT 113) hours per week.

Prerequisite: HMT 107, DEV 085 or equivalent

113 Laboratory 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 Laboratory 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 canapés as well as cold sauce production such as aspics and chaud froid sauces; development of skills necessary to produce a cold food buffet utilizing vegetable carvings, ice carvings, platter layout, display and design. Two lecture and six lab (HMT 236) hours per week.

Prerequisite: HMT 114

207 Butchery & Fish Management 4 Cr. Hrs.

Identifying grades, cutting of meat and fish; techniques for wholesale purchase and distribution as well as sanitary storage and practical management of a larder department. Two lecture, four lab hours per week.

Prerequisite: HMT 114

208 Pastry & Confectionery 5 Cr. Hrs.

Theory and practice of pastry and confectionery for the hotel and restaurant industry; dessert menu planning; orientation and familiarization with patisserie environment; all basic pastry preparation, presentation and application to classical dessert making. Two lecture, six laboratory (HMT 238) hours per week.

Prerequisite: HMT 114

209 Professional Cooking 5 Cr. Hrs.

Enhancement of chef skills by planning, coordinating and preparing of advanced professional menus; critical analysis of recipe preparation techniques and organizational skill abilities. Two lecture, six laboratory (HMT 239) hours per week.

Prerequisite: HMT 114, HMT 206, HMT 208

210 Hotel-Motel Operations Management 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

212 Front Office Operations 3 Cr. Hrs.

A systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check out and settlement. An examination of the various elements of effective front office management, with particular attention to the planning and evaluation of office operations and human resources management. Front office procedures and management are placed within the context of a lodging operation.

Prerequisite: HMT 105

215 Food & Labor Cost Controls 3 Cr. Hrs.

Basic methods used to control food, labor and operational costs in an average restaurant, bar and fast food operation. Financial statement analysis as a control, weekly usage sheets, inventories, control records, time card analysis, and sales slips.

Prerequisite: ACC 112, HMT 105

218 Bakery Arts Production 5 Cr. Hrs.

Examination of the baking process with emphasis on new techniques of production and advancements in technologies of mixes, bases and frozen products; fried products, cake decorating, and presentation. Two lecture, six lab hours per week.

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

This course is designed to provide students with the principles of supervision as they apply specifically to the hospitality industry.

Prerequisite: MAN 205, HMT 105

226 Purchasing for Hospitality Industry 3 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 R 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 R 1-5 Cr. Hrs.

Topics within the Hospitality or Culinary Arts programs not covered within existing courses; opportunities for non-traditional learning and continuing professional development in these areas.

Humanities (HUM)

115 International Environment: Culture & Business 3 Cr. Hrs.

An exploration of the social, political, cultural and business conditions in the international arena will be presented. Social and business practices in various environments are explored. Student participation through discussion and a team project will be included. Also offered as MAR 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 R 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.
Prerequisite: Permission of instructor

245 The Vietnam War: Narratives & Issues 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 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. Hrs.

Industrial technical graphics covering basic blueprint reading, sketching (from concept sketching to accurate, detailed sketches for the subsequent creation of solid models and working drawings) and an introduction to 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 & editing commands, drawing magnification, and drawing output using the latest release of AutoCAD. One lecture, two lab hours per week.

Prerequisite: ARC 138 and MET 198 or ARC 101 and MET 198 or ARC 101 and BIS 160

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

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

218 Advanced Design Interpretation 3 Cr. Hrs.

An advanced course in Geometric Design and Tolerancing (GD&T) for experienced machinists.

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

231 Solid Edge CAD 5 Cr. Hrs.

A computer aided drafting course using Solid Edge with information for new users on how to get started with the software. Emphasis on the development of basic skills and methods to create solid models. Two lecture, six lab hours per week.

Prerequisite: Approval of instructor

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.

Focus of this course is two-fold: 1) Apply SolidWorks fundamental skills, tools, and concepts central to successfully building freeform shapes. 2) Utilize the assembly modeling capabilities of SolidWorks mechanical design automation software. Two lecture, six lab hours per week.

Prerequisite: DRT 247

249 SolidWorks CAD Update 1 Cr. Hr.
Provide SolidWorks users with a summary of the new features (updates) provided in each major release. On half hour lecture, one hour lab per week.
Prerequisite: DRT 247

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 5 Cr. Hrs.
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 CAD 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 R
1-12 Cr. Hrs.
Preparing a portfolio based on work related on-the-job experience.

278 Industrial Design & Graphic Technology Capstone 4 Cr. Hrs.
Assessment of achievement by Industrial Design & Graphic Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Teamwork on projects will be emphasized. One lecture, six lab hours per week.
Prerequisite: Approval of chairperson

297 Special Topics R 1-6 Cr. Hrs.
Provides opportunity to offer special interest content within the discipline as well as receive credit for non-traditional courses.
Prerequisite: Permission of instructor

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.

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.
Application of the fundamentals of work measurement techniques, including taking time studies, calculating standard times, estimating product costs, developing standard data, performing Methods Time Measurements (MTM) standards, work sampling standards, and learning curve analysis. Three lecture, two lab hours per week.
Prerequisite: IET 101

115 Survey of Production & Inventory Control 2 Cr. Hrs.
Basic concepts of production and inventory control of an industrial organization with the introduction of Enterprise Resource Planning (ERP) and supply chain management.

125 Introduction to World-Class Manufacturing 3 Cr. Hrs.
An overview of world-class manufacturing principles, illustrating the many inter-related 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.

126 Supervision & Work Team 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, cost estimating, and Activity Based Costing (ABC).
Prerequisite: MET 198 and MAT 131 or equivalent

161 IET Tech Prep Seminar I 1 Cr. Hr.
An overview of the unique skills and education needed by Industrial, Manufacturing, and Plastics and Composites Engineering Technology Tech Prep students. Students will also set career goals and develop a vision for their early career progress.
Prerequisite: Acceptance into the Tech Prep program

162 IET Tech Prep Seminar II 1 Cr. Hr.
Industry site tours and classroom contact with practicing industrial and manufacturing engineers.
Prerequisite: IET 161; acceptance into the Tech Prep program

163 IET Tech Prep Seminar III 1 Cr. Hr.
An overview of Industrial, Manufacturing, and Plastics and Composites Engineering, Technology career development opportunities available after the associate degree.
Prerequisite: IET 162

190 Industrial Engineering Technology Workshop R 0.5-3 Cr. Hrs.
Various topics related to Industrial Technology.
Prerequisite: Permission of instructor

198 Computer Programming Applications in Engineering Technology 2 Cr. Hrs.
Computer operating systems and programming for engineering technology problem solving, emphasizing use of Windows, QBASIC and the introduction to Visual BASIC.

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, Programmable Logic Controllers (PLC), and Computer Numeric Control (CNC) equipment. Two lecture, two lab hours per week.
Prerequisite: IET 198

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

205 Process Engineering 3 Cr. Hrs.

Survey of modern manufacturing processes including casting, molding, shearing, forming, machining, joining, and finishing for metallic and nonmetallic materials. Special emphasis on equipment, tooling, capabilities and process planning.
Prerequisite: IET 101 or permission of instructor

206 Value Engineering 3 Cr. Hrs.

An introduction to the purpose and need of Value Engineering Techniques in order to reduce the cost of the product while maintaining the quality and functional requirements of product.
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.

Study and applications of operations management principles. The student will coordinate with and implement process planning to optimize production and the use of materials.
Prerequisite: MAT 131 or equivalent

240 Six Sigma I 4 Cr. Hrs.

An applied introduction to Six Sigma using problem solving tools, concepts, and methodology to improve customer satisfaction. Includes application of Green Belt based tools to reduce costs and improve business processes with utility in any type of business. It is recommended, not required, that the student have a part-time or full-time job in order to apply Six Sigma concepts.

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

Students earn credits toward degree requirements for work co-op or internship 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.

277 Industrial Engineering Technology Tech Prep Project 3 Cr. Hrs.

Application of Industrial Engineering Technology (IET) and manufacturing principles, using student teams for real or laboratory simulations of manufacturing processes. Two lecture, two lab hours per week.
Prerequisite: IET 162; acceptance into the Tech Prep program and IET 207

278 Manufacturing Capstone 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 Industrial Engineering Technology Special Topics R 0.5-8 Cr. Hrs.

New developments in Industrial Engineering and Manufacturing Technology and their impact on manufacturing operations, competitiveness and productivity.
Prerequisite: Permission of instructor

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.
Prerequisite: For DRT, MET, ESUP and Step II students only

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.

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 metalworking 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 metalworking industry.
Prerequisite: INT 141

143 Applied Shop Mathematics III 3 Cr. Hrs.

Theory and application of trigonometry as applied to the metalworking industry: compound angles, tapers and measurement set ups.
Prerequisite: INT 142

151 Principles of Welding 3 Cr. Hrs.

General methods of welding, oxyacetylene, brazing, soldering, ARC, TIG, MIG, Heliarc. Typical operations such as butt, lap, fillet, and vee welds will be demonstrated. Two lecture, two lab hour per week.

152 ARC Welding 3 Cr. Hrs.

Theory and background skills of ARC, TIG, MIG, and Heliarc welding. Hands-on projects and demonstrations. Two lecture, two lab hours per week.

153 Oxyacetylene Welding 3 Cr. Hrs.
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.

Student will be required to complete the following machine shop projects: T-slot 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.

Prerequisite: Permission of chairperson

162 Machine Operations Laboratory II
8 Cr. Hrs.

Student will be required to complete the following machine shop projects: surface gauge, 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.

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 work holding, 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

226 Advanced Job Processing 3 Cr. Hrs.

Introduction to the planning of manufacturing for machined parts, from receipt of the order to shipped parts to the customer. Provides additional instruction and problem solving skills on how products are routed through a factory. Designed for toolmakers, machinists and CNC technicians. Two lecture, two lab hours per week.

Prerequisite: DRT 218

227 Advanced CNC Mill Programming 3 Cr. Hrs.

Designed for toolmakers, machinists and Computer Numerical Control (CNC) technicians. This class introduces students to the concept of advanced CNC mill programming techniques. It also introduces the application of multi-axis machining procedures. Two lecture, two lab hours per week.

Prerequisite: INT 226, DRT 218, QET 117

228 Advanced CNC Milling 3 Cr. Hrs.

Designed for toolmakers, machinists and Computer Numerical Control (CNC) technicians. This class introduces students to the concept of advanced CNC mill applications and procedures. It also teaches advanced process refining, advanced set-up procedures, and in-process inspection. Two lecture, two lab hours per week.

Prerequisite: INT 226, DRT 218, QET 117; chairperson signature

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.

297 Special Topics in Tooling & Machining R 3-12 Cr. Hrs.

Provides opportunities to receive credit for special interest topics within the discipline. Brief description of the topics will be given and prerequisites identified when offered. Lab time will be part of some content.

Prerequisite: Permission of chairperson

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: 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

104 Lab for IMT 103
Laboratory must be taken with BIO 103.

105 Personal Assessment for Massage Therapists 2 Cr. Hrs.

Personal Assessment will facilitate students in understanding a variety of styles for communicating with others in a therapeutic relationship.

Prerequisite: Admission to IMT program

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 lecture, six lab hours per week.

Prerequisite: BIO 142, IMT 101

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

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

206 Lab for IMT 205
Laboratory must be taken with IMT 205.

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

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: Chairperson signature

215 Lab for IMT 214
Laboratory must be taken with IMT 214.

216 Business Practices for Massage Therapists I 3 Cr. Hrs.

Introduction to "TouchPro" method of seated massage including application of technique and marketing. One lecture, two lab 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 2 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, IMT 212, IMT 216

220 Anatomy & Physiology Seminar 3 Cr. Hrs.

A comprehensive review and application of anatomy and physiology principles for massage therapist.
Prerequisite: Chairperson signature

221 Massage Therapy Seminar 3 Cr. Hrs.
Comprehensive review of massage therapy theory and practice for the massage therapist.
Prerequisite: Chairperson signature

223 Business Practices for Massage Therapists II 2 Cr. Hrs.

Development of a business plan for planning, marketing and maintaining a massage therapy practice.
Prerequisite: IMT 216

224 Pain Management for Massage Therapists 2 Cr. Hrs.

Psychology of pain; complementary medical and holistic approaches to pain management for the massage therapist.
Prerequisite: ALH 152, IMT coordinator 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.

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 4 Cr. Hrs.

Introduction to interior design business practices, including cost estimating, contract writing, sales and communication techniques. Two 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

Interior Design (IND)

131 Interior Design I 3 Cr. Hrs.

Design foundations exploring profession, principles, elements, and processes; space planning and furniture arrangement fundamentals with emphasis on design drawings and professional presentation form. Two lecture, four lab hours per week.

Insurance (INS)

270 Insurance Internship R 1-9 Cr. Hrs.
See EBE 270 Internship for course description.

297 Special Topics R 0.5-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses toward an associate degree in Business.

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 R 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

Japanese (JPN)

100 Conversational Japanese I 3 Cr. Hrs.

Develops conversational skills in Japanese by analyzing the basic pattern and structure of the language and by promoting mastery of basic vocabulary and idiomatic expressions. Intensive classroom discussion in Japanese is an integral part of the course.

105 Conversational Japanese II 3 Cr. Hrs.

Develops further the conversational skills in Japanese acquired JPN 100 by presenting a more complex syntactical pattern and idiomatic structure. Promotes free expression in Japanese within more specific and complex cultural contexts.

Prerequisite: JPN 100 or equivalent

Legal Assisting (LAP)

Completion of the Legal Assisting/Paralegal program requirements does not authorize graduates to practice law as an attorney.

105 Paralegal Principles 5 Cr. Hrs.

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.

Prerequisite: Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

112 Legal Research & Writing II 4 Cr. Hrs.

Builds on and develops skills learned in Legal Research and Writing I. Use of federal and regional legal materials. Students will prepare a memorandum of law.

Prerequisite: LAP 111. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

115 Contract Law & Uniform Commercial Code 3 Cr. Hrs.

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

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

121 Litigation I 3 Cr. Hrs.

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. Student must be accepted into the Legal Assisting program

122 Litigation II 3 Cr. Hrs.

Procedural matters involved in civil litigation and an overview of the attorney's function in the trial process. Skills relative to interviewing, document preparation and organization of materials for civil trial are emphasized.

Prerequisite: LAP 121. Student must be accepted into the Legal Assisting program

131 Real Estate Transactions I 3 Cr. Hrs.

Real property and common types of real estate transactions and conveyances, such as deeds, real estate sales contracts, and leases and an overview of the system of recording. Problems in instrument drafting.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

201 Business Organization I 3 Cr. Hrs.

Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements and employment contracts.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

202 Business Organization II 3 Cr. Hrs.

Corporation problems involving shareholder agreements, employment contracts, mergers, dissolutions, and foreign corporations.

Prerequisite: LAP 201. Student must be accepted into the Legal Assisting program

205 Criminal Law & Procedure 3 Cr. Hrs.

Ohio Criminal Code and the Criminal Procedure Laws. Pleadings of criminal trials.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

211 Probate Law I 3 Cr. Hrs.

Wills and estates, and estate administration including Ohio estate tax returns and fiduciary accounting.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

212 Probate Law II 3 Cr. Hrs.

Guardianships and trusts with particular emphasis on guardianship administration, land sales, trust accounting and fiduciary income tax returns.

Prerequisite: LAP 211. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

240 Social Security Law 1.5 Cr. Hrs.

Introduction to Social Security law concepts and practices.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

241 Workers' Compensation Law

1.5 Cr. Hrs.

Introduction to concept and practices of Ohio Workers' Compensation law and the Industrial Commission.

Prerequisite: LAP 105. Student must be accepted into the Legal Assisting program

242 Intellectual Property 1.5 Cr. Hrs.

Overview of legal concepts of patents, trademarks and copyrights. Forms and procedures required to legally acquire ownership of intellectual property.

Prerequisite: LAP 105

243 Legal Interviewing Skills 1.5 Cr. Hrs.

Role of a legal assistant in the client interview, including interpersonal skills and ethical concerns.

Prerequisite: LAP 105

244 Domestic Violence Civil Protection Orders 1.5 Cr. Hrs.

Basic understanding of domestic violence dynamics, plus a working knowledge of Ohio Civil Protection Order (CPO) law and procedures. Includes working knowledge of the forms of orders required to put a CPO into effect and enforce it. Also includes societal barriers and justice system barriers that impede safety and justice for victims of domestic violence and their children.

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. Student must be accepted into the Legal Assisting program

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. Student must be accepted into the Legal Assisting program

297 Special Topics R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for special interest topics within the discipline. Only six credit hours earned by special topics courses can apply toward an associate degree in Business.

Prerequisite: Permission of instructor. Student must be accepted into the Legal Assisting program

Labor Studies (LAS)**105 Introduction to Organized Labor in America** 3 Cr. Hrs.

American labor movement. The work place 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-management, 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.

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.

Concepts, approaches, strengths and weaknesses of labor legislation for public employees at federal, state, county and municipal levels. Comparison of various state, municipal laws/ordinances. Interviews with current practitioners at each level of government of both sides. Evaluation of current and future trends.

