

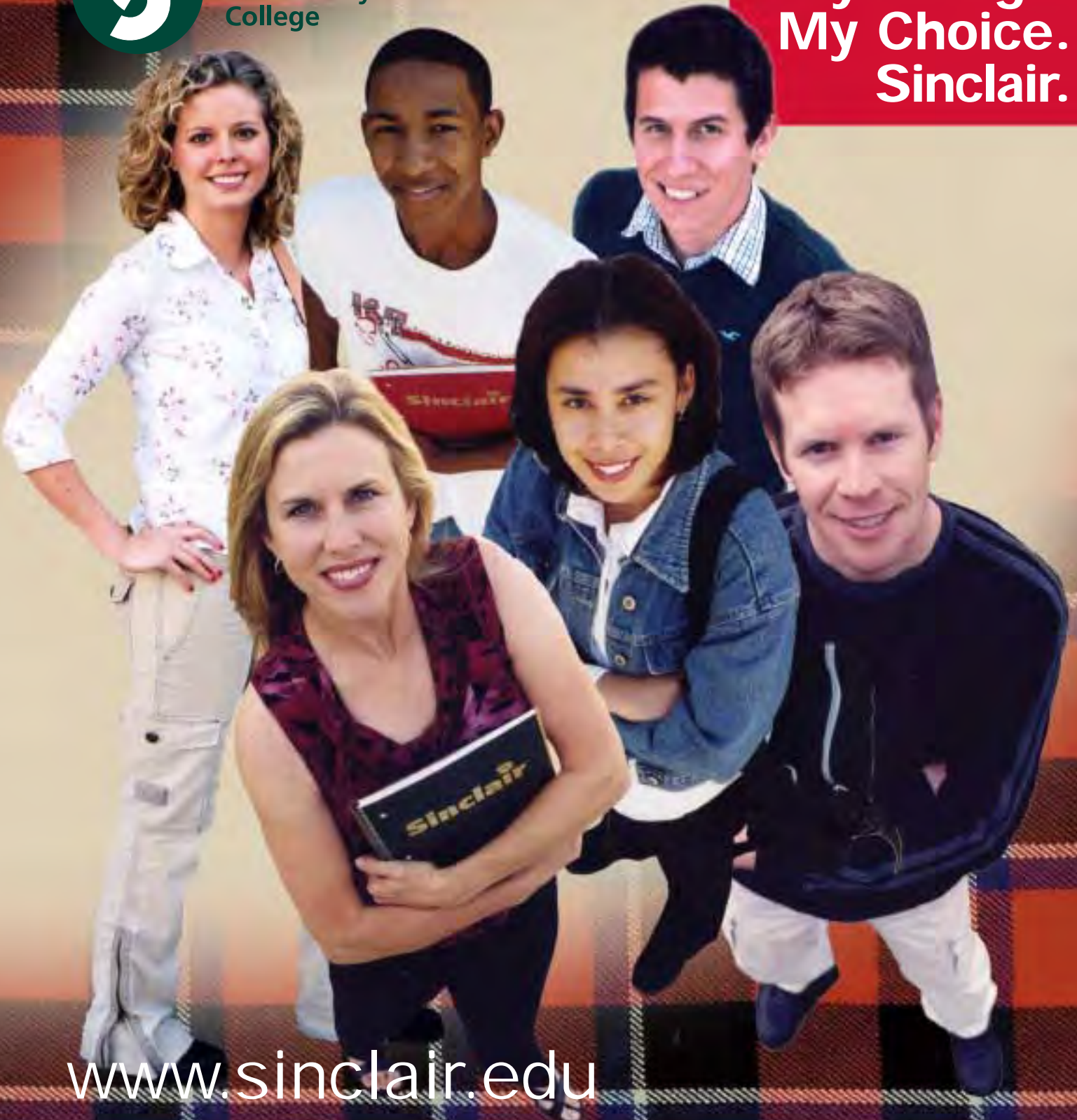
Sinclair

2005-2006 Course Catalog



Sinclair
Community
College

My College.
My Choice.
Sinclair.



www.sinclair.edu

“Find the need and endeavor to meet it.”

—David A. Sinclair
Founder



Getting Around

Main Offices to Complete Enrollment

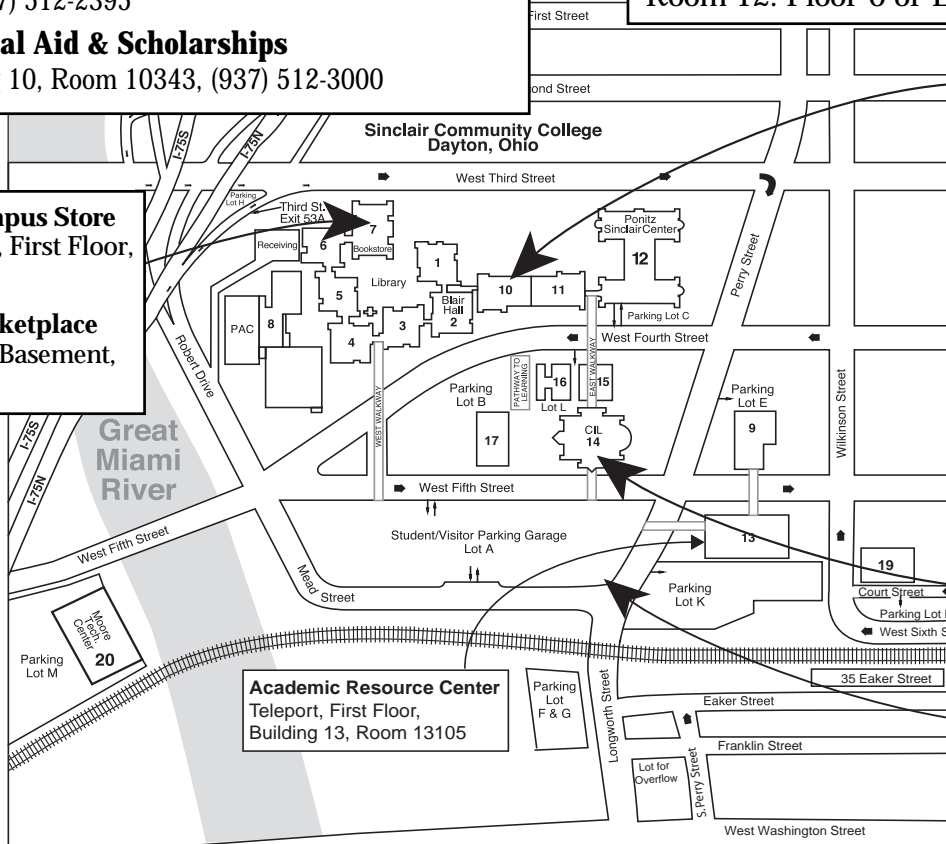
- **Admissions**
Building 10, Room 10112, (937) 512-3000, 1-800-315-3000 (Ohio), www.sinclair.edu, TDD (937) 512-2187
- **General Enrollment Information**
(937) 512-3000
- **Placement Testing**
Assessment Intake Center, Building 10, Fourth Floor, (937) 512-3076
- **Payment of Fees/Bursar**
Building 10, Room 10244, (937) 512-3000
- **Student I.D. Cards**
Registration, Second Floor, Building 10
- **Registration & Student Records**
Building 10, Second Floor, (937) 512-3000, TDD (937) 512-2395
- **Financial Aid & Scholarships**
Building 10, Room 10343, (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 main buildings. Each of the buildings on campus is numbered. 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)**, First Floor, Building 7
- **Tartan Marketplace (Cafeteria)**, Basement, Building 7



- **Admissions**, First Floor, Building 10, Room 10112
- **Assessment Intake**, Fourth Floor, Building 10
- **Financial Aid**, Third Floor, Building 10, Room 10343
- **Pay Fees**, Second Floor, Building 10
- **Placement Testing**, Fourth Floor, Building 10
- **Registration**, Second Floor, Building 10
- **Teleport**, Third Floor, Building 11, Room 11346

- **Orientation**, Building 14, Room 14130

Parking
Get Tartan Card at Registration, put money on card at Bursar, and save!

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

Catalog 2005-2006



"Find the need and endeavor to meet it," was David A. Sinclair's goal when building the basis for the Sinclair of today.



eNOW*

eNOW is the student electronic communications tool.

- All official class-related enrollment information will be communicated almost exclusively via students' Sinclair e-mail address.
- General student information will be communicated through the Sinclair portal at **<http://my.Sinclair.edu>**.
- Students need to check their e-mail regularly, daily during weeks before and after the first day of class. This will allow the college and the students to have a single source for critical and timely information.
- Questions can be directed to the Help Desk buttons or links, or phone (937) 512-4357 (HELP) or toll free (866) 781-4357 (HELP).

Web Advisor is where students can complete official college transactions and access student records with Sinclair offices online.

- Register and pay for classes online
- View past/present courses, grades by term, and college academic record
- Print out class schedule

*See page 14 for list.

Cover: Successful Sinclair students
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www.sinclair.edu
my.Sinclair.edu

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"Sinclair is one of the top schools in education and prepares you for a university."

Sam Brown

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To Students

Note: This catalog contains official information for the academic years 2005 and 2006. 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:

- (937) 512-3000
- 1-800-315-3000
- 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.

Students: Inquiries and complaints concerning Title VI (race, color, and national origin), Title IX (sex/gender), or Section 504 (disability) should be referred to the designated coordinator: Dr. Hank Dunn, Vice President for Student Services, Room 10323, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460, (937) 512-2975.

Faculty and Staff: Inquiries and complaints concerning Title VI (race, color, and national origin), Title IX (sex/gender), or Section 504 (disability) should be referred to the designated coordinator: Ms. Tanya Grant, Office of Human Resources, Room 7340, 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 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.

As of fall 2003, of the 1,421 first-time, full-time, degree seeking students who entered Sinclair in fall 2000, 77.8% had graduated, were still enrolled at Sinclair, had transferred to another college or university or left Sinclair in good standing.

Outcome

110	graduated within three years	7.7%
299	enrolled at Sinclair fall 2003	21.0%
240	transferred by fall 2003	16.9%
457	left Sinclair in good standing	59.2%

Includes only those who had not graduated or transferred and were not enrolled here as of fall 2003.

Jeanne Clery Act

(Campus Security Act of 1990)

The federal Jeanne Clery Disclosure of the 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 going to Directories to locate Campus Police.

www.sinclair.edu
my.Sinclair.edu

Welcome to Sinclair



*Dr. Steven Lee Johnson
President
Sinclair Community College*

Welcome to Sinclair Community College!

By choosing Sinclair, you have chosen to pursue higher education provided by caring, award-winning faculty and staff in a state-of-the-art environment at the lowest cost available in Ohio. Sinclair is a board member college of the League for Innovation in the Community College, putting it in company with only 20 other community colleges and ranking it in the top two-percent of the nation's more than 1,200 two-year colleges.

Make the best of your time at Sinclair. Immerse yourself not only in your studies but avail yourself of all the student activities and cultural amenities that make Sinclair a great place to begin or continue your education.

And thanks for choosing Sinclair Community College!

**Sinclair...available
where and when you
need us most!**

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 district 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 Community 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.

In fall 2003 Dr. Steven L. Johnson succeeded Dr. Ned Sifferlen as the college's fifth president. Under his leadership, the college continues to explore ways of reaching out to even more of the underserved of the region.

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.

www.sinclair.edu
my.Sinclair.edu

Vision/ Mission



"I chose Sinclair for the affordability and individual attention."

Adri Lienberg

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 events on campus which promote diverse cultures.

Outstanding Educators

Sinclair Community College's excellence in teaching was recognized by the 2005 National Institute for Staff and Organizational Development (NISOD) Awards for Teaching Excellence given to six faculty members, one from each of the academic divisions.

All six professors also received the 2005 SOCHE Innovations in Teaching Excellence Award.

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

www.sinclair.edu
my.Sinclair.edu



Barbara M. Branstiter
Professor
Physical Therapy Assistant



Lynn M. Disbrow
Professor
Communication Arts



Robbin S. Hoopes
Associate Professor
American Sign Language



Derek A. Petrey
Assistant Professor
Spanish



Bonnie S. Shane
Professor and Chairperson
Paralegal Program



Jennifer E. Wise
Associate Professor
Safety Engineering Technology

Calendar



"The staff and faculty were supportive in helping me achieve my academic goals."

Lynnell Walker

Fall Quarter

Labor Day Holiday
Classes Begin
Veterans Day Holiday
Classes End
Thanksgiving Holiday

2005-2006

September 5 (Mon.)
September 6 (Tues.)
November 11 (Fri.)
November 23 (Wed.)
November 24-27 (Thurs.-Sun.)

Mini Term

Registration
Classes Begin
Classes End

November 7 - 18 (Mon. - Fri.)
November 28 (Mon.)
December 11 (Sun.)

Professional Development Day*
Winter Holiday
New Year's Day Holiday

December 15 (Thurs.)
December 22-28 (Thurs. - Wed.)
December 31 - January 2 (Sat. - Mon.)

Winter Quarter

Classes Begin
Martin Luther King, Jr. Holiday
Classes End

January 3 (Tues.)
January 16 (Mon.)
March 19 (Sun.)

Spring Quarter

Classes Begin
Memorial Day Holiday
Commencement
Classes End

March 27 (Mon.)
May 29 (Mon.)
June 9 (Fri.)
June 11 (Sun.)

Summer Quarter

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

June 13 (Tues.)
June 13 (Tues.)
June 13 (Tues.)
July 19 (Wed.)

Independence Day

July 4 (Tues.)

Classes End

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

July 18 (Tues.)
July 30 (Sun.)
August 22 (Tues.)
August 22 (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* for more detailed information pertaining to specific registration/payment dates.

www.sinclair.edu
my.Sinclair.edu

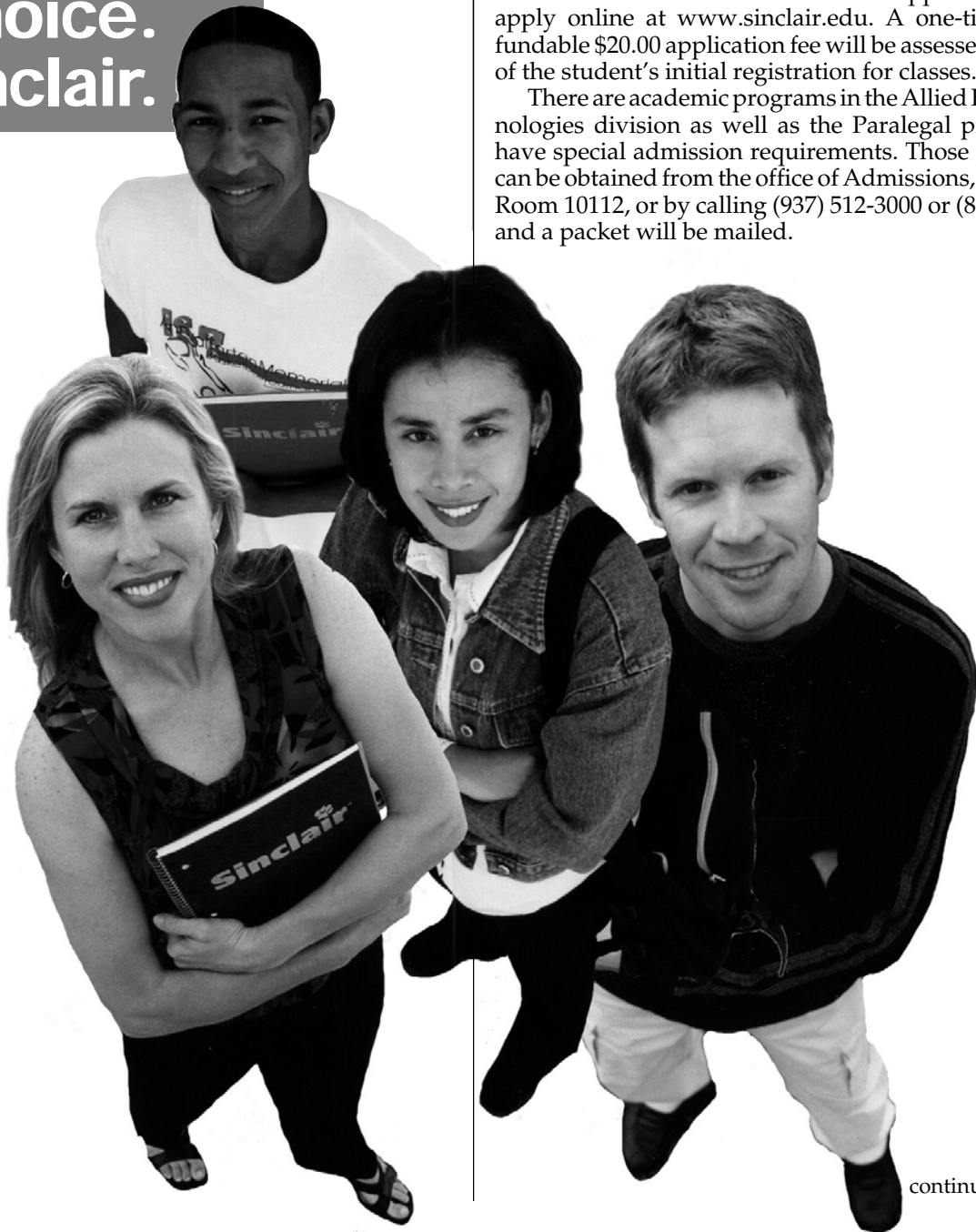
How to Begin



"Sinclair's small classroom size allows for the opportunity to have great interaction with the teachers."

Elizabeth Benson-Landau

**My College.
My Choice.
Sinclair.**



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.

How to Begin & Enrollment Steps

Admission is open to all applicants, with the exception of international students on an F-1 visa. Applicants may also apply online at www.sinclair.edu. A one-time, non-refundable \$20.00 application fee will be assessed at the time of the student's initial registration for classes.

There are academic programs in the Allied Health Technologies division as well as the Paralegal program that have special admission requirements. Those packets also can be obtained from the office of Admissions, Building 10, Room 10112, or by calling (937) 512-3000 or (800) 315-3000 and a packet will be mailed.

continued next page

Begin by Finding your Student Category

- **New, First Time In College** Seeking to enroll at Sinclair after high school graduation or completing a GED or adults with no prior college classes and planning on earning a degree or certificate at Sinclair or another college/university.
Complete enrollment steps 1-12.
- **Former Sinclair Student** Returning to Sinclair after an absence of a quarter or more excluding summer. If you have not enrolled in classes during the past year, complete a new application for admission.
Complete enrollment steps 1-3, 6-8, 10-12.
- **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 your "official" transcripts to **Sinclair Community College, Registration & Student Records, 444 West Third Street, Dayton, OH 45402.** You can bring a copy of your "unofficial transcript" or grade reports for academic advising purposes only.
Complete enrollment steps 1-3, 6-12.
- **Transient Student** Is enrolled in another college or university and is taking Sinclair courses to transfer back to the home institution. Declare Personal Interest (PI) as major. You can bring a copy of your "unofficial transcript" or grade reports from previous institution(s) for prerequisite checking purposes only.
Complete enrollment steps 1-2 and 7-12.
- **Personal Interest (PI) and/or Career Development (CD)** Taking classes for personal interest or job/career development and not seeking a degree or certificate at Sinclair. Declare PI or CD as your major.
Complete enrollment steps 1-2 and 7-12. If you plan to take English or math placement testing, step 4 must be completed.
- **College Advance Program for High School Students** Seeking to enroll at Sinclair while still attending high school, obtain the College Advance Program (CAP) Petition and Registration Form from your school guidance counselor, at the offices of Admissions or Registration & Student Records at Sinclair, or on the Sinclair web site (www.sinclair.edu, click on Future Students; it is under Pre-college Programs). Once required signatures from your parent/guardian and the high school principal or guidance counselor have been obtained, take the form with you to meet with a Sinclair academic counselor/faculty advisor. Enrollment in any Sinclair course is at the discretion of the academic department and must be approved by the academic counselor/faculty advisor. Declare PI as your major.
Complete enrollment steps 1-2 and 6-12. If you plan to take English or math, placement testing, step 4 must be completed.

- **High School Age Student NOT Attending High School** Seeking to enroll at Sinclair prior to scheduled high school graduation date or completion of a GED and is NOT currently 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 Sinclair counselor at least once a quarter to discuss educational plans. A limited number of credit hours taken might be imposed.
Complete enrollment steps 1-2 and 4-12.
- **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, Room 10112, by June 1 for the next academic year. Upon receipt of the PSEO application, written instructions will be sent to applicant and the high school 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 online www.sinclair.edu/stservices/adm/intladm/index.cfm.
- **English as a Second Language** Seeking to enroll at Sinclair, students must first meet with the ESL coordinator who will assist with application and the enrollment steps. ESL students are required to take ESL classes based on placement test results. The ESL coordinator is located in Educational Support Services, Building 10, Fourth Floor, Room 10421. (937) 512-5113.
- **Golden Age** Senior citizens who are 60 years or older and living in Montgomery County (OH) 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 in Building 10, Room 10424. Enroll on an audit, space available basis during the Late Registration period. (937) 512-2372.

Follow These Enrollment Steps

1. **Complete the Sinclair Application for Admission.** Online at http://www.sinclair.edu/stservices/adm/Application/form_new/index.cfm or submit the paper application in person or mail it to Registration & Student Records, Building 10, Second Floor. A one-time non-refundable \$20 application fee will be assessed at your initial registration for classes.
 - If you are returning to Sinclair after not being enrolled during the past year, submit a new application for admission.
 - Allow 2-3 business days for processing applications submitted online.
2. **Access Your Sinclair E-mail Account.** Once the application has been processed, students will receive an e-mail account. This is Sinclair's official student communication tool. Go to "my.Sinclair.edu," log in and then select "my.Sinclair Mail". Students can obtain their user I.D. by clicking "Don't know or forgot your user I.D.?" in the

- lower right corner of "my.Sinclair.edu." Password guidelines are on the screen that displays the student's user I.D.
3. **Apply for Financial Aid & Scholarships.** All degree and certificate-seeking students can apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. Sinclair's code is 003119. Allow 1-4 weeks for processing and actual awarding of aid. You must also complete the internal office application available from the Financial Aid & Scholarships office in Building 10, Third Floor, Room 10343 or online at <http://www.sinclair.edu/stservices/fas/index.cfm>. Submit this form to the Financial Aid & Scholarships office by the deadlines noted below.
 - Priority deadline for the academic year: May 1
 - Deadline for fall quarter: August 1
 - Deadline for winter quarter: November 15
 - Deadline for spring quarter: February 15

NOTE: The deadline dates are the dates that all forms must be submitted to Financial Aid including the *results* of your FAFSA application. It is recommended that you begin the process 3-4 weeks prior to the deadline. All communication from the Financial Aid & Scholarships office will be sent to your Sinclair e-mail account. Please check it regularly.
 4. **Complete Placement Testing.** All degree and certificate-seeking students must complete placement testing to assess your writing, reading and mathematics skills. No appointment is needed and there is no initial testing fee. Go to the Assessment Intake Center, Building 10, Fourth Floor lobby. Allow about two hours (2) for testing. Questions? Call (937) 512-2210.
 - **Academic Resource Center (ARC)** Need a refresher to increase your math, reading and/or writing skills before taking the college placement test or enrolling in a developmental studies course? Try the ARC first—it is free and it is easy to do! Your skill levels are initially assessed and then you are guided through self-paced, computerized tutorials. The ARC at Sinclair is located in Building 13, First Floor, Room 13105. Questions? Call (937) 512-3495.
 - **ACCUPLACER Practice Placement Test** To better prepare yourself to take Sinclair's ACCUPLACER placement test and raise your overall test scores, you may find it helpful to first take some free practice tests. Visit their study guide web site: http://www.testprepreview.com/accuplacer_practice.htm
 - **Distance Learning Students** Living beyond 60 miles from Sinclair's main campus, students needing placement and/or academic testing may require that a test proctor be obtained. Information regarding proctored testing, the required proctor form and a listing of the testing methods for all -T section courses can be found on www.sinclair.edu/distance by clicking on "Testing Information."
 5. **Attend New Student Orientation.** Staff at the Assessment Intake Center will give you information about the mandatory two-hour orientation. The session provides important information about services and resources, how to get around campus, and everything needed to be a successful Sinclair student. Questions? Call (937) 512-2210.
 6. **Meet with Your Academic Counselor/Faculty Advisor.** Your placement test results and/or transfer credit will be reviewed by your divisional academic counselor/faculty advisor who will then help you select appropriate courses based on your educational goals. Staff at the Assessment Intake Center will give you information about the academic advising process. Questions? Call (937) 512-2210.
 7. **Schedule Your Classes.** Access Web Advisor at my.Sinclair.edu to view the current course schedule. On campus, staff at Sinclair Central, Building 10, Second Floor, will help you schedule days, times and sections of your courses and show you how to access online registration.
 8. **Register for Classes.** There are three ways to register:
 - Online at my.Sinclair.edu by clicking on the Web Advisor tab, select "Student" and then "Register"
 - Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454
 - In person at Registration & Student Records in Building 10, Second Floor

NOTE: The following reasons could delay your class registration. Contact your academic counselor/faculty advisor to resolve your issue.

 - Application for Admission issues
 - Restricted class or section
 - Prerequisite course(s) not met
 - Academic probation
 - Dismissed from Sinclair or another college/university
 - Need to take the placement test or have transfer credit evaluated
 - Enrolled in DEV 063 or DEV 064
 - HOLDS of any kind
 - International student (F-1 Visa holder)
 9. **Obtain a Tartan Card (Student I.D.)** from Registration & Student Records in Building 10, Second Floor, after submitting your initial course registration.
 10. **Pay for Classes** Your student fee bill must show a zero (0) balance by the published deadlines to be fully paid and prevent a cancelled registration. Sinclair accepts Master Card, VISA, cash, personal check or money order. There are five ways to pay for classes:
 - **Online** at my.Sinclair.edu (click on the Web Advisor tab, then "Student," then "Finances" and finally, "Pay Now")
 - **Telephone** (T-Reg) by calling (937) 512-5454 or 1-866-512-5454
 - **In person** at the Bursar's office in Building 10, Second Floor
 - **Mail** to Bursar's Office, Sinclair Community College, 444 West Third Street, Dayton, OH 45402-1460
 - **FACTS Tuition Payment Plan** (<http://facts.sinclair.edu>)

Visit the Bursar web site (<http://www.sinclair.edu/stservices/bur/deadlines/index.cfm>) for these important payment deadlines.
 11. **Purchase Books and Course Materials.** Obtain your fee bill at my.Sinclair.edu (click on Web Advisor) and take it with you to purchase your books and required course materials at the Tartan Campus Store in Building 7, First Floor, or purchase them online at Tartanstore.sinclair.edu
 12. **Attend All Classes!** Your academic success is directly related to your attendance in class!

Cyber Services - eNOW Opportunity at Your Fingertips

www.sinclair.edu

My.Sinclair.edu

Many admission and registration services are available on Sinclair's web page at www.sinclair.edu. See page 22 for details.

- Apply online
- Register online

- Pay online
- Request a course catalog
- Schedule a campus visit
- Complete the application for admission
- Search for course descriptions and quarterly class schedules
- Make name/address changes
- Get grades
- Request transcript forms
- Access Selective Service registration
- Buy books online

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 programs have **additional requirements**, which must be completed prior to actually beginning the program. These include all of the Allied Health programs, Paralegal, Police Academy, Early Childhood Education, ASEP, CAP, Tooling & Machining certificate (Step II), and the A.I.S./A.T.S. degrees. 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.

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 **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. The Post Secondary Enrollment Options programs are also coordinated by Admissions as well as **bilingual services** available to serve the area's Hispanic community.

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.

Post Secondary Enrollment Options Program (PSEO)

Created by Ohio Senate Bill 140, House Bill 215 and amended by substitute Bill 282, PSEO 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. 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 **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 **June 1** to be eligible for the next academic year:

The completed PSEO application which must include:

- Number of periods for scheduling per day at your high school, excluding lunch.
- Number of Carnegie units in which you will be enrolled at high school during the academic year.
- Classes that a student is not eligible to take at Sinclair. This is to be completed by the high school guidance counselor and is required by law as stated in Substitute House Bill 282: *"A student may not enroll in any specific college course through the program if the student has taken high school courses in the same subject area as the college course and has failed to attain a cumulative grade point average of at least 3.0 on a 4.0 scale, or equivalent, in such completed high school course."*

- Signatures of the applicant, the parent or guardian and high school counselor.
- Verification of a minimum of a 2.5 cumulative grade point average.

PSEO Class Policy

Sinclair Community College reserves the right to review the final selection of college classes approved by the high school and to limit participation in any class based on such circumstances as extraordinary lab or technical fees, age, safety issues, excessive course load or academic probation, or any class offered through College Without Walls.

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.

Assessment & Placement

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

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

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

Students must begin mathematics and/or English course sequences at or below the level indicated by their assessment results. Students who possess less than a tenth grade level of mastery in reading must complete DEV 063 and/or DEV 064, as a prerequisite to enrollment in any college level courses, except those specifically identified as exempt from this requirement.

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 schedule of classes for the petition deadlines.
- Petitions for readmission are available in the office of the student's academic counselor.

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. 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:

- 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

Residency

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 deadline listed on the residency application.**

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	Other Ohio Residents	Out-of-state Residents & International Residents
Students Instructional Fees	\$ 38.95	\$ 38.95	\$ 38.95
Instructional Surcharge		\$ 26.90	
Tuition Surcharge			\$ 89.55
General Fee	\$ 3.50	\$ 3.50	\$ 3.50
Total (Per Credit Hour)	\$ 42.45	\$ 69.35	\$132.00*

Other fees

Application for Admission	\$ 20.00
Late Registration Fee	\$ 30.00
Graduation: Degree	\$ 25.00
Certificate	\$ 5.00
Transcripts (each)	\$ 5.00
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

Students may pay their account balance online at www.sinclair.edu

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

- Make checks payable to **Sinclair Community College**. The student's I.D. 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 your account balance:

- Call **telephone** registration at (937) 512-5454 and listen to the voice prompts.
- Use Web Advisor to print your "Statement for Term."
- 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 may 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.

Payment Plan

FACTS Tuition Payment Plan (available from FACTS Management Company)

A payment plan is offered to help students budget tuition costs. FACTS is a tuition management agreement between students and the *FACTS Management Company* that allows FACTS to automatically withdraw a \$15 per plan FACTS service fee, and the college tuition, from a credit card, checking account or savings account. This is not a loan program. There are no interest or finance charges. Students

are responsible to the college for all tuition and fees incurred as a result of registration. FACTS is only a convenient budget plan to assist students in managing their costs.

Three FACTS payment dates are scheduled each term. Register early and three (3) equal payments will be withdrawn from the students' accounts on three successive months. A deposit plus a two (2) payment option is available for later enrollment through the first week of the term.

If the \$15 service fee is not available for withdrawal, by FACTS, from the students' banks or credit card, students cannot participate in the FACTS payment plan. Students not participating in the plan, must pay fees that are due on the collegewide payment dates printed in the current quarter's schedule. FACTS will charge a \$25 "returned payment fee" for each unsuccessful attempt to withdraw funds from the students' financial institution.

Prior to the college's published refund date, if a tuition payment cannot be withdrawn from the student's bank or credit card, the course registration will be in an "unpaid" status and subject to deregistration of classes. If a payment is not available from the student's financial institution after the refund date, the college may proceed with collection activity without further notice.

Enrollment is made online at facts.sinclair.edu. Students need the following information.

- The last seven digits located on the Tartan Card I.D. This is the student identification number.
- Name, address and e-mail address of the person responsible for making the payments.
- A FACTS Access Code that students will create.
- If paying from a checking or savings account, students will need the bank name, telephone number, account number and routing number (located on their checks).
- If paying from a credit or debit card, students will need the card number and expiration date.

Frequently Asked Questions About FACTS

1. When and what time will the funds be withdrawn from my bank account?

FACTS specifies the date each payment will occur but it is your financial institution that determines the time of day the payment is debited. FACTS recommends you check with your financial institution to determine how far in advance funds should be deposited into your account to ensure the automatic payment clears. If a payment date falls on a weekend or holiday, the payment will be attempted the following business day.

2. How will I be notified of my payment information?

Once your agreement is posted to the FACTS system, you will receive a confirmation notification of your payment amount by email or letter. Payments will be processed until the total balance is paid in full. The notification has important information you must have to log on to My FACTS Account. The notification also serves as a reminder that a \$15.00 per quarter non-refundable FACTS enrollment fee will be processed from the account indicated on the agreement.

3. What if I'm adding or dropping classes, do I need to fill out a new agreement?

No, Sinclair Community College will adjust your balance with FACTS if financial aid is received or adjusted or if a class is dropped or added. The change in your account must be reflected within the time period allowed, for each payment due date. If the adjustment to your account is too close to your payment due date, the adjustment will be made for the following month.

4. What if I don't have sufficient funds to make payments on time? (3 parts)

Failure to pay fees or tuition payments on the agreed upon dates may result in termination of the agreement and you will not be allowed to register for the next quarter. The college is required to report any unpaid balances to the State of Ohio, Attorney General's office for collection.

5. What if this is my first term at Sinclair or I am returning after a one-year absence?

You will need to fill out and submit a new or returning Student Application to activate an account within 24 hours so you can your access to the FACTS payment plan. Consequently you cannot apply for FACTS until the day following your college registration. This may prevent you from successfully submitting a FACTS application on the last day to submit online or on the college's final payment deadline published in the quarterly schedule.

6. What is the FACTS Access Code?

To help protect your privacy, FACTS asks the person responsible for the payments to create an access code. If you should call into FACTS inquiring about your FACTS agreement or inquire online through My FACTS account, you will be required to verify your FACTS Access Code. If you do not create an access code on your FACTS agreement, one will be randomly assigned to you. Your FACTS Access Code will be identified on your FACTS Confirmation Letter. Please remember to keep a copy of your confirmation letter.

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

Building 10, Room 10422

Assessment Intake assists new students with Sinclair's new Student Enrollment Process, including:

- placement testing
- scheduling new student orientation
- 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. **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 first test. Students are permitted to take the test only twice, and there is a \$5.00 fee for the second test.

Testing hours are:

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

Friday 8:00 a.m.-4:00 p.m.

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

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

Individual Learning Plan (ILP)

New degree or certificate seeking students, based on their needs, will be offered the opportunity to develop an Individual Learning Plan (ILP) with an assigned Student Success Services counselor. After completing the placement test, students will receive information about the ILP at the Assessment/Intake Center. The ILP is an action plan that will serve as a new student's personal guide to becoming a successful student. The counselor will assist the student with the following:

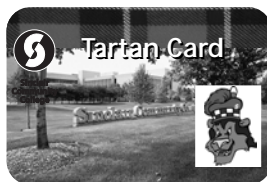
- Choose a college academic program or career goal
- Develop a plan to pay for educational expenses
- Identify resources and services that will be beneficial
- Review strategies to improve study skills
- Select courses and assist with registration for classes

Students who participate in this process their first quarter will have a customized success plan and support system to serve as a guide as they begin their educational experience at the college and to help assist them in the 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 Library, 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), or online (www.sinclair.edu/tartancard).**

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

- Discount on parking fee with the Tartan Card
- 5% discount on all food purchases
- 10% discount on selected gifts at Tartan Campus Store
- 50% discount on photocopies in Library

www.sinclair.edu
my.Sinclair.edu

Registration Information

Office of Registration & Student Records

www.sinclair.edu

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.

Register for Classes

Sinclair Students Have 3 Ways to Register

Please check the Sinclair web site www.sinclair.edu or the quarterly schedule for the first day of registration for each term. Students should choose one of the three following ways to register:

Web Advisor—Web Advisor is Sinclair's online registration and student record system. Students can register from home or anywhere else they have computer access. Simply log into my.sinclair.edu and click the Web Advisor tab. Search for classes, build a schedule and register! Adding courses, dropping courses and payment can all be done from Web Advisor. Registration by web begins at 12:01 a.m. on the first day of the registration period.

Telephone—Students can call (937) 512-5454 or 1-866-512-5454 to register for classes using the telephone. Students should follow voice prompts to register. Registration by telephone begins at 12:01 a.m. on the first day of the registration period.

In Person—Registration forms and drop/add/withdrawal forms are available at Sinclair Central and in the lobby of Building 10, Second Floor. Registration in-person begins at 8:00 a.m. on the first day of the registration period.



"I chose Sinclair for its great business program and its affordable tuition."

Badia Kaidi

About the Class Schedule

Find complete information about how to register for classes in the most current issue of the Sinclair quarterly class schedule.

About two weeks before registration begins the schedule of classes will be available electronically by accessing Web Advisor. About one week before registration begins, the printed schedule of classes is distributed at various locations.

- Office of Admissions, Room 10112
- Other campus locations
- Off-campus sites, including Montgomery County public libraries, municipal offices, personnel offices of major industries and businesses, and Wright-Patterson Air Force Base.

Stay InTouch!

Information Kiosks

Get information about Sinclair and student records with these easy-to-use computer terminals. Kiosks are located:

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

Auditing a Course

To audit a course means:

- students may attend class
- students are not required to take exams
- students 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.

Communicating with Students is Easy 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. Students can also customize their own home page for 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. 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/>. Use of the my.Sinclair portal is governed by the college's acceptable use policy.

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.

Dropping Courses or Withdrawing from the College

In order to drop a class or to withdraw from all classes, the student must consult Web Advisor, call the telephone registration system at (937) 512-5454 or have the **drop/add/withdrawal form must be processed** in the office of Registration & Student Records. If the student is dropping or withdrawing from all classes for the quarter, he or she may do so by calling (937) 512-3000. A copy of the withdrawal form will be mailed to the student. This is proof of withdrawal and should be kept for the students' records. Failure to follow one of these processes means the student will receive a grade, usually an "F", in the class. A student may drop from standard term courses during the first eight days of the quarter. In this case, the student will receive a 100% refund and there will be no record of the class on the students' record. 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. For specific

dates for dropping with a refund or withdrawing with a "W", please see the quarterly calendar at my.sinclair.edu or in the printed quarterly schedule.

Short term courses (less than a quarter in length) have special withdrawal deadlines listed in the quarterly class schedule and on the student's schedule.

Summer quarter consists of multiple terms and has deadlines for each term (printed in the summer quarter schedule).

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.

Students receiving financial aid should be aware that dropping or withdrawing from class(es) could affect their financial aid status.

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 Student I.D. number, birth date, the term last attended Sinclair, legal signature, daytime telephone number, and payment.

The cost is \$5.00 per mailed transcript. Same day counter service is available for a fee of \$10.00.

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.]

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.

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 at the office of Registration & Student Records.

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.

Grade Reporting

Grades will be available the first Wednesday after the end of the quarter. Students should choose one of the following ways to access their grades:

1. **E-mail**—A grade report will be e-mailed to all students by way of their My.Sinclair e-mail address. Grades will be e-mailed as soon as all grades for the term are received. If an official grade report is needed, students should access their grades by way of their Web Advisor account.
2. **Web Advisor**—Students may get an official grade report through their Web Advisor account. Web Advisor is accessed through the My.Sinclair portal. Grades can be found by clicking on the “Grades by Term” link within Web Advisor. The “Grades by Term” screen will contain the student’s name and should be considered an official grade report.
3. **Telephone**—Students may call (937) 512-5454 or 1-866-512-5454 to access their grades. Students should follow voice prompts to get their grades. If an official grade report is needed, students should access their grades by way of their Web Advisor account.

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.
NOTE: No distance learning registrations will be accepted once the quarter starts. Distance learning courses (-T section only) are considered to have met as of 8:00 a.m. on the first day of the quarter.
 - 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.
- **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 (\$30.00)** 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.

www.sinclair.edu
my.Sinclair.edu

Financial Aid & Scholarships



“Sinclair has state-of-the-art technology and advancement in dental hygiene education.”

Ellen Erisman

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 Services, 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.

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
- other documents as may be determined to be needed by the Financial Aid & Scholarships office, Building 10, Room 10343. Students should turn in requested documents promptly as the award may be contingent on verification of information.

continued next page

Student Eligibility

Are There Academic Requirements for Maintaining Financial Aid?

Students are expected to meet Standards of Satisfactory Progress while working toward a degree, certificate or transfer credits. The office of Financial Aid & Scholarships is required by the U.S. Department of Education to enforce Standards of Satisfactory Progress for students who receive **Federal Pell Grant, Federal SEOG, Federal College Work-Study, Federal Direct Stafford Loans and Federal Direct PLUS loans**. Sinclair's Standards of Satisfactory Progress policy is explained below.

NOTE: The Standards of Satisfactory Progress Policy is applied to all federal financial aid recipients regardless of whether they have received federal financial aid previously. Sinclair's Fresh Start Policy has no bearing on Standards of Satisfactory Progress.

Credit hour requirement

Students must complete at least 75% of the credit hours they have attempted since the first quarter of attendance at Sinclair regardless of whether they have previously used federal financial aid. Grades of A, B, C, D, Y, N, P and S will be considered credit hours successfully completed. Grades of W, F, I, IP and Z will be considered credit hours not successfully completed.

Grade point average requirement

A student is required to maintain a 2.0 cumulative Grade Point Average.

Maximum time frame requirement

For students pursuing an associate degree, a maximum of 153 credit hours may be attempted and for students pursuing a certificate program, a maximum of 77 credit hours may be attempted before federal financial aid is terminated.

NOTE: Hours transferred from other institutions that count toward current program requirements will be added to the total hours attempted at Sinclair. 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.

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:

Does not meet credit hour completion requirement:

- Students who are 1-12 credit hours short of meeting minimum requirements will be given one quarter of federal financial aid to meet requirements.
- Students who are 13-24 credit hours short of meeting minimum requirements will be given two quarters of federal aid eligibility 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 federal 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.

Does not meet GPA requirement:

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

Degree/certificate requirement:

- Students pursuing degree programs will be placed on Standards of Satisfactory Progress probation when 119 credit hours have been attempted.
- Students enrolled in certificate programs will be placed on Standards of Satisfactory Progress probation when 53 credit hours have been attempted.

Notification of ineligibility and the appeal process:

- Students will receive 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 will include an appeal form.
- Students may appeal the termination of the 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 students' academic transcripts, by the Standards of Satisfactory Progress Appeals Committee.
- Students will be notified by letter of the decision by the Appeals Committee. All decisions of the Appeals Committee are final.

Regaining eligibility

Students may have their federal financial aid reinstated after one of the following:

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

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 pre-determined 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 Career Services (Room 10315). 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 Career Services, 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 academic program. 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" 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 state and 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 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		\$ 1,442
Books and Supplies		948
Transportation		569
Room and Board		2,272
Personal and Other		1,113
TOTAL		<u>\$6,344</u>

BUDGET B	<i>Independent</i>	In-County 9 months
Tuition, Fees and Lab Fees		\$ 1,442
Books and Supplies		948
Transportation		569
Room and Board		4,543
Personal and Other		1,113
TOTAL		<u>\$8,615</u>

Tuition is based on an average registration of 12 credit hours per quarter. Out-of-county students add \$912 and out-of-state students add \$2,806 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 students agree 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 Funds Awarded to Them?