Prerequisite: LAS 105

265 Comparative Labor Movements 3 Cr. Hrs.

An analysis of labor movement as a worldwide phenomenon. A comparison of the U.S. labor movement with other major labor movements. International labor organizations and the relationship between labor and multi-national corporations.

Prerequisite: LAS 105

270 Labor Studies Internship R
1-9 Cr. Hrs.

See EBE 270 Internship for course description.

297 Special Topics 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.
Prerequisite: Permission of instructor

Law (LAW)

101 Business Law I 3 Cr. Hrs.
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.
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, warranties, 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.
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 R 0.5-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by special topics courses can apply toward an associate degree in Business.

Law Enforcement (LEP)

080 Private Police Training R 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.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

101 Constitutional Law 3 Cr. Hrs.
Elements of constitutional law of frequent concern in law enforcement. Utilizing the Constitution and pertinent Supreme Court rulings, the development of criminal law and its effect on law enforcement procedures from crime prevention to courtroom appearance is covered.

102 Criminal Law 3 Cr. Hrs.
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.
Historical, philosophical, and legal framework for security operations as well as detailed presentations of specific security programs and processes currently and historically used in providing security. Protection of governmental and proprietary systems, persons and facilities.

115 Police Operations 3 Cr. Hrs.
Line activities of law enforcement agencies with emphasis on the patrol functions and the prevention of crime: includes traffic, investigations, juvenile, vice and other specialized units.

117 Principles of Loss Prevention 3 Cr. Hrs.
Functional operations of various specialized areas of security such as theft and risk control, security surveys, and loss prevention programs and management in proprietary and governmental institutions.

125 Police Organization & Administration 3 Cr. Hrs.
Principles of organization and management as applied to law enforcement agencies. Concepts of organizational behavior, administration of staff units.

130 Family Violence 3 Cr. Hrs.
Domestic violence and how all affected (the family, authorities, legal professions, and educators) can deal with it. Also offered as SOC 130; students may enroll in either course, but not both.

190 Law Enforcement Workshop R 1-6 Cr. Hrs.
Workshop topics are offered throughout the academic year in a variety of criminal justice subject areas and for varying lengths of time.

Prerequisite: Permission of chairperson

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.

Prerequisite: Permission of chairperson

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 United States 3 Cr. Hrs.

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

270 Police Internship R 1-4 Cr. Hrs.
See EBE 270 Internship for course description.**280 Basic Police Academy** R 1-12 Cr. Hrs.

Training required by the state of Ohio for a police recruit to attain status as a sworn peace officer. The curriculum includes detailed instruction of 450 hours in those police functions deemed essential by the state of Ohio before an individual can be certified to perform police duties. Three hundred lecture, 150 practicum hours.

295 Seminar in Law Enforcement & Administration of Criminal Justice R 3 Cr. Hrs.

Identification and analysis of current issues and problems in law enforcement and the administration of criminal justice.
Prerequisite: Permission of the chairperson

Literature (LIT)**201 Survey of English Literature (to 1660)** 3 Cr. Hrs.

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

202 Survey of English Literature (1660-1832) 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: R 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 these 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, and 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
3 Cr. Hrs.

A course familiarizing students with current local, state, and national human services resources and how these services can be made accessible to deaf and hard-of-hearing individuals.

131 Intermediate American Sign Language I
4 Cr. Hrs.

An introduction to specialized areas of interpreting. The role and ethics of the interpreter will be examined as they relate to these 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 settings.

Prerequisite: MAC 113

132 Intermediate American Sign Language II
4 Cr. Hrs.

Written information on targeted grammatical features; receptive and expressive mastery of above features and targeted vocabulary items; production on student generated ASL sentences.

Prerequisite: MAC 131, ENG 111 or equivalent

133 Intermediate American Sign Language III
4 Cr. Hrs.

Third intermediate course in American Sign Language, with further mastery of upper level grammatical features and functions. Continued development of both receptive and productive abilities. Development of basic interpreting skills through classroom activities.

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 include fingerspelling and numbers; deaf-blind interpreting; legal interpreting; and theatrical interpreting.

201 Interpreting I
4 Cr. Hrs.

An introduction to the principles and techniques of interpreting between English and ASL as both target and source languages. Classroom activities and testing includes basic interpreting role plays.

Prerequisite: MAC 132

202 Interpreting II
4 Cr. Hrs.

Students develop and demonstrate competence of the basic principles and techniques of the interpreting process, including interpreting of idiomatic cultural expressions and accommodating linguistic variation in the interpreting process.

Prerequisite: MAC 201

203 Interpreting III
4 Cr. Hrs.

Advanced principles and techniques of the interpreting process introduced. Classroom activities and testing include 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 medical, mental health, educational, employment and legal settings and terminology/signs. The course includes 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 in medical, substance abuse treatment, counseling and legal settings.

Prerequisite: MAC 232

231 Advanced American Sign Language I
4 Cr. Hrs.

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

233 Advanced American Sign Language III
4 Cr. Hrs.

third advanced course in the study of ASL. Designed to achieve fluency of most basic and complex features grammatical of ASL. Activities include incorporating into sign production the necessary adjustments for registers, emotive components, and cultural background.

Prerequisite: MAC 232

236 Transliterating
4 Cr. Hrs.

A preparatory course for RID 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
3 Cr. Hrs.

This course will place the student in a Sinclair setting or a human needs agency servicing the deaf. Each student will spend a total of 70 clock hours in this practicum.

Prerequisite: MAC 261, MAC 236

263 MAC Practicum III
3 Cr. Hrs.

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.

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 work place 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 gain sharing.

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 organiza-

tional 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.

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 Management Capstone 3 Cr. Hrs.

Assessment of achievement by business management degree students in attaining program outcomes by employing reflective learning through demonstration of management related principles of practices.

Prerequisite: MAN 295

295 Management Seminar 3 Cr. Hrs.

Application of previously learned management theories through case study, readings, and discussion of contemporary issues. The course will center on the role of knowledge, values, and assumptions in administrative situations, especially their influence on individual's choice among possible ends and means; and on the skills, attitudes and personal qualities that enhance effectiveness of responsible individuals as they work with others in organizations.

Prerequisite: 15 credit hours in MAN and permission of instructor

296 Special Projects in Business R
1-6 Cr. Hrs.

Variations of experiential learning by way of group projects, independent study, and real world simulations.

Prerequisite: Permission of chairperson

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.

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

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.

Prerequisite: Admission to program

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, 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 I 4 Cr. Hrs.
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, 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 Cr. Hrs.

Advanced experience in a physician's office involving structure observations and participation in the administrative and clinical aspects of patient care under the supervision of a licensed physician; assisting with specialized clinical procedures, performing electrocardiograms, venipunctures and basic laboratory tests and advanced office management skills. One lecture, twenty clinical (MAS 285) hours per week.

Prerequisite: MAS 204

206 Specialty Clinical Assisting Procedures 3 Cr. Hrs.

Techniques required to perform advanced/specialized procedure such as assisting with sigmoidoscopy, basic respiratory procedures, OB/GYN procedures, physical agents to promote tissue healing, and basic nutrition.

Prerequisite: MAS 201, ALH 201

207 Medical Laboratory Procedures 3 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.***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.

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 or satisfactory score on mathematics placement test.***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 or satisfactory score on mathematics placement test. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***105 Business Mathematics 4 Cr. Hrs.**

Arithmetic of decimals and fractions. Percentages, trade pricing, retail pricing, interest, annuities, loans, payroll, taxes, elementary statistics, and promissory notes.

*Prerequisite: DEV 085 or DEV 108 or MAT 101 or qualifying score on mathematics placement test***106 Allied Health Mathematics 4 Cr. Hrs.**

Applications of fractions, decimals, and percentages, the metric system, the apothecary system, signed numbers, first-degree equations, literal equations, ratios and proportions, instrumentation, graphing and interpreting graphs, frequency distributions, central tendency, and scientific notation.

*Prerequisite: DEV 085 or DEV 108 or MAT 101 or qualifying score on mathematics placement test***108 Mathematics & the Modern World 3 Cr. Hrs.**

Application of mathematics to modeling real world problems from the behavioral, computational, managerial, and social sciences including graph theory, linear programming, probability, descriptive and inferential statistics, game theory, geometric growth.

*Prerequisite: MAT 102 or MAT 116 or MAT 131 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.

*Prerequisite: Acceptance into Nursing program or permission of the Mathematics department***110 Quantitative Reasoning 4 Cr. Hrs.**

Discovery of fundamental concepts and skills of quantitative reasoning achieved by exploring real world data from various disciplines. Topics include orders of magnitudes, rates and percentages, basic probability and statistics, tables of data and tabular reasoning, and functions and graphs. Using a spreadsheet program and a calculator is an integral part of the course.

*Prerequisite: MAT 102 or sufficient score on the mathematics placement test***116 College Algebra 5 Cr. Hrs.**

Polynomial, rational, inverse, exponential and logarithmic functions and their graphs, roots of polynomial functions, conic sections, systems of equations, matrices and determinants, sequences and series. A scientific calculator is required. A graphing calculator is required in some sections.

*Prerequisite: MAT 102 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to this course***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***131 Technical Mathematics I 5 Cr. Hrs.**

Accuracy and precision with approximate numbers, functions, graphs, right triangle trigonometry, systems of linear equations, factoring, rational expressions, quadratic equations. Scientific calculator required.

*Prerequisite: MAT 101 or equivalent or satisfactory score on mathematics placement test. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***151 Introduction to Mathematical Modeling 3 Cr. Hrs.**

Includes data analysis (linear and non-linear methods), modeling with continuous functions, modeling with discrete mathematics (matrices and graph theory).

*Prerequisite: MAT 116 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.***201 Calculus & Analytic Geometry I 5 Cr. Hrs.**

Cartesian coordinate system, functions, limits and continuity of functions, the derivative and its applications, the integral and the fundamental theorem of calculus. This is the first of a four quarter sequence.

Prerequisite: MAT 117 or MAT 133 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

202 Calculus & Analytic Geometry II

5 Cr. Hrs.

Second quarter in a four quarter sequence for science and engineering majors. 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 134 or MAT 201 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

203 Calculus & Analytic Geometry III

5 Cr. Hrs.

Third course in a four quarter sequence for science and engineering majors. Infinite sequences and series, Taylor series, parametric equations, polar coordinates, solid analytic geometry, vectors and vector valued functions.

Prerequisite: MAT 202 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

204 Calculus & Analytic Geometry IV

5 Cr. Hrs.

This is the last course in a four quarter sequence for science and engineering majors. Functions of several variables, partial derivatives with applications, multiple integrals with applications, line integrals, surface integrals, vector fields, Green's Theorem, the Divergence Theorem and Stokes's Theorem.

Prerequisite: MAT 203 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

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. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

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, eigenvectors, abstract vector spaces.

Prerequisite: MAT 203 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

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 MAT 201 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

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 or equivalent. Students receiving a grade of "D" in this prerequisite are required to pass a qualifying exam before they are allowed to take this course.

297 Special Topics R

0.5-6 Cr. Hrs.

Varied content offerings of special interest with the discipline, but not covered within existing courses.

Prerequisite: Permission of instructor

Mechanical Engineering Technology (MET)

101 Mechanics for Skilled Trades

3 Cr. Hrs.

Fundamentals of mechanics including concepts of force, work, energy, stress, friction and basic properties of materials. Analysis of simple mechanical machines.

Prerequisite: DEV 108 or permission of instructor

102 Advanced Mechanics for Skilled Trades

3 Cr. Hrs.

Fundamentals of mechanics as applied to the actual hardware and equipment used in production environment.

Prerequisite: MET 101

103 HVAC Installation Techniques

3 Cr. Hrs.

Basic practices required for new installation and replacement of HVAC equipment including an introduction to sheet metal skills, copper and black pipe plumbing and power connections. Hands-on skills and code requirements will be stressed along with good safety practices. Two lecture, two lab hours per week.

104 Introduction to Design Realization Process

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, psychometrics, 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 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

125 HVAC Distribution Systems

3 Cr. Hrs.

Theory and practice of HVAC distribution systems including duct design, piping system design, fan selection and performance and pump selection and performance.

Prerequisite: MET 105 and MAT 101 or permission of chairperson

130 Basics of Cooling & Cooling Systems

3 Cr. Hrs.

Foundations in the applications of cooling principles in light commercial equipment. Designed for those with hands-on HVAC responsibilities. Major components include refrigerant flow through single and staged equipment, impact of air flow on the pressure-temperature relationships, heat transfer fundamentals and mechanics of these systems. Two lecture, two lab hours per week.

Prerequisite: MET 106

135 Modern Refrigeration Practice

3 Cr. Hrs.

Theoretical and practical basis for design and application of refrigeration systems, including cycle analysis, load estimation, and equipment sizing. Two lecture, two lab hours per week.

Prerequisite: MET 106 and MAT 101 or permission of chairperson

145 HVAC Loads & Psychometrics

3 Cr. Hrs.

Theory and practice in design of present-day air conditioning systems, including cooling load estimation, psychometric 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 Troubleshooting

3 Cr. Hrs.

Technical principles and procedures for the assembly and testing of HVAC systems and the solution of operating problems with such equipment. Two lecture, two lab hours per week.

Prerequisite: MET 111, MET 120, MET 130

158 Advanced Light Commercial HVAC Troubleshooting

3 Cr. Hrs.

Building on the Basic Troubleshooting course, this course will take the student into some of the more complex problems the

experienced technician and advanced student will encounter. This course is comprehensive in nature, and will cover advanced control, distribution, and mechanical problems. Two lecture, two lab hours per week.

Prerequisite: MET 111, MET 130 and one of the following EER 115 or EET 119.

198 Personal Computer Applications in Engineering Technology

2 Cr. Hrs.

Applied computer tools to solve engineering technology problems emphasizing the integration of word processing, draw functions, spreadsheets, database, and engineering research skills using the Internet. Application of an integrated approach to research papers, engineering technology analysis, technical laboratory reports and technical presentations. One lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent

203 Statics

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

224 Industrial Ventilation

3 Cr. Hrs.

Selection and design of ventilation systems for industrial applications. Two lecture, two lab hours per week.

Prerequisite: MET 125

225 Thermodynamics

4 Cr. Hrs.

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 including computer software to design of HVAC system for representative model office building. Lecture only. Assignments require lab time outside of class. Two lecture, two lab hours per week.

Prerequisite: MET 240, MET 242

260 Engineering Technology Applications with Computers 3 Cr. Hrs.

Computer solutions of engineering technology problems using MathCAD; algorithms, numerical analysis and matrix methods for problem solving of physical principles and engineering applications. Two lecture, two lab hours per week.

Prerequisite: IET 198, MAT 133 or equivalents

270 Mechanical Engineering Internship R 1-12 Cr. Hrs.

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

281 Certified Manufacturing Technician Review R 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 R 3 Cr. Hrs.

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

Prerequisite: MET 281 or permission of instructor

297 Special Topics R 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as television, videotape, etc.

Prerequisite: DEV 085 or equivalent

Mental Health Technology (MHT)

101 Introduction to Mental Health Work R 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.

Prerequisite: Program acceptance and permission of chairperson

115 Social Case Work 3 Cr. Hrs.

Basic principles and skills for the professional helping relationship. Professional and multi-cultural issues in clinical practice. Case work 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.

Affects of addiction on the family unit. Addiction's impact on family communication patterns, co-dependency, coping skills, and the process of family recovery.

122 Appalachian Issues in Chemical Dependency Treatment 1 Cr. Hr.

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 after care programming.

126 Introduction to Addictive Illnesses 3 Cr. Hrs.

Addiction to harmful substances, particularly alcohol. Current knowledge: effects on individual and society. Myths, misconceptions, early identification, intervention, arresting the addictive process.

128 Family Dynamics of Addiction 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 outpatient 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 Addiction & Dependency Treatment for African-Americans 1 Cr. Hr.

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 3 Cr. Hrs.

Chemical addiction in the mentally ill client. Unique challenges, special needs, and effective treatment models for this dual diagnosed population.

139 Substance Abuse Prevention 3 Cr. Hrs.

Theories, models, historical framework and terminology. Contemporary definition of prevention for both in-school and community based strategies and curricula. Assessment of risk and protective factors. Resources, funding, research and credentialing in Ohio.

140 Child & Adolescent Mental Health 3 Cr. Hrs.

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

151 Art as Therapy I 3 Cr. Hrs.

Experiential discovery of personal creative processes using a variety of art media.