- **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 \$500 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.

FINANCIAL AID

Deadlines Financial Aid

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.

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.

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- 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 May 1 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 grant is 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 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.

Sinclair Scholarships

Assisting talented students through scholarship opportunities enables Sinclair Community College to maintain and enhance the high 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.

Students must demonstrate NO federal or state grant eligibility to be considered for these scholarships.

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. 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 (FAFSA) at www.fafsa.ed.gov and Financial Aid Office Application if not already on file in the Financial Aid & Scholarships 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



"I graduated from Sinclair's Police Academy and enjoyed it so much that I decided to continue my associate degree at Sinclair."

Clinton Colwell

Sinclair Community College Policies, Procedures and Services for Students

The purpose of these policies, procedures, and services is to help students succeed at Sinclair. Please carefully review and address any questions to instructors or the contacts provided below.

Important College Dates

Please check the listing of important college dates contained in the **Quarterly Class Schedule** including withdrawal dates, application date for graduation, etc. You may also find these dates on the web portal at my.sinclair.edu, using the "Campus Calendar" tab.

Academic Counseling

Students are encouraged to meet with an academic counselor early in their studies at Sinclair. Academic counselors are available to assist in understanding degree requirements, selecting courses, transferring to other institutions, etc. In addition, prior to taking any action that will affect schedule, (e.g., dropping or adding a course) it is **strongly** recommended that students see their academic counselor.

Allied Health Technologies

Room 6120
(937) 512-3029

Business Technologies

Room 6131
(937) 512-3054

Developmental Studies

Room 6222
(937) 512-2701

Engineering & Industrial Technologies

Room 3142
(937) 512-2282

Extended Learning &

Human Services
Room 9301
(937) 512-2702

Fine & Performing Arts

Room 2222
(937) 512-2544

Liberal Arts & Sciences

Room 6121
(937) 512-5134

Other Counseling

Counseling Services
Room 10324
(937) 512-2752

Career Services
Room 10315
(937) 512-2772

Sinclair Central
Room 10242
(937) 512-2201

Administrative Withdrawal

Students may be **administratively withdrawn** from a class by their instructor for nonattendance. He or she must advise students in writing **at the first class meeting** what attendance record would constitute cause for administrative withdrawal. If students do not attend the first class, it is their responsibility to obtain a copy of all materials distributed at the first class meeting.

Students may also be administratively withdrawn from classes as a result of a **student conduct hearing** with either a hearing officer or the student conduct committee. Administrative withdrawals may be made when it has been determined that the students' presence on campus is potentially detrimental to the college, faculty, staff, students or themselves.

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 Web Advisor.

- 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.

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Associate Degree

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 for the graduation application deadlines. Applicants for certificates may not participate in the commencement ceremony.

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.

Begin a Four-Year Degree

Begin a four-year degree by taking advantage of Sinclair's small class sizes, caring faculty, supportive staff 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 bachelor's degree.
- Complete most of the general education requirements by taking courses from the Transfer Module, before transferring to a four-year institution.

Changing an Academic Program

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.

Certificate Programs

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. Students must apply for the certificate by printing, completing and submitting the Application for Certificate posted on Sinclair's web site:

www.sinclair.edu. The application can also be picked up on the Second Floor, Building 10. A Degree Audit for the certificate program must be submitted with the application. Students can print their Degree Audit by accessing their Web Advisor account.

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, or at <http://www.sinclair.edu/stservices/sact/StudentHandbook/conduct/index.cfm>

The mission of the Sinclair code of conduct is to 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*.

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 obtain departmental approval before taking a proficiency examination.
- Students cannot 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 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 | • Indiana State University |
| • Antioch McGregor University | • Kettering University |
| • Art Academy of Cincinnati | • Miami University |
| • Bellevue University | • Ohio State University |
| • Bowling Green State University | • University of Cincinnati |
| • Capital University | • University of Dayton |
| • Central State University | • University of Toledo |
| • College of Mt. St. Joseph | • Urbana University |
| • DeVry University | • Wilberforce University |
| • Ferris State University | • Wittenberg University |
| • Governors State 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.

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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.

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 62.

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 academic program. If they change academic programs, a different degree audit must be done. Degree audits may also be done on the web (<http://my.Sinclair.edu>, click on "Web Advisor"), or at the information kiosk.

Dropping a Course

Students who drop a course during the fall, winter and spring quarters within the first eight calendar days (including Saturday and Sunday), will receive a 100 percent refund and no record of a grade for that course. Deadlines for summer courses and short-term, nonstandard courses have different drop deadlines. Consult the **Quarterly Class Schedule** or **electronic Campus Calendar** for these deadlines. If students drop a course after the first eight calendar days but before the last day to withdraw, they will receive a "W." Students may not drop a course after the last day to withdraw. Consult the **Quarterly Class Schedule** or **electronic Campus Calendar** for specific deadline dates.

Students may also drop courses by calling the office of Registration & Student Records [(937) 512-3000 or 1-800-315-3000], online using "Web Advisor" at <http://my.sinclair.edu> or accessing the telephone registration system (937) 512-5454. If students call the office of Registration & Student Records, make sure to ask that a copy of the drop form be mailed to them.

Educational Support Services

Students may be eligible for free educational assistance if enrolled for credit. Contact Tutorial Services in Room 10444 or call (937) 512-2792. Tutoring is usually not provided for 200 level courses that have a prerequisite or for developmental courses in which there are tutors. Assistance is available to eligible students through the office of Disability Services, Room 10421, or call (937) 512-5113. Students are responsible for informing their instructor of any instructional accommodations and/or special learning needs at the beginning of the quarter. Tutoring information is available at <http://www.sinclair.edu/departments/tutorial>. English as a Second Language information and services are available in Room 10421 or call (937) 512-5113.

Fresh Start Policy

Fresh Start allows a student, who has returned to the college after an absence of at least three years (12 academic quarters), and has completed specific requirements, a **one-time-only** option of having his or her grade point average recalculated from the point of re-enrollment without losing credit for previous course work for which a grade of "S", "P", or "C" or better was earned.

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

1. To be eligible for Fresh Start, a student must:
 - be re-enrolled in the college after an absence of at least three calendar years (12 academic quarters)
 - have successfully completed any required Developmental Studies (DEV) courses any time during their college experience based on an assessment of reading, language usage, writing and numerical skills**NOTE: Although a student may have taken placement tests and completed DEV courses prior to their return, re-testing may be appropriate for course placement based on student's current skills. Students should meet with an academic counselor to discuss testing and course selection.**

- Successful completion of a minimum of six credit hours after re-enrollment with grades of “S”, “P” or “C” or better. The following are examples of completion of the minimum first six credit hours. DEV courses do not count toward the 6 credit hours.
 - **Example #1** - First quarter: 6 hours
 - **Example #2** - First quarter: 3 hours; second quarter: 3 hours
 - **Example #3** - First quarter: 12 hours
 - **Example #4** - First quarter: 2 hours; second quarter: 3 hours; third quarter: 8 hours
 - request in writing that the policy be applied and the cumulative GPA be recalculated.
2. The policy can be **applied only once** and only to classes taken before re-enrollment. Once approved, the application of this policy against the student’s record is irrevocable.
 3. After a student elects Fresh Start and eligibility is verified, **a notation will be added to the student’s transcript** indicating that all Sinclair credit hours earned prior to policy enactment will be subject to the following conditions:
 - the previous cumulative GPA is recalculated based upon the elimination of “D”, “F”, and “Z” grades
 - credit earned at Sinclair with a grade of at least “S”, “P”, “C” or higher is carried over
 - credit earned at Sinclair with a grade of “D” is forfeited
 - grades from all course work taken at Sinclair will be shown on the transcript
 4. Fresh Start may not be applied to any course completed **prior** to the award by the college of an Ohio Board of Regents authorized certificate or associate degree.

The academic transcript will show:

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

Grades

Grades will be available the first Wednesday after the end of the quarter. Students should choose one of the following ways to access their grades:

1. E-mail—A grade report will be e-mailed to all students by way of their My.Sinclair e-mail address. Grades will be e-mailed as soon as all grades for the term are received. If an official grade report is needed, students should access their grades by way of their Web Advisor account.
2. Web Advisor—Students may get an official grade report through their Web Advisor account. Web Advisor is accessed through the My.Sinclair portal. Grades can be found by clicking on the “Grades by Term” link within Web Advisor. The “Grades by Term” screen will contain the student’s name and should be considered an official grade report.
3. Telephone—Students may call (937) 512-5454 or 1-866-512-5454 to access their grades. Students should follow voice prompts to get their grades. If an official grade report is needed, students should access their grades by way of their Web Advisor account.

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	U Unsatisfactory	0
C Average	2 70-79	I Incomplete	0
D Passing	1 60-69	W Withdrawal	0
F Failure	0 0-59	P Pass	0
Z Non-Attendance	0 0-59	N Progress	0
		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”, U, 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.

Sinclair Guarantee

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 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, (up to nine hours) **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 appropriate technical job skills identified in the program outcomes for a specific degree to its Associate of Applied Science graduates

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.

Late Registration & Change of Schedule

Late and audit registration will be the week before classes begin. During this period, students may register for, or add, any class that is open. A late fee of \$30 will be assessed if they register after the on-time registration ends. This late fee does not apply to audit courses. **After the beginning of the quarter, students will not be permitted to register for any course that has already met for the first time.** Distance Learning courses begin at 8:00 a.m. on the first day of the quarter. No Distance Learning course may be added once classes begin.

Students may register to audit a course during the week before classes begin. **Students may not change from audit to credit, nor credit to audit status any time in the registration process.** Students will not receive credit for classes they audit, nor can they qualify for veterans benefits for classes they audit.

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.

Miscellaneous College Policies

Attendance

Students are expected to be present at all class sessions. It is the student's responsibility to read and understand the class attendance policy or the web/video course participation policy that will be defined in the syllabus for each course. It is the faculty member's responsibility to define attendance or participation requirements and to monitor and record the students' fulfillment of these requirements. It is a program's prerogative to have specific policies across multiple sections due to the unique requirements of that program. Attendance for traditional classes or participation for web/video classes may affect final grades, financial aid eligibility, and V.A. benefits.

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 campuswide 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.

Safety and Security

Students may access the Campus Police web site at <http://www.sinclair.edu/departments/campuspolice> for information on safety, crime reports/statistics, the department's annual report, and other services. For more information, contact the Campus Police department in Building 7, Room 7112 or call (937) 512-2534.

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:
 - First quarter below 2.0 GPA - Academic Intervention
 - Second consecutive quarter below 2.0 GPA - Academic Probation
 - 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:
 - register or add classes
 - 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.

Student Behavior Guidelines

Students should treat their classes as they would a desirable job. The instructor is a team leader and their fellow students are coworkers. Everyone must work together to complete learning objectives. These behaviors are expected of students:

1. Attend all classes on time.
2. Respect the rights of others to contribute by listening attentively. Show consideration for students, instructors and other college employees.
3. Participate appropriately and actively on topics presented in class.
4. Complete assignments on time.
5. Ask for feedback from instructors and peers to insure progress toward learning objectives.
6. Resolve problems by immediately discussing issues with instructors and/or peers.

Student rights and responsibilities are detailed in the *Sinclair Community College Student Handbook* available in Student Activities, Room 8025 or online at <http://www.sinclair.edu/stservices/sact/StudentHandbook/index.cfm>.

Student Records Policy

Students have the right to inspect and review their education records. To do so, they should submit a written request to the office of Registration & Student Records, specifying the records desired and their location. The 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 students 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).

—continued next page

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 student's 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 attendance at Sinclair, degrees, certificates and awards received, and the most recent previous educational institution attended. If the students do 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 and also on the web. 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.

Testing Center

Exams are administered on a walk-in basis only at the Testing Center in Room 10445. Students must present a Tartan I.D. Card, driver's license, or state issued photo I.D. at the time of testing. Students may have to wait during peak periods (lunch time, after 4 p.m., midterms, and finals). Students may call the Testing Center at (937) 512-3076 to verify that their exam is on file and ready to be administered. Children are not permitted in the center and may not be left unattended in the lobby.

Transfer

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.

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 academic program 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.

Articulation and Transfer Institutional Transfer

The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. Since independent colleges and universities in Ohio may or may not be participating in the transfer policy, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements.

Transfer Module

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education program. Transfer Module consists of 54 to 60 quarter hours (or 36 to 40 semester hours) of courses in the following areas: English, mathematics, arts and humanities, social and behavioral sciences, natural and physical sciences, and interdisciplinary study.

A Transfer Module completed at one college or university will automatically meet the requirements of the Transfer Module at another college or university once the student is admitted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer. For example, a student who completes the Transfer Module at Institution S (sending institution) and then transfers to Institution R (receiving institution)

ing institution) is said to have completed the Transfer Module portion of Institution R's general education program. Institution R, however, may require additional general education courses beyond the Transfer Module.

Since many degree programs require specific courses that may be taken as a part of the general education or Transfer Module program at an institution, students are encouraged to meet with an academic advisor at the institution to which they plan to transfer early in their academic career. For example, students who will be majoring in any of the majors in the College of Business and Administration at the receiving institution should take Economics 201, 202, and 203 (or equivalent course at another institution) rather than the Economics 200 course listed as a part of the Transfer Module. Because of specific major requirements such as these, early identification of a student's intended major is encouraged. Advisors at the institution to which a student wishes to transfer should be consulted regarding Transfer Module and general education courses and any specific program requirements that can be completed before transfer.

Conditions for Transfer Admission

1. The policy encourages receiving institutions to give preferential consideration for admission to students who complete the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better for all previous college level courses.
2. The policy encourages receiving institutions to give preferential treatment to students who have not earned an Associate of Arts or Associate of Science degree but have earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses.
3. The policy further encourages that students who have not earned an Associate of Arts or Associate of Science degree or who have not earned 60 semester hours or 90 quarter hours with a cumulative grade point of 2.0 or better for all previous college level courses are eligible for admission as transfer students on a competitive basis.

Acceptance of Transfer Credit

1. Students who have completed the Associate of Arts or Associate of Science degree with a cumulative grade point of 2.0 or better will receive transfer credit for all college level courses in which a grade of D or better has been earned.
2. Students who have not earned an Associate of Arts or Associate of Science degree will receive transfer credit for all college level courses in which a grade of C or better has been earned.

Admission to a given institution, however, does not guarantee that a transfer student will be automatically admitted to all majors, minors, or fields of concentration at the institution. Once admitted, transfer students shall be subject to the same regulations governing applicability of catalog requirements as all other students. Furthermore, transfer student shall be accorded the same class standing and other privileges as all other students on the basis of the number of credits earned. All residency requirements must be successfully completed at the receiving institution prior to the granting of a degree.

Responsibilities of Students

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

Appeals Process

A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and of the process for filing the appeal. Each institution shall make available to students the appeal process for that specific college or university. If a transfer student's appeal is denied by the institution after all appeal levels within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state-level Articulation and Transfer Appeals Review Committee. The Appeals Review Committee shall review and recommend to institutions the resolutions of individual cases of appeal from transfer students who have exhausted all local appeal mechanism concerning applicability of transfer credits at receiving institutions.

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 following list**. 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 academic program 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.

Sinclair's Transfer Module

English Composition

(0 quarter hours)		
ENG 111	English Composition I	(3)
ENG 112	English Composition II	(3)
ENG 113	English Composition III	(3)

Mathematics

(minimum of 3 quarter hours)		
MAT 108	Math & the Modern World	(3)
MAT 116	College Algebra	(5)
MAT 117	Trigonometry	(4)
MAT 122	Statistics I	(4)
MAT 134	Technical Mathematics IV	(5)
MAT 151	Introduction to Mathematical Modeling	(3)
MAT 201	Calculus & Analytic Geometry I	(5)
MAT 202	Calculus & Analytic Geometry II	(5)
MAT 203	Calculus & Analytic Geometry III	(5)
MAT 204	Calculus & Analytic Geometry IV	(5)
MAT 215	Differential Equations	(5)
MAT 216	Elements of Linear Algebra	(4)
MAT 218	Calculus for Business & Economics	(5)
MAT 220	Statistics II	(4)

Natural & Physical Sciences

(minimum of 12 quarter hours, 3 courses from one sequence)		
AST 101	Survey of Astronomy	(4)
AST 111/117	Introduction to Astronomy	(4)
AST 112/118	The Solar System	(4)
AST 113/119	Stars, Galaxies, & Cosmology	(4)
BIO 111/117	General Biology I	(4)
BIO 112/118	General Biology II	(4)
BIO 113/119	General Biology III	(4)
BIO 141/147	Principles of Anatomy & Physiology I	(4)
BIO 142/148	Principles of Anatomy & Physiology II	(4)
BIO 143/149	Principles of Anatomy & Physiology III	(4)
BIO 171/177	Principles of Biology I	(5)
BIO 172/178	Principles of Biology II	(5)
BIO 173/179	Principles of Biology III	(5)
BIO 205/206	Microbiology	(4)
BIO 222	Evolution	(4)
BIO 225/226	Ecology	(4)
BIO 235/236	Introduction to Genetics	(4)
CHE 141/147	College Chemistry I	(4)
CHE 142/148	College Chemistry II	(4)
CHE 143/149	College Chemistry III	(4)
CHE 151/157	General Chemistry I	(5)
CHE 152/158	General Chemistry II	(5)
CHE 153/159	General Chemistry III	(5)
CHE 201/207	Organic Chemistry I	(5)
CHE 202/208	Organic Chemistry II	(5)
CHE 203/209	Organic Chemistry III	(5)
GLG 141/147	General Geology I	(4)
GLG 142/148	General Geology II	(4)
GLG 143/149	General Geology III	(4)
GLG 144	Geological Field Trips	(4)
PHY 100/110	Introduction to Physics	(4)
PHY 104/119	Sound, Light & Modern Physics	(4)
PHY 141	College Physics I	(4)
PHY 142	College Physics II	(4)
PHY 143	College Physics III	(4)
PHY 201	General Physics I	(5)
PHY 202	General Physics II	(5)
PHY 203	General Physics III	(5)

Social & Behavioral Sciences

(minimum of 9 quarter hours from at least two areas)		
ECO 201	Principles of Economics I	(3)
ECO 202	Principles of Economics II	(3)
ECO 203	Principles of Economics III	(3)
GEO 101	Physical Geography	(4)
GEO 102	Human Geography	(3)
GEO 201	World Regional Geography I	(3)
GEO 202	World Regional Geography II	(3)
PLS 101	American Federal Government I	(3)
PLS 102	American Federal Government II	(3)
PLS 103	State Government	(3)
PLS 104	Urban Government	(3)
PLS 200	Political Life, Systems & Issues	(3)
PLS 201	International Relations I	(3)
PSY 119	General Psychology	(5)
PSY 121	General Psychology I	(3)

PSY 122	General Psychology II	(3)
PSY 205	Child Development	(4)
PSY 206	Adolescent & Adult Psychology	(3)
PSY 207	Psychology of Aging	(3)
PSY 208	Life Span & Human Development	(5)
PSY 217	Abnormal Psychology	(4)
PSY 223	Cognitive Psychology	(4)
PSY 225	Social Psychology	(4)
PSY 228	Psychology in the Work Place	(4)
PSY 242	Educational Psychology	(4)
SOC 111	General Sociology I	(3)
SOC 112	General Sociology II	(3)
SOC 120	General Sociology	(5)
SOC 145	Comparing Cultures	(3)
SOC 160	Social Patterns in Aging	(3)
SOC 205	Social Problems	(4)
SOC 208	The Urban Environment	(3)
SOC 215	Cultural Diversity	(4)
SOC 226	Criminology	(3)

Arts & Humanities

(minimum of 9 quarter hours from at least two areas)		
ART 101	Art Appreciation I	(3)
ART 102	Art Appreciation II	(3)
ART 125	African Art	(3)
ART 231	Art of the Ancient World	(3)
ART 232	Art of the Medieval & Renaissance Worlds	(3)
ART 233	Art of the Modern World	(3)
ART 235	History of Photography	(3)
ART 236	History of Women Artists	(3)
DAN 155	Dance History	(3)
DAN 157	Dance Appreciation	(3)
HIS 101	U.S. History (1607-1815)	(3)
HIS 102	U.S. History (1815-1919)	(3)
HIS 103	U.S. History (1919-Present)	(3)
HIS 105	African-American History	(4)
HIS 111	Western Civilization (0-1300)	(3)
HIS 112	Western Civilization (1300-1815)	(3)
HIS 113	Western Civilization (1815-Present)	(3)
HIS 214	History of Southeast Asia	(3)
HIS 215	Survey of African History	(3)
HIS 216	Survey of Latin American History	(3)
HIS 217	Survey of East Asia	(3)
HIS 218	History of Ohio	(3)
HUM 125	The Human Image	(3)
HUM 130	Humanities & Challenge Technology	(3)
HUM 131	Search for Utopia	(3)
HUM 135	Environmental Ethics	(3)
HUM 255	People & Religion	(3)
LIT 201	Survey of English Literature (to 1660)	(3)
LIT 202	Survey of English Literature (1660-1832)	(3)
LIT 203	Survey of English Literature (1832-Present)	(3)
LIT 211	Survey of American Literature I	(3)
LIT 212	Middle American Literature	(3)
LIT 213	Modern American Literature	(3)
LIT 217	Images of Women in Literature	(3)
LIT 227	Introduction to Shakespeare	(3)
LIT 230	Great Books of the Western World	(3)
LIT 234	Literature of Africa, Asia, & Latin America	(3)
LIT 240	Children's Literature	(3)
MUS 115	Music Appreciation	(3)
MUS 131	Survey of Musical Styles I	(3)
MUS 132	Survey of Musical Styles II	(3)
MUS 133	Survey of Musical Styles III	(3)
PHI 204	Great Books: Philosophy	(3)
PHI 205	Introduction to Philosophy	(3)
PHI 206	Personal Ethics	(3)
REL 111	Eastern Religions	(3)
REL 112	Western Religions	(3)
REL 135	American Religious Movements	(3)
REL 204	Great Books: The Bible & Western Culture	(3)
THE 105	Introduction to Theatre	(3)
THE 201	History of Theatre I	(3)
THE 202	History of Theatre II	(3)
THE 203	History of Theatre III	(3)

Other Approved Courses

ENG 250	Personal Essay: Advanced Composition	(3)
COM 211	Effective Speaking I	(3)

Restrictions for Registering for Distance Learning Courses

Effective with spring quarter 2005 registration, students with less than a 2.0 cumulative GPA are restricted from registering for distance learning (-T section) courses.

Students meeting this GPA restriction are prohibited from registering for a distance learning class (-T section only) until they have met with their academic counselor. Distance learning courses require specific skill sets and are not an appropriate choice for all students. The student's academic counselor can determine from a set of guidelines the student's readiness for a distance learning course. If the academic counselor determines that the student has met requirements for a particular distance learning course, the academic counselor may issue a waiver to allow the student to register for that course. The waiver is not automatic and is not transferable to other courses.

NOTE: to discuss other course options, students should see their divisional academic counselor.

Withdrawing from College

Students who decide to withdraw from all of their courses during the fall, winter and spring quarters within the first eight calendar days (including Saturday and Sunday), will receive a 100 percent refund and no record of grades for the courses. Summer terms have different withdrawal deadlines. Consult the **Quarterly Class Schedule** or **electronic Campus Calendar** for these deadlines. If students withdraw from their courses after the first eight calendar days but before the last day to withdraw, they will receive "W" grades. Students may not withdraw after the last day to withdraw. Consult the **Quarterly Class Schedule** or **electronic Campus Calendar** for specific deadline dates.

Students may also withdraw from all of their courses by calling the office of Registration & Student Records (937) 512-3000, online using "Web Advisor" at <http://my.sinclair.edu> or accessing the telephone registration system (937) 512-5454. If students call the office of Registration & Student Records, make sure to ask that a copy of the withdrawal form be mailed to them.

Alternative Learning



“Sinclair’s nursing faculty has a wide variety of backgrounds and experience that enhance the learning experience.”

John Kahle

Distance Learning

Building 14, Room 14223, (937) 512-2990, 1-888-226-2457

<http://www.sinclair.edu/distance>

See page 103 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 8,000 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 may vary from \$5.00 to \$45 per course.

Cooperative Education & Internship

Sinclair supports the concept that valuable learning occurs in settings other than the traditional classroom. Internship and Cooperative Education opportunities allow students to apply skills and competencies learned in the classroom in a work based setting. In many programs, students can earn actual degree credit while enrolled in academic internship courses.

For more information about Business Technologies or Liberal Arts & Sciences, go to Building 10, Room 10311, call (937) 512-2769, e-mail co-op@sinclair.edu, or visit www.sinclair.edu/academics/bus/intern. For more information about Engineering & Industrial Technologies or Fine & Performing Arts, go to Building 3, Room 3120, call (937) 512-2508, or e-mail terry.maiwurm@sinclair.edu. Students enrolled in other divisions should contact their academic departments or counselors for information.

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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.

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) 512-5101

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) 512-5101

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.

Students can 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 to determine degree requirements. For more information, contact the A.T.S. office.

College Without Walls (CWW)

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

Students who need a study plan that allows them to learn at their own pace with a flexible time frame, should 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. Courses 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.

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 6141, (937) 512-2040

Service Learning experiences are collectively designed by the faculty, community partner, and student to meet course objectives and community needs. This experiential learning method provides practical applications of students' skills and knowledge to meeting meaningful community needs while also including critical reflection related to community and civic issues. Students also have the opportunity to develop and explore their academic, personal, social, and career goals. Students also have the opportunity to develop and explore their academic, personal, social, and career goals.

Credit for Lifelong Learning Program (CLLP)

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

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

The students' portfolios consist 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 students identify specific Sinclair courses, demonstrate college level learning, and develop 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.

Developmental Studies Program (DEV)

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

The Developmental Studies program is 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 work force training and development, including:

- Four computer labs designed for high-end technical training, each capable of holding 16 students and containing leading edge equipment and instructional environments.
- One seminar room for small training programs or breakout sessions.
- 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 62.

Sinclair Ohio Fellows Leadership Program

See page 62.

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

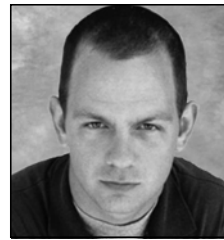
Studying abroad allows students to get to know and understand another country's culture and everyday life. Students become more aware of perspectives that may be different than their own.

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.

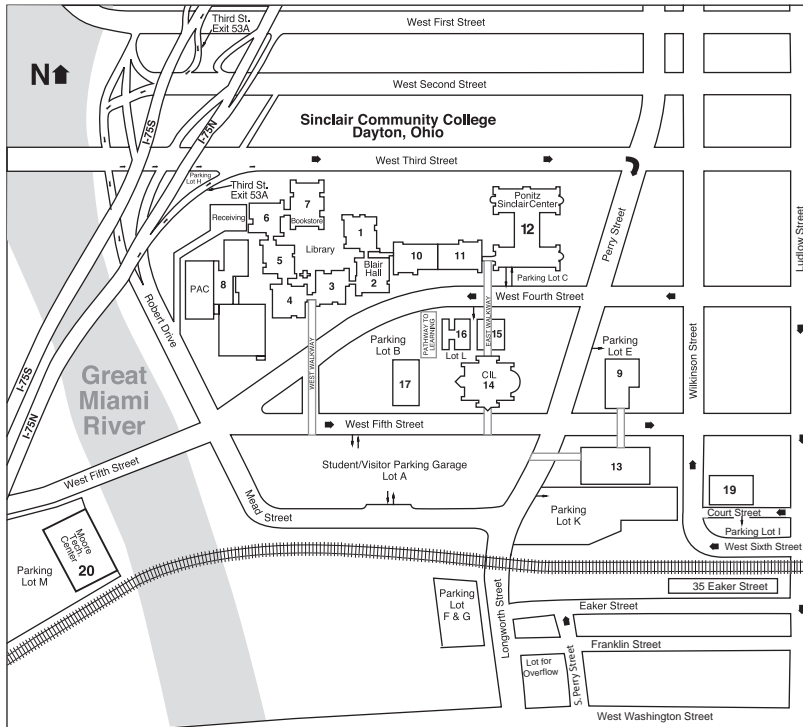
To qualify, they need to have a grade point average of 2.0 or better at Sinclair and meet any other specific requirements of the particular study abroad opportunity.

Information about the international Student I.D. Card (I.S.I.D.), overseas medical insurance, and study abroad opportunities is available in the Study Abroad office, Room 16118.

Campus Facilities



"I wanted a career change. Sinclair's Criminal Justice Training Academy has been an excellent program to prepare me for a challenging and rewarding career as a police officer."
Jesse Templeton



Sinclair's Growing Campus

Next to I-75 on the western 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 students out of the weather—and on time!

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 last numbers complete the classroom number. (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.)

Room	Building	Floor	Actual Number on Room
1324	1	3	1324
8024	8	0 (lower level)	8024
20113	20	1	20113

Buildings 1-7 surround the main plaza. The college Library stretches beneath. Enter the Library from the basement level of all seven buildings or get to Building 8 (PAC) from the basement level. Buildings 9, 13, 14 can be entered through the Fifth Street or Lot A parking garage.

continued next page

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 and students on a space available basis. Entrance from Fourth Street.
- **Lot B** is an employee lot.
- **Parking for the disabled is located in all student lots.**

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)

Lots E, H, I, K are closed to students.

Parking Fees

Rates for student parking lots:

- \$1.00 (every in/out transaction) when paying with the Tartan Card (funds must be added to the Tartan Card)
- \$2.00 when paying with cash.

Free Shuttle Service

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.

Visit www.sinclair.edu/help/map/parking for the most current information.

Theatre at Sinclair

Blair Hall, Building 2

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

Community organizations also use 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

Tartan Campus Store

tartanstore.sinclair.edu

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

The beginning date for **buying textbooks** is posted each quarter in the quarterly schedule. 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 back used textbooks during regular Tartan Campus Store hours throughout the year.

For more information or purchases, look 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. - 4:30 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.

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.

Library

Building 7, (937) 512-2855

<http://library.sinclair.edu>

The Library at Sinclair includes a full-service facility on the second floor of Building 7 and a complete digital library on the Internet at <http://library.sinclair.edu>. Whether in person, by phone, or through online chat sessions, Sinclair librarians and staff are helping students find answers to their questions, information to complete assignments, and support for their reading, writing, and research.

Library resources include books, computers, magazines, digital videos, newspapers, e-books, online articles, Internet sites, and much more. Emphasis is placed on providing up-to-date, college-quality information, media, and reading material. Through the OhioLINK network of 80 Ohio colleges and universities, Sinclair provides links to over 100 research databases, millions of online articles, and books from almost every college campus in Ohio. Online information is available 24 hours a day, 7 days a week.

The **Sinclair Tartan Card** serves as the Sinclair library card and ID password for many online databases. Students with Internet access at home or work can connect at any time to the Sinclair and OhioLINK research databases using their Tartan Card number. They can borrow Sinclair books, order books from other OhioLINK libraries online, or go to those libraries and use it as a library card to borrow books directly. Graduates with an Alumni card can also borrow Sinclair books.

Sinclair is renovating the Library in 2005-2006. During construction, a full range of library resources and services will continue to be offered on the second floor of Building 7. For more information call Reference Services, (937) 512-3004, or connect to the Library at <http://library.sinclair.edu>.

Library 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. The Tartan Card or an Ohio driver's license is required for academic testing.

Academic Testing Hours of Operation*:

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

* No Saturday hours during summer quarter and interim breaks.

Placement Testing Hours of Operation*

(Please arrive at least two hours prior to closing for placement testing):

Day(s)	Open	Close
Mon. - Thurs.	8:00 a.m.	8:00 p.m.
Friday	8:00 a.m.	4:00 p.m.
Saturday	9:00 a.m.	2:00 p.m.

* No Saturday hours during summer quarter and interim break.

Computers on Campus

I.T. Computer Labs

The Teleports and the CIL labs are computer labs which are managed by the I.T. division. These labs provide first-class support for Sinclair students, faculty and staff in the use of Information Technology. The I.T. Computer Labs are state-of-the-art computer facilities with convenient access to high quality computers, printers, scanners, CD-RW's and copiers. Other equipment that is available includes plotters, Macintoshes, video editing equipment and a fax machine for local use in Teleport II. There are always lab assistants in the I.T. Computer Labs to help students with their learning objectives.

I.T. Computer Lab workstations are high end P.C.'s that have the Sinclair academic workstation image which includes: Windows XP Operating System, Microsoft Office 2003, Internet Explorer, Library CD-ROM access, access to clip art on the network server, Telnet, Adobe Acrobat Reader and virus protection software. I.T. Computer Labs also provide access to over 170 division specific software applications. A Tartan Card is required to access I.T. Computer Lab resources.

Locations and Hours:

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

Monday – Thursday	8:00 a.m. - 9:30 p.m.
Friday	8:00 a.m. - 4:00 p.m.
Saturday	9:00 a.m. - 4:00 p.m. (Teleport I Closed Summer)
Sunday	12:30 p.m. - 6:30 p.m. (Teleport II only, Closed Summer)
CIL, Building 14, First Floor, Room 14109, (937) 512-5079	
Monday – Thursday	7:00 a.m. - 9:30 p.m.
Friday	7:00 a.m. - 5:00 p.m.
Saturday	9:00 a.m. - 4:00 p.m. (Closed Summer)
Sunday	Closed

I.T. Computer Labs are opened between quarters. Hours will vary during the interim and summer quarter. Hours of operation are posted in each lab and on the lab web site.

For more information on specific hardware, software, services and resources visit I.T. Labs at <http://www.sinclair.edu/technology/labs/ITlabs>.

I.T. Help Desk

The Information Technology Help Desk provides students, faculty and staff with a single primary point of contact for technology related issues.

Assistance is available over the phone at (937) 512-4357 (HELP) or toll free (866) 781-4357 (HELP), or via the Help Desk Assistance form found at www.sinclair.edu/helpdesk.

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.

Supported Software and Services:

- Student E-mail Account
- InTouch Kiosk Information System
- my.Sinclair.edu - Portal
- 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.

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 in the lounges or in any campus building.

PAC for Good Health

Physical Activity Center (PAC), Building 8

Whatever the age, or fitness goals, students will find a welcoming haven for both body and spirit at the PAC. Its multi-level impressive facilities include a six-lane swimming pool and diving well, gymnasium, aerobic, self defense, T'ai Chi, Yoga and Pilates room and a weight room with state-of-the-art cardiovascular machines, free-weight area and a variety of selectorized resistance equipment. In addition, a multipurpose fieldhouse features a 1/9 mile running track; tennis, and badminton courts; indoor group cycling area; and a netting system for golf classes. There are also fully equipped men's and women's locker facilities with amenities, a sports medicine training room and athletic locker rooms. Sinclair students, faculty, staff and alumni can enjoy open times or sign up for a quarter long class.

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 350-car parking garage (Lot C) 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 Kendell 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 an 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 - Thursday, 7:30 a.m. - 10:00 p.m.

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

Saturday, 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.

Summer hours may vary.

www.sinclair.edu
my.Sinclair.edu

Services for Students



"I chose Sinclair after having met alumni who were highly skilled interpreters as well as after conducting an extensive search for the finest training program."

Kristina Milentas

Academic Credit Assessment Information Center (ACAIC)

See page 44.

Academic Resource Center (ARC)

Building 13, Room 13105, (937) 512-3495

Thinking about coming back to college? Math skills seem a little rusty? Forgot the writing skills you learned in high school? Or just need a little refresher on math, English and reading? The Academic Resource Center (ARC) is for you!

The on-campus ARC is located in Building 13 on the second floor in 13223. An ARC instructor-facilitator will assess skill levels and guide you through a self-paced tutorial to help improve math, English and reading skills either before taking the placement test or enrolling in remedial courses. It's easy and it's free.

Hours: Monday - Thursday, 10:00 a.m. - 7:00 p.m.

Friday, 10:00 a.m. - 4:00 p.m.

Saturday, 9:00 a.m. - 1:00 p.m.

Closed during the summer on Saturday

In addition, there are ARC's at several Montgomery County high schools with the goal to expand to all high schools in the county. Students in eleventh and twelfth grades have the opportunity to assess their basic skill level and if help in the area of basic skills is needed, go through the self-paced tutorials and bring their skills up to college level by high school graduation.

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
- Provides a variety of social and volunteer activities
- Communicates with all alumni through mailings, periodic publications, and on the web
- Maintains data on more than 25,000 Sinclair alumni

Alumni Association

Upon graduation, alumni receive a one-year, complimentary membership to the Sinclair Alumni Association.

Benefits:

- Access to college facilities
- Eligibility to run for a seat on the 15-member council
- Volunteer opportunities at association 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.

—continued next page

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

Sinclair takes pride in its safety record and is committed to maintaining a safe environment. On the Sinclair campus, students 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, 14, 19, 20, Library, 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/departments/police. The past three years of crimes are noted, plus there is a "tip" line available if any student has 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. **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.**

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), and stairwells in buildings 13, 14, 20.
- 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.

Career Services

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

Career Development Services

Use Career 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 academic program, 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, preferences and values
- Career counseling
- Assistance with matching career fields with Sinclair academic programs
- Quick reference guide of salary information that corresponds to Sinclair academic programs
- 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 Employment Management System

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

- Register for Employment Services.
- Post a resume to the Career Services 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 programs 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 programs

Employment 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 or have completed a one-year certificate need to register for Employment Services Orientation. Alumni are encouraged to register with the Alumni Association before registering with Career Services.

Child Care

Early Childhood Education Centers

Building 9, Room 9101, (937) 512-2234

Students who need child care services while on campus should call 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 accredited by the National Association for the Education of Young Children.

Using an open classroom, 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 a full-time program, and the **Flex-Time Center**, which offers a flexible part-time program.

For more information about the programs 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) 512-2787

Computer Classroom, Building 9, Room 9311, (937) 512-8177

Currently enrolled students may use a wide variety of resources and materials in the following areas:

- Early Childhood Education
- American Sign Language
- Interpreting for the Deaf
- Disabilities Intervention Services
- Infant Toddler Education

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

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 College setting, may contact Counseling Services for:

- Individual counseling about educational, personal or social concerns
- Individual Learning Plans and Counseling Action Plans for new and 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 until 4:30 p.m.

African-American Male Initiative (AAMI)

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

The African-American Male Initiative (AAMI) is designed to assist and support African-American male students as they make their transition into the mainstream of college life. Student Services and Experience Based Education may 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 to teach them basic interpersonal skills and necessary employment survival skills. Students are also introduced to other college support services such as Tutorial, Career Services, 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
- 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 potential. Early identification is required 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

- Interpreters
- Notetakers
- Readers/Writers
- Testing Accommodations
- Textbook Alternatives
- Tutors

Adaptive Aids

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

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.

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

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

Summer hours will vary.

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 56), English as a Second Language (page 56), Supported Education Program (page 59), and Tutorial Services (page 59).

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

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

Summer hours will vary.

English as a Second Language (ESL)

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

Those students whose second language is English should make an appointment to see the ESL program coordinator. Students will receive application, registration and counseling help.

Hours: Monday - 10:00 a.m. - 7:00 p.m.

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

Summer hours will vary.

Enrichment Center

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

www.sinclair.edu/enrichment

The Enrichment Center creates access to academic support services, programs, and resources that proactively and collaboratively guide, assist and help students achieve their personal learning goals in a success oriented, learning college environment.

Sinclair Community College's enrichment programs are designed to:

- Offer a variety of appropriate pre-college learning opportunities.
- Strengthen existing partnerships with area school programs by providing supplemental education to students.
- Provide social, cultural, and academic readiness activities.
- Encourage personal growth and development for students.

Quick Start

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

This pre-college program, funded through Sinclair's Foundation, offers college courses in technical academic areas to juniors and seniors enrolled in career education programs at participating high schools. Quick Start gives participating students an opportunity to experience college life-engage their career interest and support their high school and college goals.

Upward Bound

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

A federally funded pre-college program for low income and/or first generation students, Upward Bound is designed to increase the probability that participants will complete their high school education, enroll and graduate from college. Upward Bound provides several cultural trips, supplemental education, ACT/SAT review, a six week summer program, and serves students in grades 9 -12.

Young Scholars Program

Building 12, Room 12331, (937) 512-3730

The Young Scholars Program (YSP) is a five-year pre-college program designed to provide first generation Montgomery County youths become academically and socially prepared to graduate from high school and prepared to enter college. YSP targets academic middle students with grade point averages between 2.0 and 3.0. Selected students attend ten, three and a half hour Saturday sessions guided by a five-year curriculum, aligned with the State of Ohio's proficiency outcomes.

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 25.

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		Library
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.

Dental Hygiene Clinic

Building 4, Room 4332, (937) 512-2548

Students may have their teeth cleaned and help a fellow student complete degree requirements at the same time—for only \$10.00.

The clinic is open Monday, Wednesday and Friday. Appointments are scheduled at 8:00 a.m. or 1:00 p.m. Please call for an appointment.

New Degree and Certificate Seeking Students to Sinclair

Assessment Intake Center

Building 10, Room 10422, (937) 512-2210

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

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

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

Testing Center

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

The Testing Center provides both academic and placement testing. Academic testing is available for students who need to make up a missed exam, students who take distance learning classes, and students with special needs. Students starting a degree also receive placement testing in the center.

New Student Orientation

All new students must attend an interactive, two-hour session to fully understand campus resources, policies and procedures. They will learn how to register, get around campus, access financial aid and other resources available.

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. Computers are also located in the center and in the Registration lobby to register online using Web Advisor and 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.
- Assistance for transient students.

I.T. Help Desk

The I.T. Help Desk provides students, faculty and staff with a single primary point of contact for technology related issues and provides 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 the Help Desk Assistance Form found at www.sinclair.edu/helpdesk.

The Help Desk analysts are trained to help with questions about the supported software and services 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.

Supported Software Services:

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

For more information log on to www.sinclair.edu/helpdesk.

Living Accommodations

Sinclair does not provide housing facilities for students. However, dormitory housing is available for women at the Central YWCA, 141 West Third Street, only two blocks from the Sinclair campus.

For assistance with information about basic housing and apartment search, contact the Student Activities office, Building 8, Room 8025, (937) 512-2509.

Library

See page 49.