152 Art as Therapy II 3 Cr. Hrs.
Emphasizing clinical art therapy experiences with varied populations. Development of professional observation, assessment, and motivational skills.
Prerequisite: MHT 151

201 Interviewing & Assessment 3 Cr. Hrs.
Observing, interviewing, assessing and report writing. Preparation for major clinical sequence. Two lecture, two lab hours per week.
Prerequisite: MHT 101 ALH 103

202 Practicum in Mental Health I 5 Cr. Hrs.
Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording.
Prerequisite: MHT 201

203 Practicum in Mental Health II 5 Cr. Hrs.
Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording.
Prerequisite: MHT 202

204 Practicum in Mental Health III 5 Cr. Hrs.
Field work experience in mental health agencies. Case management, therapeutic relationships, supervised treatment planning and implementation. Case management with individual clients, group facilitation, reporting and recording.
Prerequisite: MHT 203

205 Psychosocial Interventions 3 Cr. Hrs.
Acquiring and applying advanced clinical interventions and treatment modalities for various client populations.
Prerequisite: MHT 115

206 Case Management Services for the Mentally III 3 Cr. Hrs.
Philosophy, knowledge and skill components for effective case management emphasizing training content authorized by Ohio Department of Mental Health.

210 Chemical Dependency Counseling Certification 3 Cr. Hrs.
Overview of requirements, procedures, skills and knowledge base required for certification by Ohio Chemical Dependency Credentialing Board.

211 Group Dynamics I 3 Cr. Hrs.
Introduction to interpersonal dynamics in groups. Awareness of group leadership skills and personal issues affecting participation. Laboratory groups promote personal growth while providing experiential awareness of phases and issues of

group development. Two lecture, two lab (MHT 217) hours per week.
Prerequisite: MHT 115

212 Group Dynamics II 3 Cr. Hrs.
Presentation of history and development of group work, professional ethics, curative factors, stages of group development, theories of change and effective leadership characteristics. Two lecture, two lab (MHT 218) hours per week.
Prerequisite: MHT 211

213 Group Dynamics III 3 Cr. Hrs.
Opportunities to practice group facilitation; skills in process planning and critical analysis of group dynamics; roles and issues in co-facilitation. Two lecture, two lab (MHT 219) hours per week.
Prerequisite: MHT 212

214 Emotional Health & Healing 3 Cr. Hrs.
Human emotions and the need for appropriate energy release; defenses and blockages of energy resulting in psychological dysfunction; models of changes; personal, professional and ethical issues in treatment.

217 Lab for MHT 211
Laboratory must be taken with MHT 211.

218 Lab for MHT 212
Laboratory must be taken with MHT 212.

219 Lab for MHT 213
Laboratory must be taken with MHT 213.

221 Activity Therapy 3 Cr. Hrs.
Theory and practice in therapeutic activities for mental health clients of all ages. Activity analysis, program and treatment planning, leadership techniques, application of the adventure based counseling model. Two lecture, two lab (MHT 226) hours per week.
Prerequisite: MHT 115

226 Lab for MHT 221
Laboratory must be taken with MHT 221.

245 Mental Health & the Family R 3-4 Cr. Hrs.
Underlying dynamics and interactional patterns in family functioning and the impact of family dysfunction on individuals. Methodologies of clinical intervention, highlighting issues and trends facing contemporary families.
Prerequisite: MHT 205, ENG 112

296 Special Topics in Mental Health R 0.5-6 Cr. Hrs.
Opportunity to earn credit for workshops and short term courses on current topics in mental health and human services; such as continuing education needs of licensed practitioners, special interest needs of general public or technical developments in the field. Only six credit hours earned by Special Topics may be applied toward an associate degree in Mental Health.

Marketing (MRK)

115 International Environment: Culture & Business 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.
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.
Marketing mix provides the focal point for analysis and discussion. The management process is integrated with materials on distribution, product, marketing communications, and pricing.
Prerequisite: MRK 201

205 Direct Marketing 3 Cr. Hrs.
Introduction to the scope of direct marketing, including mail order, lead generation, circulation, loyalty programs, store traffic building, fundraising, pre-selling, post-selling and research.
Prerequisite: MRK 201

210 Computer Application in 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: MAR 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 types and sizes of stores.
Prerequisite: MRK 105 or MRK 201

246 Fashion Merchandising 3 Cr. Hrs.
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.
Functions of buying and selling to provide consumer satisfaction along with retail mathematics, stock turnover, budgeting, promotion, inventory evaluation, merchandising strategies, cost analysis and control.
Prerequisite: MRK 245

270 Marketing Internship R 1-9 Cr. Hrs.
See EBE 270 Internship for course description.

295 Marketing Seminar 3 Cr. Hrs.
Cases and readings emphasizing current marketing principles and the environment of the firm. Marketing functions as part of a total marketing system which responds in degree to consumer's changing needs.
Prerequisite: 12 quarter hours of marketing courses

297 Special Topics in Marketing R 0.5-6 Cr. Hrs.
Provides opportunities to receive credit for 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.
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.
Prerequisite: Music major or instructor's permission

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

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.
Prerequisite: MUS 112

115 Music Appreciation 3 Cr. Hrs.
Acquaints student with basic parameters of music (melody, rhythm, harmony, form) through a survey from Gregorian Chant to jazz and current rock styles. No previous technical knowledge of music is required.

116 Music Major Piano Class I 1 Cr. Hr.
Instruction in correct piano playing techniques. Combination of lecture and lab.
Prerequisite: MUS 105

117 Music Major Piano Class II 1 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.
Prerequisite: Permission of instructor

125 History of Rock Music 3 Cr. Hrs.
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 taken concurrently with MUS 105

131 Survey of Musical Styles I 3 Cr. Hrs.
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.
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.
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.

Prerequisite: MUS major or permission of instructor

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.

152 Guitar Class II R 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 R 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.

Prerequisite: Audition

155 Sinclair Singers R 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 and off campus during the year.

Prerequisite: Audition

158 Jazz Ensemble R 1 Cr. Hr.

Open to college and community musicians who present jazz ensemble performances. Concerts and appearances are scheduled during the academic year. Combination of lecture and lab.

Prerequisite: Audition

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.

Prerequisite: Audition

167 Applied Music: Jazz Piano R

1-4 Cr. Hrs.

Private instruction in Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice, or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor

169 Applied Music: Organ R 1-4 Cr. Hrs.

Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-

hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or (4) four credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor

170 Applied Music: Piano R 1-4 Cr. Hrs.

Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor except MUS 170 01

171 Applied Music: Voice R 1-4 Cr. Hrs.

Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor except MUS 171 01

172 Applied Music: Percussion R

1-4 Cr. Hrs.

Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor

173 Applied Music: Violin R 1-4 Cr. Hrs.

Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.

Prerequisite: Audition and/or permission of instructor

- 188 Applied Music: Electric Bass** R 1 Cr. Hr.
1-4 Cr. Hrs.
Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.
Prerequisite: Audition and/or permission of instructor
- 189 Applied Music: Jazz Drumming** R 1 Cr. Hr.
1-4 Cr. Hrs.
Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.
Prerequisite: Audition and/or permission of instructor
- 190 Applied Music: Classical Guitar** R 1 Cr. Hr.
1-4 Cr. Hrs.
Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.
Prerequisite: Audition and/or permission of instructor except MUS 190 01
- 192 Applied Music: Harpsichord** R 1 Cr. Hr.
1-4 Cr. Hrs.
Applied Music is given on the basis of one (1) credit for one half-hour lesson per week for 10 weeks and 45 minutes per day practice or two (2) credits for one half-hour lesson per week for 10 weeks, board examination, student recital performance and 90 minutes per day of practice or four (4) credits for two half-hour lessons per week for 10 weeks, board examination, student recital performance and three hours per day practice.
Prerequisite: Audition and/or permission of instructor
- 194 Wind Symphony** R 1 Cr. Hr.
Concentration on instrumental problems and techniques. Development of wind ensemble repertoire. School and public performance will be a major part of the course activities. Combination of lecture and lab.
Prerequisite: Audition
- 195 Concert Band** R 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.
Prerequisite: Audition
- 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.
Prerequisite: Music major or permission of instructor
- 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
- 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** 1 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.
Prerequisite: Audition
- 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.
Prerequisite: Music major or permission of instructor
- 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.
Prerequisite: Audition
- 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.
Prerequisite: Departmental permission
- 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.
Prerequisite: Permission of instructor
- 295 Music Practicum** R 1-3 Cr. Hrs.
Music major may receive credit for practical experiences such as performing in a musical, opera, musical organization, solo recital, etc. Arrangements must be made through the department chairperson.
Prerequisite: Permission of chairperson

296 Classical Guitar Ensemble R
1 Cr. Hr.

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.
Prerequisite: Audition

298 Performance Class R 1 Cr. Hr.
Performance repertoire from intermediate to advanced levels. Designed to anticipate and alleviate the public performance problems. Emphasizing all aspects of technique and music including sight-reading, memorization and control of nervousness (Piano-Section 01, Voice-Section 02).
Prerequisite: Permission of instructor

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.
Prerequisite: Permission of instructor and chairperson

Nursing (NSG)

120 Human Response 3 Cr. Hrs.

Discusses scope and practice of nursing profession and philosophy/framework of the Nursing program at Sinclair. Introduces human response, nursing process, critical thinking, decision making and collaborative judgment, and management principles. Provides a foundation in therapeutic communication, documentation, teaching-learning, and health promotion/disease prevention.

Prerequisite: ALH 103, ENG 111, BIO 141, PSY 119 and COM 206. Acceptance in Nursing program

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. Acceptance in Nursing program

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. Acceptance in Nursing program

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

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. Acceptance in Nursing program

130 Role Transition for LPNs 10 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 (musculoskeletal), 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 and 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 and symptoms particular to each system in regard to normal-abnormal functions. Includes classroom instruction and college lab experience.

Prerequisite: Health care providers, RN/LPN or nursing students who have completed 75% of nursing courses

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 arrhythmias and conduction defects. Problem-solving sessions and opportunities to study and interpret EKG tracings.

243 Emergency Nursing I 3 Cr. Hrs.

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.

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.

250 Traumatic Brain Injury 1 Cr. Hr.

Physiological and behavioral changes from brain injury. Assessment and treatment of patients with mild to severe brain injury during the immediate post trauma phase to maintain adequate cerebral perfusion and restore neuronal function, including acute care and rehabilitation, multidisciplinary goal-directed care plans, and resources for patient and family.

251 Assessment & Management of Neuromuscular Disorders 1 Cr. Hr.

Overview of the pathophysiology and assessment of common neurological conditions (Parkinson's disease, multiple sclerosis, amyotrophic lateral sclerosis, and spasticity in stroke and other movement disorders). Neuro assessment competency, including hands-on practice in comprehensive neurological assessment, and the role of the nurse in collaborative management plans.

252 Stroke Management Continuum: Prevention, Acute Care & Rehabilitation 1 Cr. Hr.

Review of the subtypes of stroke, pathophysiology of cerebrovascular disease, team management, and the continuum of care. Assessment of risk, primary prevention, early recognition of "brain attack" and transport of the patient to an acute stroke care facility for evaluation and treatment of ischemic versus hemorrhagic stroke. Major emphases include public health education initiatives for prevention and awareness, recommended guidelines, nursing process in stroke care from acute to subacute transitional setting, and rehabilitation in a long term care facility or home.

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 G.I. 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 R 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 I.V. fluids. Participants will review and update their knowledge regarding the intended actions, side effects, interactions, and nursing applications.

293 Drug Update: Cardiovascular Drugs
1 Cr. Hr.

General principles of cardiovascular function and conventional drug therapy for common disorders; primarily intended as an update and review for registered nurses, but may be of interest to respiratory therapists and nursing students.

294 Drug Update: Autonomic & Psychotropic Drugs 1 Cr. Hr.

Pharmacological principles of drugs that act on the autonomic nervous system and those used to manage various psychiatric conditions, including anxiolytics, antidepressants, and antipsychotics. This course is primarily intended as an update and review for registered nurses, but may be of interest to nursing students and various allied health professionals.

295 Drug Update: Drugs for Pain Management 1 Cr. Hr.

Pharmacological principles of drugs for acute and chronic pain, including conventional non-opioid and opioid analgesics, as well as adjunctive agents such as anxiolytics, antidepressants, glucocorticoids and local anesthetics. This course is primarily intended as an update and review for registered nurses, but may be of interest to respiratory therapists and nursing students.

297 Special Topics R 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 review of current health care literature. Topics address three areas of professional development: personal, skills development, and managerial. These areas are appropriate for the novice-to-expert 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

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.

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.

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.

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 chairperson.

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 chairperson

221 Clinical Affiliation II 3 Cr. Hrs.

Advanced clinical experience under the supervision of a licensed occupational therapist or certified occupational therapy assistant which must be successfully completed before the student is eligible for certification examination. Forty contact hours per week for eight weeks in a clinical setting.

Prerequisite: OTA 220

231 Treatment Issues I 9 Cr. Hrs.

Functional aspects of the diseases and conditions which are commonly referred to occupational therapy; focus on treatment modalities to increase levels of independence in activities of daily living; includes theory and application of basic skills in the management of the physical and psychosocial needs; role of occupational therapy assistants in a variety of settings and practice areas; establishing therapeutic relationships with clients and families, therapists, health care professionals; and adaptations for meeting physical and psychosocial needs. Five lecture, eight lab, 11 clinical hours per week.

Prerequisite: OTA 133

232 Treatment Issues II 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.

Prerequisite: OTA 231

233 Clinical Issues I 1 Cr. Hr.

Facilitation of problem solving during affiliation experiences including feedback on documentation, professional and ethical issues. Taken conjointly 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

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.

262 Clinical for OTA 232

Clinical must be taken with OTA 232 and OTA 252.

297 Special Topics in OTA R 1-4 Cr. Hrs.

Variable course content according to community and program needs for continuing education and state of the art techniques. Areas of special interest which would not fit or be appropriate for the regular OTA curriculum would also be presented.

Physical Education (PED)

101 Beginning Swimming R 1 Cr. Hr.

Elementary knowledge of swimming techniques and overcoming fear of water. Instruction in basic swimming strokes including front crawl plus elementary diving and water safety skills.

102 Intermediate Swimming R 1 Cr. Hr.

Increases skill in basic swimming strokes, breast, side stroke, backstroke, front and back crawl plus diving and water safety skills.

Prerequisite: PED 101 or equivalent skill

105 Physical Fitness R 1 Cr. Hr.

Provides exercise suited to individual needs and body types. Selected strength, endurance and flexibility activities. Increases understanding and appreciation of the values of physical activity and weight control.