Military Services

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

The Army Reserve Officer Training Corps (ROTC) program is designed to provide the Army, Army Reserve and National Guard with commissioned officers. The program helps students:

- Develop decision making capabilities through detailed examination of leadership
- Expand oral and written communication skills
- Provide technical training in basic military skills
- Develop an understanding of the relationship between the basic degree field and its application in the United States Army

Full-time students at Sinclair can:

- Enroll in Army ROTC and participate without obligation in the first two years of the four-year program
 - Complete the final two years at another institution, OR
 - Apply for advance placement and participate in only the final two years of ROTC, receiving commission as a second lieutenant upon graduation from Sinclair
 - Join the Air Force Reserve Officer Training Corps (AFROTC) at Wright State University
- The Southwestern Ohio Council for Higher Education

(SOCHE) conducts registration through Sinclair's office of Registration & Student Records, Second Floor, Building 10. For further information contact:

Army ROTC	University of Dayton	(937) 229-3326
	Wright State University	(937) 775-2763
Air Force ROTC	Wright State University	(937) 775-2730

Ombudsman/Student Advocate

(937) 512-2205, Building 10, Room 10341

The Ombudsman/Student Advocate provides assistance to the students who indicate they have problems/issues or concerns that need resolution. It may involve:

- Conflict resolution
- Coaching - advocacy/support

The Ombudsman can:

- Cut red tape
- Listen to problems
- Investigate, mediate, facilitate
- Clarify policies and procedures

Physical Activity Center (PAC)

See page 50.

Registration & Student Records

See page 21.

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. Computers are also located in the center and the Registration lobby to register online using Web Advisor and 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.
- Assistance for transient students.

Student Activities

See page 63, or go to <http://www.sinclair.edu/stservices/sact/index.cfm>. At this site students can access the Code of Conduct and information about SGA.

Student Government

See page 64, or go to <http://www.sinclair.edu/organizations/government/index.cfm>.

—continued next page

Student Success Planning Services

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

New degree or certificate seeking students, based on their needs, will be offered the opportunity to develop an Individual Learning Plan (ILP) with an assigned Student Success Services counselor. After completing the placement test, students will receive information about the ILP at the Assessment/Intake Center. The ILP is an action plan that will serve as the new students' personal guide to becoming successful students. The counselor will assist the students with the following:

- Choose a college academic program or career goal
- Develop a plan to pay for educational expenses
- Identify resources and services that will be beneficial
- Review strategies to improve study skills
- Select courses and assist with registration for classes

Students who participate in this process their first quarter will have a customized success plan and support system to serve as a guide as they begin their educational experience at the college and to help them in the completion of their educational goals.

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

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

Student Support Services

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

The Student Support Services (SSS) program is funded by the United States Department of Education to provide intensive services and activities that enhance disadvantaged students' chances of academic success. The program works with the students to promote a comfortable college life, so they can persist and accomplish their academic goals.

At Sinclair, Student Support Services innovates strategies to facilitate these goals. Strategies include, but are not limited to:

- Student Success Action Plan
- Professional tutoring
- Personal, career and financial aid counseling
- Limited textbook and video 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 a mental health diagnosis 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.

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

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

Summer hours will vary.

Tutorial Services

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 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 will vary.

Veterans Assistance

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

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

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 meet the V.A. eligibility criteria may be certified to receive educational benefits by registering with Sinclair's V.A. coordinator. The following chapters currently exist for educational benefits:

- Montgomery GI Bill - Active Duty (Chapter 30)
- Montgomery GI Bill - Selected Reserve/National Guard (Chapter 1606)
- Veterans Educational Assistance Program (VEAP) (Chapter 32)
- Survivor's and Dependents' Educational assistance Program (Chapter 35)
- Vocational Rehabilitation Program (Chapter 31)

Benefits are paid based on chapter and number of credit hours enrolled per quarter:

- Full-time: 12 or more credit hours
- Three-quarter time: 9 to 11 credit hours
- Half-time: 6 to 8 credit hours
- *Less than half-time: 5 credit hours or less (tuition and fees only)

*Chapter 31 Does Not Apply

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 with prior credits who attended previous college(s) or served in the military must request official transcripts. Transcripts will be evaluated by the office of Registration & Student Records, and once the credits have been evaluated the school will send the students a letter informing them of the number of credits accepted. Next, make an appointment with the academic counselor and request a degree audit to be sent to the Veterans Assistance office. The degree audit must be completed by the end of the second quarter or benefits will be suspended or delayed.

Sinclair's Developmental Studies courses are approved for all chapters as long as students 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. **Any course that cannot be credited toward graduation in the degree program**
3. A third attempt at a failed ("F") course.
4. 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



“Sinclair’s Design program has given me a solid foundation to begin a career as a graphic designer.”

Taj Sibley

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 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, lower level, 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 Advisory Board, offers students a wide variety of events, performances, presentations and activities.

- African-American Gospel Choir
- African-American History Art Show
- Art Faculty Show
- Art Galleries (Library Gallery, Zone VI Gallery, Burnell R. Roberts Triangle Gallery, Hypotenuse Gallery)
- Art Graduation Portfolio Show
- Bluegrass Saturdays
- Chamber Choir
- Classical Guitar Ensemble
- Community Concert Band
- Concert Handbell Choir
- Dance Events
- Design Graduate Show
- Golden Age Art Show
- Holocaust Remembrance Program
- Men’s Ensemble
- Sinclair Community Wind Symphony
- Sinclair Concert Chorale
- Sinclair Dance Ensemble
- Sinclair Jazz Combo
- Sinclair Jazz Ensemble
- Sinclair Singers
- Sinclair Youth Wind Ensemble
- Student Fine Art Show
- Theatre productions
- Theatre touring productions
- Women’s Ensemble

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 30 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:

Jeff Price	Men's Basketball
K.C. Gan	Women's Volleyball
Don Cundiff	Golf
Melissa Alexicko	Men's Tennis
Jeff Dillon	Women's Basketball
Michael Goldschmidt	Men's Baseball
Melissa Alexicko	Women's Tennis

Physical Activity Center

See page 50.

Sinclair Honors Program

Building 10, Room 10339, (937) 512-5189

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. Honors scholars are expected 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 or counselor 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, www.sinclair.edu/departments/honors/.

Phi Theta Kappa Honor Society

Building 8, Room 8025, (937) 512-2517

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 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.

Leadership Sinclair: Creating Excellent Outcomes (CEO)

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

The Leadership Sinclair, CEO program provides participants with an opportunity to learn skills for serving in a campus leadership position. The goal of Leadership Sinclair, CEO is to teach students the needed skills and experiences that will enable them to lead more effectively within the college, community and work place. Any students enrolled in at least six (6) credit hours, in good academic standing, and maintaining a 2.0 GPA are eligible for application to Leadership Sinclair.

Students involved in this program are provided the opportunity to see leaders at the local, state and federal levels in action, take courses and workshops to develop their leadership skills, and complete an internship with leaders in the community. Each student develops a personal Leader Portfolio and receives a certificate of completion for the one- or two-year Leadership Sinclair, CEO program.

Students interested in this program should contact the Student Activities office for an application.

Student Activities

The department of Student Activities is a vital part of life at Sinclair Community College. Only part of college learning takes place in the classroom. Students may choose to participate in any number of a wide variety of activities and organizations, as well as participate in sports programs offered through the Physical Activities Center. The best place to learn about all the student centered programs is in the Student Activities and Student Government office in Room 8025.

The Student Activities Manager administers the Student Code of Conduct. Its mission enhances the objectives of the law, and promotes the quality and accessibility of education for all students. We are committed to providing an atmosphere which is conducive to inquiry and intellectual growth, both inside and outside the classroom.

Student Activities programs and services include; locker rental, a community resource directory that provides information about off-campus housing, fax services for students, copier services for students, and opportunities for students to develop their leadership skills. The department staff assists students and over 40 clubs and student organizations in designing, building and maintaining an educational environment that will enhance their personal growth and facilitate the attainment of their organizational purpose.

Ponnie Kendell Student Activities Center

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

<http://www.sinclair.edu/stservices/sact/index.cfm>

Research shows that only part of college learning and student involvement takes place in the classroom. Sinclair students have always been able to participate in a wide variety of activities and organizations, as well as participate in sports programs offered through the Physical Activities Center.

In 1999, an architectural plan was developed to create what might be called a "student union" where students could not only play games and do sports, but also socialize with other students, participate in educational and entertaining events and clubs and snack between classes.

The Ponnie Kendell Student Activities Center is now the best place to learn about student centered programs that enhance outside the classroom learning. The contemporary center is managed by Student Activities, which charters clubs, sponsors special student events, workshops, and leadership programs and coordinates the Sinclair Ohio Fellows Leadership Development Program. In addition, the office administers the student disciplinary process and guides the Student Government Association. A Sports Cafe offers fast foods and is managed by the campus food service, Aramark.

The Ponnie Kendell Student Activities Center has become the place to relax between classes, have a snack, play games, attend special events, meet with club members and so forth. But to expand the out of classroom experiences for our students and to collaborate with the academic world, "Building Connections to Instruction" grants have now been provided for academic related special projects; these projects provide for learning out of the classroom but are tied to the various academic offerings. Cross-disciplinary programs dealing with diversity issues, social issues, mental and physical health and academic exploration are designed to offer out of the classroom learning experiences for Sinclair students. Examples include presentations featuring various cultures, ethnic groups and countries, film festivals, workshops promoting healthy lifestyles, and educational speaker series. These programs have substantially increased student attendance and faculty cooperation in bringing classes to the Student Activities Center.

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

<http://www.sinclair.edu/organizations/government/index.cfm>

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 8, Room 8027, (937) 512-2744

clarion@sinclair.edu

Sinclair Community College's student newspaper operates as a public forum for the students of the college and is published weekly during the regular academic year and twice during the summer quarter. "Dedicated to the Cause of Communication," *The Clarion* is produced by students for students. Students may become involved in reporting, graphic design, layout, photography, and advertising and marketing. Some areas provide students opportunities to earn college credit for their work and be paid as student assistants.

To become involved with *the Clarion*, contact the office at (937) 512-2958 or by e-mail at clarion@sinclair.edu.

Degrees & Programs



"I chose Sinclair because of the price and convenience. Professors are proud of their school and truly enjoy teaching. Staff members are always willing to go the extra mile."

Mary Dempsey

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.**

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.

A Vision for General Education

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.

General Education



"I'm in the Business Administration degree program and plan to transfer to get my bachelor's degree in accounting/finance. The faculty and staff at Sinclair have been outstanding in helping me achieve my goals."
James Hammerly

A Definition

According to Sinclair's regional accrediting agency, the Higher Learning Commission of the North Central Association of Colleges and Schools (NCA), General Education consists of "understanding and appreciating diverse cultures, mastering multiple modes of inquiry, effectively analyzing and communicating information, and recognizing the importance of creativity and values to the human spirit." NCA's statement on General Education also adds that these general education elements "allow people to live richer lives," and also are a "foundation for most careers and for the informed exercise of local, national, and international citizenship." The Commission expects institutions of higher learning to address these important ends. Finally, in helping to define general education, NCA states, "general education is intended to impart common knowledge and intellectual concepts to students and to develop in them the skills and attitudes that an organization's faculty believes every educated person should possess."

Through Sinclair's courses and programs of study, a student acquires breadth of knowledge and gains competence to achieve independent intellectual inquiry. Our courses must also stimulate understanding of personal, social, and civic values.

Sinclair Honor Code

The Sinclair Honor Code stems from the General Education competency relating to Values, Citizenship, Community.

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.

General Education Outcomes

Core Courses in Every Program

In order to determine what courses fulfill the requirements for general education and are applicable to the student's degree, he or she should see an academic advisor.

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 develop-

ment of the across-the-curriculum competencies listed on the next page.

These degree programs incorporate a series of courses which introduce and reinforce 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 • HIS 105 • MUS 115
- ART 102 • HIS 111, 112, 113 • PHI 205
- ART 125 • HUM 125 • REL 111
- ART 235 • HUM 141 • REL 112
- DAN 155 • HUM 205 • REL 135
- DAN 157 • HUM 245 • THE 105
- GEO 102 • HUM 255

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

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

The curriculum portion of this catalog lists all degree and certificate programs, identifying the specific and general education courses required for each academic program.

Please note: General Education requirements may not be the same for each program. It is important to check with an academic counselor to ensure that the correct general education courses are being selected for the student's academic program.

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

Competencies Across The Curriculum and Measurable Outcomes

Oral Communication

is the creation of common understanding through the use of verbal and nonverbal messages in a variety of contexts.

At the completion of the associate degree at Sinclair, the student should be able to:

- Organize ideas in a logical and purposeful way, using effective verbal and nonverbal skills to explain those ideas in a variety of oral communication interactions
- Compose and deliver oral messages appropriate to an intended audience
- Acknowledge diverse opinions, cultural and individual differences in communication interactions
- Paraphrase information and opposing points of view in conversation
- Demonstrate understanding and use of attentive, effective, and respectful listening behaviors in oral communication situations
- Phrase questions in order to obtain information in a variety of interactions
- Use communication skills to manage conflict

Written Communication

is the written expression of clear ideas in standard English and the ability to analyze and interpret college level material.

At the completion of the associate degree at Sinclair, the student should be able to:

Apply the stages of the writing process (prewriting, drafting, revising, and editing) a document

- Identify suitable topics and controlling ideas
- Develop suitable topics and controlling ideas
- Generate and select logical and sufficient evidence/support
- Arrange ideas appropriately
- Engage in purposeful revision and editing (self-assessment, provide feedback to others, respond to assessment, etc.)
- Shape messages to appeal to multiple audiences and situations
- Compose works that apply the correct structures of composition:
 - Coherent paragraphing
 - Intelligible sentence structure
 - Precise and varied word choice
 - Correct spelling, grammar, and mechanics

Integrate Sources

- Select credible and relevant sources using the library, electronic resources, and/or field research
- Synthesize multiple sources to support one central idea
- Incorporate sources (using summary, paraphrase, and quotation)
- Cite and document appropriately for specific discipline

Read and Respond Critically

- Identify relationships between/among main points and supporting ideas
- Identify explicit and implicit ideas
- Evaluate effectiveness of written works
- Develop responses to readings that reflect higher level thinking skills

Critical Thinking /Problem Solving

is the application of higher order analytical and creative cognitive processes.

At the completion of the associate degree at Sinclair, the student should be able to:

- Raise relevant questions
- Articulate ideas or problems
- Organize observable data into useful formats
- Use appropriate problem solving methods
- Exhibit openness to alternative ideas
- Construct measures to evaluate appropriateness, truthfulness, usefulness or validity of an idea or argument
- Demonstrate analysis of information to support a chosen position with attention to consequences
- Recognize logical fallacies

Values/Citizenship/Community

is an awareness of personal obligations and responsibilities in one's community of influence.

At the completion of the associate degree at Sinclair, the student should be able to:

Examine personal values

- Reflect on personal values
- Demonstrate recognition of different value systems

Display behavior consistent with the ethical standards within a discipline or profession

Act as a responsible citizen in a variety of communities

- Exhibit behavior congruent with policies contained in the Sinclair *Student Handbook*, including the Sinclair Honor Code
- Take responsibility for actions
- Demonstrate honesty in a variety of contexts
- Respect the rights of others
- Demonstrate respect for diverse cultures
- Understand the expectations, obligations, and processes of local and global citizenship

Information Literacy

is the ability to effectively locate, evaluate, and use information.

At the completion of the associate degree at Sinclair, the student should be able to:

- Formulate a thesis and questions based on need
- Identify appropriate investigative methods
- Access information using library resources, electronic resources and/or field resources
- Analyze information
- Evaluate information
- Organize information systematically and appropriately
- Use information legally

Computer Literacy

is the ability to apply concepts and terminology in the basic operation of computers.

At the completion of the associate degree at Sinclair, the student should be able to:

Utilize electronic mail applications

- Create e-mail messages
- Manage mailboxes
- Use e-mail features (possible examples: open, reply, forward, open attachments, and scan for viruses)

Utilize Internet applications

- Navigate between and within web sites
- Select appropriate search engines for desired information
- Construct and refine searches

Utilize word processing applications

- Create, format, and edit documents for readability and grammar
- Incorporate word processing features as needed: (possible examples: creating tables, importing graphic objects, inserting headers/footers, and designing layout)

Utilize operating system software and data management skills

- Employ desktop operating skills (use mouse buttons or keyboard shortcuts)
- Apply appropriate file and disk management techniques (rearrange files, copy, delete, rename, and backup data)

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
- American Sign Language Interpreting for the Deaf
- 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 Engineering Technology
 - Option: Telecommunications
- Environmental Engineering Technology
- Financial Management
- Fire Science Technology
 - Option: Fire Administration
- Health Information Management
- Heating & Air Conditioning
- 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
- Law Enforcement
 - Options: Industrial/Retail Security
 - Police Science
- Marketing Management
- Mechanical Engineering Technology
- Medical Assistant Technology
- Mental Health Technology
- Nursing
- Occupational Therapy Assistant
- Paralegal
- Personal Computer Applications
- Physical Therapist Assistant
- Printing Technologies
- 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
- Deaf Studies
- Early Childhood Studies
- Early Intervention Specialist
- Electrical & Electronics Repair Technology
- Fire Administration
- Fire Science Technology
- Food Service Management
- General Aviation Maintenance
- Hospital Coding
- Human Services
- Infant/Toddler Education
- Information Processing
- 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 Engineering Technology
- Surveying
- Tool & Die Technology
- Tooling & Machining (Project STEP II)
- Urban Studies

Short Term Certificates

- 3D CAD Software
- Activity Programming
- Adult Services
- Advanced Networking Engineer
- Allied Health Management
- Arts Administration
- Automotive High Performance
- Basic Drawing
- Business Operations Systems Support
- Call Center
- Ceramics & Sculpture Technology
- Chemical Dependency Counseling
- Clinical Phlebotomy
- Construction Safety
- Construction Supervisor
- Construction Technician
- Continuous Process Improvement
- Corrections
- Dance
- Desktop Publishing
- Dietary Manager
- Digital Prepress
- Disabilities Intervention Services
- Drafting & Design
- Early Intervention
- Electrical Construction
- Electrocardiography
- EMT-Basic Certificate
- EMT-Paramedic Certificate
- Exercise Specialist
- Expanded Functions for Dental Auxiliaries
- Facilities Management
- Family Advocate
- Fast Track Programmer Analyst
- Financial Management
- Firefighter Technician

- Ford Maintenance & Light Repair
- General Industry Safety
- Help Desk Analyst
- Human Resource Management
- Industrial Maintenance Technician
- Industrial Robot Technician
- JAVA Enterprise Development
- Light Commercial HVAC Service
- Manufacturing Management
- Measurement & Calibration
- Mechanical Maintenance
- Medical Office Coding Specialist
- Multi-Skilling Health Care
- Multimedia
- Network Engineering Associate
- Offset Printing
- Ohio Real Estate Broker
- Ohio Real Estate Sales Associate
- Paraeducator Instruction
- Pharmacy Technician
- Photographic Technology
- Professional Communication
- Rescue Technician
- Security for the Networking Professional
- Small Office Home Computer Use & Security
- Social Service
- Software Applications for the Professional Tax Practitioner
- Top Gun Academy
- Web Authoring
- Web Programming

Individualized Degrees

- Associate of Technical Study
- 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
- Music Education
- Music Performance
- Physical Education
- Public Services
 - Options: Human Services
 - Public Administration
- Theatre Performance
- Technical Theatre

Specialized Courses

- Basics of Activities Programming
- Nurse Aide Training

Health Careers

Allied Health Technologies



"An Allied Health Technologies education leads to a satisfying and secure career... and job opportunities continue to grow."

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. - 6:30 p.m.; Friday, 8:30 a.m. - 4:00 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

Ann Hall
Academic Counselor
(937) 512-3029, Room 6120

Debra Fout
Academic Counselor
(937) 512-3029, Room 6120

Lillian McCree
Academic Counselor
(937) 512-3029, Room 6120

Patricia Jayson
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 13426

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
Debbie Schwartz, Chairperson
(937) 512-2159, Room 3340

Respiratory Care
Beth Zickefoose, Chairperson
(937) 512-2550, Room 3340

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

Planning the Program

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

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

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.

Capital University
Clark State Community College
College of Mt. St. Joseph on the Ohio
Edison State Community College
Kettering College of Medical Arts
Miami University
Ohio State University
Raymond Walters College
University of Cincinnati
Wright State University
University of Toledo
Urbana 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, health information management, integrative medical massage, 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 unofficial transcripts.
- Obtain the Allied Health admission packet from the office of Admissions (Building 10, Room 10112). Submit the Allied Health 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

(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.

Admission Requirements: ALH 104, BIO 141, BIO 142, DEH 120

Course & Title			Credit Hours
FIRST QUARTER			
BIO 143	Principles of Anatomy & Physiology III		4
DEH 103	Head & Neck Anatomy		4
DEH 105	Introduction to Dental Hygiene		3
CHE 122	Introduction to Biochemistry		4
ENG 111	English Composition I		3
	TOTAL		18
SECOND QUARTER			
DEH 111	Dental Hygiene Technique I		4
DEH 155	Oral Histology, Embryology and 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		3
DEH 165	Computer Applications in Dentistry		1
DEH 215	Periodontics I		2
MAT 101	Elementary Algebra		4
PSY 119	General Psychology		5
	TOTAL		15
FIFTH QUARTER			
DEH 125	Dental Materials		3
DEH 211	Clinical Dental Hygiene II		6
DEH 210	Drug Therapy in Dentistry		2
DEH 235	Community Dental Health I		3
	TOTAL		14
SIXTH QUARTER			
DEH 212	Clinical Dental Hygiene III		6
DEH 250	Periodontics II		2
DEH 253	Pain Control in Dentistry		1
COM 211	Effective Speaking I		3
SOC 111	General Sociology I		3
	TOTAL		15

continued next column

SEVENTH QUARTER

DEH 213	Clinical Dental Hygiene IV	6
DEH 236	Community Dental Health II	2
DEH 255	Dental Hygiene Practice	2
—	Humanities Elective*	3
	TOTAL	13

TECHNICAL ELECTIVES

DEH 247	Expanded Functions for Dental Auxiliaries I	6
DEH 248	Expanded Functions for Dental Auxiliaries II	6
DEH 249	Expanded Functions for Dental Auxiliaries III	6

* See page 66

Dietetics & Nutritional Management Technology

(110 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 accredited 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			Credit Hours
FIRST QUARTER			
ALH 103	Introduction to Health Care Delivery		3
CHE 120	Introduction to Chemistry		4
DIT 112	Medical Terminology for DIT		2
DIT 109	Introduction to Dietetics		2
MAT 101	Elementary Algebra		4
	TOTAL		15
SECOND QUARTER			
DIT 129	Human Nutrition		5
DIT 137	Food Sanitation & Safety		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
ENG 111	English Composition I		3
HMT 112	Basic Food Preparation		5
HMT 113	Lab for HMT 112		—
	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
DIT —	Dietetics Elective		2
	TOTAL		16

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FIFTH QUARTER

DIT 226	Dietetics Directed Practice I	4
DIT 221	Medical Nutrition Therapy I	3
DIT 225	Educational Methods & Materials	3
DIT 240	Food & Culture	2
DIT 208	Advanced Food Preparation & International Cuisine	2
DIT 209	Laboratory for DIT 208	2
DIT 200	Dining Assistant	1
TOTAL		17

SIXTH QUARTER

DIT 227	Dietetics Directed Practice II	4
	Humanities Elective*	3
DIT 216	Food Preparation & Dietary Service	4
DIT 219	Laboratory for DIT 216	1
DIT 218	Directed Practice for DIT 216	3
DIT 222	Medical Nutrition Therapy II	3
TOTAL		18

SEVENTH QUARTER

DIT 255	Dietetics Seminar	2
DIT 236	Dietary Organization & Management	4
DIT 237	Directed Practice for DIT 236	3
DIT 228	Dietetics Directed Practice II	3
DIT 223	Medical Nutrition Therapy III	3
TOTAL		15

* See page 66.

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.

Program Prerequisites: HIM 121 and ALH 103

Course & Title	Credit Hours	
FIRST QUARTER		
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	Fundamentals 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

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

FOURTH QUARTER

MAT 106	Allied Health Mathematics or	4
	Elementary Algebra	
COM 206	Interpersonal Communication or	3
	Effective Speaking I	
ENG 112	English Composition II or	3
	Business Communications II	
PSY 121	General Psychology I or	3
	General Sociology I	
SOC 111	General Sociology I	
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 III	4
	General Education Elective*	3
TOTAL		13

* See page 66.

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Integrative Medical Massage Therapy

(101 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.

Program Prerequisite:

BIO	107	Human Biology	5
TOTAL			5

Course & Title

FIRST QUARTER

ALH	104	Allied Health Informatics	2
ENG	131	Business Communications I	3
	111	English Composition I	
MAT	105	Business Mathematics	4
	101	Elementary Algebra	
HIM	121	Basic 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 Communications II	3
	112	English Composition II	
FIN	245	Personal Finance	3
ALH	140	Basic Life Support Training	1
IMT	101	Integrative Medical Massage Therapy I	3
SOC	111	General Sociology I	3
	145	Comparing Cultures	
IMT	106	Business Ethics for the Massage Therapist	1
TOTAL			14

THIRD QUARTER

IMT	103	Integrative Medical Massage Therapy II	5
IMT	107	Anatomy & Physiology for the Massage Therapist I	5
IMT	152	Pain Management for Massage Therapists	2
BUO	105	Business Ownership Orientation	3
TOTAL			15

FOURTH QUARTER

IMT	205	Integrative Medical Massage Therapy III	5
IMT	210	Anatomy & Physiology for the Massage Therapist II	5
TOTAL			10

continued next column

FIFTH QUARTER

IMT	207	Integrative Medical Massage IV	5
IMT	212	Anatomy & Physiology for the Massage Therapist III	5
IMT	216	Business Practices for the Massage Therapist I	3
COM	206	Interpersonal Communication	3
TOTAL			16

SIXTH QUARTER

IMT	208	Integrative Medical Massage Therapy V	5
IMT	214	Anatomy & Physiology for the Massage Therapist IV	5
IMT	218	Massage Therapy Practicum	2
—	—	Humanities Elective*	3
TOTAL			15

SEVENTH QUARTER

IMT	220	Anatomy & Physiology Seminar	3
IMT	221	Massage Therapy Seminar	3
IMT	223	Business Practices for the Massage Therapist II	2
PSY	—	Psychology Elective	3
TOTAL			11

* See page 66.

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 Assistants 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.

Program Prerequisites:

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

Course & Title

FIRST QUARTER

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

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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 to Basic Health Care Practice	2
ENG	132	Business Communications 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

FIFTH QUARTER

MAS	106	Medical Office Emergency Procedures	3
MAS	201	Family Practice Clinical Assisting Procedures	3
MAS	202	Insurance and 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	Special 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 the General Machine Operator	4
TOTAL			15

* See page 66.

** Commission on Accreditation of Allied Health Education Programs, 33 East Wacker Drive, Suite 1970, Chicago, IL 60601-2208, (312) 553-9355.

Mental Health Technology

(104 Total Credit Hours)

The Mental Health Technology program prepares entry level human service workers for employment working on a professional team with clinical 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. A

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chemical dependency option is offered to prepare students for licensure as a chemical dependency counselor with the Ohio Chemical Dependency Professionals Board. This program is accredited by the Council for Standards in Human Service Education. An informational interview during or after MHT 101 and a 2.0 GPA is required for admission to the program.

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

Course & Title **Credit Hours**

FIRST QUARTER

ENG	111	English Composition I	3
PSY	121	General Psychology I	3
SOC	111	General Sociology I	3
ALH	104	Allied Health Informatics	2
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
MAT	105	Business Mathematics	4
MHT	115	Social Casework	3
PSY	122	General Psychology II	3
TOTAL			16

THIRD QUARTER

PSY	217	Abnormal Psychology	4
MHT	126	Introduction to Addictive Illnesses	3
BIO	107	Human Biology	5
—	—	Humanities Elective*	3
TOTAL			15

FOURTH QUARTER

COM	206	Interpersonal Communication	3
PSY	160	African American Psychology	3
PSY	208	Life Span Human Development	5
MHT	201	Interviewing & Assessment	4
TOTAL			15

FIFTH QUARTER

MHT	205	Psychosocial Interventions	3
MHT	202	Practicum in Mental Health I	5
MHT	211	Group Dynamics I	3
MHT	—	MHT Elective	3
—	—	or	
—	130	Treatment Techniques: Addiction	—
TOTAL			14

SIXTH QUARTER

MHT	212	Group Dynamics II	3
MHT	203	Practicum in Mental Health II	5
MHT	245	Mental Health and the Family	4
—	—	or	
—	128	Family Dynamics of Addiction	—
MHT	—	MHT Elective	3
—	—	or	
—	136	Ethical Issues in Chemical Dependency Treatment & Prevention	—
TOTAL			15

SEVENTH QUARTER

MHT	213	Group Dynamics III	3
MHT	204	Practicum in Mental Health III	5
SOC	205	Social Problems	4
—	—	or	
PSY	214	Drugs & Behavior	—
MHT	—	MHT Elective	3
—	—	or	
—	132	Assessment of Chemical Dependency	—
TOTAL			15

* See page 66.

Nursing

(108 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 Accrediting Commission, 61 Broadway, 33rd Floor, New York, New York 10006, (800) 669-1656, ext. 153, 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 (N-CLEX-R.N.) 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)
- 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		
BIO 141	Principles of Anatomy & Physiology I	4
COM 206	Interpersonal Communication	3
PSY 119	General Psychology	5
ENG 111	English Composition I	3
ALH 103	Introduction to Health Care Delivery	3
TOTAL		18
SECOND QUARTER		
NSG 120	Human Response	3
NSG 121	Identifying Responses Through Assessment	3
MAT 109	Nursing Mathematics	3
BIO 142	Principles of Anatomy & Physiology II	4
BIO 148	Lab for BIO 142	
BIO 205	Microbiology	4
TOTAL		17
THIRD QUARTER		
NSG 122	Physiological Stressors	8
NSG 123	Promoting Healthy Responses Through Psychomotor Interventions	3
BIO 143	Principles of Anatomy & Physiology III	4
BIO 149	Lab for BIO 143	
TOTAL		15

continued next column

FOURTH QUARTER

NSG 220	Promoting Healthy Responses to Specific Stressors I	8
PSY 208	Life Span Human Development	5
ALH 219	General Pharmacology	3
TOTAL		16

FIFTH QUARTER

NSG 221	Promoting Healthy Responses to Psychosocial Stressors	4
NSG 222	Promoting Healthy Responses to Specific Stressors II	4
ALH 104	Allied Health Informatics	2
TOTAL		10

SIXTH QUARTER

ENG 112	English Composition II	3
NSG 223	Promoting Healthy Responses in Women	4
NSG 224	Promoting Healthy Responses to Specific Stressors III	4
TOTAL		11

SEVENTH QUARTER

NSG 225	Promoting Healthy Responses in the Child & Family	4
NSG 226	Promoting Healthy Responses to Interrelated Path-Physiological Stressors	4
ALH ___	Portfolio Elective	3
TOTAL		11

EIGHTH QUARTER

NSG 230	Humanities Elective*	3
	Directed Nursing Practice	4
TOTAL		7
TOTAL		10

* See page 66.

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.

ALH

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.

Program 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 I	3
HIM 121 Basic Medical Terminology	3
OTA 104 Applied Anatomy	2
OTA 132 The Nature of Being Human	9
TOTAL	17
THIRD QUARTER	
COM 206 Interpersonal Communication	3
PSY 121 General Psychology I	3
OTA 133 The Dysfunctional Human	9
TOTAL	15
FOURTH QUARTER	
Program Elective	3
BIS Business Information Systems Elective	2
ENG 112 English Composition II	3
PSY 122 General Psychology II	3
SOC 111 General Sociology I	3
TOTAL	14
FIFTH QUARTER	
ALH 104 Allied Health Informatics	2
SOC 215 Cultural Diversity	4
OTA 231 Treatment Issues I	9
TOTAL	15

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SIXTH QUARTER

MAT 106	Humanities Elective	3
OTA 232	Allied Health Mathematics	4
	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 66.

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. 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. Upon completion of the program, a graduate is eligible to take the national examination for state licensure. Information regarding admission is available from the Allied Health counselors in Room 6120.

Program Prerequisites:

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

All DEV courses must be completed if placement requires

Course & Title	Credit Hours	
FIRST QUARTER		
PTA 116	Movement Science I	5
ALH 103	Introduction to Health Care Delivery	3
BIO 143	Principles of Anatomy & Physiology III	4
HIM 121	Basic Medical Terminology	3
ALH 104	Allied Health Informatics	2
TOTAL	17	
SECOND QUARTER		
PTA 118	Movement Science II	5
PTA 120	Pathology & Clinical Practice	5
PTA 110	Fundamentals of PT Practice	2
MAT 101	Elementary Algebra	4
TOTAL	16	
THIRD QUARTER		
PTA 134	Tests and Measures	3
PTA 130	Therapeutic Exercise I	4
PTA 124	Clinical Procedures I	5
PHY 100	Introduction to Physics	4
	or	
142	College Physics II	
TOTAL	16	
FOURTH QUARTER		
PTA 221	Clinical Procedures II	2
PTA 223	Therapeutic Exercise II	4
ENG 111	English Composition I	3
PSY 119	General Psychology	5
TOTAL	14	

continued next page

FIFTH QUARTER

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

SIXTH QUARTER

PTA 233	Rehabilitation Skills	5
PTA 235	Practice Management	3
COM 206	Interpersonal Communication	3
_____	Humanities Elective*	3
	TOTAL	14

SEVENTH QUARTER

PTA 213	Clinical Practicum III	3
PSY 208	Life Span Human Development	5
PTA 212	Clinical Practicum II	3
	TOTAL	11

* See page 66.

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.

Required Program Prerequisite:

BIO 107	Human Biology	5
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Required Program Prerequisite:

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

ALH 103	Introduction to Health Care Delivery	3
ALH 106	Introduction to Basic 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 1	4
RAT 122	Radiographic Positioning	4
RAT 132	Ethics & Law in Medical Imaging	2
	TOTAL	15

continued next column

FOURTH QUARTER

PHY 106	Physics for Radiologic Technology	5
RAT 112	Clinical Competency 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 Radiographers	1
RAT 222	Principles of Radiographic Techniques	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 66.

Respiratory Care

(107 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) 512-2268.

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 Program Prerequisites:

HIM 121	Basic Medical Terminology	3
MAT 106	Allied Health Mathematics	4

	Course & Title	Credit Hours
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FIRST QUARTER

BIO 107	Human Biology	5
ALH 103	Introduction to Health Care Delivery	3
ALH 106	Introduction to Basic Health Care Practice	2
	TOTAL	10

continued next page

SECOND QUARTER

RET	110	Respiratory Therapeutics I	5
BIO	125	Cardiopulmonary Anatomy & Physiology	5
ENG	111	English Composition I	3
		TOTAL	13

THIRD QUARTER

RET	120	Respiratory Therapeutics II	4
ENG	112	English Composition II	3
RET	224	Cardiopulmonary Pharmacology	3
—	—	Humanities Elective*	3
		TOTAL	13

FOURTH QUARTER

RET	130	Cardiopulmonary Disease Processes	4
RET	140	Adjuncts to Respiratory Care	11
ALH	130	Electrocardiography for the Health Care Provider	1
		TOTAL	16

FIFTH QUARTER

COM	—	Communication Arts Elective	3
PSY	—	Psychology Elective	3
ALH	104	Allied Health Informatics	2
		TOTAL	8

SIXTH QUARTER

RET	230	Respiratory Critical Care I	10
ALH	220	Pathophysiology	4
		TOTAL	14

SEVENTH QUARTER

RET	240	Respiratory Critical Care II	10
RET	250	Pediatrics & Neonatology	3
		TOTAL	13

EIGHTH QUARTER

RET	260	Assessment of Pulmonary Function	3
RET	280	Correlations in Respiratory Care	5
ALH	141	Emergency Cardiac Care (ACLS)	2
—	—	Portfolio Elective	3
		TOTAL	13

* See page 66.

Surgical Technology

(108 Total Credit Hours)

A surgical technologist works together with the surgeon, registered nurse, and anesthesiologist as a member of the surgical team. To ensure proper surgical case management, the surgical technologist prepares and passes all sterile instruments during the surgical procedure while maintaining the sterile field and anticipating the needs of the surgeon.

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.

continued next column

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
ALH	103	Introduction to Health Care Delivery	3
ENG	111	English Composition I	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

BIO	205	Microbiology	4
ALH	104	Allied Health Informatics	2
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

—	—	Humanities Elective*	3
SUT	220	Surgical Technology Role Transition	10
		TOTAL	13

* See page 66.

Certificate Programs

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.

continued next page

Course & Title		Credit Hours
FIRST QUARTER		
BIO 107	Human Biology	5
BIO 108	Lab for BIO 107	
HIM 121	Basic Medical Terminology	3
ALH 103	Introduction to Health Care Delivery	3
ALH 104	Allied Health Informatics	2
	TOTAL	13
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	Health Information Processing I	3
HIM 116	Lab for HIM 110	0
	TOTAL	12
THIRD QUARTER		
HIM 262	Advanced Medical Office Coding	4
HIM 265	Health Care Data in Reimbursement	3
MAS 202	Insurance & Patient Records	3
MAS 282	Lab for MAS 202	
ALH 142	Fundamentals of Disease Processes	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		Credit Hours
FIRST QUARTER		
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 Disease Processes	4
HIM 122	Specialized Medical Terminology	3
BIS 103	Advanced Document Formatting/ Skillbuilding	4
ENG 131	Business Communications I	3
	TOTAL	14

continued next column

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 Transcription Lab Practice	3
BUO 105	Business Ownership Orientation	3
	Portfolio Elective	2
	TOTAL	8

Short Term Certificates

Activity Programming

(9 Total Credit Hours)

Meets requirements for the 90-hour training program 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
	TOTAL	3
SECOND QUARTER		
ALH 135	Administration of Activities Programming	3
	TOTAL	3
THIRD QUARTER		
ALH 155	Issues in Activity Programming	3
	TOTAL	3

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
ALH 230	Quality Management in Health Care	1
ALH 278	Supervisory Applications in Health Care	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
	TOTAL	13

Chemical Dependency Counseling

(33 Total Credit Hours)

This series of courses meets the 270 clock hour chemical dependency specific education required by the Ohio Professional Chemical Dependency Board.

Course & Title		Credit Hours
FIRST QUARTER		
MHT 126	Introduction to Addictive Illnesses	3
MHT 128	Family Dynamics of Chemical Dependency	4
MHT 130	Treatment Techniques in Chemical Dependency	4
MHT 132	Assessment of Chemical Dependency	4
MHT 136	Ethical Issues in Chemical Dependency Treatment & Prevention	3
TOTAL		18

SECOND QUARTER		
PSY 214	Drugs & Behavior	4
MHT 138	Dual Diagnosis: Substance Abuse & Mental Illness	3
MHT 139	Substance Abuse Prevention	3
MHT 209	Treatment Planning	2
MHT 210	Professional Licensing & Credentialing Processes	3
TOTAL		15

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		Credit Hours
ALH 111	Clinical Phlebotomy	3
ALH 112	Lab for ALH 111	
TOTAL		3

Dietary Manager

(24 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 13426 or the Allied Health counselors, Room 6120.

Course & Title		Credit Hours
FIRST QUARTER		
DIT 110	Contemporary Nutrition	6
DIT 200	Dining Assistant	1
TOTAL		7

SECOND QUARTER

DIT 137	Food Sanitation & Safety	3
DIT 216	Food Preparation & Dietary Service	4
DIT 218	Directed Practice for DIT 216	3
TOTAL		10

THIRD QUARTER

DIT 236	Dietary Organization & Management	4
DIT 237	Directed Practice for DIT 236	3
TOTAL		7

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
ALH 108	Laboratory for ALH 107	
TOTAL		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 percent on 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.

Course & Title		Credit Hours
EMS 115	EMT-Basic Theory & Practice I and	5
116	EMT-Basic Theory & Practice II or	3
EMS 117	EMT-Basic Theory & Practice I & II and	8
118	Lab for EMS 117	
TOTAL		8

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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 percent 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.

Program Prerequisites:

Ohio EMT-Basic Certification, complete health assessment, current CPR card.

Course & Title	Credit Hours
EMS 135 EMT-Paramedic I: Introduction to ALS Care	8
EMS 136 EMT-Paramedic II: Cardiovascular & Respiratory Emergencies	8
EMS 137 EMT-Paramedic III: Pediatric & Trauma Emergencies	8
EMS 138 EMT-Paramedic IV: The Medical Patient	8
EMS 139 EMT-Paramedic V: Integration	7
TOTAL	39

Expanded Functions for Dental Auxiliaries

(20 Total Credit Hours)

The Expanded Functions for Dental Auxiliaries program is designed to prepare Certified Dental Assistants or Licensed Dental Hygienists to take the Expanded Functions for the Dental Auxiliary (EFDA) board examination administered by the Commission on Dental Testing in Ohio and to provide quality restorative patient care. This course includes 180 hours of instruction, progressing from the preclinical laboratory activities to clinical experience.

This course is offered ONLY to Licensed Dental Hygienists and Certified Dental Assistants. Proof of current license/certification must be submitted with application.

Instruction includes lecture/demonstration and laboratory activities. Didactic instruction includes review of tooth morphology, instrumentation and ergonomic principles, properties and manipulation of dental restorative materials, and techniques and procedures for restoring teeth with amalgam and tooth colored direct restorations.

Course & Title	Credit Hours
DEH 104 Dental Anatomy for Dental Auxiliaries I	2
DEH 247 Expanded Functions for Dental Auxiliaries I	6
DEH 248 Expanded Functions for Dental Auxiliaries II	6
DEH 249 Expanded Functions for Dental Auxiliaries III	6
TOTAL	20

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
TOTAL	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 Human Biology	5
— — Allied Health Cluster	1-8
TOTAL	9-16
SECOND QUARTER	
ALH 104 Allied Health Informatics	2
ALH 140 Basic Life Support Training	1
HIM 121 Basic Medical Terminology	3
— — Allied Health Cluster	1-8
TOTAL	7-14
THIRD QUARTER	
ENG 131 Business Communications I	3
— — or English Composition I	
COM 206 Interpersonal Communication	3
— — Allied Health Cluster	1-8
TOTAL	7-14

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ALH

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	2

Pharmacy Technician

(43 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	3
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	4
TOTAL			15
THIRD QUARTER			
ALH	124	Pharmacy Technician III	5
ALH	113	Venipuncture for Health Care Providers	1
ALH	104	Allied Health Informatics	2
ALH	140	Basic Life Support Training	1
ENG	131	Business Communications I	3
TOTAL			12

Specialized Courses

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

Nurse Aide Training

(6 Total Credit Hours)

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.

Prerequisite: DEV 065, 075, 085 or equivalents.

Course & Title	Credit Hours
ALH 120 Nurse Aide Training	6

ALH

Business Careers

Business Technologies



“Business Technologies offers exciting options and career paths that make graduates the most sought after.”

Dr. Frieda 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.

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
Richard Andrews, Chairperson
(937) 512-2616, Room 5141C

Business Information Systems
Cheryl Reindl-Johnson, Chairperson
(937) 512-2892, Room 5111E

Computer Information Systems
Charlotte Wharton, Chairperson
(937) 512-2892, Room 5111F

**Economics/Financial Management/
Real Estate/Entrepreneurship**
Jeff Vance, Chairperson
(937) 512-2615, Room 5142A

**Hospitality Management/
Travel & Tourism**
Steve Cornelius, Chairperson
(937) 512-5197, Room 13420B

Law/Paralegal
Bonnie S. Shane, Chairperson
(937) 512-2616, Room 5141A

Management/Marketing
Dr. Ned D. Young, Chairperson
(937) 512-2615, Room 5142B

Getting Started in Business

Students should identify their program major as early as possible. For assistance in choosing a specific area in Business, resource materials are available in Career Services, located in Building 10, Room 10315.

Degree or certificate seeking students should meet with an academic counselor for clarification of college policies, procedures and services; placement test score interpretation; assistance with course selection; or transfer credit evaluation.

The Business Technologies career degree programs, unlike the university parallel (2+2) degree programs, prepare students for successful employment and job advancement opportunities in business careers.

BUS

University Parallel Transfer Degree Programs

The University Parallel Transfer degree program, also referred to as a "2+2" degree, is designed for the student who wants to pursue a baccalaureate degree at a four-year institution in a business discipline. After completing the basic core of business and general education requirements during the first two years at Sinclair Community College, the student would transfer to a four-year institution to complete the final two years for the Bachelor's degree.

What Is a University Parallel Degree?

- Designed to provide transfer to a four-year institution rather than job preparation
- Sinclair students complete core Business and general education requirements for the first two years of a four-year program
- A University Parallel program produces an Associate of Science degree providing students with junior status upon transfer
- Articulation agreements have been developed with specific four-year institutions and become a part of the Sinclair Guarantee and satisfy the Ohio Transfer Module
- Completing the Transfer Module at Sinclair prior to transferring to a four-year institution, guarantees completion of the Transfer Module requirements at any state college or university in the state of Ohio
- Students who wish to transfer to institutions other than those listed, should follow the basic Business Administration program. **However, it is strongly suggested that students contact the intended transfer school to secure written verification of course application.**

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. degree)

Central State University	Wilberforce University
University of Cincinnati	Wright State University
University of Dayton	Xavier University
Urbana University	

Business Administration with Special Emphases Wright State University

- Computer Science with Business Option
- Integrated Business Education

University of Dayton

- Management Information Systems

University of Cincinnati

- Information Systems

Urbana University

- Computer Information Systems

Adult Transfer Opportunities for A.A.S. Degrees

- Visit Business Technologies division web site "Transfer Opportunities" at www.sinclair.edu/academics/bus.

Associate of Science Business Administration

(97 Total Credit Hours)

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.

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
MAT 116	College Algebra		5
PSY/SOC ____	Elective*		3
			<hr/>
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
			<hr/>
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
			<hr/>
TOTAL			15
FOURTH QUARTER			
BIO/GLG/			
PHY/CHE	Natural Science Sequence*		4
COM 211	Effective Speaking I		3
MAT 122	Statistics I		4
_____	Humanities Elective*		3
			<hr/>
TOTAL			14
FIFTH QUARTER			
BIO/GLG/			
PHY/CHE	Natural Science Sequence*		4
ECO 216	Principles of Macroeconomics		4
_____	General Education Elective*		9
			<hr/>
TOTAL			17
SIXTH QUARTER			
BIO/GLG/			
PHY/CHE	Natural Science Sequence*		4
ECO 218	Principles of Microeconomics		4
_____	General Education Elective*		9
			<hr/>
TOTAL			17

* 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.

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.

Internship & Cooperative Education

All Business **associate degree programs** offer students the opportunity to earn actual degree credit for career-related Internship and Cooperative Education experience. Some programs require one or more internships; others offer students the option of completing internship course work, Business electives or a combination. Students perform entry level tasks related to the base of skills and competencies developed during successful completion of academic course work and exposes them to the basic elements of their chosen career field.

Students must complete departmental prerequisites, be in good academic standing and be approved by the internship coordinator to participate. The Business internship office is located in Building 10, Room 10311 and can be contacted at (937) 512-2769, **co-op@sinclair.edu**, or visit **www.sinclair.edu/academics/bus/intern** for more information.

Accounting

(104 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.

Course & Title			Credit Hours
FIRST QUARTER			
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
MAT	116	College Algebra	5
		or	
	121	Mathematics for Business Analysis	
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	3
		or	
	132	Business Communications II	
MAT	122	Statistics	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	3
		or	
	225	Small Group Communication	
ECO	202	Principles of Economics II	3
		Humanities Elective*	3
MAN	255	Management Information Systems I	3
			TOTAL
			18
FOURTH QUARTER			
ACC	201	Intermediate Accounting I	3
ACC	211	Cost Accounting I	3
ACC	221	Federal Taxes I	3
LAW	101	Business Law I	4
ECO	203	Principles of Economics III	3
—	—	Business Administration Elective	3
		or	
ACC	270	Accounting Internship	
			TOTAL
			19
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	4
ACC	270	Accounting Internship	3
		or	
—	—	Business Administration Elective	
			TOTAL
			19
SIXTH QUARTER			
ACC	202	Intermediate Accounting II	3
ACC	235	Auditing Theory & Practice	3
FIN	215	Corporate Finance	3
MRK	201	Marketing	3
ACC	270	Accounting Internship	3
		or	
—	—	Business Administration Elective	
			TOTAL
			15

* See page 66.

continued next column

Business Information Systems

(95 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		
ENG 131	Business Communications I	3
	or	
111	English Composition I	
BIS M70	Introduction to Internet	1
BIS M71	Intermediate Internet	1
MAN 205	Principles of Management	3
COM 206	Interpersonal Communication	
	or	
285	Business & Professional Communication	3
BIS 105	Computer Concepts	3
	TOTAL	14
SECOND QUARTER		
ENG 132	Business Communications II	3
	or	
112	English Composition II	
ECO 105	General Economics	3
	or	
201	Principles of Economics I	
LAW 101	Business Law I	4
BIS 102	Document Formatting	2
BIS M61	Introduction to Word	1
BIS M62	Intermediate Word	1
BIS M41	Introduction to Excel	1
BIS M42	Intermediate Excel	1
	TOTAL	16
THIRD QUARTER		
ENG 199	Text Editing	3
ACC 111	Principles of Accounting I	3
BIS M51	Introduction to PowerPoint	1
BIS M52	Intermediate PowerPoint	1
BIS M63	Advanced Word	1
BIS M64	Expert Word	1
BIS M21	Introduction to Desktop Publishing	1
BIS M22	Intermediate Desktop Publishing	1
MAT 105	Business Mathematics	4
	TOTAL	16
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
CIS 130	Introduction to Web Development	3
CIS M72	Cyber Security: Tools	1
	or	
M73	Cyber Security: Information & Identity Security	3
_____	Humanities Elective*	3
	TOTAL	16

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
BIS M33	Advanced Access	1
BIS M34	Expert Access	1
BIS 207	Telecommunications	2
_____	Business Elective	3
	TOTAL	16

SIXTH QUARTER

BIS 172	Integrated Solutions	2
BIS 202	Advanced Customer Service Techniques	3
BIS 114	Records Management & Electronic Files	3
BIS 270	Office Technology Applications Internship	3
_____	Business Elective	3
_____	General Education Elective*	3
	TOTAL	17

* See page 66.

Business Information Systems

Accounting Office Option

(97 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		
ENG 111	English Composition I	3
	or	
131	Business Communications I	
BIS M61	Introduction to Word	1
BIS M62	Intermediate Word	1
MAN 205	Principles of Management	3
COM 206	Interpersonal Communication	3
	or	
285	Business & Professional Communication	
MAT 105	Business Mathematics	4
	TOTAL	15
SECOND QUARTER		
ENG 112	English Composition II	3
	or	
132	Business Communications II	
ECO 105	General Economics	3
	or	
201	Principles of Economics I	
ACC 111	Principles of Accounting I	3
BIS 102	Document Formatting	2
BIS M41	Introduction to Excel	1
BIS M42	Intermediate Excel	1
BIS M70	Introduction to the Internet	1
BIS M71	Intermediate Internet	1
	TOTAL	15

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THIRD QUARTER

ENG	199	Text Editing	3
ACC	112	Principles of Accounting II	3
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	114	Records Management & Electronic Files	3
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
LAW	101	Business Law I	4
		TOTAL	17

FOURTH QUARTER

BIS	115	Work Place Technologies	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
—	—	Humanities Elective*	3
—	—	Business Elective	3
		TOTAL	17

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	—	Accounting Elective	3
		TOTAL	17

SIXTH QUARTER

BIS	172	Integrated Solutions	2
BIS	202	Advanced Customer Service Concepts	3
BIS	207	Telecommunications	2
BIS	270	Business Information Systems Internship	3
—	—	General Education Elective*	3
—	—	Business Elective	3
		TOTAL	16

* See page 66.

**Business Information Systems
Legal Office Option
(95.5 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			
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
MAN	205	Principles of Management	3
COM	206	Interpersonal Communication	3
		or	
	285	Business and Professional Communication	
MAT	105	Business Mathematics	4

continued next column

ECO	105	General Economics	3
		or	
	201	Principles of Economics I	
		TOTAL	18

SECOND QUARTER

ENG	112	English Composition II	3
		or	
	132	Business Communications II	
BIS	143	Introduction to Transcription & Legal Terms	4
LAW	101	Business Law I	4
BIS	102	Document Formatting	2
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
BIS	M41	Introduction to Excel	1
BIS	M42	Intermediate Excel	1
		TOTAL	17

THIRD QUARTER

ENG	199	Text Editing	3
ACC	111	Principles of Accounting I	3
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
PAR	105	Paralegal Principles - Technology	2
PAR	106	Paralegal Principles	4
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
BIS	114	Records Management & Electronic Files	3
		TOTAL	19

FOURTH QUARTER

BIS	115	Work Place Technologies	2
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
PAR	220	Legal Ethics	3
LAW	—	Law Elective	3
—	—	General Education Elective*	3
—	—	Humanities Elective*	3
		TOTAL	16

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
PAR	247	Legal Technology Resources	1.5
		TOTAL	12.5

SIXTH QUARTER

BIS	172	Integrated Solutions	2
BIS	202	Advanced Customer Service Concepts	3
BIS	207	Telecommunications	2
BIS	270	Business Information Systems Internship	3
—	—	Business Elective	3
		TOTAL	13

* See page 66.

BUS

Business Information Systems

Medical Office Option

(99 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.

Course & Title			Credit Hours
FIRST QUARTER			
ENG	131	Business Communications I or 111 English Composition I	3
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
MAN	205	Principles of Management	3
COM	206	Interpersonal Communication or 285 Business & Professional Communication	3
BIS	136	Introduction to Medical Terminology	4
TOTAL			15
SECOND QUARTER			
ENG	132	Business Communications II or 112 English Composition II	3
ECO	105	General Economics or 201 Principles of Economics I	3
BIS	137	Intermediate Medical Terminology	4
BIS	102	Document Formatting	2
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
BIS	M41	Introduction to Excel	1
BIS	M42	Intermediate Excel	1
TOTAL			16
THIRD QUARTER			
ACC	111	Principles of Accounting I	3
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	114	Records Management & Electronic Files	3
MAT	105	Business Mathematics	4
BIS	M63	Advanced Word	1
BIS	M64	Expert Word	1
BIS	138	Advanced Medical Terminology	4
TOTAL			18
FOURTH QUARTER			
BIS	201	Customer Service	3
BIS	115	Work Place Technologies	2
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
BIS	251	Medical Transcription I	4
HIM	260	ICD-9-CM Medical Office Coding	3
—	—	Humanities Elective*	3
TOTAL			17

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 Coding	3
TOTAL			15

SIXTH QUARTER

BIS	202	Advanced Customer Service Concepts	3
BIS	270	Business Information Systems Internship	3
—	—	General Education Elective*	3
—	—	Business Elective	3
BIS	207	Telecommunications	2
LAW	101	Business Law I	4
TOTAL			18

* See page 66.

Business Information Systems

Personal Computer Applications

(97 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			
ENG	131	Business Communications I or 111 English Composition I	3
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
MAN	205	Principles of Management	3
COM	206	Interpersonal Communication or 285 Business & Professional Communication	3
BIS	105	Computer Concepts	3
TOTAL			16
SECOND QUARTER			
BIS	102	Document Formatting	2
ENG	132	Business Communications II or 112 English Composition II	3
ECO	105	General Economics or 201 Principles of Economics I	3
LAW	101	Business Law I	4
BIS	M41	Introduction to Excel	1
BIS	M42	Intermediate Excel	1
MAT	105	Business Mathematics	4
TOTAL			18

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THIRD QUARTER

ACC	111	Principles of Accounting I	3
BIS	M63	Advanced Word	1
BIS	M51	Introduction to PowerPoint	1
BIS	M52	Intermediate PowerPoint	1
BIS	115	Work Place Technologies	2
CIS	107	Introduction to Operating Systems	3
		Humanities Elective*	3
BIS	M21	Introduction to Desktop Publishing	1
BIS	M22	Intermediate Desktop Publishing	1
		TOTAL	16

FOURTH QUARTER

CIS	130	Introduction to Web Development	3
CIS	108	Introduction to Windows OS for the Network Manager	3
BIS	M53	Advanced PowerPoint	1
BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
BIS	M81	Intermediate Microsoft Project	1
BIS	M82	Intermediate Microsoft Project	1
ACC	115	Personal Computer Applications in Accounting	3
		TOTAL	14

FIFTH QUARTER

CIS		CIS Elective	3
BIS	M64	Expert Word	1
BIS	201	Customer Service	3
BIS	114	Records Management & Electronic Files	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	Advanced Customer Service Concepts	3
BIS	270	Business Information Systems Internship	3
CIS	162	Microsoft Office Troubleshooting & Problem Solving	3
		TOTAL	16

* See page 66.

Business Management

(102 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.

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Course & Title

FIRST QUARTER

ACC	111	Principles of Accounting I	3
MAN	201	Introduction to Supervision	3
MAN	105	Introduction to Business	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

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	
MAN	205	Principles of Management	3
MAT	122	Statistics	4
		TOTAL	16

THIRD QUARTER

ACC	113	Principles of Accounting III	3
COM	211	Effective Speaking I	3
MAN	225	Human Relations & Organizational Behavior	3
MRK	201	Marketing I	3
ECO	216	Principles of Macroeconomics	4
		TOTAL	16

FOURTH QUARTER

COM	206	Interpersonal Communication	3
MAN	216	Managing Operations	3
MRK	202	Marketing II	3
PUR	201	Purchasing Principles	3
		or	
MAN		Management Elective**	
ECO	218	Principles of Microeconomics	4
		TOTAL	16

FIFTH QUARTER

MAN	110	Introduction to International Business	3
		General Education Elective*	3
LAW	101	Business Law I	4
MAN	255	Management Information Systems I	3
MAN	295	Management Seminar	3
MAN		Management Elective**	3
		TOTAL	19

SIXTH QUARTER

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

* See page 66.

** Must not include MAN 270.

Computer Information Systems

(102-103 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 Visual Basic.NET, Java, 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, Web developers, help desk analysts, network administrators, user support specialists, and network engineers.

The Computer Information Systems degree has five elective areas of concentration: Network Engineer, Network Manager, Software Development, User Support, and Web Development.

Computer Information Systems

Network Engineer Concentration

(103-104 Total Credit Hours)

Program Prerequisites: MAT 101 and BIS 105

EBE 170 if planning to complete CIS 270 Internship

Course & Title		Credit Hours
FIRST QUARTER		
BIS	160 Introduction to Word, PowerPoint, & Excel	3
	or	
CIS	161 Intermediate Word, PowerPoint, & Excel	3
CIS	107 Introduction to Operating Systems	3
	or	
ENG	108 Introduction to Windows OS for the Network Manager	3
ENG	111 English Composition I	3
	or	
MAT	131 Business Communications I	5
MAT	116 College Algebra	5
	or	
CIS	121 Mathematics for Business Analysis	2
CIS	100 CIS Student Orientation for Success	2
TOTAL		16
SECOND QUARTER		
CIS	225 Operating Systems Troubleshooting	3
COM	206 Interpersonal Communication	3
ENG	112 English Composition II	3
	or	
MAT	132 Business Communications II	4
CIS	122 Statistics I	4
CIS	111 Introduction to Problem Solving & Computer Programming	4
TOTAL		17
THIRD QUARTER		
ACC	111 Principles of Accounting I	3
CIS	265 Database Management Systems	3-4
	or	
CIS	266 Client/Server Database	7
CIS	241 Cisco Networking Fundamentals	3
COM	225 Small Group Communication	3
	Humanities Elective*	3
TOTAL		19-20

continued next column

FOURTH QUARTER

CIS	242	Cisco Router Fundamentals	7
CIS	210	Computer Systems Analysis	3
LAW	101	Business Law I	4
MAN	205	Principles of Management	3
TOTAL			17

FIFTH QUARTER

CIS	270	CIS Internship	3
		or	
		Business Elective	
		Internet Elective**	3
ECO	216	Principles of Macroeconomics	4
CIS	243	Cisco Routing in LANs	7
TOTAL			17

SIXTH QUARTER

CIS	270	CIS Internship	3
		or	
		Business Elective	
CIS	278	CIS Capstone	4
MRK	201	Marketing I	3
CIS	244	Cisco Routing in WANs	7
TOTAL			17

* See page 66.

** See page 93 for electives

Computer Information Systems

Network Manager Concentration

(102-103 Total Credit Hours)

Program Prerequisites: MAT 101 and BIS 105

EBE 170 if planning to complete CIS 270 Internship

Course & Title		Credit Hours
FIRST QUARTER		
CIS	100 CIS Student Orientation for Success	2
BIS	160 Introduction to Word, PowerPoint, & Excel	3
	or	
ENG	161 Intermediate Word, PowerPoint, & Excel	3
ENG	111 English Composition I	3
	or	
MAT	131 Business Communications I	5
MAT	116 College Algebra	5
	or	
CIS	121 Mathematics for Business Analysis	3
CIS	107 Introduction to Operating Systems	3
	or	
	108 Introduction to Windows OS for the Network Manager	3
TOTAL		16
SECOND QUARTER		
CIS	111 Introduction to Problem Solving & Computer Programming	4
CIS	225 Operating Systems Troubleshooting	3
COM	206 Interpersonal Communication	3
ENG	112 English Composition II	3
	or	
MAT	132 Business Communications II	4
MAT	122 Statistics I	4
TOTAL		17
THIRD QUARTER		
CIS	265 Database Management Systems	3-4
	or	
CIS	266 Client/Server Database	3
CIS	230 Computer Networks	3
CIS	271 Administering a Microsoft Windows Client Operating System	4
CIS	272 Administering a Microsoft Windows Client Operating System	4
CIS	255 Operating Systems Troubleshooting	3
TOTAL		17-18

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FOURTH QUARTER

CIS	210	Computer Systems Analysis	3
CIS	273	Managing a Windows Network Infrastructure	4
CIS	274	Windows Directory Services Administration	4
LAW	101	Business Law I	4
MAN	205	Principles of Management	3
TOTAL			18

FIFTH QUARTER

CIS	_____	CIS Concentration**	4
CIS	270	CIS Internship	3
		or	
_____	_____	Business Elective	
_____	_____	Internet Elective**	3
ACC	111	Principles of Accounting I	3
ECO	216	Principles of Macroeconomics	4
TOTAL			17

SIXTH QUARTER

CIS	270	CIS Internship	3
		or	
_____	_____	Business Elective	
CIS	278	CIS Capstone	4
MRK	201	Marketing I	3
_____	_____	Humanities Elective*	3
CIS	_____	CIS Concentration**	4
TOTAL			17

* See page 66.

** See page 93 for electives

**Computer Information Systems
Software Development Concentration
(102-103 Total Credit Hours)**

Program Prerequisites: MAT 101 and BIS 105

EBE 170 if planning to complete CIS 270 Internship

Course & Title			Credit Hours
FIRST QUARTER			
MAT	116	College Algebra	5
		or	
	121	Mathematics for Business Analysis	
BIS	160	Introduction to Word, PowerPoint, & Excel	3
		or	
	161	Intermediate Word, PowerPoint, & Excel	
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
CIS	107	Introduction to Operating Systems	3
		or	
	108	Introduction to Windows OS for the Network Manager	
CIS	100	CIS Student Orientation for Success	2
TOTAL			16
SECOND QUARTER			
CIS	225	Operating Systems Troubleshooting	3
CIS	111	Introduction to Problem Solving & Computer Programming	4
COM	206	Interpersonal Communication	3
MAT	122	Statistics I	4
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
TOTAL			17

continued next column

THIRD QUARTER

ACC	111	Principles of Accounting I	3
CIS	230	Computer Networks	3
CIS	_____	CIS Concentration**	4
COM	225	Small Group Communication	3
_____	_____	Humanities Elective*	3
CIS	265	Database Management Systems	3-4
		or	
	266	Client/Server Database	
TOTAL			19-20

FOURTH QUARTER

CIS	210	Computer Systems Analysis	3
CIS	_____	CIS Concentration**	3
CIS	_____	CIS Concentration**	4
LAW	101	Business Law I	4
MAN	205	Principles of Management	3
TOTAL			17

FIFTH QUARTER

CIS	_____	Internet Elective	3
CIS	270	CIS Internship	3
		or	
_____	_____	Business Elective	
CIS	_____	CIS Concentration**	4
CIS	_____	CIS Concentration**	3
ECO	216	Principles of Macroeconomics	4
TOTAL			17

SIXTH QUARTER

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

* See page 66.

** See page 93 for electives

**Computer Information Systems
User Support Concentration
(104 Total Credit Hours)**

Program Prerequisites: MAT 101 and BIS 105

EBE 170 if planning to complete CIS 270 Internship

Course & Title			Credit Hours
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 OS for the Network Manager	
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
MAT	116	College Algebra	5
		or	
	121	Mathematics for Business Analysis	
CIS	100	CIS Student Orientation for Success	2
TOTAL			16

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BUS

SECOND QUARTER

CIS	225	Operating Systems Troubleshooting	3
COM	206	Interpersonal Communication	3
MAT	122	Statistics I	4
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
CIS	111	Introduction to Problem Solving & Computer Programming	4
		TOTAL	17

THIRD QUARTER

ACC	111	Principles of Accounting I	3
CIS	265	Database Management Systems	4
		or	
	266	Client/Server Database	
BIS	201	Customer Service	3
CIS	230	Computer Networks	3
COM	225	Small Group Communication	3
—	—	Humanities Elective*	3
		TOTAL	19

FOURTH QUARTER

LAW	101	Business Law I	4
CIS	210	Computer Systems Analysis	3
CIS	164	Introduction to User Support	3
CIS	238	P.C. Installation Management	3
MAN	205	Principles of Management	3
		TOTAL	16

FIFTH QUARTER

CIS	270	CIS Internship	4
		or	
		Business Elective	
CIS	264	A+ Certification	3
ECO	216	Principles of Macroeconomics	4
CIS	—	Internet Elective**	3
PSY	126	Stress Management	3
CIS	166	User Support Tools & Techniques	3
		TOTAL	20

SIXTH QUARTER

COM	287	Effective Listening	3
CIS	162	Microsoft Office Troubleshooting & Problem Solving	3
CIS	278	CIS Capstone	4
MRK	201	Marketing I	3
CIS	270	CIS Internship	3
		or	
		Business Elective	
		TOTAL	16

* See page 66.

** See page 93 for electives

**Computer Information Systems
Web Development Concentration
(102-103 Total Credit Hours)**

Program Prerequisites: MAT 101 and BIS 105
EBE 170 if planning to complete CIS 270 Internship

Course & Title **Credit Hours**

FIRST QUARTER

MAT	116	College Algebra	5
		or	
	121	Mathematics for Business Analysis	
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
CIS	107	Introduction to Operating Systems	3
		or	
	108	Introduction to Windows OS for the Network Manager	
BIS	160	Introduction to Word, PowerPoint, & Excel	3
		or	
	161	Intermediate Word, PowerPoint, & Excel	
CIS	100	CIS Student Orientation for Success	2
		TOTAL	16

SECOND QUARTER

CIS	111	Introduction to Problem Solving & Computer Programming	4
CIS	225	Operating Systems Troubleshooting	3
COM	206	Interpersonal Communication	3
MAT	122	Statistics I	4
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
		TOTAL	17

THIRD QUARTER

CIS	265	Database Management Systems	3-4
		or	
	266	Client/Server Database	
CIS	230	Computer Networks	3
		Humanities Elective*	3
CIS	130	Introduction to Web Development	3
CIS	136	Introduction to XHTML	3
COM	225	Small Group Communication	3
		TOTAL	18-19

FOURTH QUARTER

MAN	205	Principles of Management	3
CIS	137	Introduction to JavaScript	3
CIS	210	Computer Systems Analysis	3
LAW	101	Business Law I	4
ACC	111	Principles of Accounting I	3
CIS	—	CIS Concentration**	3
		TOTAL	19

FIFTH QUARTER

		Internet Elective**	3
CIS	—	CIS Concentration**	3
CIS	270	CIS Internship	3
		or	
		Business Elective	
ECO	216	Principles of Macroeconomics	4
CIS	131	Intermediate Web Development	3
		TOTAL	16

continued next page

SIXTH QUARTER

CIS	270	CIS Internship or Business Elective	3
CIS	_____	CIS Concentration**	6
CIS	278	CIS Capstone	4
MRK	201	Marketing I	3
TOTAL			16

* See page 66.

** See page 93 for electives

CIS Concentrative Electives

Internet Electives

Choose 3 credit hours:

BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
CIS	130	Introduction to Web Development	3
CIS	134	Macromedia Flash	3
CIS	136	Introduction to XHTML	3
CIS	137	Introduction to JavaScript	3
CIS	M72	Cyber Security Tools	1
CIS	M73	Cyber Ethics	1

Non-Concentration Electives

(May be selected from list or from any area of concentration.)

CIS	101	Home Computer Networks & Security	3
CIS	206	Network Security I	3
CIS	207	Network Security II	3
CIS	255	Securing a UNIX/LINUX Operating System	4

Concentration Electives

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

Web Development

Required Courses:

CIS	130	Introduction to Web Development	3
CIS	131	Intermediate Web Development	3
CIS	136	Introduction to XHTML	3
CIS	137	Introduction to JavaScript	3

Choose 12 credit hours:

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	223	Extensible Markup Language (XML)	3
CIS	224	Web Server Administration and Security	4
CIS	251	PHP Web Programming	3
CIS	284	Web Client/Server Tools	3

User Support

Required Courses:

BIS	201	Customer Service	3
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	Office Installation & Troubleshooting	3
CIS	264	A+ Certification	3
PSY	126	Stress Management	3

Software Development

BIS	M81	Microsoft Project	1
CIS	112	Object Oriented Concepts or	3
CIS	113	Object Oriented Design	4

The student must select two of the following threads, one of which must be a three-course sequence in one language. 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.NET Thread

CIS	147	Visual Basic.NET Programming I	3
CIS	148	Advanced Visual Basic.NET	3

(Object-Oriented) Java Thread

CIS	280	Java I	4
CIS	281	Java II	4

(Object-Oriented) C++ Thread

CIS	233	C++ Programming I	4
CIS	234	C++ Programming II	4
CIS	236	C++ Programming III	4

Cobol Thread

CIS	221	Cobol I	3
CIS	222	Cobol II	3

Web Programming Thread

CIS	223	Extensible Markup Language (XML)	3
	or		
	144	Perl/CGI	3
	or		
	251	php Web Programming	
CIS	284	Client/Server Web Tools	3
	or		
	285	Web Application Development with Java	4

Network Manager

Choose 24 credit hours:

CIS	253	Securing a Windows Network Environment	4
CIS	257	Microsoft Internet Security	4
CIS	259	Acceleration (ISA) Server	4
CIS	260	MCSE Exchange Server	4
CIS	263	Managing a Windows 2000 Network Environment	4
CIS	275	MCSE 2000 Designing Directory Services	4
CIS	277	Planning a Windows Network Infrastructure	4
CIS	279	Microsoft SQL Server Administration	4

Network Engineer

Required Course:

CIS	241	Cisco Networking Fundamentals	7
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Choose 21 credit hours:

CIS	200	Fundamentals of Programming a Firewall	4
CIS	201	Wireless Network Administrator	4
CIS	242	Cisco Router Fundamentals	7
CIS	243	Cisco Routing in LANs	7
CIS	244	Cisco Routing in WANs	7
CIS	245	Remote Access for CCNP	4
CIS	246	Router Internetworking for CCNP	4
CIS	247	Multilayer Switching for CCNP	4
CIS	248	Support & Troubleshooting for CCNP	4

continued next column

Financial Management

(100 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
		or	
	131	Business Communications I	3
BIS	M31	Introduction to Access	1
BIS	M41	Introduction to Excel	1
BIS	M61	Introduction to Word	1
BIS	201	Customer Service	3
FIN	105	Introduction to Financial Institutions	3
FIN	245	Personal Finance	3
TOTAL			15
SECOND QUARTER			
ENG	112	English Composition II	3
		or	
	132	Business Communications II	3
MAT	116	College Algebra	5
		or	
	121	Mathematics for Business Analysis	3
BIS	M32	Intermediate Access	1
BIS	M42	Intermediate Excel	1
BIS	M62	Intermediate Word	1
MAN	205	Principles of Management	3
FIN	246	Principles of Investment	3
TOTAL			17
THIRD QUARTER			
LAW	101	Business Law I	4
FIN	200	Consumer Credit	3
PSY	121	General Psychology I	3
ACC	111	Principles of Accounting I	3
MAT	122	Statistics I	4
TOTAL			17
FOURTH QUARTER			
ACC	112	Principles of Accounting II	3
FIN	205	Commercial Credit	3
LAW	102	Business Law II	4
MRK	201	Marketing I	3
SOC	145	Comparing Cultures	3
TOTAL			16
FIFTH QUARTER			
ACC	113	Principles of Accounting III	3
COM	211	Effective Speaking I	3
		or	
	225	Small Group Communication	3
LAW	103	Consumer Law	3
FIN		Financial Management Elective	3
ECO	216	Principles of Macroeconomics	4
TOTAL			16

continued next column

SIXTH QUARTER

FIN	255	Money & Capital Markets	3
		Humanities Elective*	3
FIN	295	Financial Management Seminar	3
FIN	215	Corporation Finance	3
		Business Elective	3
ECO	218	Principles of Microeconomics	4
TOTAL			19

* See page 66.

Hospitality Management

(97-98 Total Credit Hours)

There is a need for entry level management personnel in restaurants, hotels, resorts, convention centers, private clubs and catering businesses. Efficient and profitable operation of these businesses requires 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, resort, 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	101	Dining/Kitchen Orientation	2
HMT	105	Survey of the Food Industry	3
HMT	107	Sanitation & Safety	3
HMT	110	Menu Planning & Dining Services	2
MAT	105	Business Mathematics	4
PSY	105	Survey of Psychology	3
		or	
	121	General Psychology I	3
TOTAL			17
SECOND QUARTER			
BIS	160	Introduction to Word, PowerPoint, & Excel	3
		or	
	M41	Introduction to Excel and	
	M51	Introduction to PowerPoint and	
	M61	Introduction to Word	
ENG	111	English Composition I	3
		or	
	131	Business Communications I	3
HMT	112	Basic Food Preparation	5
HMT	113	Lab for HMT 112	
		General Education Elective	3
COM	206	Interpersonal Communication	3
TOTAL			17
THIRD QUARTER			
ENG	112	English Composition II	3
		or	
	132	Business Communications II	3
MAN	205	Principles of Management	3
HMT	125	Bar Operations Management	3
HMT	114	Advanced Food Preparation	5
HMT	115	Lab for HMT 114	
ACC	111	Principles of Accounting I	3
TOTAL			17

continued next page

FOURTH QUARTER

HMT 201	Food Service Equipment Design & Maintenance	3
HMT 291	Food Service Internship I	3
ACC 112	Principles of Accounting II	3
LAW 101	Business Law I	4
MRK 201	Marketing I	3
	TOTAL	<u>16</u>

FIFTH QUARTER

HMT 215	Food & Labor Cost Controls	3
HMT 225	Organization & Administration of Hospitality Industry	3
HMT 292	Food Service Internship II	3
HMT 227	Marketing in the Hospitality Industry	3
ECO 105	General Economics	3-4
	or	
216	Principles of Macroeconomics	
	TOTAL	<u>15-16</u>

SIXTH QUARTER

HMT 226	Purchasing for the Hospitality Industry	3
HMT 293	Food Service Internship III	3
HMT 295	Food Service Management Seminar	3
— —	Business Elective	3
— —	Humanities Elective*	3
	TOTAL	<u>15</u>

* See page 66.

Hospitality Management Culinary Arts Option (106-107 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, hotels and health care facilities. The program is accredited by the American Culinary Federation Accrediting Commission.

Course & Title		Credit Hours
FIRST QUARTER		
HMT 101	Dining/Kitchen Orientation	2
HMT 105	Survey of the Food Industry	3
HMT 107	Sanitation & Safety	3
HMT 110	Menu Planning & Dining Services	2
BIS 160	Introduction to Word, PowerPoint, & Excel	3
	or	
M61	Introduction to Word and	
M51	Introduction to PowerPoint and	
M41	Introduction to Excel	
MAT 105	Business Mathematics	4
	TOTAL	<u>17</u>

continued next column

SECOND QUARTER

HMT 112	Basic Food Preparation	5
HMT 113	Lab for HMT 112	
HMT 108	Introduction to Foods & Nutrition	3
HMT 125	Bar Operations Management	3
ENG 111	English Composition I	3
	or	
131	Business Communications I	
COM 206	Interpersonal Communication	3
	TOTAL	<u>17</u>

THIRD QUARTER

HMT 114	Advanced Food Preparation	5
HMT 115	Lab for HMT 114	
HMT 201	Food Service Equipment Design & Maintenance	3
HMT 226	Purchasing for the Hospitality Industry	3
ENG 112	English Composition II	3
	or	
132	Business Communications II	
	TOTAL	<u>14</u>

FOURTH QUARTER

HMT 207	Butchery & Fish Management	4
PSY 105	Survey of Psychology	3
	or	
121	General Psychology I	
HMT 291	Food Service Internship I	3
— —	Humanities Elective*	3
	TOTAL	<u>13</u>

FIFTH QUARTER

HMT 206	Garde Manger	5
HMT 236	Lab for HMT 206	
HMT 292	Food Service Internship II	3
— —	Business Elective	3
MAN 205	Principles of Management	3
ACC 111	Principles of Accounting I	3
	TOTAL	<u>17</u>

SIXTH QUARTER

HMT 208	Pastry & Confectionery	5
HMT 238	Lab for HMT 208	
HMT 293	Food Service Internship III	3
HMT 225	Organization & Administration of Hospitality Industry	3
ACC 112	Principles of Accounting II	3
	TOTAL	<u>14</u>

SEVENTH QUARTER

HMT 209	Professional Cooking	5
HMT 239	Lab for HMT 209	
HMT 215	Food & Labor Cost Controls	3
ECO 105	General Economics	3-4
	or	
216	Principles of Macroeconomics	
MRK 201	Marketing I	3
	TOTAL	<u>14-15</u>

* See page 66.

BUS

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.

Course & Title		Credit Hours
FIRST QUARTER		
ACC 111	Principles of Accounting I	3
ENG 111	English Composition I	3
	or	
	131 Business Communications I	
MAN 105	Introduction to Business	3
MAT 116	College Algebra	5
	or	
	121 Mathematics for Business Analysis	
TOTAL		14
SECOND QUARTER		
ACC 112	Principles of Accounting II	3
ENG 112	English Composition II	3
	or	
	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	Computer Concepts	3
TOTAL		18
FOURTH QUARTER		
ECO 201	Principles of Economics I	3
BUO 105	Business Ownership Orientation	3
MRK 215	Advertising	3
MRK 245	Principles of Retailing	3
MRK	Marketing Elective	3
TOTAL		15
FIFTH QUARTER		
ECO 202	Principles of Economics II	3
MRK 270	Marketing Internship	3
	or	
	Business Elective	
MRK 235	Marketing Research	3
MRK	Marketing Elective	3
PLS 104	Urban Government	3
	PSY/SOC Elective	3
TOTAL		18

continued next column

SIXTH QUARTER

MRK 270	Marketing Internship	3
	or	
	Business Elective	
MRK	Marketing Elective	3
MRK 295	Marketing Seminar	3
	Humanities Elective*	3
ECO 203	Principles of Economics III	3
TOTAL		15

* See page 66.

Paralegal

(100-101 Total Credit Hours)

Sinclair's Paralegal program has produced hundreds of graduates now working in the legal field in the Miami Valley. It was the first program established in the Dayton area, and the first paralegal program in this area to be approved by the American Bar Association.

The program curriculum is designed to combine legal concepts, practical application techniques, and modern technology skills to prepare paralegals for productive employment in the legal field. The goals of the program are to provide an opportunity for students to acquire skills that will enable them to deliver legal services under the supervision of an attorney; to maintain a cutting-edge curriculum that enhances opportunities for employment of PAR graduates by a wide range of employers; and to provide an educational program that emphasizes skills in critical thinking, writing, teamwork, and assessment. The paralegal program includes general education requirements, theory and practice courses, educational requirements in ethical legal practices, and extensive training in the latest technology in use in the legal field. All PAR students are required to complete two quarters of internships, giving them hands-on experience using paralegal skills.

Students must be accepted into the paralegal program before beginning PAR courses. **Paralegal Principles (PAR 105) and Paralegal Principles Technology (PAR 106) are required of every student before enrolling in other paralegal courses.** Requirements for acceptance are outlined in a program packet. Students must earn a grade of "C" or better in all PAR courses to pass.

Course & Title		Credit Hours
FIRST QUARTER		
ACC 111	Principles of Accounting I	3
ENG 111	English Composition I	3
PAR 105	Paralegal Principles	4
PAR 106	Paralegal Principles - Technology	2
COM 206	Interpersonal Communication	3
BIS 160	Introduction to Word, PowerPoint, & Excel	3
	or	
M61	Introduction to Word and	
M41	Introduction to Excel and	
M51	Introduction to PowerPoint or	
223	Using Word Perfect and	
M41	Introduction to Excel or	
M51	Introduction to PowerPoint	
TOTAL		18

continued next page

SECOND QUARTER

PLS 101	American Federal Government I	3
PAR 121	Litigation I	3
PAR 111	Legal Research & Writing	4
ENG 112	English Composition II	3
ACC 112	Principles of Accounting II	3
TOTAL		16

THIRD QUARTER

PAR 112	Legal Research & Writing II	4
PAR 115	Contract Law & the Uniform Commercial Code	3
PLS 102	American Federal Government II	3
ENG 199	Text Editing	3
PAR 122	Litigation II	3
TOTAL		16

FOURTH QUARTER

PAR 201	Business Organization I	3
MAT 105	Business Mathematics	4-5
106	College Algebra	
_____	Humanities Elective*	3
PAR 220	Legal Ethics	3
PAR 211	Probate Law I	3
TOTAL		16-17

FIFTH QUARTER

ECO 201	Principles of Economics I	3
PAR 205	Criminal Law & Procedure	3
PAR 215	Family Law	3
PAR 291	Paralegal Internship I	2
PAR _____	Paralegal Elective	6
TOTAL		17

SIXTH QUARTER

PAR _____	Paralegal Elective	6
PAR 131	Real Estate Transactions I	3
PAR 292	Paralegal Internship II	2
PSY 121	General Psychology I	3
or		
SOC 111	General Sociology I	3
PAR _____	Paralegal Elective	3
TOTAL		17

* See page 66.

Real Estate/Property Management

(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		
RES 121	Real Estate Abstracting I	3
RES 201	Real Estate Principles & Practices	4
BIS 160	Introduction to Word, PowerPoint, & Excel	3
MAN 105	Introduction to Business	3
ENG 111	English Composition I	3
or		
131	Business Communications I	
TOTAL		16

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SECOND QUARTER

ENG 112	English Composition II	3
or		
132	Business Communications II	
MAN 205	Principles of Management	3
RES 122	Real Estate Abstracting II	3
RES 202	Real Estate Law	4
PLS 104	Urban Government	3
TOTAL		16

THIRD QUARTER

ACC 111	Principles of Accounting I	3
LAW 101	Business Law I	4
MAN 225	Human Relations & Organizational Behavior	3
or		
237	Human Resource Management	
MAT 105	Business Mathematics	4
RES 203	Real Estate Finance	2
TOTAL		16

FOURTH QUARTER

ACC 112	Principles of Accounting II	3
RES 204	Real Estate Appraisal for Realtors	2
MRK 201	Marketing I	3
BIS 201	Customer Service	3
RES 215	Real Estate Investing	3
ECO 216	Principles of Macroeconomics	4
TOTAL		18

FIFTH QUARTER

SOC 145	Comparing Cultures	3
PSY 121	General Psychology I	3
ACC 113	Principles of Accounting III	3
RES 221	Property Management	3
ECO 218	Principles of Microeconomics	4
TOTAL		16

SIXTH QUARTER

RES 278	Real Estate Capstone	1
RES 210	Real Estate/Practice Seminar	3
_____	Humanities Elective*	3
FIN 215	Corporation Finance	3
COM 211	Effective Speaking I	3
RES 205	Real Estate Appraisal II	4
TOTAL		17

* See page 66.

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	4
BIS 160	Introduction to Word, PowerPoint, & Excel	3
TOTAL		16

continued next page

BUS

SECOND QUARTER

TNT	104	Tariff & Ticketing: North America	3
TNT	108	Accommodations, Cars, Tours & Rail	2
TNT	122	Airline Computer I	3
ACC	111	Principles of Accounting I	3
ENG	131	Business Communications I	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 II	3
MRK	201	Marketing I	3
TNT	109	Cruise Line Sales	2
COM	287	Effective Listening	3
		TOTAL	17

FOURTH QUARTER

TNT	224	Advanced Airline Computer I	2
TNT	250	Travel Sales Practicum	3
COM	206	Interpersonal Communication	3
MAN	105	Introduction to Business	3
		or	
	205	Principles of Management	3
		Foreign Language Elective	3
PSY	105	Survey of Psychology	3
		or	
	121	General Psychology I	3
		TOTAL	17

FIFTH QUARTER

TNT	106	Employment Guidelines for Travel Industry	1
TNT	201	Tourism for the Travel Industry	3
TNT	215	Managing a Travel Agency	3
TNT	225	Advanced Airline Computer II	2
TNT		Career Elective**	3
TNT	270	Travel & Tourism Internship	3
		Foreign Language Elective	3
		TOTAL	18

SIXTH QUARTER

TNT	210	Management of Travel Sales Personnel	3
TNT	202	Marketing for the Travel Industry	3
TNT	278	Travel & Tourism Capstone	3
HUM	115	International Environment: Culture & Business	3
		General Education Elective*	3
		TOTAL	15

* See page 66.