106 Weight Training R 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 R 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 R 1 Cr. Hr.**
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 R 1 Cr. Hr.**
Beginning skills, rules and regulations, equipment and supplies, safety factors plus courtesies. Includes basic swing along with chipping and putting.
- 125 Bowling R 1 Cr. Hr.**
Beginning skills, rules and regulations, and courtesies. Emphasis on the basic approach, delivery, follow through, plus scoring.
- 126 Volleyball R 1 Cr. Hr.**
Develops basic skills including the various serves, spikes, sets, team strategy, rules and regulations, and skill techniques.
- 127 Basketball R 1 Cr. Hr.**
Develops fundamental skills and techniques of basketball such as shooting, passing, dribbling and team strategy. Terminology, rules and basic drills.
- 131 Beginning Tennis R 1 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 R 1 Cr. Hr.**
Intermediate skill techniques plus playing strategy for both singles and doubles related to shot selection and placement.
Prerequisite: PED 131 or equivalent skills
- 133 Advanced Tennis R 1 Cr. Hr.**
Develops advanced skill techniques related to actual game strategy and the psychological aspect of the competition.
Prerequisite: PED 132 or equivalent skills
- 134 Snow Ski Conditioning R 1 Cr. Hr.**
A general conditioning and/or fitness class designed specifically for skiers that develops cardiovascular endurance, muscle strength, and flexibility.
- 136 Beginning Yoga R 1 Cr. Hr.**
Introduction and practical application of basic yoga methods including a historical and philosophical review.
- 137 Intermediate Yoga R 1 Cr. Hr.**
Intermediate skills regarding positions and methods of yoga.
Prerequisite: PED 136 or equivalent skills
- 142 Beginning Pilates R 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 R 2 Cr. Hrs.**
Develops knowledge and procedure(s) for obtaining advanced jogging/fitness. Detailed, individually suited formulated running and exercise program.
Prerequisite: PED 105 or permission of instructor
- 148 Beginning Social Dance R 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 R 1 Cr. Hr.**
Improves knowledge and skill related to the popular ballroom dance steps, developing grace and self-confidence.
Prerequisite: PED 148 or equivalent skills
- 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 R 1 Cr. Hr.**
Develops 75 basic skills associated with modern square dance.
Prerequisite: PED 151 or equivalent skills
- 153 Water Aerobics R 1 Cr. Hr.**
A fitness concept comprised of a series of exercises performed in the water with music. Swimming ability is not required.
- 154 Aerobic Conditioning R 1 Cr. Hr.**
A program of fitness composed of exercise routines performed with music. Aerobics allows the individual to increase cardiovascular endurance, flexibility, and strength through selected dance routines.
- 161 Beginning Racquetball R 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 R 1 Cr. Hr.**
Develops intermediate skills and techniques. Emphasis on shot selection, placement, strategy and overall consistency.
Prerequisite: Successful completion of PED 161, instructor's approval or a "C" rating based on league competition
- 163 Advanced Racquetball R 1 Cr. Hr.**
Advanced skills and techniques. Emphasis on shot selection, placement, strategy, and the psychological aspect of the game.
Prerequisite: Successful completion of PED 162, instructor's approval or a "B" rating based on league competition
- 165 Country Western Dance R 1 Cr. Hr.**
Develops the fundamental skills and techniques required for the style and fluidity of movement related to Country Western dancing. Basic movement patterns of steps, turns, and breaks at the beginning level.
- 166 Fitness Walking R 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 R 1 Cr. Hr.**
To provide students the opportunity to experience a variety of lifetime physical activities and exercises that will maintain or improve their quality of life.
- 168 Advanced Weight Training R 2 Cr. Hrs.**
Advanced weight training methods in resistive weight training, including body building, power lifting, and lifting related to specific goals; individually suited.
Prerequisite: PED 106 or permission of instructor
- 170 Tai Chi R 1 Cr. Hr.**
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 R 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 R 1 Cr. Hr.**
Development of the intermediate skills related to the martial arts.
Prerequisite: Successful completion of PED 171, instructor's approval, or a green belt from another organization
- 174 Practical Aspects of Self Defense for Women R 1 Cr. Hr.**
A personal self-defense class involving a basic collection of knowledge and skill related to prevention, non-physical responses, and physical responses. Current research and analysis of the dynamics of sexual assault.
- 176 Core Conditioning R 1 Cr. Hr.**
Core conditioning strengthens and stabilizes 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 R** 1 Cr. Hr.
Advanced skill development in the basic swimming strokes; breast, side, back, front, and back crawl. Additional work will be done in underwater areas, diving and survival skills.
Prerequisite: PED 102 or equivalent skill
- 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.
Prerequisite: PED 154 or permission of instructor
- 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.
Prerequisite: PED 102, equivalent swimming skills, or permission of instructor
- 210 Intermediate Bowling R** 1 Cr. Hr.
Fundamentals of bowling are reviewed with emphasis on teaching intermediate techniques in the following areas: approach, delivery, pin-aim or spot-aim method and spare making.
Prerequisite: PED 125 or equivalent skills
- 211 Intermediate Volleyball R** 1 Cr. Hr.
Basic skills of volleyball are reviewed and practiced with emphasis on intermediate techniques. Drills, practice procedures, and team strategy are discussed.
Prerequisite: PED 126 or equivalent skills
- 212 Advanced Volleyball R** 1 Cr. Hr.
Intermediate skills will be reviewed and practiced with emphasis on body mechanics. The development of advanced offensive and defensive team strategy necessary for competitive play will be stressed.
Prerequisite: PED 211 or equivalent skill
- 215 Basketball Officiating** 2 Cr. Hrs.
Basketball officiating includes basic knowledge about rules, regulations and officiating techniques. Materials will be supplied by OHSAA 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 OHSAA 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 OHSAA Students passing the final exam will be certified to officiate in Ohio.
- 219 Standard First Aid & Cardiopulmonary Resuscitation** 3 Cr. Hrs.
Basic principles related to personal safety, accident prevention, treatment and cardiopulmonary resuscitation. National Red Cross Certification will be issued upon successful completion of the class.
- 224 Intermediate Golf R** 1 Cr. Hr.
Basic fundamentals are reviewed with emphasis on intermediate skills. Grip, stance and swing, chipping and putting are reviewed and shot selection and strategy are emphasized.
Prerequisite: PED 119 or equivalent skills
- 229 Advanced Open Water Scuba Diving R** 2 Cr. Hrs.
Recommended for diving enthusiasts who want to further their diving skills with various challenging and interesting open water dives.
Prerequisite: PED 209 or department approval
- 231 Rescue Diving R** 2 Cr. Hrs.
Prepares the student to better manage realistic rescue situations in addition to developing an increased awareness of dive safety and the anticipation and prevention of potential diving problems. One lecture, two lab hours per week.
Prerequisite: PED 229 or department approval
- 234 Concepts of Total Fitness R** 3 Cr. Hrs.
Orientation to concepts of total fitness with emphasis on evaluation and maintenance; development of lifetime concept of fitness reflecting a positive health lifestyle.
- 235 Introduction to Physical Education** 3 Cr. Hrs.
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 students.
- 239 Athletic Injuries** 3 Cr. Hrs.
Application of principles involved in prevention, care and treatment of athletic injuries.
- 245 Coaching Baseball** 2 Cr. Hrs.
Theory, skills, strategies and methods of coaching baseball.
- 246 Coaching Basketball** 2 Cr. Hrs.
Theory, skills, strategies and methods of coaching basketball.
- 247 Coaching Football** 2 Cr. Hrs.
Coaching philosophy, skill development, drills, strategies, organizational format, scheduling, budget, scouting, plus other related information.
- 248 Coaching Soccer** 2 Cr. Hrs.
Coaching philosophy, skill development, drills, strategies, organizational format, scheduling, budget, scouting, plus other related information.
- 253 Advanced Water Aerobics R** 2 Cr. Hrs.
An advanced fitness concept comprised of a series of exercises performed in the water with music.
Prerequisite: PED 153 or permission of instructor
- 270 Physical Education Internship R** 1-12 Cr. Hrs.
See EBE 270 Internship for course description.
- 297 Special Topics in Physical Education R** 1-3 Cr. Hrs.
Opportunity for students to receive credit for both non-traditional and traditional courses, workshops or special interest topics in the discipline of physical education.

Philosophy (PHI)

204 Great Books: Philosophy 3 Cr. Hrs.
Introduction to selected great books in the history of Western Philosophy. Three eras will be introduced (ancient/medieval, modern, and contemporary) and studied within their respective historical contexts and as an exercise in critical thinking.

205 Introduction to Philosophy 3 Cr. Hrs.
Basic nature of philosophy, its relationship to physical and social sciences and theology and its value to the individual.

206 Personal Ethics 3 Cr. Hrs.
Historical inquiry into the major concepts and attitudes of moral and ethical theory in Western society, emphasizing the role of human responsibility and the conditions for making ethical judgments.

207 Logic 3 Cr. Hrs.
Principle elements in deductive and inductive logic. Analysis of three acts of the intellect and the laws of reasoning. Application of principles to specific cases.

209 Business Ethics 3 Cr. Hrs.
Evaluates the moral values, standards and practices of contemporary business through case studies.

297 Special Topics R 1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in philosophy.

Physics (PHY)

100 Introduction to Physics 4 Cr. Hrs.
A survey of motion, forces, energy, heat, gas laws, kinetic theory, electricity, and magnetism. Three lecture, three lab hours per week (PHY 110).
Prerequisite: DEV 108 or equivalent

104 Sound, Light & Modern Physics 4 Cr. Hrs.
Survey of sound, music, light, color, atomic and nuclear physics and relativity for non-science majors. Three lecture, three lab hours per week (PHY 119).
Prerequisite: PHY 100

106 Physics for Radiologic Technology 5 Cr. Hrs.
Concepts of electrical energy, electromagnetic energy, production of x-radiation, interaction with matter, and the x-ray tube, circuitry and special equipment. Four lecture, two lab hours per week (PHY 107).
Prerequisite: Admission to RAT program

107 Lab for PHY 106
Laboratory must be taken with PHY 106.

110 Lab for PHY 100
Laboratory must be taken with PHY 100.

119 Lab for PHY 104
Laboratory must be taken with PHY 104.

131 Technical Physics I 4 Cr. Hrs.
Non-calculus mechanics including kinematics, dynamics, statics, work, energy, power, complex motions and fluids. Three lecture, three lab hours per week.
Prerequisite: MAT 132 or equivalent

132 Technical Physics II 4 Cr. Hrs.
Non-calculus properties of matter, heat, thermodynamics, waves, sound and light. Three lecture, three lab hours per week.
Prerequisite: PHY 131

133 Technical Physics III 4 Cr. Hrs.
A non-calculus course in electricity including electrostatics, electric fields, D.C. electric circuits, capacitance, magnetism, electro-magnetic induction, and alternating current. Three lecture, three lab hours per week.
Prerequisite: PHY 131

141 College Physics I 4 Cr. Hrs.
Algebra based university parallel sequence in mechanics including vectors, statics, kinematics, dynamics, work and energy, momentum, and circular motion. Three lecture, three lab hours per week
Prerequisite: MAT 116 or equivalent

142 College Physics II 4 Cr. Hrs.
Algebra based university parallel sequence in properties of matter, hydrostatics and fluid dynamics, heat and thermodynamics, periodic motion, waves, and sound. Three lecture, three lab hours per week.
Prerequisite: PHY 141

143 College Physics III 4 Cr. Hrs.
Algebra based university parallel sequence in electrostatics, D.C. and A.C. circuits, electromagnetism, and optics. Three lecture, three lab hours per week.
Prerequisite: PHY 141

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.

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.
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 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 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 R 1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in physics. Objectives will vary with the particular content area.

Plastics Technology (PLA)

106 Introduction to Plastics 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. Hrs.

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. Three lecture, two lab hours per week.

Prerequisite: PLA 106 or permission of instructor

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 or permission of instructor

210 Plastics Materials Testing 4 Cr. Hrs.

Plastics industry material resource information in the application of testing methods and procedures to determine pertinent product properties from 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 troubleshooting techniques in preparation for extrusion certification. Three lecture, two lab hours per week.

Prerequisite: PLA 208 or permission of instructor

225 Injection Molding (Process II) 4 Cr. Hrs.

Detailed examination of the injection molding machine and process through a combination of lecture and laboratory sessions emphasizing processing fundamentals. Experience with injection molding machine operation and process troubleshooting techniques in preparation for molder certification. Three lecture, two lab hours per week.

Prerequisite: PLA 208 or permission of instructor

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

Political Science (PLS)

101 American Federal Government I 3 Cr. Hrs.

American political system at the national level, process of government, democratic theory and development of the constitution, citizen participation through voting, interest groups and political parties.

102 American Federal Government II 3 Cr. Hrs.

American political system at national level, structure and functions of legislative, executive and judicial branches. Issues of civil liberties and equal rights.

103 State Government 3 Cr. Hrs.

Organization and operation of state governments, evolution of constitutions, elections, political parties, the three branches of government, and finances and taxation.

104 Urban Government 3 Cr. Hrs.

Organization, powers, functions, and problems of cities and metropolitan areas (particularly in Ohio), modern trends in budgeting and finance.

200 Political Life, Systems & Issues 3 Cr. Hrs.

Basic political and government concepts and systems, including ideologies and political systems; current political issues in Asia, Africa, Europe, Latin America, along with United States interests and policy options.

201 International Relations 3 Cr. Hrs.

Principles and techniques of international politics emphasizing different world perspectives.

205 Model United Nations: International Issues 1-3 Cr. Hrs.

History and structure of the United Nations with an in-depth look at selected current world issues; participation in model U.N. simulations, and opportunity to attend Dayton Model United Nations Conference.

270 Political Science Internship R 1-12 Cr. Hrs.

See EBE 270 Internship for course description.

297 Special Topics R 1-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in political science.

Printing Technologies (PRT)

101 Graphic Arts Processes I 3 Cr. Hrs.

Development and evaluation of printing processes including letterpress, gravure, flexographic, offset, silk screen, the kinds of work for which they are designed. Two lecture, 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

221 Offset Presswork I 3 Cr. Hrs.

A study of basic offset printing. Characteristics and operations of the duplicator size presses. A study of various types of dampening systems. Understand the required adjustments necessary for quality printing.

Prerequisite: PRT 101

222 Offset Presswork II 3 Cr. Hrs.

Techniques of operation and control, study of various moistening systems, comparison of wet and dry forms of lithography. Understanding the required adjustments necessary for top quality printing. Use of pressroom and quality control equipment.

Prerequisite: PRT 221

270 Graphic Arts Internship R 1-9 Cr. Hrs.

See EBE 270 Internship for course description.

271 Digital Prepress I 3 Cr. Hrs.
Fundamentals of digital prepress and the techniques used to prepare page layouts and designs for printing.
Prerequisite: VIS 148

272 Digital Prepress II 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 4 Cr. Hrs.
Management of live job from initial client contact to finished printed product using skills and techniques learned in prior printing technology courses as well as resources available in the Design department. Two 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 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 Student Success Planning program.

141 Love & Personal Growth 3 Cr. Hrs.
Research and theory concerning scientific definitions of love, and the development of love throughout the life cycle with special focus being given to communication styles, lifestyles, values, and morality.

142 Self-Esteem Building Life Skills 3 Cr. Hrs.
Theory and techniques to develop effective interpersonal relationships. Overview of self-esteem skills; application and evaluation of skills associated with solution options for interpersonal problems. A road map for success in building personal self-esteem, managing interpersonal relationships, and developing life skills to help achieve life goals.

145 Patterns of Human Relationships 3 Cr. Hrs.
Theoretical perspectives of traditional and non-traditional styles of relating and covers how our psychological development affects choices of partners, effects of culture and historical age on relating, love and romance, power, jealousy, loneliness and fairness, equity theory, therapeutic intervention and sexuality.

160 African-American Psychology 3 Cr. Hrs.
Multi-disciplinary study of the theories, cultural themes and the psychological constructs used to further understanding of the thoughts, feelings and behaviors of African-Americans.

205 Child Development 4 Cr. Hrs.
Research and theory concerning the physical, cognitive, social and moral development of children from conception to puberty and covers the impact of biolog-

ical 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 Work Place 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.
This course examines work group structures and processes and their influence on organizational and individual productivity. Students will apply psychological principles and methods to manufacturing, engineering, and other organizational environments in the lives of nearly all working people.
Prerequisite: PSY 119 or PSY 121
- 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** R
1-6 Cr. Hrs.
Involvement in a field related experience outside the classroom setting, in which the learning outcome in the form of evaluation will be determined by the supervising Psychology instructor.
Prerequisite: PSY 119 or PSY 122
- 295 Independent Study in Psychology** R
1-4 Cr. Hrs.
Students who have an identified interest in an area of psychology to explore that area in depth under faculty direction. May be repeated but not to exceed a total of six credit hours.
Prerequisite: Permission of instructor
- 297 Special Topics** R 1-6 Cr. Hrs.
Provides opportunity to receive credit for non-traditional courses, workshops and special interest topics in the discipline of psychology.
Prerequisite: May vary according to topic area

Physical Therapist Assistant (PTA)

- 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. Admission to PTA program
- 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
- 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.

- 130 Therapeutic Exercise I** 4 Cr. Hrs.
Introduction to injuries and diseases of the nervous, muscular, skeletal, and cardiopulmonary systems commonly treated in physical therapist 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. Two lecture, four lab hours per week.
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
- 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 physical therapist or physical therapist assistant 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 physical therapist or physical therapist assistant 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 physical therapist or physical therapist assistant 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, three 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 physical 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 3 Cr. Hrs.

Theory and clinical rationale for use and application of massage, soft tissue and joint mobilization with emphasis on functional outcomes and patient education. Three lecture, four lab hours per week.
Prerequisite: PTA 221

228 Lab for PTA 226

Laboratory must be taken with PTA 226.

230 Neuroscience for the Physical Therapist Assistant 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

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 physical therapist practice. Comprehensive review of curricular content.
Prerequisite: PTA 226

240 Clinical Procedures Review 1 Cr. Hr.

Comprehensive review of curricular content with required competency of technical skills.

Prerequisite: PTA 221, PTA 223

Purchasing (PUR)

201 Purchasing Principles 3 Cr. Hrs.

Contribution of the purchasing organization within the firm; development of sources of supply; purchasing procedures, policies, and techniques. Basic functions of procurement and materials management common to manufacturing, service, and government organizations.

202 Advanced Purchasing 3 Cr. Hrs.

In-depth approaches to actual situations encountered by purchasing personnel: quality, pricing, types of contracts, international purchasing, and the more challenging aspects of government purchasing.
Prerequisite: PUR 201, MAT 116 or equivalents

206 Seminar in Purchasing 3 Cr. Hrs.

Methods and tools unique to planning, evaluating, and controlling a proactive purchasing department; selection and management of purchasing personnel and their professional development; purchasing research and purchase timing alternatives.
Prerequisite: PUR 202

210 Just-in-Time Inventory Techniques 3 Cr. Hrs.

Development of Just-in-Time (JIT) 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.

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 and certification, and state-of-the-art approaches to supply chain management and auditing; role and impact of supplier relationships.

225 Negotiation Techniques 3 Cr. Hrs.

Psychology and techniques of conducting purchasing negotiations; mock negotiations using case studies. Principles apply to situations in real life. Class is open to non-purchasing students.

270 Purchasing Internship R 1-9 Cr. Hrs.
See EBE 270 Internship for course description.

297 Special Topics R 0.5-6 Cr. Hrs.
Special interest content within the discipline as well as instruction delivered in a non-traditional 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.

Prerequisite: Permission of instructor

101 Survey of Total Quality Management 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 Packaging Concepts & Materials 3 Cr. Hrs.

Functions of commercial, industrial, and military packaging: aesthetic, technical, cost, and environmental factors in package selection and design. Laboratory testing of packaging materials including paper, corrugated, paper board, and films using appropriate ASTM and TAPPI standards. Two lecture, two lab hours per week.
Prerequisite: DEV 108 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 coordinate measurement instruments and GD&T principles as applied to measurements. Two lecture, two lab hours per week.
Prerequisite: QET 100 or QET 112 or DRT 196 and INT 143 or MAT 131.

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. Advanced 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

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.

Prerequisite: QET 120

131 Fundamentals of Metallurgy & Material 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 hours per week.

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 properties. Thermoplastics, thermosetting, composites and glasses are included.

Prerequisite: CHE 131, MET 104, MAT 132 or equivalents

190 Quality Engineering WorkshopR
0.5-3 Cr. Hrs.

Various topics related to quality engineering technology.

200 Certified Quality Technician, Mechanical Inspector ReviewR
3 Cr. Hrs.

Review of the requirements and topics to become certified as an American Society for Quality Control Quality Technician or Mechanical Inspector.

201 Statistical Process Control

3 Cr. Hrs.

A continuation of the introductory course with emphasis on process capability, control charts techniques, and analysis. Two lecture, two lab hours per week.

Prerequisite: QET 101, MET 198, INT 141 or MAT 101 or equivalent

202 Advanced Statistical Quality Control

4 Cr. Hrs.

Applications of statistical quality control methods including hypothesis testing, design of experiments and analysis, single factor experiments, factorial experiments, confidence limits, and linear regression analysis. Three lecture, three lab hours per week.

Prerequisite: QET 202, MAT 111 or equivalent

211 Design & Process Failure Modes & Effects Analyses

2 Cr. Hrs.

Application of the reliability prediction techniques including fault tree, design and process Failure Mode and Effects Analyses (FMEA), and reliability block diagrams. One lecture, two lab hours per week.

Prerequisite: MET 104

212 Reliability Testing & Analysis

2 Cr. Hrs.

Reliability testing and failure analysis including: exponential, normal and Weibull distributions. Application of accelerated life testing. One lecture, two lab hours per week.

Prerequisite: Take one group: QET 211, QET 201 or QET 211, MAT 122

215 Certified Reliability EngineeringReview R
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

4 Cr. Hrs.

Applying a quality systems based on ISO 9001, 9004, 16949 or Malcolm Baldrige requirements, to improve customer relations, supply chain management, and to define the appropriate financial reporting system, including performances measures such as quality costs.

Prerequisite: QET 101

223 ISO 9000/16949 Quality Systems

3 Cr. Hrs.

Review of the ISO 9000: 2000 and ISO 16949 standards, requirements, and implementation strategies.

224 ISO 9000/16949 Documentation

3 Cr. Hrs.

Practice in the defining and writing of quality procedures that meets ISO 9001/16949 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 or permission of instructor

225 Certified Quality EngineeringReview R
3 Cr. Hrs.

Review of the requirements and topics to become certified as an American Society for Quality Control Engineer with emphasis on previous preparation.

231 ISO 9000/16949 Internal Auditor

3 Cr. Hrs.

Needs, requirements and practice in the development and implementation of an internal auditing program in an ISO 9000/16949 compliant organization.

Prerequisite: QET 223 or permission of instructor

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

261 Continuous Process Improvement 4 Cr. Hrs.
Selection and application of the appropriate problem solving models and tools for the improvement of process quality, throughput and waste reduction. Three lecture, two lab hours per week.
Prerequisite: QET 201, QET 221, IET 130, QET 202 or MAT 220

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 1-12 Cr. Hrs.
See EBE 270 Internship for course description. Students must consult the department chairperson for specific degree requirements.

295 Quality Control Seminar 3 Cr. Hrs.
A problem solving seminar in which a student plans a quality system. Also review previous ASQ Certification Exams.
Prerequisite: QET 202, QET 211, QET 221, MET 198

297 Special Topics R 1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom seminar setting or in a non-traditional 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 Competency Development I 4 Cr. Hrs.
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 per week.
Prerequisite: RAT 121

112 Clinical Competency Development II 4 Cr. Hrs.
Radiographic positioning of gastrointestinal, biliary, and urographic procedures. Sixteen clinical hours per week.
Prerequisite: RAT 111

121 Introduction to Radiography & Positioning 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.
Prerequisite: Acceptance to program

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.
Prerequisite: Admission to program

132 Ethics and Law in Medical Imaging 2 Cr. Hrs.
The historical and philosophical basis of ethics, elements of behavior, and practical dilemmas, concepts of law and legal principles including professional standards and scopes of practice.

137 Lab for RAT 131
Laboratory must be taken with RAT 131.

199 Computers in Medical Imaging 2 Cr. Hrs.
Overview of computers in medical imaging including hardware, software, peripheral devices. Its use in CT, MRI, digital imaging, computer aided diagnosis, plus information and image management (PACS).
Prerequisite: RAT 123 or permission of chairperson

212 Clinical Competency Development III 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. Twenty-four clinical hours per week.
Prerequisite: RAT 112

213 Clinical Competency Development IV 8 Cr. Hrs.
Clinical exposure to sub-specialties and other career opportunities; continuation of routine and special radiographic procedures; film analysis and presentation. Thirty-two clinical hours per week.
Prerequisite: RAT 212

214 Clinical Education Development Capstone 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 CT 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

218 Advanced Radiographic Practice 3 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 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.

229 Quality Management in Medical Imaging 1 Cr. Hrs.

Basic principles and concepts of quality management and overview of quality assurance testing applicable to the radiographic system

231 Sectional Anatomy 2 Cr. Hrs.

Human gross anatomy analyzing structures in the transverse (axial), sagittal, and coronal planes, with applications in modern medical imaging.

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

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 magnetic resonance 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 R 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.

Prerequisite: Permission of chairperson

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.

Prerequisite: Permission of chairperson

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.

Prerequisite: Permission of chairperson

249 Mammographic Practicum R 2 Cr. Hrs.

Clinical experience in mammography facility performing all functions including routine and special mammographic procedures, quality assurance testing and image analysis.

Prerequisite: Permission of chairperson

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, 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 40 clinic/practicum hours per week.

Prerequisite: Permission of chairperson

265 Seminar in Radiology R 1-3 Cr. Hrs.

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

Prerequisite: Permission of chairperson

Religious Studies (REL)

111 Eastern Religions 3 Cr. Hrs.

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

112 Western Religions 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 & 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 R 1-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a non-traditional format such as 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.

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.

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 description.

278 Real Estate Capstone 1 Cr. Hr.

Revisit knowledge and skills acquired in real estate abstracting, commercial appraisal, investing, and property management through development and submission of research papers.

Prerequisite: RES 122, RES 202, RES 203, RES 205, RES 221, RES 121, RES 201, RES 204, RES 210

297 Special Topics R 1-6 Cr. Hrs.

Provides opportunities to receive credit for special interest topics within the discipline.

Prerequisite: Permission of instructor

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. Acceptance to the Respiratory Care program

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, 12 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 interre-

relationships 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 12 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, 25 directed practice hours per week.

Prerequisite: RET 240

282 Lab for RET 280

Laboratory must be taken with RET 280.

295 Respiratory Care Seminar R 1 Cr. Hr.
Respiratory care procedures, equipment physiology, pathology, patient care, and other topics relevant to the discipline.

297 Special Topics R 0.2-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special interest topics within the discipline. Repeatable for credit as topics/issues change. Approved for Continuing Respiratory Care Education (CRCE) credit.
Prerequisite: Permission of chairperson

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 R 1 Cr. Hr.

Safety issues pertinent to the delivery and use of liquid and cylinder oxygen in the home care setting.

Prerequisite: High school graduate or GED, signature of chairperson

M03 Driver Safety for Hazardous Materials R 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 R 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.

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 and 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 and 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. Department of Transportation (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, record keeping and standards required by OSHA (29 CFR Part 1926) for the construction industry to ensure employees a safe, healthful work place.

232 Construction Work Site Safety 3 Cr. Hrs.

A comprehensive approach to develop and supervise safe conditions, practices, and compliance at construction worksites. Two lecture, two lab hours per week.

Prerequisite: SRM 231

270 Safety Risk Management Internship R 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.

Prerequisite: Permission of chairperson

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.

Prerequisite: Permission of instructor

297 Special Topics R 0.5-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; brief descriptions of topics will be given when the course is offered.

Prerequisite: Permission of chairperson

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

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, re-marriage and step-parenthood.

Prerequisite: SOC 111 or SOC 120

115 Today's Changing Family 4 Cr. Hrs.

Developmental stages of the family life cycle from the childless couple through death or divorce, family issues and problems.

Prerequisite: SOC 111 or SOC 120

117 Popular Culture 3 Cr. Hrs.

Exploration of popular culture in the last half of this century with projected trends; examination of influence of popular culture on the development of a unique American society and culture through media, music, sports, entertainment.

120 General Sociology 5 Cr. Hrs.

Analysis of contemporary American society with review of major sociological theories, research methods, culture, socialization, groups, social structure, social institutions, deviancy, social inequalities, social processes, and social change. Not open to students with SOC 111.

125 Drug Implications 3 Cr. Hrs.

Use, misuse and abuse of the most common drugs, emphasizing extent, effects, prevention and treatment.

130 Family Violence 3 Cr. Hrs.

Nature of family violence: child abuse, abuse of elderly parents, sexual abuse, incest, marital rape, marital violence, effects of family violence, and societal reactions to family violence. Also offered as LEP 130; students may enroll in either course, but not both.

Prerequisite: SOC 111 or SOC 120

145 Comparing Cultures 3 Cr. Hrs.

Cultural anthropology, including cultural evolution, similarities and differences among world cultures, comparative analysis of family organization, religious beliefs, educational systems, economics and governmental systems.

160 Social Patterns in Aging 3 Cr. Hrs.

Orientation to the biological, sociological, and psychological dimensions of the aging process, and society's response to its older members and their social problems.

Prerequisite: SOC 111 or SOC 120

205 Social Problems 4 Cr. Hrs.

Causes, treatment and prevention of such societal problems as mental illness, inadequate health care, alcohol and drug abuse, violence, crime, delinquency, inequality, aging, family breakdown and environmental concerns.

Prerequisite: SOC 111 or SOC 120

208 Sociology of American Cities 3 Cr. Hrs.

Evolution and growth of cities, emphasizing affluence and poverty, racial and ethnic pluralism, physical and moral decay of inner cities, and their effects on urban residents.

Prerequisite: SOC 111 or SOC 120

209 Futuristics: Life Experiences in the Future 3 Cr. Hrs.

Future trends regarding scientific, technological and social developments that will change lifestyles. Emphasis on exploring a variety of possible futures and ways in which individuals produce or influence future direction.

Prerequisite: SOC 111 or SOC 120

210 Rural Communities 3 Cr. Hrs.

Examines the significance of rural communities in American history, and seeks to develop an appreciation for its diversity and complexity. Analyzes the drastic economic transition occurring in rural America today and the social impact of these changes on the individuals, families, and communities.

214 Applied Population Demography 3 Cr. Hrs.

Introduction to the study of human populations and the process that governs their change, fertility, migration and mortality. Application of demographic data to social and economic issues through computer applications for demographic research.

Prerequisite: SOC 111 or SOC 120

215 Cultural Diversity 4 Cr. Hrs.

Exploration of American diversity in terms of the dynamics of intergroup relations from past to present. Groups included in the exploration: racial, ethnic, social class, gender, religious, age, disability, and sexual preference.

Prerequisite: SOC 111 or SOC 120

216 Human Sexuality I 3 Cr. Hrs.

Interrelatedness of the biological, psychological, religious and sociological factors in influencing attitudes toward sexuality.

- 217 Human Sexuality II** 3 Cr. Hrs.
This course focuses on male and female anatomy, physiology, conception, contraception, sexually transmitted diseases and sexual violence.
Prerequisite: SOC 216
- 225 Juvenile Delinquency** 3 Cr. Hrs.
Extent, theories, treatment and prevention of juvenile delinquency.
Prerequisite: SOC 111 or SOC 120
- 226 Criminology** 3 Cr. Hrs.
Nature and extent of conventional, organized and white collar crime in modern society, contributing causes, and methods used in control.
Prerequisite: SOC 111 or SOC 120
- 227 Probation & Parole** 3 Cr. Hrs.
Techniques of case management of probationers and parolers, focusing on legal precedents, pre-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 multicultural American community.
- 240 Controversial Social Issues** 3 Cr. Hrs.
This course will address itself to a critical analysis of opposing viewpoints which surround some of today's most hotly debated, controversial, and explosive social issues as abortion, prayer in school, nuclear deterrence, etc.
Prerequisite: SOC 111 or SOC 120
- 270 Sociology Internship R** 1-12 Cr. Hrs.
See EBE 270 Internship for course description.
- 295 Independent Study R** 1-3 Cr. Hrs.
Examines social conditions, problems and issues which are of interest to the student under the direction of a faculty member. May be repeated for a total of six (6) credit hours.
Prerequisite: Permission of instructor
- 297 Special Topics R** 1-6 Cr. Hrs.
Studies selected topics related to current American social issues, trends or problems. These topics may be offered through regular class schedules, television, newspaper or mini-workshops.
Prerequisite: May vary according to topic area

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 second-year Spanish course.
- 101 Elementary Spanish I** 4 Cr. Hrs.
Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
- 102 Elementary Spanish II** 4 Cr. Hrs.
Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
Prerequisite: SPA 101
- 103 Elementary Spanish III** 4 Cr. Hrs.
Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
Prerequisite: SPA 102
- 201 Intermediate Spanish I** 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 103
- 202 Intermediate Spanish II** 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 103
- 203 Intermediate Spanish III** 4 Cr. Hrs.
Reviews and extends basic principles through composition and conversation, stressing fluency. Language laboratory work may be required.
Prerequisite: SPA 202
- 297 Special Topics R** 1-12 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses such as courses by television and newspaper as well as special interest topics in the discipline.

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, 16 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, 16 directed practice hours per week.
Prerequisite: BIO 205, SUT 112, ALH 104
- 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, 16 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 postanesthesia 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, 25 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.

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.

Prerequisite: THE 107 must be taken concurrently.

107 Laboratory for Theatre 106

Laboratory must be taken with THE 106.

111 Acting I 3 Cr. Hrs.

Basic acting techniques with emphasis on stage improvement and voice, and principles and theories of sensory, imaginative, emotional and pantomimic responsiveness. One lecture, four lab hours per week.

112 Acting II 3 Cr. Hrs.

Various theories concerned with the preparation of roles and the special performance characteristics of tragedy, comedy, melodrama and farce. One lecture, four lab hours per week.

Prerequisite: THE 111

113 Acting III 3 Cr. Hrs.

Emphasis and application of the Stanislavski system through interactive scene work of contemporary literature.

Prerequisite: THE 112

114 Lessac Voice & Body Technique 3 Cr. Hrs.

Training in the Lessac voice and body technique for actors, singers, broadcasters, and public speakers. A practical and dynamic vocal and physical technique.

115 Stage Lighting Technology 3 Cr. Hrs.

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.

Prerequisite: THE 117 must be taken concurrently.

116 Stage Lighting Design 3 Cr. Hrs.

Creative principles and procedures in the design of lighting for theatrical productions. Emphasis will be given to the coordination of visual and aesthetic aspects of lighting design. One lecture, four lab hours per week.

Prerequisite: THE 115

117 Laboratory for Theatre 115 3 Cr. Hrs.

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, re-

search 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 R 3 Cr. Hrs.

Dramatic composition and practical production procedures for child audiences. One lecture, four lab hours per week.

166 Creative Dramatics 3 Cr. Hrs.

Designed to teach the student and the teacher of early childhood education how to bring out creativity in children through the use of theatre games. One lecture, four lab hours per week.

198 Applied Theatre Technology R 1 Cr. Hr.

Provides the student who is interested in theatre the opportunity to acquire credit for production experience. This experience takes place on Sinclair Theatre and Dance productions, with arrangements for area of assignment made through the department technical director.

201 History of Theatre I 3 Cr. Hrs.

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.

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.

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 3 Cr. Hrs.

To learn the historical background of American Theatrical form and its continuing development up to the present day, identifying specific productions which set new standards. THE 212 is suggested prior to taking THE 218. One lecture, four lab hours per week.

Prerequisite: THE 212

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 teamwork.

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.

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 R 3 Cr. Hrs.

A laboratory course designed to concentrate on special topics, newly selected each year, meeting the special needs of the students. Topics such as a one-act play production, acting, Shakespeare, improvisation and others will be considered. One lecture, four lab hours per week.

Prerequisite: Permission of instructor

278 Theatre Capstone R 1 Cr. Hr.

A course designed for the graduating theatre major which emphasizes a demonstration of acquired skills and abilities.

Prerequisite: THE 206

298 Theatre Practicum: Technical R 1-6 Cr. Hrs.

Provides the student who is interested in technical theatre the opportunity to acquire credit for practical experience in production. For experience off-campus, arrangements for supervision must be made through the department chairperson.

299 Theatre Practicum: Performance R 1-6 Cr. Hrs.

Provides the student who is interested in the performance aspect of production to receive credit for practical experience. If the experience takes place off campus, arrangements must be made through the department chairperson.