** TNT 297, HMT 105, HMT 210, BUO 105, BUO 120, COM 211 or HIS 218

Certificate Programs

Business Information Systems

Information Processing Option

(52 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		Credit Hours
FIRST QUARTER		
ENG	111 English Composition I	3
	or	
	131 Business Communications I	
MAT	105 Business Mathematics	4
BIS	101 Personal Computer Keyboarding	2
BIS	105 Computer Concepts	3
BIS	M61 Introduction to Word	1
BIS	M62 Intermediate Word	1
	TOTAL	14

SECOND QUARTER

ENG	132 Business Communications II	3
	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 Records Management & Electronic Files	3
BIS	M63 Advanced Word	1
BIS	M64 Expert Word	1
	TOTAL	15

THIRD QUARTER

BIS	103 Advanced Document Formatting/Skillbuilding	4
BIS	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 Advanced Customer Service Concepts	3
BIS	115 Work Place Technologies	2
ENG	199 Text Editing	3
BIS	M31 Introduction to Access	1
BIS	M32 Intermediate Access	1
	TOTAL	10

Business Information Systems

Medical Office Specialist

(53 Total Credit Hours)

In this one-year certificate program, students receive specialized training necessary to work with personal computers and end-user software applications in a medical office. Students master the basics of medical terminology, medical office procedures, medical transcription and medical billing to provide administrative support in a variety of medical office environments.

Course & Title			Credit Hours
FIRST QUARTER			
ENG	131	Business Communications I	3
MAT	105	Business Mathematics	4
BIS	136	Introduction to Medical Terminology	4
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
TOTAL			13

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	M42	Intermediate Excel	1
BIS	138	Advanced Medical Terminology	4
HIM	260	ICD-9-CM Medical Office Coding	3
BIS	251	Medical Transcription I	4
TOTAL			13

FOURTH QUARTER			
HIM	261	CPT Medical Office Coding	3
BIS	201	Customer Service	3
BIS	116	Medical Office Procedures	4
BIS	252	Medical Transcription II	4
TOTAL			14

Business Information Systems

Personal Computers for Business

(50 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.

Course & Title			Credit Hours
FIRST QUARTER			
ACC	111	Principles of Accounting I	3
BIS	M71	Intermediate Internet	1
BIS	105	Computer Concepts	3
BIS	M70	Introduction to the Internet	1
BIS	M61	Introduction to Word	1
BIS	M62	Intermediate Word	1
MAN	105	Introduction to Business	3
ENG	131	Business Communications I	3
		or	
	111	English Composition I	
TOTAL			16

continued next column

SECOND QUARTER

ACC	115	Personal Computer Applications in Accounting	3
BIS	M41	Introduction to 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
BIS	M42	Intermediate Excel	1
BIS	115	Work Place Technologies	2
CIS	107	Introduction to Operating Systems	3
TOTAL			15

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	Introduction to Web Development	3
CIS	162	Microsoft Office Troubleshooting & Problem Solving	3
CIS	_____	CIS Elective	3
COM	_____	Communication Arts Elective	3
TOTAL			19

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	205	Principles of Management	3
BIS	160	Introduction to Word, PowerPoint, & Excel	3
MAT	122	Statistics I	4
COM	206	Interpersonal Communication	3
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
TOTAL			16

SECOND QUARTER

MAN	225	Human Relations & Organizational Behavior	3
MAN	216	Managing Operations	3
MAN	255	Management Information Systems I	3
COM	211	Effective Speaking I	3
ENG	112	English Composition II	3
		or	
	132	Business Communications II	
ECO	216	Principles of Macroeconomics	4
TOTAL			19

THIRD QUARTER

MRK	201	Marketing I	3
MAN	110	Introduction to International Business	3
MAN	226	Human Relations Issues	3
MAN	295	Management Seminar	3
_____	_____	Business Elective	3
TOTAL			15

* See page 66.

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
HMT	105	Survey of the Food Industry	3
HMT	107	Sanitation & Safety	3
BIS	160	Introduction to Word, PowerPoint, & Excel	3
ENG	111	English Composition I	3
		or	
	131	Business Communications I	
—	—	Business Elective	3
TOTAL			18

SECOND QUARTER

ACC	112	Principles of Accounting II	3
HMT	112	Basic Food Preparation	5
HMT	113	Lab for HMT 112	
HMT	110	Menu Planning & Dining Services	3
MAN	205	Principles of Management	3
HMT	—	Hospitality Management Elective	3-5
TOTAL			17-19

THIRD QUARTER

HMT	114	Advanced Food Preparation	5
HMT	115	Lab for HMT 114	
HMT	201	Food Service Equipment Design & Maintenance	3
HMT	215	Food & Labor Cost Controls	3
HMT	225	Organization & Administration of Hospitality Industry	3
HMT	226	Purchasing for the Hospitality Industry	3
TOTAL			17

Procurement & Materials Management

(46 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	4
PUR	201	Purchasing Principles	3
TOTAL			18
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

continued next column

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
TOTAL			12

Short Term Certificates

Advanced Networking Engineer

(24 Total Credit Hours)

State-of-the-art networking skills; includes wired and wireless networks, networking equipment such as wireless routers and low to mid-level firewall hardware. This certificate helps prepare students for careers as network installers, wireless network administrators, network security analysts, systems engineers, hardware and support specialists.

Course & Title			Credit Hours
FIRST QUARTER			
CIS	200	Fundamentals of Programming a Firewall	4
CIS	201	Wireless Network Administrator	4
TOTAL			8

SECOND QUARTER

CIS	245	Remote Access for CCNP®	4
CIS	246	Router Internetworking for CCNP®	4
TOTAL			8

THIRD QUARTER

CIS	247	Multilayer Switching for CCNP®	4
CIS	248	Network Support & Troubleshooting for CCNP®	4
TOTAL			8

Business Operations System Support

(18-19 Total Credit Hours)

Students completing this certificate will have the written and oral communication skills as well as the computer skills needed to effectively support computer operations for a small, medium, or large company. The skills apply equally well to an entry level help desk support position. Technical course work emphasizes operating systems and troubleshooting skills.

Course & Title			Credit Hours
FIRST QUARTER			
ENG	111	English Composition I	3
		or	
	121	Technical Composition I	
CIS	107	Introduction to Operating Systems	3
		or	
	108	Introduction to Windows OS for the Network Manager	
TOTAL			6
SECOND QUARTER			
CIS	230	Computer Networks	3
COM	206	Interpersonal Communication	3
TOTAL			6

continued next page

THIRD QUARTER

CIS	231	UNIX I or 271 Administering a Microsoft Windows Client Operating System	3-4
CIS	225	Operating Systems Troubleshooting or 162 Microsoft Office Troubleshooting & Problem Solving	3
TOTAL			<u>6-7</u>

Call Center**(26 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**FIRST QUARTER**

BIS	101	Personal Computer Keyboarding	2
BIS	104	Introduction to P.C. Usage	2
BIS	201	Customer Service	3
MRK	201	Marketing I	3
ENG	131	Business Communications I	3
TOTAL			<u>13</u>

SECOND QUARTER

BIS	202	Advanced Customer Service Concepts	3
ENG	199	Text Editing	3
BIS	M70	Introduction to the Internet	1
BIS	160	Introduction to Word, Powerpoint, & Excel	3
MRK	236	Consumer Behavior	3
TOTAL			<u>13</u>

**Fast Track - Programmer Analyst
Enterprise Option****(32 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**FIRST QUARTER**

CIS	210	Computer Systems Analysis	3
COM	225	Small Group Communication	3
CIS	233	C++ Programming I	4
TOTAL			<u>10</u>

SECOND QUARTER

CIS	112	Object Oriented Concepts	3
CIS	265	Database Management Systems	3
CIS	234	C++ Programming II	4
TOTAL			<u>10</u>

continued next column

THIRD QUARTER

CIS	280	Java Programming I	4
CIS	285	Web Application Development with Java	4
CIS	236	C++ Programming III	4
TOTAL			<u>12</u>

**Fast Track - Programmer Analyst
Web Development**
(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**FIRST QUARTER**

CIS	210	Computer Systems Analysis	3
COM	225	Small Group Communication	3
CIS	233	C++ Programming I	3
TOTAL			<u>9</u>

SECOND QUARTER

CIS	234	C++ Programming II	3
CIS	112	Object Oriented Concepts	3
CIS	265	Database Management Systems	3
TOTAL			<u>9</u>

THIRD QUARTER

CIS	130	Introduction to Web Development	3
CIS	280	Java Programming I	4
CIS	284	Client/Server Web Tools	3
TOTAL			<u>10</u>

Financial Management**(24 Total Credit Hours)**

This certificate is designed to prepare students for initial entry into the financial services industry. Emphasis is on personal financial planning, consumer and commercial credit, marketing, customer service, and computer software skills. Students will gain knowledge of critical regulatory issues that face financial institutions today. With increasing frequency, entry level prospects are expected to have a working knowledge of MS Word, Excel, and Access. Employment opportunities exist at banks, mortgage companies, savings and loans, credit unions, and broker firms in the following types of positions: teller, customer service representative, credit analyst, loan processor, back office operations, and special assignments.

Course & Title**FIRST QUARTER**

FIN	105	Introduction to Financial Institutions	3
FIN	245	Personal Finance	3
BIS	201	Customer Service	3
TOTAL			<u>9</u>

continued next page

BUS

SECOND QUARTER

FIN	200	Consumer Credit	3
MRK	201	Marketing I	3
BIS	M61	Introduction to Word	1
BIS	M41	Introduction to Excel	1
BIS	M31	Introduction to Access	1
TOTAL			9

THIRD QUARTER

FIN	205	Commercial Credit	3
BIS	M62	Intermediate Word	1
BIS	M42	Intermediate Excel	1
BIS	M32	Intermediate Access	1
TOTAL			6

Help Desk Analyst

(44 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 work in this program helps prepare students for help desk industry certification exams.

**Credit
Hours**

Course & Title

FIRST QUARTER

CIS	107	Introduction to Operating Systems	3
BIS	160	Introduction to Word, PowerPoint, & Excel	3
	161	Intermediate Word, PowerPoint, & Excel	
COM	206	Interpersonal Communication	3
BIS	201	Customer Service	3
CIS	111	Introduction to Problem Solving & Computer Programming	4
TOTAL			16

SECOND QUARTER

BIS	M31	Introduction to Access	1
BIS	M32	Intermediate Access	1
CIS	162	Microsoft 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

THIRD QUARTER

BIS	M70	Introduction to the Internet	1
BIS	M71	Intermediate Internet	1
CIS	264	A+ Certification	3
CIS	230	Computer Networks	3
CIS	238	P.C. Installation Management	3
CIS	166	User Support Tools & Techniques	3
TOTAL			14

Human Resource Management

(15 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.

**Credit
Hours**

Course & Title

FIRST QUARTER

MAN	237	Human Resource Management	3
MAN	238	Human Resource Management Applications	3
MAN	225	Human Relations & Organizational Behavior	3
	230	or Motivational Concepts & Applications and	
	231	Leadership in Work Groups and	
	232	The Organizational System	
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.

**Credit
Hours**

Course & Title

FIRST QUARTER

CIS	112	Object Oriented Concepts	3-4
	113	or Object Oriented Design	3-4
CIS	265	Database Management Systems	3-4
	266	or Client/Server Database	3-4
TOTAL			6-8

SECOND QUARTER

CIS	283	Advanced Java	4-8
	280	or Java Programming I and	4-8
	281	Java Programming II	4-8
CIS	285	Web Application Development with Java	4
TOTAL			8-12

THIRD QUARTER

CIS	286	Enterprise Java	4
CIS	288	Java Enterprise Development Project Seminar	5
TOTAL			9

Network Engineering Associate

(28 Total Credit Hours)

This certificate program will provide the student with state-of-the-art networking skills and is taught via the Cisco Networking Academy Curriculum, teaching all aspects for an introductory network engineering position. This program is designed to provide the knowledge and skills required to understand and participate in basic networking design, installation, programming and troubleshooting corporate network infrastructure. Included in this one-year program are networking theory, OSI model, networking media, physical and logical design, programming, installing, maintaining and troubleshooting networking equipment, designing and implementing IP schemas, the basics of all current internal routing protocols, beginning security information and safety.

Course & Title		Credit Hours
FIRST QUARTER		
CIS 241	Cisco Networking Fundamentals	7
		TOTAL 7
SECOND QUARTER		
CIS 242	Cisco Router Fundamentals	7
		TOTAL 7
THIRD QUARTER		
CIS 243	Cisco Routing in LANs	7
		TOTAL 7
FOURTH QUARTER		
CIS 244	Cisco Routing in WANs	7
		TOTAL 7

Ohio Real Estate Broker

(29 Total Credit Hours)

This certificate is designed for the person who already has the equivalent of a two-year degree, who meets the experience requirement of the state Division of Real Estate, but lacks course work in economics, corporation finance, human resource management, and business law. The real estate courses (RES) meets the educational requirement of 120 seat-hours for persons to be licensed to sell real estate in Ohio, and many students will have already completed these pre-license courses. All other courses in this certificate satisfy other portions of the state requirements to be a broker. In addition to the equivalent of two-year degree and experience as a sales agent, the state requires course work in economics (ECO 201) corporation finance (FIN 215), human resources management (MAN 225 or 237), and business law (LAW 101) to become licensed as a broker.

Course & Title		Credit Hours
FIRST QUARTER		
RES 201	Real Estate Principles & Practices	4
RES 202	Real Estate Law	4
RES 203	Real Estate Finance	2
RES 204	Real Estate Appraisal for Realtors	2
MAN 205	Principles of Management	3
		TOTAL 15
SECOND QUARTER		
FIN 215	Corporation Finance	3
LAW 101	Business Law I	4
MAN 225	Human Relations & Organizational Behavior	3
	or	
	237 Human Resource Management	
ECO 216	Principles of Macroeconomics	4
		TOTAL 14

Ohio Real Estate Sales Associate

(24 Total Credit Hours)

This certificate is designed for the person who is interested in a career in real estate sales. A portion of the course work meets the educational requirement of 120 seat-hours for persons to be licensed to sell real estate in Ohio. 40 hours of Real Estate Principles and Practices (RES 201), 40 hours of Real Estate Law (RES 203), and 20 hours of Real Estate Appraisal (RES 204) are the requirements of the Ohio Division of Real Estate. Other courses will give the student skills in marketing sales, and business ownership, all of which are crucial to success as a real estate agent. Entrepreneurial skills such as business structure, management, recordkeeping, and the legal aspects of business ownership are covered.

Course & Title		Credit Hours
FIRST QUARTER		
RES 201	Real Estate Principles & Practices	4
RES 203	Real Estate Finance	2
BUO 105	Business Ownership Orientation	3
MRK 201	Marketing I	3
		TOTAL 12
SECOND QUARTER		
RES 202	Real Estate Law	4
RES 204	Real Estate Appraisal for Realtors	2
MRK 202	Marketing II	3
MRK 225	Sales Fundamentals	3
		TOTAL 12

Security for the Networking Professional

(14 Total Credit Hours)

This certificate is designed for the networking professional or student who has completed the Network Manager track or the Network Engineer track in the CIS program. The certificate focuses on the technical skills necessary to assess security risks to existing networks. Students will learn to establish an information security plan and policy as well as learn to install and configure various security measures such as intrusion detection, data encryption, and other methods needed to decrease vulnerability.

Course & Title		Credit Hours
FIRST QUARTER		
CIS 206	Network Security I	3
CIS 253	Securing a Windows Network Environment	4
		TOTAL 7
SECOND QUARTER		
CIS 207	Network Security II	3
CIS 255	Securing a Unix/Linux Operating System	4
		TOTAL 7

Small Office Home Computer Use & Security

(10 Total Credit Hours)

This certificate provides the home or small business computer user with state-of-the-art networking and computer security skills. This certificate includes general and specific information and training on wired and wireless home networking equipment such as routers. Proper and ethical use of the Internet for research and guidelines for safely interacting with other users are also included.

Course & Title

FIRST QUARTER

Course & Title	Credit Hours
BIS 105 Computer Concepts	3
BIS M70 Introduction to the Internet	1
BIS M71 Intermediate Internet	1
TOTAL	5

SECOND QUARTER

CIS 101 Computer Networks & Security	3
CIS M72 Cyber Security Tools	1
CIS M73 Cyber Ethics	1
TOTAL	5

Software Applications for the Professional

(24 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

FIRST QUARTER

Course & Title	Credit Hours
BIS 105 Computer Concepts	3
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	13

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

Tax Practitioner

(27 Total Credit Hours)

The Tax Practitioner certificate prepares students for work in the tax preparation field. Each year, Federal tax law changes and grows more complex. Due to the ever-changing nature of the Federal tax law more people are turning to professional tax preparers in order to prepare their taxes. Tax preparers may work for companies or work as entrepreneurs in their own business. The Tax Practitioner certificate covers both Federal, state and local tax law. Actual tax preparation for clients will take place through service learning providing valuable practical experience. The certificate also prepares students who are interested in becoming Enrolled Agents and sitting for the Enrolled Agents Exam of the Internal Revenue Service.

Course & Title

FIRST QUARTER

Course & Title	Credit Hours
ACC 111 Principles of Accounting I	3
ACC 221 Federal Taxes I	3
BIS 160 Introduction to Word, PowerPoint, & Excel	3
TOTAL	9

SECOND QUARTER

ACC 112 Principles of Accounting II	3
ACC 222 Federal Taxes II	3
ACC 225 Professional Tax Preparation	3
TOTAL	9

THIRD QUARTER

ACC 113 Principles of Accounting III	3
ACC 115 Personal Computer Applications in Accounting	3
ACC 223 Advanced Taxation	3
TOTAL	9

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

FIRST QUARTER

Course & Title	Credit Hours
ENG 111 English Composition I	3
BIS M70 Introduction to the Internet	1
BIS M71 Intermediate Internet	1
VIS 117 Web Page Design	3
TOTAL	8

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 Video	3
TOTAL	12

THIRD QUARTER

CIS 131 Intermediate Web Development	3
VIS 265 Digital Authoring	3
MAT 105 Business Mathematics	4
ENG 121 Technical Composition I	3
TOTAL	13

Web Programming

Java Track

(36-37 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 136	Introduction to XHTML		3
CIS 137	Introduction to JavaScript		3
CIS 130	Introduction to Web Development		3
CIS 265	Database Management Systems		3-4
	or		
266	Client/Server Database		
TOTAL			12-13
SECOND QUARTER			
CIS 131	Intermediate Web Development		3
CIS 280	Java Programming I		4
CIS 285	Web Application Development with Java		4
TOTAL			11
THIRD QUARTER			
CIS 223	Extensible Markup Language		3
CIS 224	Web Server Administration & Security		4
CIS 143	Cold Fusion Markup Language		3
CIS 144	PERL Common Gateway Interface		3
TOTAL			13

Web Programming

Visual Basic Track

(34-35 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 136	Introduction to XHTML		3
CIS 137	Introduction to JavaScript		3
CIS 130	Introduction to Web Development		3
CIS 265	Database Management Systems		3-4
	or		
266	Client/Server Database		
TOTAL			12-13
SECOND QUARTER			
CIS 131	Intermediate Web Development		3
CIS 147	Visual Basic.Net Programming I		3
CIS 284	Client/Server Web Tools		3
TOTAL			9
THIRD QUARTER			
CIS 224	Web Server Administration & Security		4
CIS 223	Extensible Markup Language		3
CIS 143	Cold Fusion Markup Language		3
CIS 144	PERL Common Gateway Interface		3
TOTAL			13

BUS

Business Technologies

Software Used in Specific Courses

Internet Explorer
 BIS M70 BIS M71
 BIS 104 BIS 105

Microsoft Word
 BIS 101 BIS M61
 BIS 102 BIS M62
 BIS 103 BIS M63
 BIS M64

Microsoft Access
 BIS M31 BIS M33
 BIS M32 BIS M34

Microsoft Excel
 BIS M41 BIS M43
 BIS M42 BIS M44

Microsoft PowerPoint
 BIS M51 BIS M52
 BIS M53

Microsoft Publisher
 BIS M21 BIS M22

Microsoft Project
 BIS M81 BIS M82

Corel WordPerfect
 BIS 223

Microsoft Word, PowerPoint, & Excel
 BIS 160
 BIS 161
 BIS 162

Microsoft Word, PowerPoint, Excel & Access
 BIS 172
 BIS 215

CIS Software Used in Specific Courses

Windows / DOS /Linux
 CIS 107 CIS 225

Windows XP Professional
 CIS 108

Active Perl
 CIS 144

Cold Fusion
 CIS 143

Internet Explorer Admin Kit
 CIS 276

JDK
 CIS 280 CIS 281

Macromedia Dreamweaver
 CIS 130 CIS 131

Macromedia Flash
 CIS 134 CIS 138

MCSE Program
 Windows XP and 2003

COBOL
 CIS 221 CIS 222

Microsoft Access
 CIS 265

Microsoft Office
 CIS 162

Oracle
 CIS 266 CIS 268

Rational Rose or Rational XDE Visio
 CIS 112 CIS 113

Visual Age for Java
 CIS 283 CIS 288

Visual Basic.NET
 CIS 111
 CIS 147 CIS 148

Visual C++
 CIS 233 CIS 234
 CIS 236

ASP.NET
 CIS 284

WebSphere Studio
 CIS 285

www.sinclair.edu
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Distance Learning



"Why I stay at Sinclair... for the convenience of learning at home."

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.

Help Desk (technical and log on assistance)

(937) 512-4357, 1-866-781-4357 (toll free)

Hours: Monday-Thursday, 7:00 a.m. - 10:00 p.m. EST;

Friday, 7:00 a.m. - 5:00 p.m. EST; Saturday 9:00 a.m. - 4:00 p.m. EST.

1-888-226-2457 (toll-free)
(937) 512-2891 (FAX number)

Dr. Nancy Thibeault, Director
(937) 512-2354, Room 14001

Don Smith
Manager, Distance Learning
Programs & Support
(937) 512-2379, Room 14223

Sherry McAndrew
Manager
Web Course Development
(937) 512-4222, Room 14040

Sandee Arehart
Distance Services Coordinator
(937) 512-2990, Room 14223

Dodie Munn
Academic Counselor
(937) 512-2990, Room 14223

Linda Stowe
Coordinator, Distance Learning Services
(937) 512-2694, Room 14223

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

Sylvia Wenzel
Coordinator, Distance Learning
Program Delivery
(937) 512-5223, Room 14223

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, 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 and as outlined in the course syllabus.

Distance learning courses are equivalent to their classroom counterparts in credit hours, transferability to other institutions, and fulfilling many degree program 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 Stowe, (937) 512-2694, linda.stowe@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 14223 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

Content

Traditional courses have specific learning objectives that the student must master and synthesize to pass the course.

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.

Structure

Regular class attendance keeps students on track with their course work.

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.

Distance Learning Courses

Courses have the same content as traditional courses. They differ only in the delivery format.

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.

Students must have the self-discipline to keep up with their work throughout the quarter.

On-line courses have some level of community activity, but video/print/CD-ROM formats do not. Instructors are accessible via e-mail or phone, but response time may not be as immediate.

Restrictions Registering for Distance Learning Courses

Effective with spring quarter 2005 registration, students whose Sinclair cumulative GPA is below a 2.00 are restricted from registering for distance learning (-T section) courses.

NOTE: To discuss other course options, students should see their divisional academic counselor.

Late Registration Policy

Late registration for all distance learning (-T section only) courses ends the Friday before the first day of classes. No distance learning registrations will be accepted once the quarter has started.

Distance Learning Course Delivery Formats

The Distance Learning program offers multiple options for students using alternative delivery formats and in-class sections at off-campus sites. Delivery formats include: online (via the Internet), videotape (VHS format), CD-ROM, and printed materials. Most of these courses have been developed by Sinclair faculty.

Although distance learning 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 as outlined in the course syllabus. 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. These courses typically take more time than traditional in-class courses. For example, a three-credit-hour course would require 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.

Testing Information

It is very important that students plan for the testing required in each of their distance learning courses. The type of testing used can vary from course to course. Students living beyond 60 miles of Sinclair's main campus may need to obtain a test proctor to have their tests administered throughout the quarter.

Some courses require on-campus testing while others do not. It is the student's responsibility to make the appropriate arrangements for completing the testing required in each distance learning course prior to the start of the quarter attending.

Testing Methods

To determine the method of testing for a distance learning course, please review the Test Method Listing, located within the "Testing Information" section found on the distance learning web site (www.sinclair.edu/distance).

Please be sure to check back on the first day of classes, as the information in the Test Method Listing is subject to change.

Testing methods in distance learning courses are separated into two categories:

- **Alternative Testing** - this may consist of reports, projects, papers, course participation and/or online testing. Students do not need to come to campus for testing nor is a test proctor necessary.
- **Traditional Testing** - can either be paper/pencil testing or supervised, computer-based testing, given either on campus or by a test proctor. The primary factor used to determine where and how testing is done depends upon where the student lives.

Distance learners are categorized into two distinct groups:

- **Local Learners** (students living within a 60-mile radius of the main campus) – Students will test on campus either in the Testing Center (located in Building 10, Fourth Floor) by a stated deadline or at a specific date, time and location on campus. This information is noted in the course syllabus.
- **Non-Local Learners** (students living beyond a 60-mile radius of the main campus) – Students have an option of obtaining a test proctor or taking their tests in the Testing Center. If a student prefers to have a test proctored, it is his or her responsibility to locate an individual to administer any test throughout that quarter. The Proctor Form can be printed off the distance learning web site. Go to “Testing Information” and then click on “Proctor Form.”

NOTE: All Proctor Forms must be on file with the Distance Learning office prior to the start of each quarter.

To discuss testing methods and test proctoring procedures, please contact the Distance Services Coordinator, Sandee Arehart, at (937) 512-2990 or 1-888-226-2457 (toll free). E-mail: sandee.arehart@sinclair.edu.

Online Courses

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 (Rooms 11346 and 13223) and the Open Lab in Building 14, First Floor.

System Requirements

Basic Computer Skills

To be successful in any online course, it is important that students are comfortable with performing the following:

- Logging into the course through **my.Sinclair** portal
- Using a web browser
- Opening and saving files
- Writing and editing documents
- Learning new computer skills
- Using your Sinclair e-mail account (**my.Sinclair**) to send assignments

Minimum Hardware/Software Requirements

- Pentium-based (or higher) computer OR, a MacIntosh equivalent
- 56 kps modem (or higher)

- Microsoft Windows 98 or higher OR, Mac OS 9 or higher
- 24 MB RAM (or higher)
- 120-500 MB free hard-disk space
- CD drive
- My.Sinclair e-mail account
- WebCT compatible web browser

NOTE: For best results, set computer screen resolution to 1024 x 768. If larger text is preferred, set the screen to 800 x 640.

To change your screen resolution:

1. Right click anywhere on the Desktop.
2. Click on ‘Properties’ from the dropdown menu.
3. Click on ‘Settings’ tab.
4. Under ‘Screen Resolution’ on the bottom left-hand side, adjust the slider to the desired pixels.
5. Click ‘OK.’

Browser Information

The following browsers are recommended for use with courses in WebCT:

- Netscape version 6.2x, 7.0, and 7.1 (PC)
- Internet Explorer (IE) versions 5.0 through 7.0 (PC) [except IE 5.5 Service Pack 1 (PC)]
- AOL 7.0 and 8.0 (PC)

MAC

- IE 5.1 (OS 9.x and OS X 10.1) and 5.2 (OS X 10.1, 10.2, 10.3)
- Netscape 6.2x (OS 9.x and OS X), 7.0 and 7.1 (OS X)
- AOL OS X (Mac)
- Mozilla 1.5 (MAC: OS X)

*For up-to-date system requirements, visit the “Online Course Information” section on the distance learning web site (www.sinclair.edu/distance).

Videotape/CD-ROM/Print Based Courses

Instead of attending courses in a classroom on campus, students enrolled in these 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.

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Neighborhood Center Classes

Students attend college for many reasons: to pursue a degree, to update their knowledge and enhance career advancement opportunities, or simply to take courses for personal enrichment. Sinclair's off-campus credit centers are a convenient alternative for busy students. Classes are taught by full- and part-time faculty at the following locations throughout the Miami Valley:

Centerville High School

500 East Franklin Street
Centerville, OH

Dwight L. Barnes Community and Continuing Education Center

3700 Far Hills Avenue
Kettering, OH

Eaton High School

600 Hillcrest Drive
Eaton, 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

V.A. Medical Center

4100 West Third Street
Dayton, OH

Warren County Career Center

3525 North State Route 48
Lebanon, 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.

Basics About Distance Learning

1. All distance learning classes have class size limits, so register early!
2. Late registration for all distance learning courses (-T section only) will not be accepted once the quarter has started. Distance learning courses are considered to have met as of 8:00 a.m. on the first day of the quarter.
3. Faculty members expect students to log into their online courses as soon as the quarter begins, as assignments are typically due the first week of classes.
4. Distance learning courses are structured like in-class courses and run the entire length of the quarter. All assignments/tests must be completed by deadlines noted in the course syllabus and within the current term.
5. Once the quarter ends, access to online courses is unavailable.
6. Course materials are required used in all distance learning courses. Check with the Tartan Campus Store (<http://tartanstore.sinclair.edu>) to determine what will be used.
7. Read the course syllabus first to determine who the faculty member is and how to contact him or her in case of an emergency, to clarify assignments/tests, or to address concerns.
8. Students living beyond 60 miles of Sinclair campus who are planning to use a test proctor for their course(s), **should have a completed Proctor Form on file with the Distance Learning department no later than the first day of the quarter attending.** Proctor forms may be obtained on the distance learning web site (www.sinclair.edu/distance) under "Testing Information."
9. For technical or login assistance (web registration or online course access), call Sinclair's Help Desk at (937) 512-4357 or 1-866-781-4357.
10. Driving instructions to all off-campus sites can be found on the distance learning web site (www.sinclair.edu/distance) by clicking on "Off-Campus Sites" and then selecting the specific location.

Transfer Module Courses Through Distance Learning

The Ohio Board of Regents has established a statewide Articulation and Transfer Policy, called the Transfer Module, to help students move easily from one Ohio college/university to another – avoiding duplication of course requirements and making it easier to move within Ohio's higher education system. The Transfer Module is a specific subset of the entire set of a college or university's general education requirements. It 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/physical science, and interdisciplinary course work.

A Transfer Module completed at one Ohio-based college/university will automatically meet the requirements of the transfer module at the receiving Ohio institution, once the student is accepted. They may be required, however, to meet additional general education requirements not included in the Transfer Module.

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To finish the requirements for the Transfer Module at Sinclair, students are advised to complete the required minimum hours of the Transfer Module from each section on the list below. The total number of "minimum hours" equals 42. Since the Transfer Module at Sinclair requires 54 completed quarter hours, students should consult with their academic counselor to determine the most appropriate courses (depending upon their major and transfer institution) to take in order to complete the Transfer Module.

Note: The Transfer Module is updated twice per year. Students should consult their academic counselor/faculty advisor for the most current list of approved courses.

DELIVERY METHOD:

DL Distance Learning (online, videotape or print-based), (937) 512-2990 or 1-888-226-2457 toll free, Room 14223

NOTES:

- All English and/or Mathematics courses have prerequisites and require either a placement test score or transferable ENG/MAT credits from another accredited institution.
- Transfer credit from another accredited institution will be reviewed for any course with appropriate documentation.
- The Natural & Physical Sciences sequence (lecture portion only) is available via distance learning; however, the lab component of these courses require hands-on, weekly lab visits to Sinclair's main campus. Or, students may have these credits transferred back to Sinclair from an accredited institution or taken in the classroom at Sinclair Community College.

Course Number/Title	Credit Hours	Delivery Mode
English (9 quarter hours)		
ENG 111 English Composition I	3	DL
ENG 112 English Composition II	3	DL
ENG 113 English Composition III	3	DL
Natural & Physical Sciences (12 quarter hours)		
AST 101/ Survey of Astronomy	4	DL
107 (lab)*		
PHY 100/ Introduction to Physics	4	DL
110 (lab)*		
PHY 104/ Sound, Light & Modern Physics	4	DL
119 (lab)*		
*Weekly lab requirement must be taken on campus.		
Social & Behavioral Sciences (minimum of 9 quarter hours from at least two areas)		
PSY 119* General Psychology	5	DL
PSY 121* General Psychology I	3	DL
PSY 122* General Psychology II	3	DL
PSY 205** Child Development	4	DL
PSY 206** Adolescent & Adult Psychology	3	DL
PSY 208** Life Span & Human Development	5	DL
PSY 217 Abnormal Psychology	4	DL
PSY 225 Social Psychology	4	DL
* PSY 119 is the same as PSY 121 & PSY 122. Credit is given for one; not both.		
**PSY 208 is the same as PSY 205 & PSY 206. Credit is given for one; not both.		

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Course Number/Title	Credit Hours	Delivery Mode
SOC 111* General Sociology I	3	DL
SOC 112* General Sociology II	3	DL
SOC 120* General Sociology	5	DL
SOC 145 Comparing Cultures	3	DL
SOC 205 Social Problems	4	DL
SOC 215 Cultural Diversity	4	DL
* SOC 120 is the same as SOC 111& SOC 112. Credit is given for one; not both.		

Arts & Humanities (minimum of 9 quarter hours from two areas)

ART 101 Art Appreciation: Introduction	3	DL
ART 102 Art Appreciation: Art Media	3	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
ART 236 History of Women Artists	3	DL
HIS 101 U.S. History: 1607 to 1815	3	DL
HIS 102 U.S. History: 1815 to 1919	3	DL
HIS 103 U.S. History: 1919 to present	3	DL
HIS 111 Western Civilization: 0 to 1300	3	DL
HIS 112 Western Civilization: 1300 to 1815	3	DL
HIS 113 Western Civilization: 1815 to present	3	DL
HIS 214 History of Southeast Asia	3	DL
HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL
HUM 135 Environmental Ethics	3	DL
THE 105 Introduction to Theatre I	3	DL
THE 201 History of Theatre I	3	DL

Mathematics* (minimum of 3 quarter hours):

MAT 116* College Algebra	5	DL
*Anticipated delivery - Fall 2005.		

**Associate of Arts Degree
Liberal Arts & Sciences
(94 Total Credit Hours)**

This program is designed to transfer to four-year institutions and completes the first two years of a four-year degree program. Areas of emphasis pertaining to this degree program include African-American studies, creative writing, education, English, geography, history, modern languages, philosophy, political science, psychology, social work and sociology. In order to assure transfer to any Ohio public institution, students must complete requirements of the Ohio Transfer Module 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 6121 and can also be reached by calling (937) 512-5134.

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DELIVERY METHOD:

DL Distance Learning (online, videotape or print-based), (937) 512-2990 or 1-888-226-2457 toll free, Room 14223

NOTES:

- All English and/or Mathematics courses have prerequisites and require either a placement test score or transferable ENG/MAT credits from another accredited institution.
- Transfer credit from another accredited institution will be reviewed for any course with appropriate documentation.
- The Natural & Physical Sciences sequence (lecture portion only) is available via distance learning; however, the lab component of these courses require hands-on, weekly lab visits to Sinclair's main campus. Or, students may have these credits transferred back to Sinclair from an accredited institution or taken in the classroom at Sinclair Community College.

Course Number/Title	Credit Hours	Delivery Mode
English (9 hours required)		
ENG 111 English Composition I	3	DL
ENG 112 English Composition II	3	DL
ENG 113 English Composition III	3	DL
Mathematics (3 hours minimum required)		
MAT 116* College Algebra	5	DL
*Anticipated delivery - Fall 2005.		
Natural & Physical Science Series (12 hours required)		
Astronomy/Physics		
AST 101/ Survey of Astronomy	4	DL
107 (lab)*		
PHY 100/ Introduction to Physics	4	DL
110 (lab)*		
PHY 104/ Sound, Light & Modern Physics	4	DL
119 (lab)*		
* Weekly lab requirement must be taken on campus.		
Social & Behavioral Sciences (15 hours required. Choose courses from at least two areas listed below).		
Political Science		
PLS 101* American Federal Government I	3	DL
PLS 102* American Federal Government II	3	DL
*Anticipated delivery - Fall 2005.		
Psychology		
PSY 119 General Psychology	5	DL
OR		
PSY 121 General Psychology I	3	DL
AND		
PSY 122 General Psychology II	3	DL
PSY 208 Life Span & Human Development	5	DL
OR		
PSY 205 Child Development	4	DL
AND		
PSY 206 Adolescent & Adult Psychology	3	DL
PSY 217 Abnormal Psychology	4	DL
PSY 225 Social Psychology	4	DL
Sociology		
SOC 120 General Sociology	5	DL
OR		
SOC 111 General Sociology I	3	DL
AND		
SOC 112 General Sociology II	3	DL
SOC 145 Comparing Cultures	3	DL

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Course Number/Title	Credit Hours	Delivery Mode
SOC 205 Social Problems	4	DL
SOC 215 Cultural Diversity	4	DL
Arts & Humanities (15 hours required. Choose courses from at least two areas listed below.)		
Art		
ART 101 Art Appreciation: Introduction	3	DL
ART 102 Art Appreciation: Art Media	3	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
ART 236 History of Women Artists	3	DL
History		
HIS 101 U.S. History: 1607 to 1815	3	DL
HIS 102 U.S. History: 1815 to 1919	3	DL
HIS 103 U.S. History: 1919 to present	3	DL
HIS 111 Western Civilization: 0 to 1300	3	DL
HIS 112 Western Civilization: 1300 to 1815	3	DL
HIS 113 Western Civilization: 1815 to present	3	DL
HIS 214 History of Southeast Asia	3	DL
Humanities		
HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL
Philosophy		
PHI 205 Introduction to Philosophy	3	DL
Theatre		
THE 105 Introduction to Theatre I	3	DL
THE 201 History of Theatre I	3	DL
Communication (3 hours required)		
COM 225 Small Group Communication	3	DL
Computer Competency (3 hours required)		
CIS 111 Introduction to Problem Solving & Computer Programming	4	DL
BIS 160 Introduction to Word, PowerPoint & Excel	3	DL
Multicultural (3 hours required)		
HUM 130 Humanity & the Challenge of Technology	3	DL
PSY 225 Social Psychology	4	DL
SOC 145 Comparing Cultures	3	DL
SOC 215 Cultural Diversity	4	DL
Freshman Experience (2 hours required)		
ASE 101 LAS Freshman Experience	2	DL
Electives (29 hours required. Choose from any of these areas listed below.)		
Natural & Physical Sciences		
BIO 104 HIV/AIDS	3	DL
CHE 120/ Introduction to Chemistry	4	DL
126 (lab)*		
*Only the lecture is available on videotape; the weekly lab component must be taken in the classroom at Sinclair.		
Social & Behavioral Sciences		
ECO 204 International Economics	3	DL
SOC 115 Today's Changing Family	4	DL
SOC 130 Family Violence	3	DL
SOC 210 Rural Communities	3	DL
SOC 225 Juvenile Delinquency	3	DL
SOC 227 Probation & Parole	3	DL
Other Electives		
ACC 111 Accounting Principles I	3	DL
ACC 112 Accounting Principles II	3	DL
ACC 113 Accounting Principles III	3	DL
LAW 101 Business Law I	4	DL
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

Associate of Science Degree Liberal Arts & Sciences

(94 Total Credit Hours)

The program is designed to transfer to four-year institutions and completes the first two years of a four-year degree program. Areas of emphasis pertaining to this degree program include biology, chemistry, environmental sciences, geology, mathematics, physics, psychology, and adolescent to young adult education. In order to assure transfer to any Ohio public institution, students must complete requirements of the Ohio Transfer Module as part of the Associate of Science degree. The Transfer Module equals 54-60 quarter credit hours.

For more detailed information about this degree or the Transfer Module, please 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 6121 and can also be reached by calling (937) 512-5134.

DELIVERY METHOD

DL Distance Learning (online, videotape or print-based) (937) 512-2990 or 1-888-226-2457 toll-free, Room 14223

NOTES:

- The Natural & Physical Sciences sequence (lecture portion only) is available via distance learning; however, the lab component of these courses require hands-on, weekly lab visits to Sinclair's main campus. Or, students may have these credits 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.
- Transfer credit from another accredited institution will be reviewed for any course with appropriate documentation.

Associate of Arts Degree – Program Requirements

Course Number/Title	Credit Hours	Delivery Mode
English (9 hours required)		
ENG 111 English Composition I	3	DL
ENG 112 English Composition II	3	DL
ENG 113 English Composition III	3	DL
Mathematics (3 hours minimum required)		
MAT 116* College Algebra	5	DL

*Anticipated delivery - Fall 2005.

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Course Number/Title
Natural & Physical Science Series (12 hours required; courses must be taken with required labs.)

Astronomy/Physics

Course Number/Title	Credit Hours	Delivery Mode
AST 101/107 Survey of Astronomy (lab)*	4	DL
PHY 100/110 Introduction to Physics (lab)*	4	DL
PHY 104/119 Sound, Light & Modern Physics (lab)*	4	DL

* Weekly lab requirement must be taken on campus.

Social & Behavioral Sciences (15 hours required. Choose courses from at least two areas listed below.)

Political Science

PLS 101* American Federal Government I	3	DL
PLS 102* American Federal Government II	3	DL

*Anticipated delivery - Fall 2005.

Psychology

PSY 119 General Psychology	5	DL
PSY 121 General Psychology I AND	3	DL
PSY 122 General Psychology II	3	DL
PSY 208 Life Span & Human Development OR	5	DL
PSY 205 Child Development AND	4	DL
PSY 206 Adolescent & Adult Psychology	3	DL
PSY 217 Abnormal Psychology	4	DL
PSY 225 Social Psychology	4	DL

Sociology

SOC 120 General Sociology OR	5	DL
SOC 111 General Sociology I AND	3	DL
SOC 112 General Sociology II	3	DL
SOC 145 Comparing Cultures	3	DL
SOC 205 Social Problems	4	DL
SOC 215 Cultural Diversity	4	DL

Arts & Humanities (15 hours required. Choose courses from at least two areas listed below.)