Travel & Tourism (TNT)

100 Introduction to Travel & Tourism 3 Cr. Hrs.

Overview of terminology, concepts, and specialized fields that comprise the travel and tourism industry including job opportunities.

Prerequisite: DEV065, 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 and 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: DEV065, 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 3 Cr. Hrs.

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. Hrs.

Supervisory techniques for travel agency staff emphasizing communication, selection, and professional development.

Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122

215 Managing a Travel Agency 3 Cr. Hrs.

Managerial and financial aspects of agency operations, including internal flow and impact of external factors on successful management.

Prerequisite: TNT 102, TNT 108, TNT 114, TNT 122

224 Advanced Airline Computer I 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, air fares, 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, MAR 201

270 TNT Internship R 1-6 Cr. Hrs.
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare reports and/or projects.
Prerequisite: EBE departmental approval

278 Travel & Tourism Capstone 3 Cr. Hrs.
Assessment of achievement by Travel & Tourism degree students in attaining program outcomes by employing reflective learning through demonstration of related principles and practices.
Prerequisite: All TNT degree required courses or special department permission

297 Special Topics R 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.
Prerequisite: Permission of instructor

Transportation Management (TRA)

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.

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 and 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 R 1-7 Cr. Hrs.
See EBE 270 Internship for course description.

297 Special Topics R 0.5-6 Cr. Hrs.
Special interest content within the discipline as well as instruction delivered in a non-traditional format such as TV or videotape.

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 Visual Communications 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 Visual Communications Tech Prep Seminar II R 1 Cr. Hr.
An overview of interactive media technology components and issues in designing and producing interactive media.
Prerequisite: Acceptance into the Tech Prep program

103 Visual Communications Tech Prep Seminar III R 1 Cr. Hr.
An overview of interactive media technology components and 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 Video 3 Cr. Hrs.
Introduction to digital video editing software and the development of digital video for multimedia graphics.
Prerequisite: VIS M04, VIS M05 or VIS 104

116 Digital Animation 3 Cr. Hrs.
Introduction to 2D & 3D animation software and the development of animations for presentations and multimedia applications.
Prerequisite: VIS M05 or 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 M05, VIS 104, CIS 107, OIS M70, OIS M71 or CIS 129.

146 Digital Illustration 3 Cr. Hrs.
Computer illustration techniques using vector based software.
Prerequisite: VIS M05 or VIS 104

147 Digital Imaging 3 Cr. Hrs.
Computer imaging and photo manipulation using raster based software.
Prerequisite: VIS M05 or 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 146, VIS 147, and VIS 148

207 Design Principles II 4 Cr. Hrs.
Second of a two-part series exploring advanced elements and principles of design; introduction to identity systems. Two 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 146, VIS 147 and VIS 148

237 Design Applications II 4 Cr. Hrs.

Exploring the use of design elements and principles and applying it to current trends within a marketing concept. Two lecture, four lab hours per week.

Prerequisite: VIS 236 and VIS 115 or VIS 116

265 Digital Authoring 3 Cr. Hrs.

Fundamentals of digital authoring and the development of multimedia graphics delivered on CD ROM.

Prerequisite: VIS 146, VIS 147 and VIS 115 or 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 R
1-12 Cr. Hrs.**

See EBE 270 Internship for course description.

**276 Visual Communications Portfolio
Development 3 Cr. Hrs.**

Each second-year student will develop a portfolio from portfolio projects, work experience, freelance, etc. Through lecture, demonstration, class handouts and guest speakers the student will have the exposure and guidelines necessary to build a unique and individualized portfolio.

Prerequisite: VIS 237 or IND 232

**278 Visual Communications Capstone
4 Cr. Hrs.**

Comprehensive application of all skills and techniques learned in prior visual communications classes and resources available in the Design department. Two lecture, four lab hours per week.

Prerequisite: VIS 207, VIS 237

297 Special Topics R 1-6 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV. Students may apply only six credit hours of Special Topics courses toward an associate degree in Design.

Prerequisite: Permission of instructor

Management of Volunteer Programs (VOL)

**190 Volunteer Seminars R
0.5-3 Cr. Hrs.**

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.

Who's Who



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Counselor, Enrollment Services
B.S., Wright State University
M.A., Illinois School of Professional Psychology
- Bob Rice (2001)**
Coordinator, Education Programs at DCI/MEPRC
B.S., Cumberland College
M.S., M.Ed., Xavier University
Ed.D., University of Cincinnati
- Tom Roberts (1998)**
Advisor, Sinclair Ohio Fellows Leadership Program
B.A., University of Dayton
- Richard Runner (2000)**
Network Lab Coordinator, Computer Information Systems
A.A.S., Sinclair Community College
- Andy Runyan (2001)**
Director, eCollege, Information Technology
B.M.E., University of Dayton
M.Mfg. Mgmt., Kettering University
Ph.D., Nova Southwestern University
(Professional Engineer, Ohio)
- Phyllis Salter (1984)**
Academic Counselor, Developmental Studies
B.S., Ohio State University
M.R.C., Wright State University
(L.P.C.)
- Valerie J. Schaefer (2001)**
Programmer & Analyst, Business Systems & Programming, Information Technology
- Mark Schmid (2000)**
Assistant Manager, 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
- Charlotte Simpson (1990)**
Conference Services Manager, Corporate & Community Services
- Sara Porter Smith (1988)**
Director & 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
- Susan Spacht (2003)**
Academic Counselor, Liberal Arts & Sciences
A.A.S., Sinclair Community College
B.S., M.S., Wright State University
- Jaton R. Stanford (1999)**
Manager, Recruitment, Admissions
B.S., M.Ed., University of Cincinnati
- Donald Stark (2002)**
Aviation Maintenance Coordinator, Aviation Technology
A.A.S., Community College of the Air Force
B.S., Park College
M.S., Embry-Riddle Aeronautical University
- Robert E. Stemple (1983)**
Manager, Learning Technology Development Center, Information Technology
A.A., A.S., Sinclair Community College
- Cheryl Stewart (2001)**
Policy & Procedures Specialist, Information Technology
B.S., M.Ed., Wright State University
- Penny Stewart (1998)**
Multimedia Graphics Producer, Information Technology
B.A., Pike's Peak Community College

Karen Stiles (1997)
 Manager, Corporate Outreach, The Learning Center at Miami Valley Research Park
 A.A.S., Sinclair Community College
 B.A., University of Dayton
 M.A., Wright State University

Carol L. Stratton (2001)
 Development Associate, Sinclair Foundation & Alumni Affairs
 B.A., Central 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)

Nancy Thibeault (1999)
 Director, Learning Technology Support, Information Technology
 B.A., Bridgewater State College
 M.S., Wright State University

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., The Union Institute & University
 M.A., McGregor School of Antioch University

Joseph F. Tobias (1985)
 Assistant Manager, Tartan Campus Store/Materials Management
 B.S., Taylor University
 (Certified Store Professional, Certified Purchasing Manager)

Chris Tomlinson (1997)
 Programmer & Analyst, Business Systems & Programming, Information Technology
 B.A., Wright State University

John Tomoser (1988)
 Coordinator, Off-Campus Sites, Distance Learning
 A.A., A.S., Sinclair Community College
 B.S., Wright State University

Winnie Tseng (1990)
 Librarian, Reference, Learning Resources Center
 B.S., Utah State University
 M.L.S., University of Kentucky

Karen L. Usrey (1999)
 Coordinator, Alumni Affairs
 A.A., Sinclair Community College
 B.A., M.A., Antioch University

David P. Wells (2002)
 Database Administrator, eCollege, Information Technology
 B.S., M.S., Wright State University

Kathy L. Wiesenauer (1990)
 Director, Financial Aid & Scholarships
 B.A., Miami University
 M.A., Bowling Green State University

Karen Witt (1979)
 Director, Student Success Planning Services
 B.S., Iowa State University
 M.S., Wright State University

Julie Wittman (1995)
 Help Desk Coordinator, Information Technology
 (H.D.A. Certified)

Sue Wood (1992)
 Systems & Applications Analyst, Business Systems & Programming, Information Technology
 A.A.S., Sinclair Community College
 B.S., Park University

Alan Yeck (2000)
 Program Developer, Information Technology, The Learning Center at Miami Valley Research Park
 B.S., Wilberforce University
 (Certified Information Systems Security Professional)

William Young (1997)
 Coordinator, Academic Computer Center
 A.A.S., Sinclair Community College

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Barbara Adams (1982)
 Professor, Developmental Studies
 B.S., Bowling Green State University
 M.Ed., Wright State University

Lawrence Adkins (2002)
 Assistant Professor, Computer Information Systems
 A.A.S., Sinclair Community College
 B.S., Capital University
 M.S., Nova Southeastern 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

Christine Anastasio (2002)
 Assistant Professor, Developmental Studies
 B.S., Wright State University

Shepherd Anderson (1996)
 Associate 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.)

Kenneth Angel (1983)
 Professor, English
 B.S., M.S., Miami University

Sandra J. Apgar (2000)
 Assistant Professor, Sociology
 A.A., Sinclair Community College
 B.A., Wright State University
 M.S.W., University of Cincinnati
 (L.I.S.W.)

Stephen L. Ash (1976)
 Professor, Chairperson, Automotive Technology
 B.S.Ed., M.Ed., Miami University

S. Kay Ashworth (1989)
 Professor, Chairperson, Occupational Therapy Assistant
 B.S., Loma Linda University
 M.A.T., Wright State University
 (O.T.R./L.)

DeLena M. Aungst (2001)
 Instructor, Business Information Systems
 B.A., Wright State University
 M.S., University of Dayton

Deborah Badonsky (1978)
 Professor, Legal Assisting/Paralegal
 B.A., Valparaiso University
 J.D., University of Toledo

Kenneth A. Baker (2000)
 Assistant Professor, Business Information Systems
 B.S., Bowling Green State University
 M.B.A., University of Dayton

Jennifer Barr (1993)
 Professor, Chairperson, Medical Assistant Technology
 Coordinator, Allied Health Instruction
 B.S., Eastern Kentucky University
 M.T., Lourdes Hospital
 M.Ed., Wright State University
 (C.M.A.)

Connie S. Beal (1991)
 Professor, Nursing
 B.S.N., M.S., Wright State University
 (R.N.)

Daniel E. Becker (1976)
 Professor, Dental Hygiene
 B.S., Ohio University
 D.D.S., Ohio State University

Cynthia A. Beckett (1982)
 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.)

E. Rocky Belcher (2001)
 Assistant Professor, Business Information Systems
 B.S., Wright State University
 M.S., Columbus University

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
- David Bodary (1994)**
Professor, Communication Arts
B.S., Eastern Michigan University
M.A., Ph.D., Wayne State University
- William Boyko (1983)**
Professor, Biology
B.S., Fairleigh Dickinson
M.S., Indiana University
- Douglas Bradley-Hutchison (1987)**
Professor, Physics
B.S., Montclair State College
M.S., University of New Hampshire
- Barbara Branstiter (1998)**
Professor, Physical Therapist Assistant
B.S., Ohio State University
M.Ed., Urbana University
- V. Michael Brigner (2001)**
Assistant Professor, Legal Assisting/
Paralegal
B.A., Wright State University
J.D., Salmon P. Chase School of Law
- James Brooks (1983)**
Professor, Developmental Studies
B.A., M.A., University of Pacific
- John Brotbeck (2001)**
Assistant Professor, Computer
Information Systems
B.S., Rider College
M.B.A., University of Findlay
- Bernice Brown (1997)**
Assistant Professor, Developmental
Studies
M.A., University of Dayton
- Darrin Brown (2002)**
Instructor, Sociology
B. S., Central State University
- Randall Brown (2000)**
Assistant Professor, Computer
Information Systems
B.A., Wright State University
M.S. Ed., University of Dayton
- Susan Callender (1992)**
Professor, English
B.S., M.A., Ohio State University
- Judith Campbell (1981)**
Professor, Radiologic Technology
A.A.S., Sinclair Community College
B.A., Capital University
(A.R.R.T.)
- Michael J. Canestaro (1998)**
Associate Professor, Chairperson,
Chemistry
A.A.S., Broome Community College
B.S., M.S., State University of New York
at Buffalo
- Susan Cannon (1998)**
Assistant Professor, Radiologic
Technology
A.S., Sinclair Community College
B.S., M.S., University of Dayton
(A.R.R.T.)
- Tom Carlisle (1980)**
Professor, Industrial Engineering
Technology
B.I.T., University of Dayton
M.B.A., Wright State University
- Sally Carlson (2002)**
Assistant Professor, Business
Information Systems
B.S., Southeast Missouri State University
M.Ed., Wright State University
- Yvonne Carranza (1980)**
Professor, Developmental Studies
B.S.Ed., University of Dayton
M.S.Ed., Wright State University
- Barbara Carruth (1982)**
Professor, Mathematics
B.S., University of Dayton
M.S., Wright State University
- Donna M. Chadwick (1990)**
Professor, Accounting
B.F.A., M.B.A., Wright State University
(Certified Public Accountant, Certified
Management Accountant)
- Gene Chambers (1980)**
Professor, Chairperson, Tooling &
Machining Technology
A.A.S., Sinclair Community College
B.S., University of Cincinnati
(C. Mfg. E.)
- Pamela Chambers (1995)**
Associate Professor, Criminal Justice
B.S., M.S.Ed., University of Dayton
- Robert Chambers (2002)**
Assistant Professor, Fire Science
Technology
B.S., University of Cincinnati
M.S., Wright State University
- Robert Chaney (1992)**
Professor, Mathematics
B.S., M.A., Miami University
- Harvey Chew (1984)**
Professor, Mathematics
B.A., M.A., M.S.T., Ed.D, University of
Missouri
Ed.S., Central Missouri State University
- Elizabeth Christensen (2001)**
Assistant Professor, English
B.S., M.A., Wright State University
- Patricia Clark (1990)**
Associate Professor, Developmental
Studies
B.S., Bowling Green State University
M.Ed., Wright State University
- Franklin E. Clay (1977)**
Professor, Fire Science Technology,
Safety Engineering Technology
B.S., University of Maryland
M.A., Wright State University
- Kathleen C. Cleary (2003)**
Associate Professor, Chairperson,
Theatre & Dance
B.A., Franciscan University
M.A., Binghamton University
Ph.D., Ohio State University
- Barbara Coleman (1997)**
Associate Professor, Nursing
B.S.N., Wright State University
M.S.N., Texas Woman's University
- Deanna D. Collins (1991)**
Professor, Nursing
B.S.N., Capital University
M.S., Wright State University
(R.N.)
- Louis Conn (1981)**
Professor, Respiratory Care
A.A.S., Sinclair Community College
B.S., Capital University
(R.R.T.)
- Mary A. Connolly (1973)**
Professor, Child & Family Education
B.S.Ed., Ohio University
M.Ed., Wright State University
Ph.D., Ohio State University
- Forrest Cope (1969)**
Professor, Architectural Technology
B.S., A.M.Ed., Morehead State University
- Gail Cope (1972)**
Professor, Business Information Systems
B.S., Manchester College
M.A., Eastern Kentucky University
- Kay Cornelius (1997)**
Associate Professor, Mathematics
B.S., Michigan State University
M.Ed., Wright State University
- Steven Cornelius (1989)**
Professor, Chairperson, Hospitality
Management
A.S., Sinclair Community College
A.S., Cincinnati Technical College
B.A., Capital University
M.Ed., University of Dayton
- Mary A. Cox (1989)**
Associate Professor, Nursing
B.S.N., Wright State University
M.S., Ohio State University
(R.N.)
- Cynthia Cully (1995)**
Associate Professor, Design
B.F.A., University of Dayton
M.Des., University of Cincinnati
- Angela Currier (2002)**
Assistant Professor, Biology
B.S., Baldwin-Wallace College
Ph.D., Miami University
- Mark Curry (2000)**
Assistant Professor, Civil Engineering
Technology
A.S., Sinclair Community College
B.A., Urbana University
- Lori C. Cutright (1992)**
Professor, Physics
B.S., St. Joseph's College
M.S., Indiana University
- Ribhi Daoud (2000)**
Assistant Professor, Economics
B.A., M.A., California State Sacramento
Ph.D., Walden University
- Ronald L. Dapore (1998)**
Associate Professor, Tooling &
Machining Technology
B.R.E., Grace Bible College
M.S., Wright State University

- Gloria Daughtry (1983)**
Professor, Nursing
B.S.N., Tuskegee Institute
M.S.N., Mississippi University for Women
(R.N.)
- R. Edward Davis (1978)**
Professor, English
B.A., Concord College
M.A., West Virginia University
- William Deighton (1980)**
Professor, Mechanical Engineering Technology
B.S., Lafayette College
M.S., Pennsylvania State University
- Roxann DeLaet (1992)**
Professor, Nursing
B.S.N., University of Akron
M.S., Wright State University
(R.N.)
- Linda Denney (1983)**
Professor, Computer Information Systems
B.S., B.S.Ed., Miami University
M.B.A., Wright State University
- Lynn Disbrow (1993)**
Professor, Communication Arts
B.A., Indiana University, South Bend
M.A., Emerson College
Ph.D., Wayne State University
- Diane Drummer (2000)**
Assistant Professor, Child & Family Education
B.S., Ohio University
M.Ed., University of Cincinnati
- Mary E. Dudash-White (1985)**
Professor, Health Information Management
B.S., Ohio State University
M.A., Wright State University
(R.H.I.A.)
- Isabelita P. Duncan (1986)**
Professor, Nursing
B.S.N., University of Santo Tomas
M.S.N., Indiana University
(R.N., C.S., C.N.R.N.)
- Charli Dunford (1977)**
Professor, Design
Certificate, Cincinnati Academy of Design
- James Dunham (2002)**
Assistant Professor, English
B.A., Miami University
M.F.A., Bennington College
- Darlene Dunn (2002)**
Assistant Professor, Legal Assisting/Paralegal
B.A., University of Florida
J.D., University of Florida College of Law
- 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., F.A.D.A.)
- Crystal Echols (1992)**
Associate Professor, Developmental Studies
B.A., Howard University
M.A., University of Dayton
- 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, Chairperson, Mechanical Engineering Technology, Quality Engineering Technology, Engineering Science University Parallel
B.A., Antioch University
A.M.A.R.C., United Theological Seminary
- Georgann Enright (2001)**
Assistant Professor, Nursing
B.S.N., University of Michigan
M.S.N., Wright State 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)**
Associate Professor, Sociology
B.S., M.S., University of Dayton
(L.P.C., L.S.W.)
- Patti Fernandez (2002)**
Assistant Professor, Developmental Studies
M.S.Ed., Wright State University
- Sherry Ferra (2001)**
Assistant Professor, Nursing
B.S.N., Wayne State University
M.S.N., Wright State University
- Donald L. Filbrun (1995)**
Associate Professor, Tooling & Machining Technology
B.S., Eastern Kentucky University
M.S., Wright State University
- Kyle Fisk (1991)**
Professor, Design
A.A.S., Sinclair Community College
B.A., Wright State University
M.Des., University of Cincinnati
- Karen Fleming (2002)**
Assistant Professor, Developmental Mathematics
B.S., University of Dayton
- 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
- Charles Freeland (2001)**
Assistant Professor, English
B.A., Miami University
M.F.A., University of Arkansas
- Dana Frierson (1996)**
Associate Professor, English
B.A., M.A., University of Dayton
- Solomon Fulero (1981)**
Professor, Psychology
B.A., University of Maryland
M.A., Ph.D., J.D., University of Oregon
- Ed Gallo (2002)**
Assistant Professor, Mathematics
B. S., Worcester Polytechnic Institute
M. S., University of Texas at El Paso
- Michael Garblik (1983)**
Professor, Automotive Technology
B.S., Bowling Green State University
M.Ed., University of Dayton
- Virginia Garrett (1992)**
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)**
Professor, Design
Diploma, Dayton Art Institute
- Soroush Ghahramani (2002)**
Assistant Professor, Architectural Technology
M.S., Ph.D., University of Rome
- 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, Automation & Control
Technology
B.S., University of Dayton
- Patricia Gillilan (1999)**
Associate Professor, Computer
Information Systems
B.A., M.S., Florida State University
- Kjirsten Goeller (2001)**
Instructor, Developmental Studies
B.A., M.A., University of Dayton
Early Childhood Associated Credentials-
Head Start
- 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.)
- Luis Samuel Gonzalez (2002)**
Assistant Professor, Philosophy
B.A., Andrews University
M.A., Western Michigan University
J.D., Valparaiso University School of
Law
- Mary E. Govan (1987)**
Professor, 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
- Patrick Greco (2001)**
Assistant Professor, Chemistry
B. S., M. S., Wright State University
- Daniel Greene (1989)**
Associate Professor, Music
B.M., M.M., Bowling Green State
University
- Myra Grinner (1997)**
Assistant Professor, Communication
Arts
B.A., Wright State University
M.S., Central Michigan University
M.A., University of Dayton
- Sarah Gross (2002)**
Assistant Professor, Management
B.S., M.B.A., University of Dayton
- George Hageman (1987)**
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)**
Associate Professor, Computer
Information Systems
B.S., M.S., Wright State University
- Steven D. Harper (2001)**
Professor, Chairperson, Automation &
Control Technology, Aviation
Technology
B.S., Ohio State University
M.S., Wright State University
- Kevin Harris (2000)**
Assistant Professor, Interim Chairperson,
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
- Tracey Harris (2001)**
Instructor, Chemistry
A.S., Sinclair Community College
B. S., Wilberforce University
- Michael C. Harvey (1981)**
Professor, Automotive Technology
B.S., Western Michigan University
- Paula Heitkemper (2002)**
Assistant Professor, Nursing
B.S., M.S.N., University of Cincinnati
- Sheranita Hemphill (1989)**
Professor, Dental Hygiene
A.A.S., Sinclair Community College
B.S., M.S.Ed., University of Dayton
M.P.H., Ohio State University
(R.D.H.)
- Victoria Hennessy (1989)**
Professor, Biology
A.A., College of San Mateo
B.A., M.A., San Francisco University
- Anne Henry (1994)**
Associate Professor, Geology
B.S., M.S., Wright State University
- Jane Hofverberg (1992)**
Professor, Occupational Therapy
Assistant
B.S., Virginia Commonwealth University
(O.T.R./L.)
- Steven Holliday (1997)**
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
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- James Houdeshell (1978)**
Professor, Quality Engineering
Technology
B.S., Rose-Hulman Institute
M.S., Wright State University
M.S., University of Dayton
Ph.D., Nova Southeastern University
(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
M.A., George Washington University
(R.H.I.A.)
- Mark Humbert (2002)**
Assistant Professor, Psychology
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M.A., Ph.D., United States International
University
- DeAnn Hurtado (2002)**
Assistant Professor, Business
Information Systems
B.S., Miami University, Oxford
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- Ronald L. Hutchins (1984)**
Professor, Tooling & Machining
Technology
A.A.S., Sinclair Community College
B.S., University of Cincinnati
(C. Mfg. E.)
- Elaine Isabell (1996)**
Associate Professor, Psychology
B.A., M.A., St. Mary's University
- 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
M.Ed., Central State University
- Wanda Jelus (1990)**
Professor, Nursing
B.S.N., University of Cincinnati
M.S., Wright State University
(R.N.)
- Abdullah Johnson (2002)**
Instructor, Electronics & Computer
Engineering Technology
A.S., B.S., University of Maryland

- 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.)
- Bruce L. Jordan (1973)**
Professor, Music
B.M.Ed., Miami University
M.M., Indiana University
- Rick Jurus (1988)**
Professor, Art
B.F.A., Youngstown State University
M.F.A., Ohio State University
- Barbara J. Kabat (1973)**
Professor, Chairperson, 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)
- Lyn Keeler (1993)**
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)**
Associate Professor, Chairperson, Health Information Management
B.S., Ohio State University
M.B.A., Xavier University (R.H.I.A., C.C.S.)
- 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
- Jennifer King-Cooper (2002)**
Assistant Professor, Psychology
B.A., Allegheny College
M.A., Bowling Green State University
Ph.D., University of Pittsburgh
Ph.D., The Union Institute & 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
- 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.)
- Trudy Krisher (2002)**
Assistant Professor, Developmental Studies
B.A., University of Dayton
- Terry Krogman (1995)**
Associate Professor, Automotive Technology
B.S., University of Toledo
M.Ed., University of Dayton
- Judy L. Kronenberger (1998)**
Assistant Professor, Medical Assistant Technology
A.S., Sinclair Community College
B.A., Antioch University
M.Ed., University of Dayton (C.M.A.)
- 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
- Frank Leibold (1994)**
Associate Professor, Hospitality Management
B.A., Athenaeum of Ohio
- Robert G. Leonard (2003)**
Assistant Professor, Communication Arts
A.A., Manual Communication, Certificate of Deaf Studies, Sinclair Community College
B.A., Wright State University
M.A., University of Maine
Ph.D., University of Utah
- Teresa Little (1993)**
Professor, Art
B.F.A., Wright State University
M.F.A., Cranbrook Academy of Art
- Peter Maggiacomo (1995)**
Associate Professor, Computer Information Systems
A.T., B.T., University of Dayton
M.A., Webster University
- W. Terry Maiwurm (1982)**
Professor, Cooperative Education, Engineering & Industrial Technologies
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, Chairperson, 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
- Dwayne Masteller (2003)**
Assistant Professor, Surgical Technology
B.A., McGregor School of Antioch College
M.A., Central Michigan University
- Laurel Mayer (1989)**
Professor, Chairperson, Humanities, Government & Modern Languages
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
- Anne McCrea (1998)**
Associate 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

Mary McGirr (2001)

Assistant Professor, Communication Arts
M.A., B.S., Bowling Green 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

Timothy McKinney (2001)

Assistant Professor, Civil Engineering Technology
B.S., Central State University
M.S., University of Dayton

Kevin McNeeley (2001)

Assistant Professor, Tooling & Machining Technology
B.S., M.S., Bowling Green State 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

Sue Merrell (1993)

Professor, Business Information Systems
Coordinator, Curriculum & Assessment
B.S., Miami University
M.S., University of Dayton

David Meyer (2000)

Assistant Professor, Chairperson, Industrial Engineering Technology
B.S., Ohio State University
(Registered Professional Engineer)

Marcia E. Miller (1988)

Professor, Nursing, Coordinator, Nursing Continuing Education
B.S.N., University of Cincinnati
M.S.N., University of Texas, El Paso
(R.N., C.S.)

Kathleen Mills (1994)

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.)

Linda D. Mowrey (2002)

Assistant Professor, Chairperson, Mental Health Technology
B.A., California State University at Long Beach
M.S., Wright State University
(L.P.C.)

Connie W. Mullins (1987)

Professor, Nursing
A.D., Kettering College of Medical Arts
B.S., M.S., Wright State University

Ryan Murphy (2002)

Assistant Professor, Business Information Systems
B.S., Bowling Green State University
M.B.A., Wright State University

Jaclynn K. Myers (1999)

Associate Professor, Business Information Systems
B.S., M.S.Ed., Wright State University

Susan C. Myers (1972)

Professor, Mathematics
B.A., Muskingum College
M.S., Miami University

Jane Myong (1992)

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

Carol Nancarrow (1996)

Associate Professor, English
B.A., Baylor University
M.A., Wright State University

Kunthavi Natarajan (2000)

Associate Professor, Biology
B.S., M.S., University of Madras
Ph.D., University of Iowa

Paula L. Neal (1972)

Professor, Business Information Systems
B.S., M.A., Eastern Kentucky University

Ruth Nerderman (1984)

Professor, Nursing
B.S.N., Ohio University
M.A., Ball State University
(R.N., C.E.N.)

Michael Oaster (2003)

Assistant Professor, Emergency Medical Services
B.S., West Chester University

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

Gina Neuerer (2003)

Assistant Professor, Theatre, Dance
A.A., Sinclair Community College
B.A., Wilmington College
M.F.A., University of Cincinnati-College of Conservatory Music

Tina Partin (1993)

Professor, Nursing
A.D.N., Kettering College of Medical Arts
B.S.N., Columbia Union College
M.S.N., Wright State University

Linda Pastore (2000)

Assistant Professor, Experience Based Education
B.S., Bloomsburg University
M.S., West Chester University

Harold Pearson (1990)

Professor, Automation & Control Technology
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

Anthony Ponder (1991)

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

John Porter (2001)

Assistant Professor, Automotive Technology
A.S., Sinclair Community College
B.S., University of Louisville

Michael Porter (2002)

Assistant Professor, Computer Information Systems
B.A., Miami University
M.B.A., University of Dayton

David Prater (2002)

Instructor, Nursing
B.S.N., Wright State University

Thomas M. Preisser (1973)

Professor, History
B.A., Stanford University
M.A., Northwestern University
Ph.D., College of William & Mary

Teresa Prosser (1991)

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

Eric Ramsey (1997)

Associate Professor, Psychology
B.A., M.A., University of Dayton

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)**
Professor, Electronics & Computer Engineering Technology
B.S.E., Princeton University
Ph.D., University of Minnesota
- Cheryl Reindl-Johnson (2002)**
Assistant Professor, Chairperson, Business Information Systems
B.S., B.A., Wilmington College
M.A., Miami University
- 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.)
- Kathleen Riehle (2001)**
Instructor, Developmental Studies
B.A., Xavier University
M.Ed, University of Cincinnati
- Nancy Rhodehamel (1998)**
Professor, Nursing
B.S.N., Wright State University
M.S.N, Andrews University
- Daniel R. Ricca (2000)**
Assistant Professor, Chairperson, Management, Marketing, Purchasing, Transportation
B.A., M.A., The McGregor School, Antioch University
- Jennifer Riley (2002)**
Assistant Professor, English
B.A., Ohio State University
M.A., University of Mississippi
- Gordon L. Robinson (1978)**
Professor, Counselor, Business Technologies
A.B., Defiance College
M.Ed., College of William & Mary
(N.C.C., L.P.C.)
- Vann Rogers (1996)**
Associate Professor, Experience Based Education
B.S., Central State University
M.Ed., University of Cincinnati
L.N.H.A., Ohio State University
- 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
- Robert Ruckman (1981)**
Professor, Chairperson, Music
D.M., M.M., The Juilliard School
B.M.A., University of Cincinnati
- Harry L. Ruth, Jr. (1987)**
Professor, Mathematics
B.S., Miami University
M.S., Ohio State University
- Marigrace Ryan (1993)**
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 Community 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)**
Professor, Chairperson, Fire Science Technology, Safety Engineering Technology, Environmental Engineering Technology
B.S., Washington University St. Louis
M.S., University of Oklahoma
Ph.D., University of Missouri
Registered Professional Engineer, Ohio
- Nora Schaefer (1997)**
Associate Professor, Dietetics & Nutritional Management
B.S., Colorado State University
M.Ed., University of Cincinnati
(R.D., L.D.)
- Rex Schlagenhauf (2002)**
Assistant Professor, Aviation Technology
B.A., Purdue University
M.S., Ball State University
- Lynn Seery (1994)**
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, Chairperson, Legal Assisting/Paralegal
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
- Martha Shapiro (2000)**
Assistant Professor, Nursing
B.S.N., Wright State University
M.S.N., University of Cincinnati
- Robert Sherman (2000)**
Assistant Professor, Computer Information Systems
B.S.Ed., University of Dayton
M.Ed., Miami University
- James W. Shimko (1996)**
Associate Professor, Interim Chairperson, Accounting
B.M., M.B.A, Youngstown State University
(Certified Public Accountant)
- Kathleen Shipley (1994)**
Professor, Nursing
A.A.S., Sinclair Community College
B.A., Wright State University
M.S.N., University of Cincinnati
(R.N.)
- Rena Shuchat (2000)**
Assistant Professor, Dental Hygiene
B.S., M.S., Ohio State University
- James Simonson (2003)**
Assistant Professor, Emergency Medical Services
B.A., Eastern Illinois University
M.M., University of Kansas
- 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)**
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
- Marika Snider (1999)**
Associate Professor, Architectural Technology
B.S., Ohio State University
M.A., University of Kansas
- 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.)