Art

ART 101 Art Appreciation: Introduction	3	DL
ART 102 Art Appreciation: Art Media	3	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
ART 236 History of Women Artists	3	DL

History

HIS 101 U.S. History: 1607 to 1815	3	DL
HIS 102 U.S. History: 1815 to 1919	3	DL
HIS 103 U.S. History: 1919 to present	3	DL
HIS 111 Western Civilization: 0 to 1300	3	DL
HIS 112 Western Civilization: 1300 to 1815	3	DL
HIS 113 Western Civilization: 1815 to present	3	DL
HIS 214 History of Southeast Asia	3	DL

Humanities

HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL

Philosophy

PHI 205 Introduction to Philosophy	3	DL
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Theatre

THE 105 Introduction to Theatre I	3	DL
THE 201 History of Theatre I	3	DL

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Course Number/Title	Credit Hours	Delivery Mode
Communication (3 hours required)		
COM 225 Small Group Communication	3	DL
Computer Competency (3 hours required)		
CIS 111 Introduction to Problem Solving & Computer Programming	4	DL
BIS 160 Introduction to Word, PowerPoint & Excel	3	DL
Multicultural (3 hours required)		
HUM 130 Humanity & the Challenge of Technology	3	DL
PSY 225 Social Psychology	4	DL
SOC 145 Comparing Cultures	3	DL
SOC 215 Cultural Diversity	4	DL
Freshman Experience (2 hours required)		
ASE 101 LAS Freshman Experience	2	DL
Electives (29 hours required. Choose from any of the areas listed below.)		
Natural & Physical Sciences		
BIO 104 HIV/AIDS	3	DL
CHE 120/126 Introduction to Chemistry (lab)*	4	DL
* Weekly lab requirement must be taken on campus.		
Social & Behavioral Sciences		
ECO 204 International Economics	3	DL
SOC 115 Today's Changing Family	4	DL
SOC 130 Family Violence	3	DL
SOC 210 Rural Communities	3	DL
SOC 225 Juvenile Delinquency	3	DL
SOC 227 Probation & Parole	3	DL
Other Electives		
ACC 111 Accounting Principles I	3	DL
ACC 112 Accounting Principles II	3	DL
ACC 113 Accounting Principles III	3	DL
LAW 101 Business Law I	4	DL
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

Associate of Science Degree Business Administration (98 Total Credit Hours)

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.

For 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 you can mix and match these methods as needed):

DL Distance Learning (online, videotape or print-based) (937) 512-2990 or 1-888-226-2457 toll-free, Room 14223

CWW College Without Walls, (937) 512-2791, Room 6130 - a separate entity from Distance Learning. Visit the CWW web site for specifics on taking their courses and obtaining approval: (<http://www.sinclair.edu/academics/elhs/departments/ebe/cww/index.cfm>)

NOTES:

- The Natural & Physical Sciences sequence (lecture portion only) is available via distance learning; however, the lab component of these courses require hands-on, weekly lab visits to Sinclair's main campus. Or, students may have these credits 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.
- Transfer credit from another accredited institution will be reviewed for any course with appropriate documentation.

Course Number/Title	Credit Hours	Delivery Mode
ACC 111- Principles of Accounting I, II, III	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	9	CWW
ECO 203*		
ENG 111- English Composition I, II, III	9	DL
ENG 113		
MAN 105 Introduction to Business	3	DL
MAT 116** College Algebra	5	DL
MAT 122 Statistics I	4	CWW
MAT 218 Calculus for Business & Economics	5	CWW

* ECO series will reduce to two courses at 4 credit hours each (ECO 216 and 218) - effective Fall 2005.

** Anticipated delivery - Fall 2005.

Natural & Physical Science Series (12 hours required; courses must be taken with required labs.)

Astronomy/Physics

AST 101/107 Survey of Astronomy (lab) *	4	DL
PHY 100/110 Introduction to Physics (lab)*	4	DL
PHY 104/119 Sound, Light & Modern Physics (lab)*	4	DL

* Weekly lab requirement must be taken on campus.

Elective Courses (see listing below)

_____ Humanities Electives	9	DL
PSY/_____ Electives	9	DL
SOC _____		
_____ General Education Electives	18	DL

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Course Number/Title	Credit Hours	Delivery Mode
Recommended Elective Course Listing		
Humanities		
ART 101 Art Appreciation: Introduction	3	DL
ART 102 Art Appreciation: Art Media	3	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
HIS 101-103 U.S. History, I, II, III	9	DL
HIS 111-113 Western Civilization I, II, III	9	DL
HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL
THE 105 Introduction to Theatre I	3	DL
THE 201 History of Theatre I	3	DL
Psychology/Sociology		
PSY 119 General Psychology OR	5	DL
PSY 121 General Psychology I AND	3	DL
PSY 122 General Psychology II	3	DL
SOC 111 General Sociology I AND	3	DL
SOC 112 General Sociology II OR	3	DL
SOC 120 General Sociology	5	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 122 Technical Composition II	3	DL
ENG 131 Business Communications I	3	DL
ENG 132 Business Communications II	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
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 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

continued next column

Certificate Programs

Fast Track - Programmer Analyst Short-Term Certificate

Enterprise or Web Development Options (28 Total Credit Hours)

This certificate program is designed to provide an individual with state-of-the-art programming skills. It is specifically 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 may select from two different options – Enterprise or Web Development. The curriculum noted below details the required courses specific to each option. For students who have questions regarding either option, it is strongly recommended that they first contact the academic counselor in the Business Technologies division.

Course Number/Title	Credit Hours	Delivery Mode
Program Course Requirements		
CIS 112 Object-oriented Concepts	3	DL
CIS 210 Computer Systems Analysis	3	DL
CIS 233 Programming in "C"	3	DL
CIS 234 Object-oriented Programming in "C"	3	DL
CIS 265 Database Management Systems	3	DL
CIS 280 Java Programming I	4	DL
COM 225 Small Group Communication	3	DL

Enterprise Option

CIS 225 Systems Software	3	DL
CIS 236 Visual C++	3	DL

Web Development Option

CIS 130 Introduction to Web Development	3	DL
CIS 284 Web Client/Server Tools	3	DL

Human Services

(45-46 Total Credit Hours)

This certificate program adds value to anyone currently working in human services-related agencies, institutions or programs including social, welfare and public administration. It also fits nicely within the Human Services Option curriculum, which is an associate degree under the Public Services umbrella.

For students who have questions regarding this certificate program or if they want to apply transfer credits previously earned at another institution to this program, it is strongly recommended that they first contact the academic counselor in the Extended Learning & Human Services division. This counselor is located in Room 9301 and can be reached by phone at (937) 512-2702.

Course Number/Title	Credit Hours	Delivery Mode
Program Course Requirements		
COM 211* Effective Speaking I	3	CWW
ENG 111/112 English Composition I, II	6	DL
MAT _____ Mathematics Elective	4-5	DL
PSY 121/122 General Psychology I, II	6	DL

continued next page

Course Number/Title	Credit Hours	Delivery Mode
PSY/ Electives	6	DL
SOC 111/ General Sociology I, II	6	DL
SOC 112		
SOC 145 Comparing Cultures	3	DL
SOC 205 Social Problems	4	DL
SOC 215 Cultural Diversity	4	DL
General Education Electives	6	DL

* COM 225 (Small Group Communication) may be substituted for COM 211. Please contact the Extended Learning & Human Services academic counselor to discuss this course substitution. COM 225 is available through distance learning.

Recommended Elective Course Listing

Art & Humanities

ART 101 Art Appreciation: Introduction	3	DL
ART 102 Art Appreciation: Art Media	3	DL
ART 125 African Art	3	DL
ART 235 History of Photography	3	DL
HIS 111- Western Civilization I, II, III	9	DL
HIS 113		
HUM 125 The Human Image	3	DL
HUM 130 Humanity & the Challenge of Technology	3	DL
THE 201 History of Theatre I	3	DL

Mathematics

MAT 101 Elementary Algebra	4	DL
MAT 102 Intermediate Algebra	5	DL
MAT 105 Business Mathematics	4	DL
MAT 116* College Algebra	5	DL

*Anticipated delivery - Fall 2005.

Psychology

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 208 Life Span of Human Development	5	DL
PSY 217 Abnormal Psychology	4	DL
PSY 225 Social Psychology	4	DL

Sociology

SOC 115 Today's Changing Family	4	DL
SOC 130 Family Violence	3	DL
SOC 210 Rural Communities	3	DL
SOC 225 Juvenile Delinquency	3	DL
SOC 227 Probation and Parole	3	DL

Written Communication

ENG 121 Technical Composition I	3	DL
ENG 122 Technical Composition II	3	DL
ENG 131 Business Communications I	3	DL
ENG 132 Business Communications II	3	DL

Medical Office Coding Specialist Short-Term Certificate

(29 Total Credit Hours)

This certificate provides students with a core set of medical office skills in coding and reimbursement in order 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 Number/Title	Credit Hours	Delivery Mode
Program Course Requirements		
ALH 103 Introduction to Health Care Delivery	3	DL
ALH 104 Allied Health Informatics	2	DL
BIO 107/ Human Biology	5	---
108* (lab)		*
HIM 121 Basic Medical Terminology	3	DL
HIM 122 Specialized Medical Terminology	3	DL
HIM 260 ICD-9-CM Medical Office Coding	3	DL
HIM 261 CPT Medical Office Coding	3	DL
HIM 262 Advanced Medical Office Coding	4	DL
MAS 202/ Insurance & Patient Records	3	DL
282 (lab)		

* BIO 107/108 may be taken in the classroom at Sinclair Community College or taken at another accredited institution where the lab is required and transferred back to Sinclair.

Software Applications for the Professional Short-Term Certificate

(21 Total Credit Hours)

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 covered include word processing, spreadsheets, database, business presentations, desktop publishing and using the Internet browser.

Each of these modules requires that you have access to a computer with Microsoft Office 2003 software to complete all assignments/tests.

EXCEPTION: BIS M21 and BIS M22 require Publisher 2003 software, which is included in Microsoft Office 2003 software.

For students who have questions regarding this certificate program, it is strongly recommended that they contact an academic counselor in the Business Technologies division (Room 6131 or call (937) 512-3054.

Course Number/Title	Credit Hours	Delivery Mode
Program Course Requirements		
BIS M21 Introduction to Desktop Publishing	1	DL
BIS M22 Intermediate Desktop Publishing	1	DL
BIS M31 Introduction to Access	1	DL
BIS M32 Intermediate Access	1	DL
BIS M33 Advanced Access	1	DL
BIS M34 Expert Access	1	DL
BIS M41 Introduction to Excel	1	DL
BIS M42 Intermediate Excel	1	DL
BIS M43 Advanced Excel	1	DL
BIS M44 Expert Excel	1	DL
BIS M51 Introduction to PowerPoint	1	DL
BIS M52 Intermediate PowerPoint	1	DL
BIS M53 Advanced PowerPoint	1	DL
BIS M61 Introduction to Word	1	DL
BIS M62 Intermediate Word	1	DL
BIS M63 Advanced Word	1	DL
BIS M64 Expert Word	1	DL
BIS M70 Introduction to Internet	1	DL
BIS M71 Intermediate Internet	1	DL
BIS 172 Integrated Solutions	2	DL

continued next page

Web Programming Short-Term Certificate

Visual Basic or Java Track

(31-35 Total Credit Hours)

This program 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 Technologies field. This certificate will focus on web application development in a client/server networked environment.

Students may select from two different tracks – Visual Basic or Java. The curriculum details the required courses specific to each track. For students who have questions regarding either program track, it is strongly recommended that they first contact the academic counselor in the Business Technologies division (Room 6131 or call (937) 512-3054.

Course Number/Title	Credit Hours	Delivery Mode
Program Course Requirements		
CIS 130 Introduction to Web Development	3	DL
CIS 131 Intermediate Web Development	3	DL
CIS 136 HTML	3	DL
CIS 137 JavaScript	3	DL
CIS 143 Cold Fusion	3	DL
CIS 144 Perl / CGI	3	DL
CIS 223 XML	3	DL
CIS 224 Web Server Administrator & Security	4	DL
CIS 265 Database Management Systems	3	DL
Visual Basic Track		
CIS 147 Visual Basic	3	DL
CIS 284 Client/Server Web Tools	3	DL
Java Track		
CIS 280 Java Programming I	4	DL
CIS 285 Web Application Development with Java	4	DL

Is Distance Learning for Me?

Although Distance Learning delivery modes are a convenient and flexible way to take courses and complete a degree, this often is not necessarily suited to all students' learning styles or needs. Some students find it difficult to study independently and need the continued contact with the instructor and students, as found in the classroom. The Distance Learning division strongly recommends that students learn more about what is required in a distance learning mode, that they talk with a counselor and take the following short quiz to find out if distance learning courses fit their circumstances and learning style. Circle one answer and score as directed:

1. My need to take this course now is:
 - a. High – I need it immediately for degree, job, or other important reason.
 - b. Moderate – I could take it on campus later or substitute another course.
 - c. Low – It's a personal interest that could be postponed.

continued next column

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.

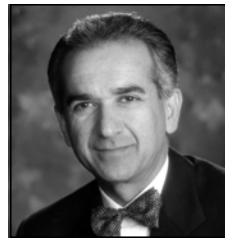
Scoring

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.

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Engineering Technology

Engineering & Industrial Technologies



"Sinclair offers innovative programs, initiatives and facilities to provide a modular approach to instruction."

Dr. George H. 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 summer quarter.

Dr. George Sehi, Dean
(937) 512-2918, Room 3133

Karen Blake
Academic Counselor
(937) 512-2282, Room 3142

Jana Lehman
Academic Counselor
(937) 512-2282, Room 3142

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
Walt Davis, Chairperson
(937) 512-2242, Room 3134

Industrial Engineering Technology
Manufacturing Engineering Technology Option
Plastics & Composites Engineering Technology Option
Quality Engineering Technology
Shep Anderson, Chairperson
(937) 512-2311, Room 13210

Automation & Control Technology
Electronics Engineering Technology
Electrical & Electronics Repair Technology
Surinder Jain, Chairperson
(937) 512-2570, Room 3134

Engineering Science (University Parallel)
Mechanical Engineering Technology
HVA&R Technology
Dr. Bob Willison, 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

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 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.**

EGR

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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 Engineering Technology Mechanical Engineering Technology Open Learning Fire Science Technology
University of Dayton	Electronics Engineering Technology Industrial Engineering Technology Manufacturing Engineering Technology Mechanical Engineering Technology
DeVry Institute of Tech.	Electronics 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 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	Industrial Engineering Technology
University of Toledo	Civil Engineering Technology Construction Management Option Electronics 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 Computer Engineering Technology program.

Associate of Science Engineering Science

(105 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

FIRST QUARTER

Course & Title	Credit Hours
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	4
MET 260 Engineering Technology Applications with Computers	3
TOTAL	17

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
_____ Engineering Elective	3
TOTAL	17

* See page 66.

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

FIRST QUARTER

Course & Title	Credit Hours
ARC 101 Architectural Drafting	3
ARC 105 Construction Materials & Methods	5
COM 206 Interpersonal Communication	3
MAT 131 Technical Mathematics I	5
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	18

SECOND QUARTER

ARC 102 Architectural Detail Drafting	4
CCT 103 Civil Construction Blueprints & Drafting	3
DRT 198 Introduction to Computer-Aided Drafting Concepts	2
ENG 111 English Composition I	3
MAT 132 Technical Mathematics II	5
TOTAL	17

THIRD QUARTER

ARC 107 Architectural Building Codes	3
ARC 135 Architecture Design I	2
ARC 199 Advanced 2-D CAD	2
CCT 105 Properties of Construction Materials	3
ENG 112 English Composition II	3
PHY 131 Technical Physics I	4
TOTAL	17

continued next page

FOURTH QUARTER

ARC	103	3-D Design & Architectural Modeling	3
ARC	240	Architectural Design Studio II - Structure	4
MET	203	Statics	4
_____	_____	Engineering Elective	3
ARC	_____	Architectural Technology Elective	3
		TOTAL	17

FIFTH QUARTER

ARC	211	Building Systems Design	3
ARC	241	Architectural Design Studio III - Construction Documents	4
CCT	256	Construction Management	3
MET	207	Strength of Materials	4
_____	_____	Social Science Elective*	3
		TOTAL	17

SIXTH QUARTER

ARC	278	Architectural Technology Capstone	5
CCT	206	Reinforced Concrete Design	4
ARC	_____	Architectural Technology Elective	3
_____	_____	Humanities Elective*	3
ARC	270	Architectural Technology Internship	3
		TOTAL	18

* See page 66.

Automation & Control Technology

(110-112 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
	TOTAL
	18
SECOND QUARTER	
EER 127 A.C. Circuits	4
EGR 252 KAREL Robot Programming	3
ENG 121 Technical Composition I	3
_____	Humanities Elective*
	or
EGR 132 Connecting Technology & Our Lives	5
MAT 132 Technical Mathematics II	5
	TOTAL
	18
THIRD QUARTER	
EER 128 Discrete Electronics	4
EER 139 Electrical Machinery	4
EGR 257 Handling Tool/TPP Programming	3
EGR 220 Machine Vision	3
ENG 122 Technical Composition II	3
	TOTAL
	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	4
EGR	244	Automation & Control Devices	3
EGR	261	Engineering Problem Solving Using	4
		TOTAL	20

FIFTH QUARTER

COM	_____	Communication Arts Elective	3
EGR	251	Robot Controller Diagnostics	3
EGR	254	KAREL Advanced Programming	3
EGR	255	Industrial Networking	3
EGR	115	Industrial Ergonomics	3-5
	206	or Engineering Technology Economics	
		or	
	208	3D Workcell Simulation	
		or	
	249	Robot Applications Programming	
		or	
	262	Advanced C++ Programming Engineering Applications	
		or	
	270	Engineering Internship	
		or	
MAT	133	Technical Mathematics III	4
PHY	131	Technical Physics I	4
		TOTAL	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
		TOTAL	18

* See page 66.

Automotive Technology

(100 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.

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 124	Electrical/Electronic Systems Level I	5
AUT 165	Automotive Brake System	5
INT 141	Applied Shop Mathematics I	3
MET 198	Personal Computer Applications in Engineering Technology	2
	TOTAL	15
SECOND QUARTER		
AUT 125	Electrical/Electronic Systems II	.7
AUT 108	Engine Systems	5
COM 206	Interpersonal Communication	3
— —	General Education Elective*	3
	TOTAL	18
THIRD QUARTER		
AUT 115	Engine Performance I	7
AUT 146	Automotive Heating & Air Conditioning	5
ENG 111	English Composition I	3
— —	Engineering Elective	3
	TOTAL	18
FOURTH QUARTER		
AUT 241	Automatic Transmissions	7
AUT 142	Manual Transmissions & Drive Line	5
SRM 211	Applied Industrial Risk Management	3
INT 111	Tool & Manufacturing Processes I	3
	TOTAL	18
FIFTH QUARTER		
AUT 245	Engine Performance II	7
AUT 210	Steering, Suspension & Alignment	5
ENG 112	English Composition II	3
	TOTAL	15
SIXTH QUARTER		
AUT 215	Automotive Service Operations	10
— —	Humanities Elective*	3
AUT 111	Automotive Management	3
	TOTAL	16

* See page 66.

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 PACT program. These programs are two-year associate degree programs in which the student alternates 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 and skills to either continue on for a bachelor's degree in Aviation Science (or related field), or start a flying career as a pilot with the addition of required flying ratings.

Admission Requirements:

- 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
MET 198	Personal Computer Applications in Engineering Technology	2
AVT 105	Orientation to Aviation	3
AVT 125	Developments in Aviation	3
MAT 116	College Algebra	5
— —	or	
131	Technical Mathematics I	
	TOTAL	16
SECOND QUARTER		
MAT 117	Trigonometry	5
— —	or	
132	Technical Mathematics II	
— —	Humanities Elective*	3
AVT 245	Aviation Law	3
AVT 111	Navigation Science I	3
	TOTAL	14
THIRD QUARTER		
PHY 141	College Physics I	4
— —	or	
131	Technical Physics I	
ENG 112	English Composition II	3
AVT 119	Aviation Meteorology	3
AVT 270	Aviation Internship	3
AVT 238	Aircraft Avionics	3
	TOTAL	16
FOURTH QUARTER		
AVT — —	AVT Track Elective	3-4
— —	Technical Elective	3
— —	Technical Elective	3
— —	Technical Elective	3
AVT 211	Navigation Science II	3
	TOTAL	15-16
FIFTH QUARTER		
AVT — —	AVT Track Elective	3-4
AVT 242	Aircraft Accident Investigation	3
AVT 240	Human Factors in Aviation	3
AVT 206	Aerodynamics	3
— —	Social Science Elective	3
	TOTAL	15-16
SIXTH QUARTER		
COM 206	Interpersonal Communication	3
AVT 247	Flight Controls	3
AVT 205	Aviation Management	3
AVT — —	AVT Track Elective	3-4
AVT — —	AVT Track Elective	3-4
	TOTAL	15-17

* See page 66.

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

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:

- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
AVT 115	Ground Operations & Servicing	3
AVT 112	Performance Calculations	2
ENG 111	English Composition I	3
MET 198	Personal Computer Applications in Engineering Technology	2
MAT 116	College Algebra	5
	or	
131	Technical Mathematics I	
	TOTAL	15
SECOND QUARTER		
AVT 105	Orientation to Aviation	3
AVT 111	Navigation Science I	3
	Humanities Elective*	3
AVT 117	Fluid Lines & Fittings	3
AVT 245	Aviation Law	3
MAT 117	Trigonometry	4-5
	or	
132	Technical Mathematics II	
	TOTAL	19-20
THIRD QUARTER		
ENG 112	English Composition II	3
AVT 229	Aircraft Finishes	3
AVT 238	Aircraft Avionics	3
AVT 119	Aviation Meteorology	3
PHY 131	Technical Physics I	4
	or	
141	College Physics I	
	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 242	Aircraft Accident Investigation	3
AVT 125	Developments in Aviation	3
AVT 240	Human Factors in Aviation	3
AVT 234	Reciprocating Engines	3
	Social Science Elective	3
AVT 219	Turbine Engines	4
	TOTAL	19

continued next column

SIXTH QUARTER

AVT 270	Aviation Internship	3
AVT 129	Propellers	5
AVT 138	Engine Fuel & Fuel Metering	5
AVT 205	Aviation Management	3
COM 206	Interpersonal Communication	3
	TOTAL	19

This program provides FAA licensed Aviation & Powerplant Mechanics with additional knowledge and training to obtain an Associate's Degree in Aviation Technology.

* See page 66.

Aviation Technology Professional Pilot & Airway Science Option

(108 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:

- Successful placement into declared major (see Engineering & Industrial Technologies academic counselor)

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
MET 198	Personal Computer Applications in Engineering Technology	2
MAT 116	College Algebra	5
	or	
131	Technical Mathematics I	
AVT 110	Ground School/Primary Flight	3
AVT 120	Primary Flight	3
AVT 124	Flight Lab for AVT 120	1
	TOTAL	17
SECOND QUARTER		
AVT 111	Navigation Science I	3
AVT 245	Aviation Law	3
AVT 105	Orientation to Aviation	3
AVT 160	Ground School/Instrument	4
	Humanities Elective*	3
MAT 117	Trigonometry	5
	or	
132	Technical Mathematics II	
	TOTAL	21
THIRD QUARTER		
PHY 141	College Physics I	4
	or	
131	Technical Physics I	
ENG 112	English Composition II	3
AVT 220	Instrument Flight	3
AVT 224	Flight Lab for AVT 220	1
AVT 238	Aircraft Avionics	3
AVT 119	Aviation Meteorology	3
	TOTAL	17
FOURTH QUARTER		
AVT 206	Aerodynamics	3
AVT 250	Commercial Pilot Ground School	3
AVT 253	Commercial Flight	4
AVT 247	Flight Controls	3
AVT 263	Flight Lab for AVT 253	1
AVT 211	Navigation Science II	3
	TOTAL	17

continued next page

FIFTH QUARTER

AVT 255	Multi-Engine Operations	3
AVT 242	Aircraft Accident Investigation	3
AVT 256	Multi-Engine Flight	3
AVT 266	Flight Lab for AVT 256	1
AVT 240	Human Factors in Aviation	3
	Social Science Elective*	3
AVT 125	Developments in Aviation	3
	TOTAL	19

SIXTH QUARTER

COM 206	Interpersonal Communication	3
AVT 258	Flight Instructor Ground School	4
AVT 259	Instructor Flight	3
AVT 269	Flight Lab for AVT 259	1
AVT 205	Aviation Management	3
AVT 270	Aviation Internship	3
	TOTAL	17

* See page 66.

This program contains the aviation knowledge and certifications necessary to work toward becoming a commercial airline pilot. In addition, students with this degree can enter into several four-year colleges with advanced standing to pursue a bachelor's degree.

Civil Engineering Technology**
(102 Total Credit Hours)

In Civil Engineering Technology students are prepared to work as technicians in the planning, design, construction and operation of the built environment in our civilized world. TAC/ABET* accreditation assures high quality education in modern state-of-the-art laboratories with highly qualified faculty.

A strong background in basics of architectural and civil construction and in-depth study of advanced topic such as surveying, construction management and structural analysis prepares students to produce and utilize construction documents and perform basic design and analysis. The curriculum is designed to maximize articulation to four year programs emphasizing Civil Engineering Technology and Construction Engineering Technology.

**Technology Accreditation Commission of the Accreditation Board for Engineering and Technology

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

SECOND QUARTER

CCT 103	Civil Construction Blueprints & Drafting	3
CCT 105	Properties of Construction Materials	3
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
ENG 111	English Composition I	3
MAT 132	Technical Mathematics II	5
	TOTAL	16

continued next column

THIRD QUARTER

CCT 246	Topographic Drawing & Mapping	4
CCT 256	Construction Management	3
ENG 112	English Composition II	3
PHY 131	Technical Physics I	4
— —	Social Science Elective*	3
	TOTAL	17

FOURTH QUARTER

CCT 216	Construction Estimating	4
CCT 247	Highway Surveying & Design	3
MET 203	Statics	4
MAT 133	Technical Mathematics III	5
	TOTAL	16

FIFTH QUARTER

CCT 203	Subdivision Design	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

CCT 206	Reinforced Concrete Design	4
CCT 248	Advanced Construction Layout	3
CCT 270	Civil Engineering Technology Internship	3
CCT 278	Civil Engineering Technology Capstone	4
PHY 132	Technical Physics II	4
	TOTAL	18

* See page 66.

** Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology (TAC-ABET), 111 Market Place Suite 1050, Baltimore, Maryland 21202, phone: (410) 347-7700.

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
DRT	198	Introduction to Computer-Aided Drafting Concepts	2
ENG	111	English Composition I	3
MAT	132	Technical Mathematics II	5
TOTAL			16-17

THIRD QUARTER

ARC	107	Architectural Building Codes	3
CCT	_____	Civil Track Elective	4
CCT	256	Construction Management	3
ENG	112	English 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			17-18

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

CCT	242	Construction Management Personnel Issues	3
CCT	_____	Civil Track Elective	3-4
CCT	270	Civil Engineering Technology Internship	3
CCT	278	Civil Engineering Technology Capstone	4
SRM	231	OSHA Construction Standards	4
TOTAL			17-18

* See page 66.

Track Electives

Surveying Track

CCT	103	Civil Construction Blueprints & Drafting
CCT	203	Subdivision Design
CCT	246	Topographic Drawing & Mapping
CCT	247	Highway Surveying & Design
CCT	248	Advanced Construction Surveying

Construction Track

(5 of the following 6)

CCT	152	Light Frame Construction
CCT	153	Light Frame Structural Systems
CCT	154	Commercial Interiors
CCT	141	Portland /Cement Concrete Level I
MET	103	HVAC Installation Techniques
EET	119	Basic Electric Circuits & Controls

Electronics 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 Personal Computer Applications in Engineering Technology	2
MAT	131 Technical Mathematics I	5
ENG	111 English 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
_____	_____	Social Science Elective*	3
ENG	112	English Composition II	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
_____	_____	Social Science 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	270	EET Internship	3
_____	_____	or EET Elective***	
TOTAL		18	

continued next page

SIXTH QUARTER

EET	252	Digital Systems II	4
EET	262	Microprocessor Applications	4
EET	278	Electronics Project Capstone	4
EET	270	EET Internship	3
—	—	or	
—	—	EET Elective***	3
—	—	General Education Elective*	3
TOTAL			18

Students planning to transfer to a BSEET program should substitute MAT 131-132-133 series with MAT 102-116-117 and Technical Physics series PHY 131-132 with PHY 141-142 courses for better transfer of credits. Transfer credits are determined by the accepting institution.

* See page 66.

** Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering & Technology (TAC-ABET), 111 Market Place Suite 1050, Baltimore, Maryland 21202, phone: (410) 347-7700.

***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

Electronics 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	3	
COM 206 Interpersonal Communication	3	
MAT 131 Technical Mathematics I	5	
ENG 111 English Composition I	3	
TOTAL		17

continued next column

SECOND QUARTER

EET	150	Electrical Circuits & Instruments I	4
EET	116	Electronics Schematics & Layout	3
MAT	132	Technical Mathematics II	5
—	—	Social Science Elective*	3
ENG	112	English Composition II	3
TOTAL			18

THIRD QUARTER

MET	198	Personal Computer Applications in 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	Electronic 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	Electronic Communication Systems II	3
EET	261	Microprocessor/Microcontroller Systems	4
EET	285	Digital Communications	3
EET	287	Telecommunications Project	6
TOTAL			16

* See page 66.

Environmental Engineering Technology

(106 Total Credit Hours)

This program prepares students for entry level positions in the field of environmental engineering technology. The curriculum provides a background in environmental laws and regulations, air and water pollution, groundwater studies, site assessments, emergency response to situations involving hazardous chemicals/wastes; storage, treatment, and disposal of hazardous wastes, sampling and analysis; and remediation. Skills and knowledge acquired will lead to possible employment in consulting, industrial and government organizations. The program prepares students to work as environmental engineering technicians or continue their education and obtain a bachelor's degree in Environmental 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)

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Course & Title

FIRST QUARTER

EVT 110	Environmental Compliance	3
EVT 120	Environmental Sampling & Analysis	3
ENG 111	English Composition I	3
MAT 131	Technical Mathematics I	5
BIO 107	Human Biology	5
BIO 108	Lab for BIO 107	
	TOTAL	19

SECOND QUARTER

EVT 200	Environmental Waste Management	4
ENG 112	English Composition II	3
MAT 132	Technical Mathematics II	5
MET 198	Personal Computer Applications in Engineering Technology	2
CHE 151	General Chemistry I	5
CHE 157	Lab for CHE 151	
	TOTAL	19

THIRD QUARTER

CHE 152	General Chemistry II	5
CHE 158	Lab for CHE 152	
CHE 121	Introduction to Organic Chemistry	4
CHE 127	Lab for CHE 121	
EVT 210	Environmental Site Assessment	4
MAT 133	Technical Mathematics III	5
	TOTAL	18

FOURTH QUARTER

MAT 122	Statistics I	4
SRM 151	OSHA 1910.120 Hazardous Waste Operations	5
PHY 141	College Physics I	4
EVT	EVT Fourth Quarter Track Elective	3
	TOTAL	16

FIFTH QUARTER

EVT 106	Air Pollution Control	3
EVT 107	Water Management Technology	3
EVT 260	Treatment, Storage, & Disposal of Hazardous Materials	3
HUM 135	Environmental Ethics	3
COM 211	Effective Speaking I	3
EVT	EVT Fifth Quarter Track Elective	3
	TOTAL	18

SIXTH QUARTER

EVT 278	Environmental Capstone	3
EVT 265	Remediation	3
EVT 240	Groundwater/Basic Fluid Mechanics	4
EVT 180	Solid Waste Management	3
EVT	EVT Sixth Quarter Track Elective	3
	TOTAL	16

Track Electives – Industrial Hygiene

Fourth Quarter

SRM 215	Industrial Hygiene	3
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Fifth Quarter

SRM 217	Industrial Toxicology	3
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Sixth Quarter

SRM 219	Industrial Hygiene Instrumentation	3
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Track Electives – Hazardous Material Management

Fourth Quarter

EVT 215	Asbestos Management	3
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Fifth Quarter

EVT 216	Lead Management	3
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Sixth Quarter

EVT 217	Confined Space Management	2
SRM 152	OSHA 1910.120 Hazardous Waste Operations & Emergency Response Refresher	1

Credit Hours

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

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 Technology	1
	TOTAL	17

SECOND QUARTER

FST 125	Fire Investigation Procedure	4
FST 116	Fire Protections Systems I	3
MAT 132	Technical Mathematics II	5
MET 198	Personal Computer Applications in Engineering Technology	2
FST 202	Building Construction	4
	TOTAL	18

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 & Health Program Management	3
	TOTAL	15

FIFTH QUARTER

FST 204	Water Suppression Systems	4
COM 211	Effective Speaking I	3
SRM 230	Occupational Safety & Health Humanities Elective*	4
PLS 101	American Federal Government I	3
	TOTAL	17

SIXTH QUARTER

FST 210	Water Suppression System II	4
FST 278	Fire Administration Capstone	4
SRM 151	OSHA 1910.120 Hazardous Waste Operations	5
FST 218	Plans Review for Fire Safety	3
FST 270	Fire Science Technology Internship	3
	TOTAL	19

* See page 66.

Credit Hours

EGR

Fire Science Technology

Fire Administration Option

(107 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

FIRST QUARTER

		Credit Hours	
FST	193	Firefighter II Transition	8
MAT	102	Intermediate Algebra	5
ENG	121	Technical Composition I	3
ACC	111	Principles of Accounting I	3
TOTAL			19

SECOND QUARTER

MET	198	Personal Computer Applications in Engineering Technology	2
FST	251	Fire Officer Level I	8
CHE	131	Technical Chemistry I	4
ENG	122	Technical Composition II	3
FST	___	Fire Science Elective	3
TOTAL			20

THIRD QUARTER

FST	252	Fire Officer Level II	4
MAN	205	Principles of Management	3
COM	211	Effective Speaking I	3
MAT	116	College Algebra	5
FST	___	Fire Science Elective	3
TOTAL			18

FOURTH QUARTER

FST	253	Fire Officer Level III	4
MAT	122	Statistics I	4
ECO	201	Principles of Economics I	3
PLS	103	State Government	3
FST	___	Fire Science Elective	3
TOTAL			17

FIFTH QUARTER

FST	254	Fire Officer Level IV	4
PLS	104	Urban Government	3
FST	___	Fire Science Elective	8
TOTAL			15

SIXTH QUARTER

___	___	Social Science Elective	6
___	___	Humanities Elective*	3
FST	___	Fire Science Elective	9
TOTAL			18

* See page 66.

Heating & Air Conditioning

(99 Total Credit Hours)

This degree is designed for entry-level students pursuing careers in the HVAC&R industries, as well as experienced technicians in need of upgrade training. The program focuses on the basic operating principles of commercial and industrial HVAC systems, allowing one to pursue careers in sales, service, design, facilities operation, project management, or as a laboratory technician for an equipment manufacturer. 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 HVACR technician or designer with a wealth of knowledge regarding proper system operation. Accreditation by the Technology Accreditation Commission or the Accreditation Board for Engineering Technology allows graduates to pursue a bachelor's degree.

	Credit Hours
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Course & Title

FIRST QUARTER			
ARC	138	Architectural Blueprint Reading	3
ENG	111	English Composition I	3
MET	198	Personal Computer Applications in Engineering Technology	2
MET	106	Survey of Commercial HVAC Systems	3
MAT	131	Technical Mathematics I	5
TOTAL			16

SECOND QUARTER

MET	126	Air & Water Distribution Systems	5
MET	130	Basics of Cooling & Cooling Systems	3
ENG	112	English Composition II	3
DRT	198	Introduction to Computer-Aided Drafting Concepts	2
MAT	132	Technical Mathematics II	5
TOTAL			18

THIRD QUARTER

ARC	139	Mechanical Systems Blueprint Reading	2
MET	224	Industrial Ventilation	3
MET	115	Boilers in the HVAC Systems	3
EET	119	Basic Electrical Circuits & Controls	4
MET	146	Building Psychrometrics & Load Calculations	5
TOTAL			17

FOURTH QUARTER

MET	135	Modern Refrigeration Practice	3
MET	240	Advanced HVAC Applications	3
MET	228	Equipment Measurement & Control	3
ARC	199	Advanced 2-D CAD	2
COM	206	Interpersonal Communication	3
PSY	229	Work Group Dynamics	3
TOTAL			17

FIFTH QUARTER

ENG	199	Text Editing	3
MET	222	Mechanical Cost Estimating	3
MET	243	Current Topics in Heating, Ventilation & Air Conditioning	3
MET	229	Controls for HVAC Systems	3
MET	241	Advanced HVAC Applications II	3
TOTAL			15

continued next page

EGR

SIXTH QUARTER

EGR	132	Connecting Technology & Our Lives	3
MET	150	Testing, Adjusting & Balancing HVAC Systems	3
MET	244	HVAC Applications Project	6
PHY	131	Technical Physics I	4
TOTAL			16

* See page 66.

Students interested in working for a mechanical design firm are encouraged to take ARC 240, Architectural Design Studio II and ARC 211, Building System drafting as additional preparation for their chosen profession.

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.

Articulation agreements are maintained with a variety of four-year schools for those students with such aspirations.

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	110	Design Processes	2
DRT	196	Introduction to Print Reading, Sketching & CAD	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			16

SECOND QUARTER

MAT	132	Technical Mathematics II	5
INT	113	Fundamentals of CNC	3
DRT	217	Introduction to Geometric Dimensioning & Tolerancing	3
DRT	198	Introduction to Computer-Aided Drafting Concepts	2
COM	206	Interpersonal Communication	3
TOTAL			16

THIRD QUARTER

DRT	200	Engineering Technology Graphics	5
DRT	234	Tool Design	4
ENG	111	English Composition I	3
PHY	131	Technical Physics I	4
TOTAL			16

FOURTH QUARTER

DRT	199	Advanced Computer Aided Drafting	3
DRT	240	Graphical Design Analysis	3
DRT	265	Unigraphics® Level I	5
ENG	112	English Composition II	3
MET	203	Statics	4
TOTAL			18

continued next column

FIFTH QUARTER

DRT	260	Rapid Prototyping & Manufacturing	3
		Social Science Elective*	3
MET	207	Strength of Materials	4
DRT	250	Technical Software Integration	3
PHY	132	Technical Physics II	4
TOTAL			17

SIXTH QUARTER

		Humanities Elective*	3
DRT	270	Industrial Design & Graphic Technology Internship	3
DRT	278	Industrial Design & Graphic Technology Capstone	4
IET	125	Introduction to World-Class Manufacturing	3
MAT	133	Technical Mathematics III	5
TOTAL			18

* See page 66.

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 colleges and universities. An articulation agreement exists between Sinclair's IET program and the University of Dayton's with a tuition reduction.

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 Control	2
TOTAL			16

continued next page

SECOND QUARTER

IET	126	Supervision & Work Teams Leadership	3
IET	111	Work Measurement Techniques	4
ENG	112	English Composition II	3
IET	198	Computer Programming Applications in Engineering Technology	2
MAT	132	Technical Mathematics II	5
TOTAL			17

THIRD QUARTER

ENG	113	English Composition III	3
DRT	198	Introduction to Computer-Aided Drafting Concepts	2
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	205	Manufacturing Processes	3
IET	130	Lean Manufacturing	3
PSY	229	Work Group Dynamics	3
PHY	132	Technical Physics II	4
QET	101	Survey of Total Quality	2
QET	171	Lab for QET 101	1
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	2
QET	181	Lab for QET 201	1
IET	—	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	3
TOTAL			19

* See page 66.

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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.

Industrial Engineering Technology Manufacturing Engineering Technology Option

(110 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. Graduates may further their studies by transferring to a number of 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

FIRST QUARTER

			Credit Hours
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	2
QET	171	Lab for QET 101	1
TOTAL			19

SECOND QUARTER

PHY	131	Technical Physics 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	112	English Composition II	3
INT	113	Fundamentals of CNC	3
MAT	133	Technical Mathematics III	5
PHY	132	Technical Physics II	4
QET	132	Metallurgy	2
QET	173	Lab for QET 132	1
TOTAL			18

FOURTH QUARTER

EET	119	Basic Electrical Circuits & Controls	4
ENG	113	English Composition III	3
IET	115	Survey of Production Control	2
PLA	106	Introduction to Plastics Technology	4
MET	203	Statics	4
TOTAL			17

continued next page

EGR

FIFTH QUARTER

COM	211	Effective Speaking I	3
EGR	128	Robotics in CIM Systems	4
		General Education Elective	3
IET	126	Supervision & Work Teams Leadership	3
IET	205	Manufacturing Processes	3
MET	207	Strength of Materials	4
		TOTAL	20

SIXTH QUARTER

		Humanities Elective	3
IET	130	Lean Manufacturing	3
IET	278	Manufacturing Capstone	3
DRT	217	Introduction to Geometric Dimensioning & Tolerancing	3
QET	201	Statistical Process Control	2
QET	181	Lab for QET 201	1
IET		Track Elective	3
		TOTAL	18

* See page 66.

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Industrial Engineering Technology Plastics & Composites Option (100 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.

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	196	Introduction to Print Reading, Sketching & CAD	3
IET	101	Work Methods Analysis & Improvement	3
MAT	131	Technical Mathematics I	5
PLA	106	Introduction to Plastics Technology	4
QET	101	Survey of Total Quality Management	2
QET	171	Lab for QET 101	1
		TOTAL	18

SECOND QUARTER

PLA	150	Plastics Processing Equipment Fundamentals	4
PLA	208	Plastic Materials Process I	4
IET	198	Computer Programming Applications in Engineering Technology	2
ENG	111	English Composition I	3
CHE	141	College Chemistry I	4
		TOTAL	17

continued next column

THIRD QUARTER

PLA	220	Extrusion (Process II) or	4
	225	Injection Molding (Process II)	
DRT	198	Introduction to Computer Aided Drafting Concepts	2
IET	205	Process Engineering	3
QET	201	Statistical Process Control	2
QET	181	Lab for QET 201	1
QET	133	Non-Metallic Materials	2
QET	174	Lab for QET 133	1
		TOTAL	15

FOURTH QUARTER

ENG	112	English Composition II	3
IET		Plastics Elective	3
MAT	132	Technical Mathematics II	5
IET	125	Introduction to Manufacturing Management	3
		TOTAL	14

FIFTH QUARTER

IET	115	Survey of Production & Inventory Control	2
		Social Science Elective*	3
		Humanities Elective*	6
ENG	113	English Composition III	3
IET		Plastics Elective	3
IET	206	Value Engineering	3
		or	
EGR	206	Engineering Economics	
		TOTAL	20

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 66.

Mechanical Engineering Technology**

(101 Total Credit Hours)

The Mechanical Engineering Technology program provides the courses needed to begin a rewarding career as a technician in the engineering field. As a mechanical graduate, your options are open to a diverse number of fields and companies. Indeed, it is one of the oldest and most respected engineering technology fields. Using state-of-the-art laboratory equipment, students will complete coursework that is relevant and practical, taught by faculty that are enthusiastic and current in their field. The courses are non-calculus based and there are several electives that can tailor the degree to an individual's needs. And if your long-term goals are to continue on to a four-year University, the mechanical engineering technology degree transfers readily to many institutions. The degree is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, which assures quality and nationally recognized excellence.