- Vicki Stalbird (1999)**
Assistant Professor, English
B.A., University of Texas
M.F.A., Ohio 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)**
Associate Professor, Mathematics
B.S., M.S., Ohio University
- David Stover (1990)**
Professor, Automotive Technology
B.S., Florida International University
M.Ed., University of Dayton
- D. Marie Stroh (2002)**
Assistant Professor, Mathematics
B. S., M. S., Wright 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.)
- Charles Taylor (2002)**
Assistant Professor, Automotive
Technology
A.S., Northwestern University
B.S., University of Toledo
- Michael Taylor (1995)**
Associate Professor, Automotive
Technology
B.S., University of Toledo
M.Ed., University of Dayton
- Anitra Terrell (2000)**
Instructor, Marketing
B.S., Norfolk 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
- Boikai Twe (1990)**
Professor, Psychology
B.A., Berea College
Ed.D., University of Cincinnati
- Lisa Tyler (1993)**
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)**
Associate 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.)
- Tim Waggoner (1999)**
Associate Professor, English
B.S., Ed., M.A., Wright State University
- Charles J. Wagner (1972)**
Professor, English
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)**
Professor, Health Information
Management
B.S., Ohio State University
M.B.A., Wright State University
(R.H.I.A., C.C.S.-P.)
- Betty Wallace (1978)**
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
- Marsha Wamsley (1999)**
Associate Professor, Clinical
Coordinator, Nursing
B.S.N., Ohio University
M.S., Wright State University
- Yufeng Wang (1993)**
Professor, History, Humanities, Chinese
B.A., Nankai University, Tianjin, China
M.A., College of William & Mary
Ph.D., West Virginia University
- Tillie Watts (1994)**
Associate Professor, Electrical &
Electronics Repair
B.S., C.I.S., DeVry Institute of
Technology
M.S., Wright State University
- John Weaver (2003)**
Associate Professor, History
B.A., Wright State University
M.A., University of North Carolina
Ph.D., Ohio State University
- Steven Wendel (1994)**
Professor, Industrial Design & Graphic
Technology
B.S.M.E., M.S.M.E., University of Dayton
- Sarah Werner (1999)**
Associate Professor, English
B.A., M.A., University of Dayton
- Charlotte Wharton (2002)**
Professor, Chairperson, Computer
Information Systems
B.S., Ohio University
M.Ed., Wright State University
- 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,
Coordinator, Integrative Medical
Massage Therapy
B.S., Ohio State University
M.H.S., University of Indianapolis
- Michael Whittington (1999)**
Associate Professor, 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
- Susan Willin-Mulay (2000)**
Assistant Professor, Chairperson,
Surgical Technology
B.S.N., Bowling Green State University
- Thomas Wilson (1985)**
Professor, Mathematics
B.A., Wittenberg University
M.A.T., Northwestern University
M.A., Stanford University
- Charles Winarchick (2001)**
Assistant Professor, Industrial
Engineering Technology
B.S., Pennsylvania State University

Karen Winston (1983)
 Professor, Chairperson, Child & Family
 Education
 B.S., M.S., Michigan State University

Jennifer E. Wise (1998)
 Assistant Professor, Safety Engineering
 Technology, Environmental
 Engineering Technology
 B.S., Arizona University
 M.S., University of Cincinnati

Beth Withrow (2002)
 Assistant Professor, Developmental
 Studies
 B.S., Wright State University

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
 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
 Ph.D., University of Dayton

Lori Zakel (1990)
 Professor, Chairperson,
 Communication Arts
 A.A., Sinclair Community College
 B.S., University of Wyoming
 M.A., Antioch University

Beth Zickefoose (1989)
 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

Ned J. Sifferlen (1997-2003)
 B.S., M.S., University of Dayton
 Ed.D., University of Cincinnati

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 spring graduation. 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)
 Extended Learning & Human Services

Professor Mary L. Navarro (2001)
 Liberal Arts & Sciences

Professor B. Albert Friedman (2002)
 Business Technologies

Professor Elaine V. Powell-Cope (2002)
 Business Technologies

Professor Garnett McDonough (2003)
 Business Technologies

Professor Paul Van Marter (2003)
 Allied Health Technologies

Sinclair Foundation Board of Trustees

Effective June, 2002

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Sinclair Community College (ex-officio)

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Timothy D. Jackson
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Miami Valley Hospital

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Everybody's Work Place Solutions

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Lovett Executive Search, Incorporated

Joyce Mance
Operator,
McDonald's Restaurants

F. M. (Mike) McCurdy
Business Line Executive
Delphi Energy & Chassis Systems

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Retired Vice President
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Kurz-Kasch, Incorporated

Stephanie Y. Taylor
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Program Manager
Clark State Community College

Richard Wick
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Director, Sinclair Foundation

Karen Usrey
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Carol Stratton
Development Associate

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Administrative Secretary

Lisa Cole
Database Analyst

Advisory Committees

The following advisory committees assist the college in planning, conducting, and evaluating each of the career programs. Advisory committee members are recognized leaders in their fields. They also provide counsel in the development of new programs that reflect the changing needs for trained personnel.

Accounting

George Brack
Vice President of Corporate Compliance
Fifth Third Bank

D. Charles Daley
Senior Tax Accountant
Battelle & Battelle, L.L.P.

Ed Jacob
Treasurer
Jefferson Township

James Kurek
Part-time Faculty, Accounting
Sinclair Community College

Thomas Miller
Divisional Controller
Globe Motors

Sharyn Morgan
Academic Counselor
Sinclair Community College

Jeff Sink
Vice President of Finance
Monarch Marking, Incorporated

Donna Williams
Controller
Wright-Patt Credit Union

Automation & Control Technology

Ron Adams
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B. & W. of Ohio

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Chief
Lebanon Fire Department

David Harlow
Battalion Chief
Fairborn Fire Department

David Heitz
Fire Chief, Retired
E.G. & G. Mound

Bill Hoover
Captain
Trotwood Fire Department

Paul Hutsonpillar
Chief
Trotwood Fire Department

Michael Ludwick
Fire Chief, Retired
Bethel Township Fire Department

John Moore
Assistant Chief
Dayton Fire Department

Gary Nessler
Chief
Germantown Fire Department

James Nickel
Chief
Brookville Fire Department

Craig Rauch
Battalion Chief
Wilmington Fire Department

Bill Ring
Director
Miami Valley Safety Council

Randy Staley
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Washington Township Fire Department

Charles Wiltrout
Chief
Butler Township Fire Department

Robert Zickler
Chief
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Tom Bennett
General Manager, Aramark
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John Buntmeyer
General Manager
Dayton Marriott

Steven Cornelius
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Bill Evans
Owner/Master Baker
Evans Bakery

Greg Fitzgerald
Executive Chef/Owner
Blue Moon Cafe

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Jay Haverstick
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Jay's Restaurant

Horst Heller
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Doubletree Hotel

Mark Langdon
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Miami Valley Career Technology Center

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General Manager
Joe's Crab Shack

John Stolfo
Owner
Rinaldo's Bake Shoppe

Keith Taylor
Chef, Pacchio's

Steve Taylor
General Manager
Meadowbrook Country Club

Ron Taylor
General Manager
Carver's

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Wanza Jackson
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(Sign Language for the Hearing Impaired)

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Darlene Reid
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Drew Pringle
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Lloyd Laubach
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Laura Brockman
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Ralph Mantica
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Steve Tawney
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Gary Stetz
Business Manager
Uniprise

Andy Tellers
Global Alliance Manager
NCR Teradata Marketing
Travel & Transportation

Ronnie Wayne
Station Manager
Delta Airlines

Commonly Used Terms

www.sinclair.edu

Academic Counselor – Persons in each academic division who help students plan their 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 an academic counselor prior to the time of registration for classes.

Academic Credit Assessment Information Center (ACAIC) – This center provides information about non-traditional ways to receive Sinclair credit, such as articulation agreements with other colleges, universities, high schools, equivalency CLEP examinations, and evaluation of prior learning by portfolio, CLEP, PONSI, and Dantes.

Accreditation – To become accredited, a college, university or particular degree program must meet or exceed certain minimum education competency standards (local, state or national).

Admission – Fulfilling all entrance requirements so a student may register for classes.

Alumni – Graduates of Sinclair Community College are called alumni.

Articulation Agreements – Local universities agree to identify courses that will transfer and guarantee junior status to Sinclair students. Also, Sinclair agrees to give college credit for selected course work taken in high school. Other articulation agreements exist with companies or agencies and may only apply to specific degree programs.

Assessment Intake – If a student is new to Sinclair and has been through the admissions process, this is the next step. This office has information about enrolling, placement testing, going through orientation, getting advice, and registering for the first term.

Associate Degree – This degree awarded by Sinclair is in a career area or transfer program. Ask a counselor about degree types, such as associate of arts (A.A.) associate of applied science (A.A.S.), associate of science (A.S.).

Associate of Individualized Study (A.I.S.) – Those who want to design their own degree program should use the different courses of study in liberal arts or combine the liberal arts with technical areas of study.

Associate of Technical Study (A.T.S.) – Those who have technical degree goals that cannot be met through existing programs, may find this a good alternative.

Audit – To take a course without being responsible for homework or tests, students may "audit" – they won't earn a grade, but the course will show on their record as an audit. Auditing students register during late registration and pay the regular tuition.

Bachelor's Degree - Also called a baccalaureate degree, the bachelor's degree is awarded by a four-year institution and usually indicates successful completion of at least a four-year course of study.

Bursar – The Bursar's (or cashier's) office is responsible for collecting tuition and fees.

Career Development (C.D.) – Courses which may be taken for career development/advancement rather than required for degree program.

Career Planning & Placement Center (CPPC) – Students can find career counseling and testing, a career and employment library and job information here. The placement office also arranges initial job interviews and conducts seminars on resume writing and interviewing techniques.

Career Program – This kind of program prepares students to enter a particular job/vocational area and leads to an associate degree. (It is not designed to transfer to a four-year institution.)

Center for Interactive Learning (CIL) – Where students may experience the latest training in interactive teaching methods, including electronic information resources and instructional technology (Building 14).

Certificate of Completion – This program of study (usually one year) trains students in skills essential to a particular career area, but not at the level required for an associate degree.

Change of Major – To change from one academic program (major) to another, students first meet with an academic counselor/faculty advisor, who will make the change. This change will be indicated on the students' records and will not affect the cumulative grade point average.

Chairperson - This teaching faculty member is responsible for managing his or her academic department and therefore has a reduced teaching load.

College for Seniors – This program coordinates opportunities for senior citizens, such as special classes, registration in regular classes, and non-credit classes in the Senior Academy.

College Without Walls (CWW) – Program for students who are self-disciplined and want to learn/study outside of the traditional classroom using a learning contract.

Community College – To meet the diverse needs of the community, this type of college offers courses, certificates and associate degrees in the arts, sciences and technical career areas.

Cooperative Education – Students can combine taking classes with working part time in a job related to their area of study.

Credit for Lifelong Learning Program (CLLP) – In CLLP students develop a portfolio to earn credit for prior learning from experience.

Credit Hour – Usually refers to the number of hours per week a student attends class and for which he or she can earn credits toward completion of a course of study. In many cases, the number of hours per week that a class meets determines the number of credit hours the class is “worth.”

Curriculum – The total program of courses required for a degree or certificate in the student’s chosen subject is called “curriculum.”

Dean – This administrator directs an academic unit (such as “Liberal Arts & Sciences”) at the college.

Dean’s List – Students can receive the honor of “making the Dean’s List” if, for a particular quarter, they have a grade point average of 3.4 or above; have no grade below a “C;” are carrying six or more credit hours; and are in good academic standing.

Degree Audit – For some degree programs, students can request an audit—or review—from their academic counselor to determine progress toward the completion of that degree. Those who change majors, need to request a separate degree audit. (This is different from “auditing” a course.) Degree audits may also be printed off the kiosks.

Department – An academic subdivision (such as the department of English) of the college where students are taught courses in a particular subject area (such as composition or literature).

Developmental Courses – These review courses in reading, mathematics, science, and English help prepare students for college level course work and develop basic skills.

Distance Learning – Take courses at home or at other sites in the area that are offered through alternative means (like video, audio, print, CD-ROM, online and at off-campus sites).

Divisions – Headed by a dean, Sinclair’s six academic divisions include Allied Health Technologies, Business Technologies, Engineering & Industrial Technologies, Extended Learning & Human Services, Fine & Performing Arts, and Liberal Arts & Sciences.

Drop/Add – If students change their minds about taking a course after registering or want to change sections, they have to complete a drop/add form.

Experience Based Education (EBE) – Students choose from a broad range of opportunities based on experience: 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, Program for Accelerated College Education (PACE), and Service-Learning.

Early Childhood Education Centers (ECEC) – Provides on-campus child care services, and/or hands-on experience in ECE. ECEC provides full- or part-time care for young children and also serve as a learning laboratory for early childhood education majors.

Elective – Courses that help fulfill the requirements for a degree but aren’t specifically required for that degree.

Financial Aid – A variety of resources are available to help students finance schooling.

First Year Student – One who is registered in a specific program and has earned fewer than 46 quarter hours of credit, including transfer credit.

Fresh Start Policy – Those returning to the college after an absence of at least three consecutive years, can choose a one-time-only “Fresh Start” option of having their grade point average recalculated from the point of re-enrollment. Students won’t lose credit for previous course work with a grade of “S,” “P” or “C” or better.

Full-time Student – Carries 12 or more credit hours per quarter.

General Education Diploma (GED) – This nationally recognized high school equivalency diploma is awarded for successfully completing the GED test.

Grade Point Average (GPA) – Students can calculate the GPA by dividing the total number of points assigned to the letter grades earned (for instance, a B = 3 points) by the total number of credit hours attempted in a given period.

Hold – Those students who owe fees or have books or equipment that belong to the college, will not be able to register further or get a transcript. (This is called putting a “hold” on the students records.)

I.D. Card – See “Tartan Card.”

Individualized Learning Plan (ILP) – A customized success plan for selected new degree and certificate students interested in support for completion of educational goals.

InTouch Kiosks – These freestanding structures hold computer systems that students can access to find college and personal information.

Learning Resources Center (LRC) – Also known as the library, the LRC has nearly all the tools needed for research and study.

Live Interactive Television – The distance learning Lifelong Education and Resources Network provides “live” interactive courses, one-way video, two-way audio broadcast to multiple remote sites using video conferencing technology and allows for live interactivity between the sites.

Major – The student’s academic area of specialization will appear on his or her transcript and diploma or certificate.

my.Sinclair – The college’s online portal designed to provide a home for web-based services and instructional tools. Available on the Internet at <http://my.sinclair.edu>.

my.Sinclair e-mail – E-mail accounts provided by the college to all students. Accounts are accessed through the my.Sinclair portal at <http://my.sinclair.edu>.

Neighborhood Centers – Students may take classes for college credit at these locations around Montgomery County.

Non-Credit – No grades are awarded for certain educational experiences, such as one-day workshops on improving skills.

Option – This specialized curriculum is approved as an alternative area of study under a degree program and is also called a major.

Part-time Student – Carries 11 credit hours or less per quarter.

Personal Identification Number (PIN) – This number, beginning with the month and day of birth (with a zero before single digit months and birthdays), must be used for telephone registration, grade reporting and InTouch kiosk records.

Personal Interest (P.I.) Courses – Courses which may be taken for personal improvement/interest rather than required for degree programs.

Physical Activity Center (PAC) – A place to take classes or relax with sports and entertainment. Located in Building 8, with access from the lower levels of Building 4, 5, and 6.

Program for Accelerated College Education (PACE) – This full-time course of study gives students an alternative scheduling format to complete an Associate of Arts in Liberal Arts or Associate of Science in Business Administration.

Placement Testing – Those who want to work toward a Sinclair degree or certificate take this assessment of skills and knowledge of English, mathematics and reading to help determine the right course level.

Prerequisite – For a particular area of study, students have to complete all courses as preliminary work before they can register for a more demanding or advanced course.

Proficiency Exam – Those who have had extensive knowledge in a subject may be able to earn college credit in that subject by taking the appropriate exam.

Program Outcomes – At the end of the degree program, students need to have acquired specific skills, attitudes and knowledge (“outcomes”) by completing certain curriculum requirements.

Quarter - The academic year at Sinclair is divided into four terms known as fall, winter, spring and summer quarters.

Registration - Before each quarter begins, students have a registration period to sign up for courses and pay fees.

Residency for Fee Purposes – Established by the State of Ohio and Montgomery County, these rules determine the amount of tuition and fees a student has to pay based on several factors, including where he or she lives. Changing an address doesn’t automatically change residency.

Residency for Graduation Purposes – Students have to complete the last 30 hours of credit at Sinclair to get a degree.

Second Year Student – One who is registered in a specific program and has earned at least 46 quarter hours of credit, including transfer credit, but not a degree.

Section of a Course – A section is one of a number of classes offering the same course in the same quarter. When a student registers, he or she must choose both a course and a section within that course.

Sequence – A series of courses taken in a specific order.

Service-Learning – This program provides a meaningful service that links identified community needs with the student’s educational goals through structured reflection, writing, discussion and presentation for academic credit. It prepares the student to contribute to his or her community through lifelong, active, informed citizenship.

Sinclair Central – Students receive registration assistance here, Building 10, Second Floor.

Sinclair Guarantee – This policy guarantees transfer credit for graduates earning Associate of Arts and Associate of Science degrees at Sinclair Community College and job competency for graduates earning Associate of Applied Science degrees at Sinclair.

Standards of Satisfactory Progress (SSP) – To continue receiving federal financial aid, students have to meet these conditions and requirements, monitored by the office of Financial Aid & Scholarships.

TBA – “To be arranged,” indicates that meeting details are still to be decided on an individual basis with an academic department to complete a course requirement.

Telecommunications Device for the Deaf (TDD/TTY) – A keyboard connects with most analog telephones to enable people who are deaf, hard of hearing or speech impaired to communicate with others who have TDD/TTY.

Tartan Card – Students need this Sinclair student I.D. card, which they may receive during registration, to use certain facilities like the LRC or PAC, and can use it to pay for services on campus (bookstore, copiers, parking, etc.).

Telephone Registration (TREG) – Students register for classes and gain access to and change registration schedules, using a touch-tone phone, Social Security number, and Personal Identification Number (PIN).

Teleport (Technology Enhanced Learning Environments Port) – This state-of-the-art computer lab provides equipment, software and support personnel for students.

Transcript – Prospective universities and employers may require this official written record of students’ course registrations and grades.

Tuition – The dollar amount students pay for academic instruction is one of the lowest in the country.

Tutor – Person who provides help on academic work. Sinclair offers free academic assistance outside the regular classroom through Tutorial Services.

University Parallel – A program designed to transfer to four-year colleges and universities.



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