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		
COM 206	Interpersonal Communication	3
	or	
	211 Effective Speaking I	
ENG 111	English 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
—	General Education Elective	3
	or	
ENG —	English Elective	
TOTAL		20

SECOND QUARTER		
DRT 196	Introduction to Print Reading, Sketching & CAD	3
ENG 112	English Composition II	3
MAT 132	Technical Mathematics II	5
MET 104	Introduction to Design Realization Process	3
TOTAL		14

THIRD QUARTER		
EET 119	Basic Electrical Circuits & Controls	4
IET 198	Computer Programming Applications in Engineering Technology	2
MAT 133	Technical Mathematics III	5
DRT 198	Introduction to Computer-Aided Drafting	2
PHY 131	Technical Physics I	4
TOTAL		17

FOURTH QUARTER		
DRT 199	Advanced Computer Aided Drafting	3
QET 132	Metallurgy	3
	or	
	133 Non-Metallic Materials	
MET 260	Engineering Technology Applications with Computers	3
MET 203	Statics	4
PHY 132	Technical Physics II	4
TOTAL		17

FIFTH QUARTER		
MET 205	Fluid Mechanics	3
MET 204	Dynamics with Kinematic Analysis	4
MET 207	Strength of Materials	4
MET 231	Machine Design I	3
TOTAL		14

SIXTH QUARTER		
MET 225	Thermodynamics	4
MET 228	Equipment Measurement & Control	3
MET 232	Computer Aided Machine Design Project	3
PSY 229	Work Group Dynamics	3
	or	
	Social Science Elective*	
MET 278	Mechanical Engineering Technology Capstone	3
HUM 115	International Environment: Culture & Business	3
	or	
	130 Humanity & the Challenge of Technology	
	or	
PHI 206	Personal Ethics	
	or	
	209 Business Ethics	
	or	
EGR 132	Connecting Technology & Our Lives	
TOTAL		19

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Quality Engineering Technology

(102 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		
QET 107	Engineering Disasters	1
DRT 196	Introduction to Print Reading, Sketching & CAD	3
MAT 131	Technical Mathematics I	5
ENG 111	English 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		17

SECOND QUARTER		
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
ENG 112	English Composition II	3
MAT 132	Technical Mathematics II	5
QET 101	Survey of Total Quality	2
QET 171	Lab for QET 101	1
QET 113	Coordinate Measurement	3
QET 120	Process Metrology	3
TOTAL		19

THIRD QUARTER		
ENG 113	English Composition III	3
QET 105	Packaging Concepts & Materials	3
MET 104	Introduction to Design Realization Process	3
QET 131	Fundamentals of Metallurgy & Material Science	3
QET 201	Statistical Process Control	2
QET 181	Lab for QET 201	1
INT 109	Fundamentals of Tool & Manufacturing Processes	4
TOTAL		19

continued next page

EGR

FOURTH QUARTER

QET	202	Advanced Statistical Quality Control	3
QET	211	Design and Process Failure Modes & Effects Analyses	2
QET	223	ISO 9000/16949 Quality Systems	3
QET	182	Lab for QET 202	1
QET	183	Lab for QET 221	1
QET	126	Liquid Penetrant/ Magnetic Particle Testing	3
QET	221	Quality Assurance	3
		TOTAL	16

FIFTH QUARTER

QET	217	Measurement & Calibration	2
QET	185	Lab for QET 217	1
QET	231	ISO 9000/16949 Internal Auditor	3
QET	212	Reliability Testing & Analysis	2
QET	124	Industrial Radiography	3
		or	
	125	Ultrasonic Testing	
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	
		TOTAL	14

SIXTH QUARTER

		General Education Elective	3
QET	295	Quality Engineering Technology Capstone	3
EGR	132	Connecting Technology & Our Lives	3
		or	
		Humanities Elective	
QET		QET Technical Elective	3
QET	133	Non-Metallic Materials	2
QET	174	Lab for QET 133	1
QET	123	Eddy Current Testing	2
		TOTAL	17

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 66.

Quality Engineering Technology**

Packaging Option

(94 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.

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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Course & Title

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
		TOTAL	13

SECOND QUARTER

CHE	141	College Chemistry	4
MAT	132	Technical Mathematics II	5
MET	104	Design Realization	3
QET	100	Tooling & Machining Metrology	2
		TOTAL	14

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	2
QET	174	Lab for QET 133	1
QET	201	Statistical Process Control	2
QET	181	Lab for QET 201	1
		TOTAL	16

FOURTH QUARTER

ENG	112	English Composition II	3
PHY	131	Technical Physics I	4
QET	105	Introduction to Packaging	3
QET	120	Process Metrology	3
QET	211	Design & Process Failure Modes & Effects Analysis	2
		TOTAL	15

FIFTH QUARTER

ENG	113	English Composition III	3
PHY	132	Technical Physics II	4
QET	212	Reliability Testing & Analysis	2
QET	221	Quality Assurance	3
QET	183	Lab for QET 221	1
QET	250	Packaging Systems	3
QET	252	Packaging Development	3
		TOTAL	19

continued next page

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 or Humanities Elective*	3
QET	_____	QET Technical Elective	3
_____	_____	General Education Elective*	3
TOTAL			17

* See page 66.

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Quality Engineering Technology** Quality Assurance Option (105-106 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			
QET	107	Engineering Disasters	1
DRT	196	Introduction to Print Reading, Sketching & CAD	3
ENG	111	English Composition I	3
MAT	131	Technical Mathematics I	5
MET	198	Personal Computer Applications in Engineering Technology	2
QET	M30	Introduction to Materials & Manufacturing Processes	1
QET	100	Tooling & Machining Metrology	2
TOTAL			17

continued next column

SECOND QUARTER

ENG	112	English Composition II	3
QET	101	Survey of Total Quality	2
QET	171	Lab for QET 101	1
QET	113	Coordinate Measurement	3
MAT	132	Technical Mathematics II	5
QET	120	Process Metrology	3
DRT	198	Introduction to Computer-Aided Drafting Concepts	2
TOTAL			19

THIRD QUARTER

MAT	133	Technical Mathematics III	5
QET	105	Packaging Concepts & Materials	3
MET	104	Introduction to Design Realization Process	3
QET	201	Statistical Process Control	2
QET	181	Lab for QET 201	1
COM	206	Interpersonal Communication	3
		or	
	211	Effective Speaking I	1
TOTAL			17

FOURTH QUARTER

PHY	131	Technical Physics I	4
QET	202	Advanced Statistical Quality Control	3
QET	182	Lab for QET 202	1
QET	211	Design & Process Failure Modes & Effects Analyses	2
QET	221	Quality Assurance	3
QET	183	Lab for QET 221	1
IET	130	Lean Manufacturing	3
TOTAL			17

FIFTH QUARTER

QET	261	Continuous Process Improvement	2
QET	184	Lab for QET 261	1
QET	223	ISO 9000/16949 Quality Systems	3
QET	217	Measurement & Calibration	2
QET	185	Lab for QET 217	1
QET	212	Reliability Testing & Analysis	2
PHY	133	Technical Physics III	4
QET	132	Metallurgy	
		or	
	133	Non-Metallic Material	2-3
QET	173	Lab for QET 132	
		or	
	174	Lab for QET 133	1
TOTAL			18-19

SIXTH QUARTER

IET	198	Computer Programming Applications in Engineering Technology	2
PSY	229	Work Group Dynamics	3
		or	
		PSY/SOC Elective	
ENG	113	English Composition III	3
QET	295	Quality Engineering Technology Capstone	3
EGR	132	Connecting Technology & Our Lives	3
		or	
		Humanities Elective*	
QET	_____	QET Technical Elective	3
TOTAL			17

* See page 66.

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Safety Engineering Technology

(104-108 Total Credit Hours)

This program incorporates a full range of safety engineering studies addressing construction and general industry safety, fire protection, industrial hygiene, waste management, industrial hygiene instrumentation and product design. The curriculum is based on the Board of Certified Safety Professionals (BCSP) and American Society of Safety Engineers (ASSE) recommendations and prepares the student for the Certified Safety Professional (CSP) exam. Graduates are prepared to directly enter the work force as safety engineering technicians and work in the general and/or the construction occupational industries or continue their education and obtain a bachelor's degree in Safety 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	
SRM 101 Introduction to Safety Engineering Technology	3
ENG 111 English Composition I	3
MAT 116 College Algebra	5
CHE 151 General Chemistry I	5
EVT 110 Environmental Compliance	3
TOTAL	19
SECOND QUARTER	
SRM 212 Hazard Control Analytical Methods	4
ENG 112 English Composition II	3
MAT 117 Trigonometry	4
BIO 107 Human Biology	5
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	18
THIRD QUARTER	
SRM 221 Safety & Health Program Management	3
COM 211 Effective Speaking I	3
CHE 152 General Chemistry II	5
SRM 120 Safety Lab	2
FST 103 Fire Prevention Fundamentals, Codes, & Ordinances	4
TOTAL	17
FOURTH QUARTER	
SRM 151 OSHA 1910.120 Hazardous Waste Operations	5
SRM 215 Industrial Hygiene	3
PHY 141 College Physics I	4
_____ Humanities Elective*	3
_____ Technical Elective	3-4
TOTAL	18-19
FIFTH QUARTER	
MAT 122 Statistics I	4
EVT 200 Environmental Waste Management	4
EVT 260 Treatment, Storage, & Disposal of Hazardous Materials	3
EGR 206 Engineering Technology Economics	3
_____ Technical Elective	3-5
TOTAL	17-19

continued next column

SIXTH QUARTER

SRM 278 SRM Capstone	3
SRM 219 Industrial Hygiene Instrumentation	3
PSY 121 General Psychology I	3
_____ Technical Elective	6-7
TOTAL	15-16

* See page 66.

Tooling & Machining Technology

(106 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)

Course & Title	Credit Hours
FIRST QUARTER	
DRT 196 Introduction to Print Reading, Sketching & CAD	3
ENG 121 Technical Composition I	3
IET 101 Work Methods Analysis & Improvement	3
INT 131 Basic Moldmaking	3
INT 111 Tool & Manufacturing Processes I	3
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	17
SECOND QUARTER	
IET 125 Introduction to 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	3
TOTAL	17
THIRD QUARTER	
DRT 199 Advanced Computer Aided Drafting	3
INT 165 Advanced Machine Operations Laboratory	4
MAT 131 Technical Mathematics I	5
IET 126 Supervision & Work Teams Leadership	3
INT 113 Fundamentals of CNC	3
TOTAL	18
FOURTH QUARTER	
IET 205 Manufacturing Processes	3
INT 114 Jig & Fixture Design	3
INT 211 Advanced Computer Numerical Control	3
HUM 132 Connecting Technology & Our Lives	3
INT 151 Principles of Welding	3
QET 100 Tooling & Machining Metrology	2
TOTAL	17

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FIFTH QUARTER

COM 211	Effective Speaking I	3
INT 114	Jig & Fixture Design	3
INT 204	Computer Numerical Control Lathe Programming	3
INT 212	Computer Assisted Programming	3
ENG 111	English Composition I	3
INT 145	Shop Floor Programming	3
	TOTAL	18

SIXTH QUARTER

QET 113	Coordinate Measurement	3
INT 213	Computer Numerical Control Applications	3
INT 209	Computer Numerical Control Wire Electrical Discharge Machining Programming	3
IET 216	Industrial Facilities Layout	4
_____	General Education Elective*	3
_____	Social Science Elective*	3
	TOTAL	19

* See page 66.

**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	Introduction to Print Reading, Sketching & CAD	3
INT 109	Fundamentals of Tool & Manufacturing Processes	4
INT 141	Applied Shop Mathematics I	3
INT 161	Machine Operations Laboratory I	8
QET 100	Tooling and Machining Metrology	2
	TOTAL	20
SECOND QUARTER		
INT 113	Fundamentals of CNC	3
INT 142	Applied Shop Mathematics II	3
INT 162	Machine Operations Laboratory II	8
DRT 217	Introduction to Geometric Dimensioning & Tolerancing	3
	TOTAL	17
THIRD QUARTER		
INT _____	INT Technical Elective	3-4
INT 143	Applied Shop Mathematics III	3
INT 163	Machine Operations Laboratory III	8
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
	TOTAL	16-17

continued next column

FOURTH QUARTER

INT 114	Jig & Fixture Design	3
INT 211	Advanced Computer Numerical Control	3
MAT 101	Elementary Algebra	4
ENG 111	English Composition I	3
MET 198	Personal Computer Applications in Engineering Technology	2
	TOTAL	15

FIFTH QUARTER

IET 205	Manufacturing Processes	3
INT 212	Computer Assisted Programming	3
INT 225	Tool Design	3
MAT 131	Technical Mathematics I	5
ENG 112	English Composition II	3
	TOTAL	17

SIXTH QUARTER

COM 211	Effective Speaking I	3
_____	Humanities Elective*	3
IET 206	Value Engineering	3
INT 213	Computer Numerical Control Applications	3
_____	Social Science Elective	3
INT 270	Industrial Technology Internship or INT Elective	3
	TOTAL	18

* See page 66.

**Tooling & Machining Technology
Mechanical Option
(103 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		
QET 131	Fundamentals of Metallurgy & Material Science	3
INT 151	Principles of Welding	3
IET 125	Introduction to World-Class Manufacturing	3
IET 101	Work Methods Analysis & Improvement	3
ENG 111	English Composition I	3
DRT 196	Introduction to Print Reading, Sketching & CAD	3
	TOTAL	18

continued next page

EGR

SECOND QUARTER

ENG	121	Technical Composition I	3
IET	126	Supervision & Work Teams Leadership	3
QET	101	Survey of Total Quality	3
MAT	131	Technical Mathematics I	5
MET	198	Personal Computer Applications in Engineering Technology	2
IET	105	Industrial Metrics Conversion	2
TOTAL			18

THIRD QUARTER

ENG	122	Technical Composition II	3
IET	205	Manufacturing Processes	3
MET	104	Introduction to Design Realization Process	3
QET	132	Metallurgy	3
INT	—	INT Elective	6
TOTAL			18

FOURTH QUARTER

IET	206	Value Engineering	3
EER	115	Essentials of Electricity	3
INT	—	INT Elective	6
—	—	Social Science Elective*	3
TOTAL			15

FIFTH QUARTER

EGR	206	Engineering Technology Economics	3
INT	—	INT Elective	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	3
—	—	General Education Elective	3
INT	270	Industrial Technology Internship or INT Elective	3
INT	—	INT Elective	3
TOTAL			16

* See page 66.

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	2
TOTAL			11
THIRD QUARTER			
AVT	132	Electrical Systems I	4
AVT	214	Cabin Atmosphere Control Systems	3
AVT	133	Instrument Systems	2
AVT	134	Communication/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	Aircraft Structural 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	125	Electrical/Electronic Systems II	7
AUT	108	Engine Systems	5
AUT	210	Steering, Suspension & Alignment	5
TOTAL			17
SECOND QUARTER			
AUT	115	Engine Performance I	7
AUT	165	Automotive Brake System	5
AUT	241	Automatic Transmissions	7
TOTAL			19

continued next page

THIRD QUARTER

AUT	142	Manual Transmissions & Drive Line	5
AUT	146	Automotive Heating & Air Conditioning	5
AUT	245	Engine Performance II	7
MET	198	Personal Computer Applications in Engineering Technology	2
TOTAL			19

Electrical & Electronics Repair Technology

(55 Total Credit Hours)

This program prepares students for entry level electronics technicians. They will get basics in electrical circuits, analog and digital electronics, microprocessors, robotics, National Electric Code, industrial machine wiring, CAD, and high reliability soldering techniques including surface mount technology to assemble, troubleshoot and repair electrical and electronic systems. This certificate program transfers into the Automation & Control Technology associate degree program.

Course & Title	Credit Hours
FIRST QUARTER	
EER 121 Electronic Problem Solving	4
EER 126 D.C. Circuits	4
MET 198 Personal Computer Applications in Engineering Technology	2
EET 116 Electronics Schematics & Layout	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	4
TOTAL	15

THIRD QUARTER

EER 124 Surface Mount Soldering Techniques	4
EER 136 Digital Electronics	3
EER 138 Microprocessor Programming & Applications	3
EER 139 Electrical Machinery	4
TOTAL	14

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

(52 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	8
FST 251 Fire Officer Level I	8
MET 198 Personal Computer Applications in Engineering Technology	2
TOTAL	18

continued next column

SECOND QUARTER

FST 252 Fire Officer Level II	4
ENG 121 Technical Composition I	3
COM 211 Effective Speaking I	3
ACC 111 Principles of Accounting I	3
FST _____ Technical Elective	5
TOTAL	18

THIRD QUARTER

FST 253 Fire Officer Level III	4
ENG 122 Technical Composition II	3
FST _____ Technical Elective	9
TOTAL	16

FST 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

(53 Total Credit Hours)

This program provides courses which address fire protection and safety issues. The certificate program prepares students for careers in fire protection systems, fire prevention, and occupational safety and health.

Course & Title	Credit Hours
FIRST QUARTER	
FST 101 Introduction to Fire Science	4
SRM 230 Occupational Safety & Health	4
ENG 111 English Composition I	3
MAT 131 Technical Mathematics	5
TOTAL	16

SECOND QUARTER

FST 201 Fire Hydraulics	5
FST 116 Fire Protections Systems I	3
ARC 107 Architectural Building Codes	3
FST _____ FST Elective	3
TOTAL	14

THIRD QUARTER

FST 103 Fire Prevention Fundamentals, Codes, & Ordinances	4
FST 117 Fire Protection Systems II	3
FST 204 Water Suppression Systems	4
SRM 151 OSHA 1910.120 Hazardous Waste Operations	5
TOTAL	16

FOURTH QUARTER

FST 218 Plans Review for Fire Safety	3
FST 210 Water Suppression System II	4
TOTAL	7

* See page 66.

EGR

General Aviation Maintenance

(47 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 for Aviation Maintenance	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*	4
TOTAL	15
THIRD QUARTER	
AVT 131 Electrical Aviation Maintenance	5
AVT 118 Weight & Balance	4
AVT 135 Materials & Processes	6
AVT 238 Aircraft Avionics*	3
TOTAL	18

*AVT 105, 110 and 238 are not required for the A & P certification by FAA.

Plastics & Composites Engineering Technology

(48 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	2
TOTAL	16

SECOND QUARTER

PLA 150	Plastics Processing Equipment Fundamentals	4
PLA 208	Plastics Materials Processing 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)	
PLA 210	Plastics Materials Testing	4
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
IET 205	Manufacturing Processes	3
QET 201	Statistical Process Control	2
TOTAL		15

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	Credit Hours	
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

continued next column

Quality Control Technology

(53 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		Credit Hours
FIRST QUARTER		
QET 100	Tooling & Machining Metrology	2
QET 107	Engineering Disasters	1
MAT 131	Technical Mathematics I	5
DRT 196	Introduction to Print Reading, Sketching and CAD	3
QET 126	Liquid Penetrant/ Magnetic Particle Testing	3
QET M30	Introduction to Materials & Manufacturing Processes	1
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		17
SECOND QUARTER		
INT 109	Fundamentals of Tool & Manufacturing Processes	4
QET 100	Survey of Total Quality	2
QET 173	Lab for QET 132	1
QET 120	Process Metrology	3
QET 113	Coordinate Measurement	3
QET 223	ISO 9000/16949 Quality Systems	3
QET 124	Industrial Radiography or Ultrasonic Testing	3
TOTAL		19
THIRD QUARTER		
QET 105	Packaging Concepts & Materials	3
QET 201	Statistical Process Control	2
QET 181	Lab for QET 201	1
QET 123	Eddy Current Testing	2
ENG 111	English Composition I	3
COM 206	Interpersonal Communication or Effective Speaking I	3
QET 131	Fundamentals of Metallurgy & Material Science or Non-Metallic Materials & Processes and Lab for QET 133	3
TOTAL		17

Safety Engineering Technology

(54 Total Credit Hours)

This certificate addresses industry safety, occupational safety and health, hazard control and analysis, and industrial hygiene. The certificate prepares students for careers in safety management and industrial hygiene. The courses in this certificate can be applied to the Safety Engineering Technology Associate Degree program.

Course & Title		Credit Hours
FIRST QUARTER		
SRM 101	Introduction to Safety Engineering Technology	3
EVT 110	Environmental Compliance	3
MAT 116	College Algebra	5
ENG 111	English Composition I	3
BIO 107	Human Biology	5
TOTAL		19
SECOND QUARTER		
SRM 212	Hazard Control Analytical Methods	4
MAT 117	Trigonometry	4
ENG 112	English Composition II	3
CHE 151	General Chemistry I	5
TOTAL		16
THIRD QUARTER		
SRM 120	Safety Lab	2
SRM 221	Safety & Health Program Management	3
SRM 219	Industrial Hygiene Instrumentation	3
MAT 122	Statistics I	4
PHY 141	College Physics I	4
TOTAL		16
FOURTH QUARTER		
SRM 215	Industrial Hygiene	3
TOTAL		3

Course & Title		Credit Hours
FIRST QUARTER		
ARC 138	Architectural Blueprint Reading	3
CCT 102	Basic Construction Surveying	4
COM 206	Interpersonal Communication	3
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		12
SECOND QUARTER		
CCT 103	Civil Construction Blueprints & Drafting	3
CCT 105	Properties of Construction Materials	3
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
MAT 131	Technical Mathematics I	5
TOTAL		13
THIRD QUARTER		
CCT 246	Topographic Drawing & Mapping	4
MAT 132	Technical Mathematics II	5
— —	General Education Elective*	3
TOTAL		12
FOURTH QUARTER		
CCT 235	Legal Principles for Surveyors	4
CCT 247	Highway Surveying & Design	3
SRM 231	OSHA Construction Standards	4
— —	Technical Elective	3
TOTAL		14

* See page 66.

Tool & Die Technology

(52 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	Introduction to Print Reading, Sketching & CAD	3
IET 125	Introduction to World-Class Manufacturing	3
INT 111	Tool & Manufacturing Processes I	3
INT 141	Applied Shop Mathematics I	3
QET 100	Tooling & Machining Metrology	2
MET 198	Personal Computer Applications in Engineering Technology	2
TOTAL		16

SECOND QUARTER

EER 115	Essentials of Electricity	3
INT 112	Tool & Manufacturing Processes II	3
INT 142	Applied Shop Mathematics II	3
INT 151	Principles of Welding	3
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
INT 145	Shop Floor Programming	3
TOTAL		17

THIRD QUARTER

INT 113	Fundamentals of CNC	3
INT 114	Jig & Fixture Design	3
INT 165	Advanced Machine Operations Laboratory	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.

continued next column

Course & Title		Credit Hours
FIRST QUARTER		
DRT 196	Introduction to Print Reading, Sketching & CAD	3
INT 109	Fundamentals of Tool & Manufacturing Processes	4
INT 141	Applied Shop Mathematics I	3
INT 161	Machine Operations Laboratory I	8
QET 100	Tooling & Machining Metrology	2
TOTAL		20
SECOND QUARTER		
INT 113	Fundamentals of CNC	3
INT 142	Applied Shop Mathematics II	3
INT 162	Machine Operations Laboratory II	8
DRT 217	Introduction to Geometric Dimensioning & Tolerancing	3
TOTAL		17
THIRD QUARTER		
INT 143	Applied Shop Mathematics III	3
INT 163	Machine Operations Laboratory III	8
INT	Technical Elective	3-4
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
TOTAL		16-17

* Program start date is each September (fall quarter)

Short Term Certificates

3D CAD 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 Processes	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	DRT Elective Two (see below)	5
DRT 260	Rapid Prototyping & Manufacturing	3
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	

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.

Students apply learned knowledge toward the building of their own high performance engine and fuel delivery system.

Prerequisites: AUT 108 or AUT 115 or chairperson signature

Course & Title		Credit Hours
FIRST QUARTER		
AUT 221	High Performance Engine Blocks & Rotating Assemblies	7
SECOND QUARTER		
AUT 222	High Performance Cylinder Heads & Valve Train	7
THIRD QUARTER		
AUT 223	High Performance Engine Assembly & Dynamometer Testing	7
FOURTH QUARTER		
AUT 224	High Performance Induction Systems	7
TOTAL		28

Construction Safety

(33 Total Credit Hours)

Designed for people in the construction industry, this program addresses effective management, implementation of work place safety, and health programs for individuals in the construction industry. It also includes benefits of a well managed safety program, an understanding of hazardous materials, ergonomics, OSHA standards, recordkeeping, industrial hygiene, confined space and other related safety fields. Upon completion of this program, individuals will be qualified to move into safety management positions in the construction industry.

Recommended Prerequisites:
ENG 121 or equivalent, SRM 130, EVT 110, EVT 200, and CHE 131

Course & Title		Credit Hours
FIRST QUARTER		
SRM 130	Trainer Course for Occupational Safety & Health for the Construction Industry	3
EGR 115	Industrial Ergonomics	3
EVT 217	Confined Space Management	2
SRM 144	Fall Arrest Systems	3
SRM 146	OSHA Recordkeeping	1
SRM 231	OSHA Construction Standards	4
TOTAL		16

continued next column

SECOND QUARTER

SRM 232	Construction Work Site Safety	3
SRM 132	OSHA Construction Trainer Update	2
SRM 139	Respiratory Protection	3
EVT 260	Treatment, Storage, & Disposal of Hazardous Materials	3
EER 142	Safety in Electric Distribution	3
SRM 215	Industrial Hygiene	3
TOTAL		17

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.

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	Personal Computer Applications in Engineering Technology	2
TOTAL		13

SECOND QUARTER

ARC 107	Architectural Building Codes	3
CCT 216	Construction Estimating	4
CCT 240	Construction Law & Specifications	3
CCT 256	Construction Management	3
QET 101	Survey of Total Quality	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

(39 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	3
CCT 152	Light Frame Construction	4
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	Commercial Interiors	4
MET 103	HVAC Installation Techniques	3
		TOTAL 11
THIRD QUARTER		
ARC 138	Architectural Blueprint Reading	3
SRM 231	OSHA Construction Standards	4
— —	Technical Elective	3
		TOTAL 10
FOURTH QUARTER		
CCT 270	Civil Engineering Technology Internship	6
		TOTAL 6

Continuous Process Improvement

(41 Total Credit Hours)

This certificate promotes (1) technical communication skills and teamwork, (2) project management skills, (3) lean manufacturing and continuous improvement skills, (4) application of quality principles, statistics and probability theories, and (5) problem solving skills as they relate to process improvement. This program reflects the underlying skills necessary for the successful application of "six sigma" methodologies. A typical title for an employee with these skills is a process improvement specialist. This short-term certificate provides practice in measuring and improving processes that suffer from quality, throughput, and waste problems. The courses in this short-term certificate apply directly to the Quality Engineering Technology degree.

Course & Title		Credit Hours
FIRST QUARTER		
QET M30	Introduction to Materials & Manufacturing Processes	1
MET 198	Personal Computer Applications in Engineering Technology	2
MAT 101	Elementary Algebra	4
		TOTAL 7
SECOND QUARTER		
QET 101	Survey of Total Quality	2
QET 171	Lab for QET 101	1
MAT 131	Technical Mathematics I	5
		TOTAL 8
THIRD QUARTER		
ENG 111	English Composition I	3
QET 201	Statistical Process Control	2
QET 181	Lab for QET 201	1
IET 130	Just-in-Time Production Systems	3
		TOTAL 9

FOURTH QUARTER

QET 221	Quality Assurance	3
QET 183	Lab for QET 221	1
QET 202	Advanced Statistical Quality Control	3
QET 182	Lab for QET 202	1
		TOTAL 8

FIFTH QUARTER

QET 261	Continuous Process Improvement	2
QET 184	Lab for QET 261	1
ENG 112	English Composition II	3
		TOTAL 6

SIXTH QUARTER

QET 295	Quality Control Seminar	3
or		
IET 240	Six Sigma I	3
		TOTAL 3

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
FFIRST QUARTER		
DRT 110	Design Processes	2
DRT 196	Introduction to Print Reading, Sketching & CAD	3
		TOTAL 5
SECOND QUARTER		
DRT 198	Introduction to Computer-Aided Drafting Concepts	2
COM 206	Interpersonal Communication	3
MET 198	Personal Computer Applications in Engineering Technology	2
		TOTAL 7
THIRD QUARTER		
DRT 199	Advanced Computer Aided Drafting	3
DRT 217	Introduction to Geometric Dimensioning & Tolerancing	3
MAT 131	Technical Mathematics I	5
		TOTAL 11
FOURTH QUARTER		
DRT 200	Engineering Technology Graphics	5
DRT 234	Tool Design	4
ENG 111	English Composition I	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

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Facilities Management

(44 Total Credit Hours)

Facilities management is the practice of coordinating elements within the work environment so that people and equipment can perform their intended work functions. It involves principles of engineering, management, and financing. This program includes real estate acquisition, interior space planning, exterior and interior building repairs and renovations, telecommunication installations, personnel evaluations and building security. A facility manager must have a broad based education in technical, business, and supervisory related courses. Possible employers include schools, hospitals, manufacturing plants, and government offices.

Course & Title		Credit Hours
FIRST QUARTER		
COM 206	Interpersonal Communication	3
FST 116	Fire Protections Systems I	3
MET 198	Personal Computer Applications in Engineering Technology	2
MAN 205	Principles of Management	3
—	Program Elective	3
TOTAL		14

SECOND QUARTER		
IET 206	Value Engineering	3
MAN 210	Introduction to Project Management	3
MET 106	Survey of Commercial HVAC Systems	3
RES 221	Property Management	3
—	Program Elective	3
TOTAL		15

THIRD QUARTER		
ARC 107	Architectural Building Codes	3
LEP 107	Security Administration	3
MAN 225	Human Relations & Organizational Behavior	3
SRM 221	Safety & Health Program Management	3
—	Program Elective	3
TOTAL		15

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 and develop expertise to handle hazardous materials. Understand the importance of teamwork and coordination. Apply fire suppression skills.

Prerequisite: Approval of chairperson

Course & Title		Credit Hours
FIRST QUARTER		
FST 180	Firefighter II	16
TOTAL		16

SECOND QUARTER		
FST 120	Fire Safety Inspector	6
FST 206	Incident Command System	4
SRM 151	OSHA 1910.120 Hazardous Waste Operations	5
TOTAL		15

Optional courses in place of FST 180:

FST 181 and FST 193 or FST 191, FST 192 and FST 193

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 II	7
AUT 210	Steering, Suspension & Alignment	5
AUT 165	Automotive Brake System	5
AUT 146	Automotive Heating & Air Conditioning	5
TOTAL		22

General Industry Safety

(36 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.

Recommended Prerequisites:

ENG 121 or equivalent, EVT 110, EVT 200, CHE 131

Credit Hours

Course & Title		Credit Hours
FIRST QUARTER		
SRM 131	Trainer Course for Occupational Safety & Health for the General Industry	3
EGR 115	Industrial Ergonomics	3
EVT 217	Confined Space Management	2
SRM 144	Fall Arrest Systems	3
SRM 146	OSHA Recordkeeping	1
SRM 211	Applied Industrial Risk Management	3
SRM 138	Machine & Machine Guarding Standards	3
TOTAL		18

SECOND QUARTER		
SRM 230	Occupational Safety & Health	4
SRM 133	OSHA General Industry Trainer Update	2
SRM 139	Respiratory Protection	3
EVT 260	Treatment, Storage, & Disposal of Hazardous Materials	3
EER 142	Safety in Electric Distribution	3
SRM 215	Industrial Hygiene	3
TOTAL		18

EGR

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	Industrial Networking		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

(43 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 control of these systems. The hands-on component uses the types of equipment actually installed in the field.

Course & Title			Credit Hours
FIRST QUARTER			
MET 103	HVAC Installation Techniques		3
MET 106	Survey of Commercial HVAC Systems		3
COM 206	Interpersonal Communication		3
INT 141	Applied Shop Mathematics I		3
EET 119	Basic Electrical Circuits & Controls		4
TOTAL			16

SECOND QUARTER

MET 111	Basics of Heating & Heating Systems		3
MET 115	Boilers in the HVAC Systems		3
MET 120	HVAC Loads & Distribution for Small Buildings		3
MET 130	Basics of Cooling & Cooling Systems		3
TOTAL			12

THIRD QUARTER

MET 150	Testing, Adjusting, & Balancing in HVAC Systems		3
MET 157	HVAC Mechanical Troubleshooting		3
MET 158	HVAC Electrical Troubleshooting		3
ARC 139	Mechanical Systems Blueprint Reading		2
EER 139	Electrical Machinery		4
TOTAL			15

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 Control		2
IET 125	Introduction to World-Class Manufacturing		3
IET 126	Supervision & Work Teams 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		3

Students may select one of the following courses to use as a substitution for a course in the Manufacturing Management certificate:

continued next page

COM	211	Effective Speaking I	3
ENG	121	Technical Communications I	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

Measurement & Calibration

(35 Total Credit Hours)

This short term certificate provides both theory and practice in measuring parts and processes, analyzing the result and determining the forms of error that contribute to the uncertainty of the measurements. A good measurement system is an underlying requirement for improving quality, throughput, and waste problems. This certificate focuses on calibration and dimensional measurements, including coordinate measurements. Pressure, temperature, and mass are also covered. This certificate provides sufficient background to pass the ASQ Certified Calibration Technician exam. The courses in this short-term certificate applies directly to the Quality Engineering Technology degree.

Course & Title		Credit Hours	
FIRST QUARTER			
QET	100	Tooling & Machining Metrology	2
MAT	101	Elementary Algebra	4
QET	M30	Introduction to Materials and Manufacturing Processes	1
MET	198	Personal Computer Applications in Engineering Technology	2
DRT	196	Introduction to Print Reading, Sketching & CAD	3
TOTAL			12
SECOND QUARTER			
QET	120	Process Metrology	3
QET	101	Survey of Total Quality	2
QET	171	Lab for QET 101	1
QET	113	Coordinate Measurement	3
TOTAL			9
THIRD QUARTER			
QET	201	Statistical Process Control	2
QET	181	Lab for QET 201	1
MAT	131	Technical Mathematics	5
TOTAL			8
FOURTH QUARTER			
QET	217	Measurement & Calibration	2
QET	185	Lab for QET 217	1
QET	200	Quality Technician Review	2
QET	266	Certified Calibration Technician Review	1
TOTAL			6

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	Industrial Hydraulics I	3
MET	152	Industrial Hydraulics II	3
MET	153	Industrial 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	169	Rapid Intervention Team	2
FST	171	Introduction to Technical Rescue	3
FST	173	Rope Rescue	3
FST	174	Confined Space Rescue	3
FST	179	Victim Location, Operation Level	2
TOTAL			13
SECOND QUARTER			
FST	172	Vehicle Rescue	2
FST	175	Machine/Rigging Rescue	2
FST	176	Trench Rescue	2
FST	177	Building Collapse Rescue	3
EMS	115	EMT-Basic Theory & Practice I	5
TOTAL			14
THIRD QUARTER			
FST	178	Swift Water Rescue	3
EMS	116	EMT-Basic Theory & Practice II	3
TOTAL			6

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 and Inspection	3
DRT	218	Advanced Design Interpretation	3
INT	226	Advanced Job Processing	3
INT	227	Advanced CNC Mill Programming	3
	228	Advanced CNC Milling	
TOTAL			12

continued next column

Engineering & Industrial Technologies

Software Used in Specific Courses

AutoCAD

DRT 198
DRT 199
INT 114
INT 225

Inventor

DRT 200
DRT 205
DRT 206

AutoCAD

DRT 223

AutoCAD with Architectural Desktop

ARC 240
ARC 241

AutoCAD 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

Garman 400 and 500 GPS Trainer

Gleim FAA Test Prep, FBO Edition

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

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

For software version numbers being taught, contact Engineering & Industrial Technologies counselors at (937) 512-2282.

Human Services Careers

Extended Learning & Human Services



"Our division provides educational opportunities in a wide range of career options."

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

Tim McKinney
Academic Counselor
Developmental Studies
(937) 512-2701, Room 6222D

Phyllis Salter
Academic Counselor
Developmental Studies
(937) 512-2701, Room 6222A

Criminal Justice
Dr. Robert Rice, 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
Billie Sanders, Chairperson
(937) 512-2860, Room 8023

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 intervention services, law enforcement, community based corrections, manual communication, physical education, developmental studies, experience based education, and public services. A student intending to transfer to a four-year college or university should consult an academic counselor to plan a specific transfer program. 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.
- **Service Learning** is designed to identify “real life” opportunities for students to meet their required academic goals while also meeting real community needs. 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. To speak with a counselor call (937) 512-2701 or visit Room 6222.

Dayton Correctional Institution and Montgomery Education and Pre-Release Center

The Criminal Justice department 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 job training programs and the transferability process of these credits and provides a medium for inmates to obtain information about the realistic opportunities concerning distance learning options while incarcerated. Additional information may be obtained by stopping by the Criminal Justice office, Building 9, Room 9316 or by calling (937) 512-4316 or (937) 512-5111.

University Parallel Transfer Degree Programs

Physical Education

(95-100 Total Credit Hours)

This program is designed for students seeking Physical Education or Exercise Science careers and will fulfill the freshman and sophomore educational requirements at most four-year colleges or universities.

An associate’s degree with a track in Exercise Science is offered as a continuation of the Exercise Specialist certificate. (See Short Term certificates in this division) This two-year degree gives students the opportunity to study in depth the principles and methods of fitness training and then either enter professional practice or transfer for completion of a baccalaureate degree. As part of their program of study, students have the opportunity to take the American Council on Exercise Personal Trainer Exam, administered on campus. Students who complete the Exercise Science track are also eligible to sit for the ACSM (American College of Sports Medicine) Health/Fitness Instructor and the NSCA (National Strength and Conditioning Association) Personal Trainer Certification exams.

The track in Physical Education prepares the students for a career in sports pedagogy. A variety of coaching and officiating courses, along with courses dealing with sport philosophy, are available for students who wish to focus on coaching.

Prerequisite

CHE 120 Prerequisite or equivalent for BIO 141 3

Course & Title

FIRST QUARTER

PED 235	Introduction to Physical Education	3
	or	
250	Introduction to Exercise Science	
ENG 111	English Composition I	3
PSY 121	General Psychology I	3
PED 200	First Aid & Safety	2
BIO 107	Human Biology	3-4
	or	
111	General Biology I	
	or	
141	Principles of Anatomy & Physiology I	
	TOTAL	14-15

SECOND QUARTER

ENG 112	English Composition II	3
PED 234	Concepts of Total Fitness	3
PSY 122	General Psychology II	3
BIS 160	Introduction to Word, PowerPoint, & Excel	2-3
	or	
PED 199	Computer Applications in Physical Education	
BIO 112	General Biology II	3-4
	or	
142	Principles of Anatomy & Physiology II	
	or	
161	Surgical Anatomy & Physiology I	
	TOTAL	14-16

continued next page

Course & Title		Credit Hours
THIRD QUARTER		
ENG 113	English Composition III	3
PED 239	Athletic Injuries	3
PED 236	Personal & Community Health	3
PED 193	Physical Fitness Evaluation	3
	or	
	238 Physical Education for the Elementary School	
BIO 113	General Biology III	3-4
	or	
	143 Principles of Anatomy & Physiology III	
	or	
	162 Surgical Anatomy & Physiology II	
	TOTAL	15-16
FOURTH QUARTER		
PED	___ PED Activity Electives	1-2-3
	or	
	Physical Education/Exercise Science Track Elective	
PSY 165	Sport & Exercise Psychology	4-5
	or	
	208 Life Span Human Development	
	or	
	242 Educational Psychology	
PED	___ Officiating Elective*	1-2
	or	
ALH 130	Electrocardiography	3
COM 206	Interpersonal Communication	3
HIS 101	United States History (1607-1815)	3
	or	
	111 Western Civilization (0-1300)	3
	Humanities Elective*	3
PED	___ Physical Education Elective	1-3
	TOTAL	16-19
FIFTH QUARTER		
PED 237	Organization & Administration of Intramurals	2-3
	or	
	251 Principles & Methods of Training	
PED 245	Coaching Elective*	3
	or	
DIT 111	Nutrition for a Healthy Lifestyle	
MAT 101	Elementary Algebra	3-4
	or	
	108 Math & the Modern World	
HIS 102	United States History (1815-1919)	3
	or	
	112 Western Civilization (1300-1815)	
	Social & Behavioral Elective*	3
	Humanities Elective*	3
	TOTAL	16-19
SIXTH QUARTER		
COM 211	Effective Speaking I	3
PED 270	Internship	8
HIS 103	United States History (1919-Present)	3
	or	
	113 Western Civilization (1815-present)	
PED	___ PED Activity Electives	1-2-3
	or	
	Physical Education/Exercise Science Elective	
	Humanities Elective*	3
	TOTAL	13-15

* See page 66 and check with counselor.

Physical Education Track

PED 235, PED 237, PED 238, Coaching Elective, Officiating Elective, PED 270

Exercise Science Track

PED 250, PED 193, PED 251, ALH 130, DIT 111, PED 270

Public Services Human Services Option

(95 Total Credit Hours)

This option prepares students for entry-level positions in the broad field of human services, as well as for transfer to complete a baccalaureate degree in human services, counseling, social work or a related field. Students who complete this program are qualified for paraprofessional roles in child, youth and family services; human services; community development; group homes; and family assistance.

Course & Title **Credit Hours**

FIRST QUARTER

PSY 121	General Psychology I	3
ENG 111	English Composition I	3
DIS 105	Introduction to Developmental Disabilities	4
COM 211	Effective Speaking I	3
BIS 160	Introduction to Word, PowerPoint, & Excel	3
	TOTAL	16

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
DIS 115	Human Service Delivery Systems & Resources	3
	TOTAL	16

THIRD QUARTER

ENG 113	English Composition III	3
SOC 112	General Sociology II	3
BIO 112	General Biology II	4
	Humanities Elective*	3
	TOTAL	13

FOURTH QUARTER

SOC 145	Comparing Cultures	3
BIO 113	General Biology III	4
SWK 206	Introduction to Social Welfare	4
MAT 108	Math & the Modern World	3
	General Education Elective	3
	TOTAL	17

FIFTH QUARTER

SOC 205	Social Problems	4
SWK 211	Introduction to Social Work Practice	3
DIS 126	Collaboration with Families	3
LEP 130	Family Violence	3
	General Education Elective	3
	TOTAL	16

SIXTH QUARTER

PSY 217	Abnormal Psychology	4
DIS 131	Counseling Principles & Developmental Disabilities	3
	Humanities Elective*	3
PSY	___ Psychology Elective	3
SWK 212	Basic Practice Theory II	4
	TOTAL	17

* See page 66 and check with counselor.

Note: To complete the Ohio Transfer Module see and 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		
ENG 111	English Composition I	3
	Humanities Elective*	3
MAN 105	Introduction to Business	3
PLS 101	American Federal Government I	3
SOC 111	General Sociology I	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
SOC 205	Social Problems	4
MAT ____	Mathematics Elective*	3-5
	TOTAL	16-18
FOURTH QUARTER		
ACC 111	Principles of Accounting I	3
BIS 105	Computer Concepts	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
	Humanities Elective*	6
	TOTAL	16
SIXTH QUARTER		
BIO 113	General Biology III	4
PLS 104	Urban Government	3
	Humanities Elective*	6
	Social Science Elective*	3
	TOTAL	16

* See page 66 and check with counselor.

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

Career Degree Programs American Sign Language 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		
ASL 101	Orientation to Deafness	3
ASL 228	Intermediate American Sign Language I	4
PSY 121	General Psychology I	3
COM 211	Effective Speaking I	3
ENG 111	English Composition I	3
	TOTAL	16
SECOND QUARTER		
ASL 102	Interpreting for the Deaf I	3
ASL 116	Community Resources for the Deaf	3
ASL 229	Intermediate American Sign Language II	4
PSY 122	General Psychology II	3
ENG 112	English Composition II	3
	TOTAL	16
THIRD QUARTER		
ASL 103	Interpreting for the Deaf II	3
ASL 230	Intermediate American Sign Language III	4
ASL 201	Interpreting I	4
ASL 207	Role of the Interpreter	3
ENG 116	Advanced Vocabulary Building	3
	TOTAL	17
FOURTH QUARTER		
MAT ____	Mathematics Elective	4
DIS 206	Computer Literacy & Assistive Technology	1
	Humanities Elective*	3
ASL ____	American Sign Language Elective	3
	TOTAL	11
FIFTH QUARTER		
ASL 202	Interpreting II	4
ASL 231	Advanced American Sign Language I	4
ASL 236	Transliterating	4
ASL 261	ASL Practicum I	3
PSY 117	Psychology of Deafness	3
	TOTAL	18
SIXTH QUARTER		
ASL 203	Interpreting III	4
ASL 211	Medical/Technical/Legal Interpreting	4
ASL 232	Advanced American Sign Language II	4
ASL 262	ASL Practicum II	3
	TOTAL	15
SEVENTH QUARTER		
ASL 204	Interpreting IV	4
ASL 212	Specialized Interpreting	4
ASL 233	Advanced American Sign Language III	4
ASL 263	ASL Practicum III**	3
	TOTAL	15

* See academic counselor.

** All students must receive a grade of "C" or better.

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 ____ Mathematics 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
____ Physical or Biological Science Elective	3
COR 205 Law & the Juvenile Offender	3
PSY 218 Principles of Counseling	4
COM 211 Effective Speaking I	3
or	
206 Interpersonal Communication	
TOTAL	17
FIFTH QUARTER	
COR 270 Corrections Internship	3
PLS 103 State Government	3
MAN ____ Management Elective	3
SOC 225 Juvenile Delinquency	3
or	
Social Science Elective*	
COR 206 Corrections	3
TOTAL	15
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 66.

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 Corrections 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	
ENG 112 English Composition II	3
PSY 121 General Psychology I	3
COR 103 Legal Issues in Correctional Institutions	3
COR 105 Alternatives to Prison	3
MAT ____ Mathematics Elective	4
TOTAL	16
THIRD QUARTER	
ENG 113 English Composition III	3
or	
131 Business Communications I	
COR 126 Correctional Services in the Community	3
SOC 226 Criminology	3
COR 102 Crisis Intervention	3
PSY 122 General Psychology II	3
TOTAL	15
FOURTH QUARTER	
PSY 217 Abnormal Psychology	4
COM 206 Interpersonal Communication	3
or	
211 Effective Speaking I	
Physical or Biological Science Elective	3
SOC 205 Social Problems	4
COR 104 Written Communications in Corrections	3
TOTAL	17
FIFTH QUARTER	
COR 270 Corrections Internship**	3
or	
Career Related Elective	
COR 206 Corrections	3
MAN ____ Management Elective	3
PLS 103 State Government	3
SOC 225 Juvenile Delinquency	3
or	
Social Science Elective*	
TOTAL	12
SIXTH QUARTER	
PLS 104 Urban Government	3
COR 226 Contemporary Practices in Corrections	3
____ Humanities Elective*	3
COR 270 Corrections Internship**	3
or	
295 Corrections Seminar	
SOC 227 Probation and Parole	3
or	
Social Science Elective*	
TOTAL	15

* See page 66.

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

ELHS

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	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: Learners with Special Needs	5
DIS	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*** or	5
DIS 108	Internship: Disabilities Intervention Services Principles/Techniques Behavior Management & Learning Environments	4
SOC 112	General Sociology II	3
ENG 113	English Composition III	3
DIS 206	Computer Literacy & Assistive Technology	1
TOTAL		16

FOURTH QUARTER		
COM 206	Interpersonal Communication or	3
DIS 211	Effective Speaking I	3
DIS	DIS Elective	3
DIS 207	Health & Safety Aspects of Learners with Special Needs	3
PSY 208	Life Span Human Development**	5
DIS 209	Team Processes	3
TOTAL		17

FIFTH QUARTER		
DIS 208	Language Development & Communication Techniques	4
DIS	DIS Elective	3
	Humanities Elective*	3
MAT	Mathematics Requirement	4
DIS	DIS Elective	3
TOTAL		17

SIXTH QUARTER		
DIS 202	Field Practicum II or	7
PED 200	Internship: Disabilities Intervention Services First Aid & Safety	2
	Psychology/Sociology Elective	3
DIS 210	Assistive Technology	1
	General Education Elective*	3
TOTAL		16

* See page 66. 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 Early Childhood Education	3
ECE 106	Childhood Nutrition, Health, & Safety	3
ECE 120	Observing Young Children	3
ECE 117	Language Experiences in Early Childhood	4
ECE 111	Child Abuse Recognition & Prevention	1
ENG 111	English Composition I	3
TOTAL		17

SECOND QUARTER		
ECE 145	Guidance and Discipline	3
ECE 129	Interaction With Young Children	5
ECE 150	The Young Child	4
MUS 121	Piano Class I	3
ENG 112	English Composition II	3
TOTAL		18

THIRD QUARTER		
ECE 118	Math & Science Experiences in ECE	3
ECE 119	Art & Music Experiences 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	ECE Elective	3
SOC 145	Comparing Cultures	3
COM 211	Effective Speaking I or	3
206	Interpersonal Communication	
TOTAL		18

FIFTH QUARTER		
ECE 182	Student Teaching I**	6
ECE 112	E.C.E. First Aid	1
	Humanities Elective***	3
MAT	MAT 100 or Higher	4
ECE	ECE Elective	3
TOTAL		17

SIXTH QUARTER		
ECE 281	ECE Student Teaching II**	7
ECE 215	Interaction With Families	3
ECE 113	Communicable Diseases - Prevention & Recognition	1
	Psychology/Sociology Elective	3
ECE	ECE Elective	3
TOTAL		17

continued next page

* 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 66.

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		
COR 101	Corrections Ethics	3
ENG 111	English Composition I	3
LEP 101	Constitutional Law	3
LEP 115	Police Operations	3
LEP 105	Introduction to Law Enforcement & Criminal Justice	3
	or	
COR 106	Introduction to Corrections	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
THIRD QUARTER		
ENG 113	English Composition III	3
	or	
	131 Business Communications I	3
PSY 122	General Psychology II	3
SOC 111	General Sociology I	3
LEP 104	Criminal Evidence & Procedures	3
LEP 205	Criminal Investigation	3
	TOTAL	15
FOURTH QUARTER		
PLS 103	State Government	3
	Physical or Biological Science Elective	3
SOC 205	Social Problems	4
LEP 215	Introduction to Forensic Science	3
LEP 225	Intergroup Relations of Police Officers	3
	TOTAL	16
FIFTH QUARTER		
COM 211	Effective Speaking I	3
	or	
	206 Interpersonal Communication	3
SOC 130	Family Violence	3
	or	
	225 Juvenile Delinquency	3
LEP _____	LEP Elective	3
MAN _____	Management Elective	3
BIS 160	Introduction to Word, PowerPoint, & Excel	3
	TOTAL	15

continued next column

SIXTH QUARTER

LEP _____	LEP Elective	3
MAT _____	Mathematics Elective (MAT 100 series)	4
LEP 295	Seminar in Law Enforcement & Administration of Justice**	3
SOC 226	Criminology	3-4
	or	
	215 Cultural Diversity	3
_____	Humanities Elective*	3
	TOTAL	16-17

* See page 66.

**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		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
FST 101	Introduction to Fire Science	4
PLS 101	American Federal Government I	3
LEP 101	Constitutional Law	3
LEP 107	Security Administration	3
	TOTAL	16
SECOND QUARTER		
ENG 112	English Composition II	3
PSY 121	General Psychology I	3
PLS 102	American Federal Government II	3
LEP 102	Criminal Law	3
LEP 117	Principles of Loss Prevention	3
	TOTAL	15
THIRD QUARTER		
ENG 113	English Composition III	3
PSY 122	General Psychology II	3
LEP 104	Criminal Evidence & Procedures	3
FST 125	Fire Investigation Procedure	4
SOC 111	General Sociology I	3
	TOTAL	16
FOURTH QUARTER		
PLS 103	State Government	3
	Physical or Biological Science Elective	3
SRM 211	Applied Industrial Risk Management	3
LEP 217	Current Security Problems	3
SOC 205	Social Problems	4
	TOTAL	16
FIFTH QUARTER		
PLS 104	Urban Government	3
MAT _____	Mathematics 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
	Humanities Elective*	3
LEP 295	Seminar in Law Enforcement & Administration of Justice	3
SOC 226	Criminology	3
	TOTAL	15

* See page 66.

ELHS

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.

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: Learners with Special Needs	5
DIS 131	Counseling Principles & Developmental Disabilities	3
TOTAL		18

SECOND QUARTER		
DIS 108	Principles/Techniques Behavior Management & Learning Environments	4
DIS 115	Human Service Delivery Systems & Resources	3
DIS 124	Residential Services & Developmental Disabilities	3
DIS 130	Principles of Production in Adult Services	3
DIS 206	Computer Literacy & Assistive Technology	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 or 270 Internship: Disabilities Intervention Services	5
DIS 207	Health & Safety Aspects of Learners with Special Needs	3
DIS 209	Team Processes	3
TOTAL		17

Deaf Studies

(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		
ASL 101	Orientation to Deafness	3
ASL 228	Intermediate American Sign Language I	4
PSY 117	Psychology of Deafness	3
ENG 111	English Composition I	3
ASL —	American Sign Language Elective	3
TOTAL		16

SECOND QUARTER		
ASL 116	Community Resources for the Deaf	3
ASL 229	Intermediate American Sign Language II	4
PSY 121	General Psychology I	3
ENG 112	English Composition II	3
TOTAL		13

THIRD QUARTER		
ASL 230	Intermediate American Sign Language III	4
ASL 201	Interpreting I	4
ASL —	American Sign Language Elective	4
DIS 206	Computer Literacy and Assistive Technology	1
PSY 122	General Psychology II	3
TOTAL		16

Early Childhood Studies

(45 Total Credit Hours)

This program prepares individuals to work with young children in a variety of education and child care settings. Those individuals completing this certificate will meet Ohio Job & Family Services Child Day Care Center licensing requirements for child care staff training.

Course & Title		Credit Hours
FIRST QUARTER		
ECE 101	Introduction to Early Childhood Education	3
ECE 106	Childhood Nutrition, Health, & Safety	3
ECE 150	The Young Child	4
ENG 111	English Composition I	3
TOTAL		13

SECOND QUARTER		
ECE 145	Guidance & Discipline	3
ECE 120	Observing Young Children	3
ECE —	Early Childhood Education Elective	3
SOC 111	General Sociology I	3
COM 211	Effective Speaking I	3
TOTAL		15

THIRD QUARTER		
ECE 117	Language Experiences in Early Childhood	4
ECE 135	Group Care for Infant & Toddler	3
ECE 146	The Challenging Child	3
ECE —	Early Childhood Education Elective	3
DIS 205	Inclusion: Principles & Practices	4
TOTAL		17

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: Learners with Special Needs		5
DIS 126	Collaboration with Families or		3
ECE 216	Social Studies in Early Childhood Education		
DIS 225	Instructional Techniques: Literacy through Literature		3
ECE 150	The Young Child		4
ECE 160	Teaching Techniques in ECE		3
TOTAL			18

THIRD QUARTER			
DIS 108	Principles/Techniques Behavior Management & Learning Environments		4
DIS 201	Field Practicum I or		5
	270 Internship: Disabilities Intervention Services		
DIS 206	Computer Literacy & Assistive Technology		1
ECE 145	Guidance & Discipline		3
ECE 220	Assessment in Early Childhood Education		3
TOTAL			16

Human Services

(45-46 Total Credit Hours)

Students pursuing this certificate learn about the social context for human development and interaction, along with basic skills for effective oral and written communication. This certificate may be helpful in obtaining employment in the broad field of human services, and it also provides a foundation for further study. Credits earned in this certificate program are applicable to the associate of arts degree in Public Services, Human Services option.

Course & Title			Credit Hours
FIRST QUARTER			
PSY 121	General Psychology I		3
SOC 111	General Sociology I		3
ENG 111	English Composition I		3
_____	General Education Elective*		3
COM 211	Effective Speaking I or		3
	225 Small Group Communication or		
	206 Interpersonal Communication		
TOTAL			16

SECOND QUARTER			
ENG 112	English Composition II		3
PSY 122	General Psychology II		3
SOC 205	Social Problems		4
SOC 145	Comparing Cultures		3
SOC 112	General Sociology II		3
TOTAL			16

THIRD QUARTER			
SOC 215	Cultural Diversity**		4
_____	Social Science Elective*		3
MAT _____	Mathematics Requirement***		4-5
_____	General Education Elective*		3
TOTAL			16

* See page 66.

** 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.

ELHS

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 Nutrition, Health, & 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 for Infant & Toddler	3
ECE 117	Language Experiences in Early Childhood	4
ECE 112	E.C.E. First Aid	1
ECE 113	Communicable Diseases - Prevention & Recognition	1
ENG 111	English Composition I	3
TOTAL		12

THIRD QUARTER		
— —	Social Science Elective*	9
TOTAL		17

* See page 66.

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.

Paraeducator Instruction Specialist

(49 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: Learners with Special Needs	5
DIS 126	Collaboration with Families	3
TOTAL		18

continued next column

SECOND QUARTER

DIS 108	Principles/Techniques Behavior Management & Learning Environments	4
DIS 205	Inclusion: Principles and Practices	4
DIS 206	Computer Literacy & Assistive Technology	1
DIS 208	Language Development & Communication Techniques	4
DIS 220	Foundations in Reading Instruction	4
TOTAL		17

THIRD QUARTER

DIS 201	Field Practicum I	5
	or	
	270 Internship: Disabilities Intervention Services	
DIS 209	Team Processes	3
DIS 225	Instructional Techniques: Literacy through Literature	3
DIS 226	Instructional Techniques in Math/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 —	Mathematics Requirement** (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	Computer Concepts	3
ACC 111	Principles of Accounting I	3
ENG 112	English Composition II	3
SOC 112	General Sociology II	3
TOTAL		15

THIRD QUARTER

MAN 205	Principles of Management	3
SOC 145	Comparing Cultures	3
— —	Psychology/Sociology Elective	3
ACC 112	Principles of Accounting II	3
COM 285	Business & Professional Communication	3
TOTAL		15

* See page 66 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 & Developmental Disabilities	3
TOTAL		10
SECOND QUARTER		
DIS 106	Assessment/Curriculum/Instruction: Learners with Special Needs	5
DIS 130	Principles of Production in Adult Services	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 & Developmental Disabilities	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	Personal Computer 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 Correctional Institutions	3
COR 104	Written Communications in Corrections	3
COR 105	Alternatives to Prison	3
COR 206	Corrections	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 Practices in Corrections	3
COR 295	Corrections Seminar	3
TOTAL		14

Disabilities Intervention Services*

(44 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	Assessment/Curriculum/Instruction: Learners with Special Needs	5
ENG 111	English Composition I*	3
PSY 121	General Psychology I	3
PED 200	First Aid & Safety	2
TOTAL		17
SECOND QUARTER		
DIS 108	Principles/Techniques Behavior Management & Learning Environments	4
DIS 115	Human Service Delivery Systems & Resources	3
DIS 130	Principles of Production in Adult Services	3
DIS 206	Computer Literacy & Assistive Technology	1
DIS 210	Assistive Technology	1
TOTAL		12
THIRD QUARTER		
DIS 207	Health & Safety Aspects of Learners with Special Needs	3
DIS 201	Field Practicum I	5
DIS 208	Language Development & Communication Techniques	4
DIS 124	Residential Services & Developmental Disabilities	3
TOTAL		15

* 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.

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: 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 ECE	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 Physical Education	2
PED 234	Concepts of Total Fitness	3
PED 236	Personal & Community Health	3
TOTAL		14

THIRD QUARTER

COM 211	Effective Speaking I	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 Physical Education	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: Learners with Special Needs	5
DIS 209	Team Processes	3
DIS 220	Foundations in Reading Instruction	4
TOTAL		12

THIRD QUARTER		
DIS 225	Instructional Techniques: Literacy through Literature	3
DIS 226	Instructional Techniques in Math/Science/Social Studies	3
DIS 108	Principles/Techniques Behavior Management & Learning Environments	4
TOTAL		10

continued next column

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Fine & Performing Arts

The Arts Careers



“At Sinclair you can explore your artistic side—whatever it is—with state-of-the-art facilities and a faculty of accomplished professionals.”

Dr. Sally A. 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 A. Struthers, Dean
(937) 512-2881, Room 2217

Sheila Magnuson
Academic Counselor
(937) 512-2544, Room 2222

Art
Kay Koeninger, Chairperson
(937) 512-5313, Room 13201

Design
Shari Rethman, Chairperson
(937) 512-4505, Room 13212

Communication Arts
Dr. Lori Zakel, Chairperson
(937) 512-4580, Room 2222

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

Theatre/Dance
Dr. Kathleen Cleary, Chairperson
(937) 512-4580, Room 2220

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 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.

Articulation Agreements

Art Academy of Cincinnati
Visual Communications, Art

University of Dayton
Music, Communication

Wright State University
Music, Communication, Art
Visual Communications

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 (7 hours)

ART 161

ART 195, 295

ART 270 (1 hour)

VI. Fine Art Concentration (12 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

VII. Elective (8 hours)

Chose 8 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. 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.

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 ****

(103-109 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—Minor Instrument** (6 hours)**
MUS 116, 117, 118
MUS 216, 217, 218
or
MUS 171 (1 credit hour, repeatable credit)
- III. Music Theory and Sight Singing & Dictation (25 hours)**
MUS 111, 112, 113
MUS 211, 212, 213
MUS 139
MUS 141, 142, 143
MUS 241, 242, 243
- IV. Survey of Musical Styles (9 hours)**
MUS 131, 132, 133
- V. Ensemble (6 hours)**
MUS 166, 194, 195, 296 (1 credit hour, repeatable credit)
- 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
Mathematics Elective***

IX. Social Sciences* (9 hours)**

X. Music Elective* (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).

Music Performance****

(106 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—Major Instrument (24 hours)**
MUS 168-192 (2 credit hours, repeatable credit)
- II. **Applied Music—Minor Instrument (6 hours)**
MUS 116, 117, 118
MUS 216, 217, 218
or
MUS 171 (1 credit hour, repeatable credit)
- III. **Music Theory and Sight Singing & Dictation (25 hours)**
MUS 111, 112, 113
MUS 141, 142, 143
MUS 211, 212, 213
MUS 241, 242, 243
MUS 139
- IV. **Survey of Musical Styles (9 hours)**
MUS 131, 132, 133
- V. **Ensemble (6 hours)**
(1 credit hour, repeatable credit)
MUS 166, 194, 195, 296
- 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 & 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
Mathematics 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).

Theatre Performance

(96 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. **Ohio Transfer Module (54 credit hours)**
English (9 hours)
Mathematics (3 hours)
Natural & Physical Science (12 hours)
Social & Behavioral Science (choose from at least two areas—15 hours)
Arts & Humanities: THE 105, 201, 202, 203 + LIT 227
- II. **Computer (3 credit hours)**
BIS 160 Introduction to Word, PowerPoint & Excel (3 hours)
- III. **Communication (3 credit hours)**
COM 206 Interpersonal Communication (3 hours)
- IV. **Theatre CORE (10 hours)**
THE 106 Stagecraft (3 hours) plus THE 107 lab
THE 198 Applied Theatre Technology (3 quarters, 1 credit per quarter—total of 3 hours)
THE 206 Script Analysis (3 credit hours)
THE 278 Capstone (1 credit hour)
- V. **Performance Concentration (26 hours)**
THE 111, 112, 113 Acting I, II, III (9 hours)
THE 108 Voice & Speech for the Actor (3 hours)
THE 109 Movement for the Actor (3 hours)
DAN elective Ballet, Jazz or Tap (3 hours)
THE electives (courses not used above—maximum of 2 credits for performance practicum—8 hours)

Technical Theatre

(96 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. **Ohio Transfer Module (54 credit hours)**
English (9 hours)
Mathematics (3 hours)
Natural and Physical Science (12 hours)
Social and Behavioral Science (choose from at least two areas – 15 hours)
Arts & Humanities: THE 105, 201, 202, 203 + LIT 227 (15 hours)
- II. **Computer (3 credit hours)**
BIS 160 Introduction to Word, PowerPoint & Excel (3 hours)
- III. **Communication (3 credit hours)**
COM 206 Interpersonal Communication (3 hours)

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IV. Theatre CORE (10 hours)

- THE 106 Stagecraft and THE 107 lab (3 hours)
- THE 198 Applied Theatre Technology (3 quarters, 1 credit per quarter – total of 3 hours)
- THE 206 Script Analysis (3 credit hours)
- THE 278 Capstone (1 credit hour)

V. Technical Theatre Concentration (26 hours)

- THE 103 Acting for the Non-major (3 hours)
- THE 110 Drafting for the Theatre (3 hours)
- THE 198 Applied Theatre Technology (1 credit in addition to CORE requirement)
- THE 240 Stage Management (3 hours)
- THE 298 Applied Theatre Technology (2 hours)
- THE 220 Theatre Portfolio (2 hours)
- ART electives: Choose ART 101 and 102 or ART 111 and 112 (6 hours)
- THE Electives: Choose 2 from the following: (6 hours)
- THE 115, Stage Lighting Technology plus THE 117, Lighting Lab (3 hours)
- THE 122, Sound Fundamentals plus THE 123, Sound Lab (3 hours)
- THE 125 Costume Fundamentals and THE 128 Costume Lab (3 hours)
- THE 126 Make-up (3 hours)

Career Degree Programs

Interior Design*

(99 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: 2-D	3
IND 131	Interior Design I	3
ENG 111	English Composition I	3
ARC 101	Architectural Drafting	3
TOTAL		15
SECOND QUARTER		
VIS 107	Design Basics: 3-D	3
IND 132	Interior Design II	3
ENG 112	English Composition II	3
ARC 102	Architectural Detail Drafting	4
TOTAL		13

continued next column

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	Introduction to Art	3
TOTAL		14

FOURTH QUARTER

MAN 105	Introduction to Business	3
ART 102	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
MRK 225	Sales Fundamentals	3
PSY 122	General Psychology II	3
IND 240	History of Furniture	3
TOTAL		15

SIXTH QUARTER

IND 134	Interior Textiles & Materials	3
IND 232	Advanced Interior Design II	4
MRK 201	Marketing I	3
SOC 111	General Sociology I	3
ART 108	Design Basics: Color	3
TOTAL		16

SEVENTH QUARTER

IND 233	Advanced Interior Design III	4
VIS 276	Visual Communications Portfolio Development	3
COM 206	Interpersonal Communication	3
IND —	Interior Design 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

Course & Title		Credit Hours
FIRST QUARTER		
ENG 111	English Composition I	3
PRT 101	Graphic Arts Processes I	3
VIS 106	Design Basics: 2-D	3
VIS 104	Computer Basics	3
MAT —	Mathematics Elective	4
TOTAL		16

continued next page

SECOND QUARTER

ENG	112	English Composition II	3
		or	
	131	Business Communications I	
PRT	102	Graphic Arts Processes II	4
PRT	221	Offset Presswork I	3
VIS	146	Digital Illustration	3
VIS	147	Digital Imaging	3
		TOTAL	16

THIRD QUARTER

ENG	113	English Composition III	3
		or	
	132	Business Communications II	
MAN	105	Introduction to Business	3
PSY	140	Psychology of Interaction & Human Potential	3
		or	
	145	Patterns of Human Relationships	
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

—	—	Business Technologies Elective	3
PRT	272	Digital PrePress II	3
PRT	270	Graphic Arts Internship	3
—	—	Humanities Elective*	3
PRT	120	Screen Printing I	3
		TOTAL	15

SIXTH QUARTER

ACC	111	Principles of Accounting I	3
PRT	270	Graphic Arts Internship	3
PRT	278	Printing Technologies Capstone	4
—	—	PRT or VIS Elective	3
		TOTAL	13

* See page 66.

Visual Communications*

(103 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.

Course & Title

FIRST QUARTER

ENG	111	English Composition I	3
ART	111	Art Drawing I	3
VIS	104	Computer Basics	3
VIS	114	Interactive Digital Theory	3
VIS	106	Design Basics: 2-D	3
VIS	100	Design Survey	3
		or	
	101	VIS Tech Prep Seminar*	
		TOTAL	18

SECOND QUARTER

VIS	107	Design Basics: 3-D	3
VIS	108	Typography	3
VIS	115	Digital Video	3
VIS	146	Digital Illustration	3
ENG	112	English Composition II	3
		or	
	131	Business Communications I	
		TOTAL	15

THIRD QUARTER

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	3
ENG	113	English Composition III	3
		or	
	132	Business Communications II	
		TOTAL	18

FOURTH QUARTER

VIS	206	Design Principles I	4
VIS	236	Design Applications I	4
PRT	271	Digital PrePress I	3
MAT	105	Business Mathematics	4
		or	
	101	Elementary Algebra	
VIS	117	Web Page Design	3
		or	
PRT	221	Offset Presswork	
		TOTAL	18

FIFTH QUARTER

COM	206	Interpersonal Communication	3
VIS	207	Design Principles II	4
VIS	237	Design Applications II	4
ART	101	Introduction to Art	3
PRT	272	Digital Prepress	3
		or	
VIS	265	Digital Authoring	
		TOTAL	17

SIXTH QUARTER

PSY	121	General Psychology I	3
ART	161	Photography I	4
VIS	276	Visual Communications Portfolio Development	4
VIS	278	Visual Communications Capstone	3
VIS	—	Visual Communications Elective	3
		TOTAL	17

* Sinclair's Visual Communications program is accredited by the National Association of Schools of Art and Design (NASAD).

continued next column

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	Choral Conducting	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	Church Music Practicum	2
VIII. Music Electives		
		4

Short Term Certificates

Arts 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	
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

continued next column

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):			2
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

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	Tech 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 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 II	3
DAN 275	Tap Dance II	3
MAN 105	Introduction to Business	3
BIS 160	Introduction to Word, PowerPoint, & Excel	3
BIS 105	Computer Concepts	3
BIS M61	Introduction to Word and	3
BIS M41	Introduction to Excel and	3
BIS M51	Introduction to PowerPoint	3
TOTAL		44

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: 2-D	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

(30 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: 2-D	3
VIS 108	Typography	3
VIS 114	Interactive Digital Theory	3
TOTAL		12
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		6
THIRD QUARTER		
PRT 120	Screen Printing I	3
PRT 222	Offset Presswork II	3
TOTAL		6

Photographic Technology

(43 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 233	Art of the Modern World	3
CHE 120	Introduction to Chemistry	4
MAT 105	Business Mathematics	4
ART 161	Photography I	4
ART 162	Photography II	4
ART 163	Photography III	4
ART 170	Non-Silver Photography	4
ART 171	Studio Photography	4
ART 175	Computer Photography I	3
ART 194	Photography Portfolio I	1
ART 265	Color Photography I	3
ART 266	Color Photography II	4
ART 294	Photography Portfolio Development II	1
TOTAL		43

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.

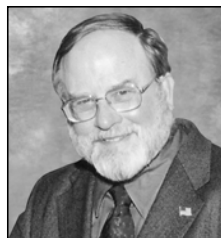
Course & Title		Credit Hours
COM 201	Introduction to Mass Communication	3
COM 206	Interpersonal Communication	3
COM 211	Effective Speaking I	3
COM 212	Effective Speaking II	3
COM 215	Oral Interpretation	3
COM 225	Small Group Communication	3
COM 227	Principles of Persuasion	3
COM 230	Nonverbal Communication	3
COM 235	Principles of Interviewing	3
COM 245	Intercultural Communication	3
COM 250	Applied Health Communication	3
COM 260	Effective Video Conferencing	3
COM 285	Business & Professional Communication	3
COM 286	Public Relations Principles	3
COM 287	Effective Listening	3
COM 290	Introduction to Broadcasting	3
COM 295	Independent Study in Communication	3

Please note: A student may choose any 9 courses from the above list.

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Liberal Arts & Sciences

Transfer Programs



“Students can transfer their first two years of course work to almost any four-year institution. And by attending Sinclair, students can save on tuition.”

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

Carrie Larger
Academic Counselor
(937) 512-5134, Room 6121D

Susan Spacht
Academic Counselor
(937) 512-5134, Room 6121C

Biology
Phyllis Williams, Chairperson
(937) 512-2747, Room 3041B

Chemistry, Geology
Michael Canestaro, Chairperson
(937) 512-2890, Room 12301B

English
Gary Mitchner, Chairperson
(937) 512-3078, Room 5143

Humanities, Government, Modern Languages
Luis Gonzalez, Chairperson
(937) 512-2844, Room 3240F

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, Geography, Social Work
Dona Fletcher, Chairperson
(937) 512-2944, Room 12351A

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

Phi Theta Kappa
Jamie Fries, Co-Advisor
Bill Kamil, Co-Advisor
(937) 512-2517, Room 8025

Planning the Program

Liberal Arts & Sciences programs are designed for students who wish to take the first two years of a four-year college program at Sinclair. Graduates of the Liberal Arts & Sciences program receive either the Associate of Arts (A.A.) or Associate of Sciences (A.S.) degree. The Associate of Arts curriculum contains a slightly greater emphasis on humanities, while the Associate of Science contains more mathematics and science coursework. Both contain the general education core requirements for baccalaureate degrees.

The Sinclair Transfer Module (see page 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 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

Sinclair Community College and the division of Liberal Arts & Sciences have established a number of transfer agreements to assist students in transferring. Please see an academic counselor for specific transfer course information and programs.

Antioch College
Bowling Green State University
Capital University
Central State University
Indiana University East
McGregor School of Antioch University
Miami University
National University of Health Sciences
Ohio University
The Ohio State University
Park University
Raymond Walters College
University of Cincinnati
University of Dayton
University of Toledo
Urbana University
Wilberforce University
Wittenberg University
Wright State University
Xavier University

Associate of Arts

(94 Total Credit Hours)

The Associate of Arts degree program in Liberal Arts & Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as Education, English, Geography, History, Modern Languages, Philosophy, Political Science, Psychology, Social Work, Sociology, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module at other Ohio public colleges and universities.

**Credit
Hours**

I. English (9 hours required)

English (ENG)

111	Composition I	3
112	Composition II	3
113	Composition III	3

II. Mathematics (3 hours minimum required)

Mathematics (MAT)

108	Math & the Modern World	3
116	College Algebra	5
117	Trigonometry	4
122	Statistics I	4
151	Introduction to Mathematical Modeling	3
201	Calculus & Analytic Geometry I	5
202	Calculus & Analytic Geometry II	5
203	Calculus & Analytic Geometry III	5
204	Calculus & Analytic Geometry IV	5
215	Differential Equations	5
216	Elements of Linear Algebra	4
218	Calculus for Business & Economics	5

continued next column

**Credit
Hours**

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
171	Principles of Biology I	5
172	Principles of Biology II	5
173	Principles of Biology III	5

Chemistry (CHE)

141	College Chemistry I	4
142	College Chemistry II	4
143	College Chemistry III	4
151	General Chemistry I	5
152	General Chemistry II	5
153	General Chemistry III	5
201	Organic Chemistry I	5
202	Organic Chemistry II	5
203	Organic Chemistry III	5

Geology (GLG)

141	General Geology I	4
142	General Geology II	4
143	General Geology III	4
	or	
144	Geological Field Trips	4

Physics (PHY)

100	Introduction to Physics	4
104	Sound, Light & Modern Physics	4
AST 101	Survey of Astronomy	4
141	College Physics I	4
142	College Physics II	4
143	College Physics III	4
201	General Physics I	6
202	General Physics II	6
203	General Physics III	6

continued next page

	Credit Hours
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
223 Cognitive Psychology	4
225 Social Psychology	4
228 Psychology in the Work Place	4
242 Educational Psychology	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
205 Social Problems	4
208 The Urban Environment	3
215 Cultural Diversity	4
226 Criminology	3

continued next column

	Credit Hours
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
217 Survey of East Asia	3
218 History of Ohio	3
Humanities (HUM)	
125 The Human Image	3
130 Humanities & Challenge Technology	3
131 Search for Utopia	3
135 Environmental Ethics	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
240 Children's Literature	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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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
204	Great Books: The Bible & Western Culture	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 Problem Solving & Computer Programming	4
BIS	160	Introduction to Word, PowerPoint, & Excel	3
CHE	152	General Chemistry II	5
MAT	220	Statistics II	4
PHY	220	Introduction to Computational Physics	3

VIII. Multicultural (3 hours required)*

GEO	102	Human Geography	3
GEO	201	World Regional Geography I	3
GEO	202	World Regional Geography II	3
HUM	130	Humanity & the Challenge of Technology	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
PLS	205	Model United Nations: International 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

Students select elective courses from any required course, the electives list, or the Emphasis Area list to fulfill the 94 hours required for degree completion.

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
HIS (any course)	3	FIN 215	3
HUM (any course)	3	PLS (any course)	3
MUS (any course)	3	PSY (any course)	3
LIT (any course)	3	SOC 115	3
PHI (any course)	3	SOC 117	3
REL (any course)	3	SOC 125	3
THE (any course)	3	SOC 130	3
		SOC 209	3
		SOC 210	3
Modern Languages		SOC 214	3
AFR 121	3	SOC 216	3
AFR 122	3	SOC 217	3
FRE 101	4	SOC 225	3
FRE 102	4	SOC 227	3
FRE 103	4	SOC 235	3
FRE 201	4		
FRE 202	4	Other	
FRE 203	4	ACC 111	3
GER 101	4	ACC 112	3
GER 102	4	ACC 113	3
GER 103	4	COM (any course)	3
SPA 101	4	JOU 101	3
SPA 102	4	JOU 102	3
SPA 103	4	LAW 101	3
SPA 201	4	LAW 102	3
SPA 202	4	ASL 111	3
SPA 203	4	ASL 112	3
		ASL 113	3
Mathematics		ASL 228	4
MAT 132 (A.A. only)	5	ASL 229	4
MAT 133	5	ASL 230	4
MAT 134	5	MAN 105	3
MAT 220	4	MAN 205	3
		MRK 201	3
		MRK 202	3
Natural & Physical Sciences			
BIO 104	3	Physical Education	
BIO 141	4	PED 200	2
BIO 142	4	PED 208	1
BIO 143	4	PED (any activity course)	1
BIO 205	4		
BIO 222	3		
BIO 227	5		
CHE 120	4		
CHE 121	4		
CHE 122	4		
GEO 204	3		

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	Personal Essay: Advanced Composition
ENG 255	Poetry
ENG 256	Fiction
ENG 257	Freelance
ENG 258	Advanced Fiction
ENG 259	Writing the Novel
ENG 264	Advanced Poetry Writing

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	Survey of English Literature
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 200, 201	Political Life; International Relations
ECO 201, 202	Principle of Economics
SOC 120 or (111 & 112)	General Sociology

History

HIS 101, 102, 103	U.S. History
Choose one of the following:	
HIS 105, 106, or 218	History of Black America; Ohio History
HIS 111, 112, 113	Western Civilization
Choose two among:	
HIS 214, 215, 216, 217, 219	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.

Philosophy/Religion

PHI 204	Great Books
PHI 205	Introduction to Philosophy
PHI 206	Personal Ethics
PHI 207	Logic
PHI 209	Business Ethics
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
PLS 201	International Relations

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Psychology

PSY 119 or (121 & 122)	General Psychology
PSY 208 or (205 & 206)	Life Span Development
PSY 217	Abnormal Psychology
PSY 225	Social Psychology
PHI 207	Logic
PSY 220	Personality Psychology
Any other PSY course at 200 level	

Social Work

PSY 119 or (121 & 122)	General Psychology
SOC 120 or (111 & 112)	General Sociology
SOC 145	Comparative Cultures
SWK 206	Social Work as a Profession
SWK 211	Basic Practice Theory I
SWK 212	Basic Practice Theory II
SWK 213	Social Welfare & Social Services

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.

	Credit Hours
I. English (9 hours required)	
English (ENG)	
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)

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)

171	Principles of Biology I	5
172	Principles of Biology II	5
173	Principles of Biology III	5

Chemistry (CHE)

141	College Chemistry I	4
142	College Chemistry II	4
143	College Chemistry III	4
151	General Chemistry I	5
152	General Chemistry II	5
153	General Chemistry III	5
201	Organic Chemistry I	5
202	Organic Chemistry II	5
203	Organic Chemistry III	5

Geology (GLG)

141	General Geology I	4
142	General Geology II	4
143	General Geology III	4
or		
144	Geological Field Trips	4

Physics (PHY)

100	Introduction to Physics	4
104	Sound, Light & Modern Physics	4
AST 101	Survey of Astronomy	4
141	College Physics I	4
142	College Physics II	4
143	College Physics III	4
201	General Physics I	6
202	General Physics II	6
203	General Physics III	6

	Credit Hours
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
201 International Relations I	3
200 Political Life, Systems & Issues	3
Psychology (PSY)	
119 General Psychology	5
or	
121 General Psychology I	3
and	
122 General Psychology II	3
208 Life Span & Human Development	5
or	
205 Child Development	4
and	
206 Adolescent & Adult Psychology	3
207 Psychology of Aging	3
217 Abnormal Psychology	4
223 Cognitive Psychology	4
225 Social Psychology	4
228 Psychology in the Work Place	4
242 Educational Psychology	4
Sociology (SOC)	
120 General Sociology	5
or	
111 General Sociology I	3
and	
112 General Sociology II	3
145 Comparing Cultures	3
160 Social Patterns in Aging	3
205 Social Problems	4
208 The Urban Environment	3
215 Cultural Diversity	4
226 Criminology	3

continued next column

	Credit Hours
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
111 Western Civilization (0-1300)	3
112 Western Civilization (1300-1815)	3
113 Western Civilization (1815-Present)	3
105 African-American History	4
214 History of Southeast Asia	3
215 Survey of African History	3
216 Survey of Latin American History	3
217 Survey of East Asia	3
218 History of Ohio	3
Humanities (HUM)	
125 The Human Image	3
130 Humanity & the Challenge of Technology	3
131 Search for Utopia	3
135 Environmental Ethics	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

continued next page

Credit Hours

Electives for the Associate of Science Degree

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
204 Great Books: The Bible & Western Culture	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 Problem Solving & Computer Programming	4
BIS 160 Introduction to Word, PowerPoint & Excel	4
CHE 152 General Chemistry II	5
MAT 225 Statistics II	3
PHY 220 Introduction to Computational Physics	3

VIII. Multicultural (3 hours required) *

GEO 102 Human Geography	3
GEO 201 World Regional Geography I	3
GEO 202 World Regional Geography II	3
HUM 130 Humanity & the Challenge of Technology	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
PLS 205 Model United Nations: International 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

Students select elective courses from any required course, the electives list, or the Emphasis Area list to fulfill the 94 hours required for degree completion.

Credit Hours

Credit Hours

Arts & Humanities

ART (any course)	3
DAN (any course)	3
HIS (any course)	3
HUM (any course)	3
MUS (any course)	3
LIT (any course)	3
PHI (any course)	3
REL (any course)	3
THE (any course)	3

Modern Languages

AFR 121	3
AFR 122	3
FRE 101	4
FRE 102	4
FRE 103	4
FRE 201	4
FRE 202	4
FRE 203	4
GER 101	4
GER 102	4
GER 103	4
SPA 101	4
SPA 102	4
SPA 103	4
SPA 201	4
SPA 202	4
SPA 203	4

Mathematics

MAT 133	5
MAT 134	5
MAT 151	3
MAT 220	4

Natural & Physical Sciences

BIO 104	3
BIO 141	4
BIO 142	4
BIO 143	4
BIO 205	5
BIO 222	5
BIO 227	5
CHE 120	4
CHE 121	4
CHE 122	4
GEO 204	3
GLG 145	4

Social & Behavioral Sciences

AFR 111	3
AFR 112	3
ECO 204	3
PLS (any course)	3
PSY (any course)	3
SOC 115	4
SOC 117	3
SOC 125	3
SOC 130	3
SOC 209	3
SOC 210	3
SOC 214	3
SOC 216	3
SOC 217	3
SOC 225	3
SOC 227	3
SOC 235	3

Other

ACC 111	3
ACC 112	3
ACC 113	3
FIN 215	3
COM (any)	3
JOU 101	3
JOU 102	3
LAW 101	3
LAW 102	3
ASL 111	3
ASL 112	3
ASL 113	3
ASL 228	4
ASL 229	4
ASL 230	4
MAN 105	3
MAN 205	3
MRK 201	3
MRK 202	3
PED 200	2
PED 208	1
PED (any activity course)	1

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 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 171, 172, 173 | Principles of Biology I, II, III |
| BIO 205, 225 | Microbiology, Ecology |
| CHE 151, 152, 153 | General Chemistry I, II, III |
| CHE 201, 202, 203 | Organic Chemistry I, II, III |
| GLG 141, 142, 143 | General Geology I, II, III |
| MAT 201 | Calculus I |
| PHY 201, 202, 203 | General Physics I, II, III |

Geology

- | | |
|------------------------|-----------------------------------|
| 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 | General Physics I, II, III |
| PHY 220 | Introduction to Computational Physics |
| MAT 201, 202, 203, 204 | Calculus I, II, III, IV |
| CHE 151, 152, 153 | General Chemistry I, II, III |

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 |
| PHI 207 | Logic |

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Career Degree Program

Biotechnology

(93-94 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			
CHE	120	Introduction to Chemistry or	
CHE	131	Technical Chemistry I	4
BTN	110	Biotechnology & Bioethics	3
BTN	120	Laboratory Safety & Regulatory Compliance	3
MAT	106	Allied Health Mathematics or	4-5
	116	College Algebra	
TOTAL			14-15
SECOND QUARTER			
BIO	111	General Biology I	4
BTN	115	Careers in Biotechnology	1
BTN	130	Biological Reagents Preparation	3
ENG	111	English Composition I	3
—	—	Elective	3
TOTAL			14
THIRD QUARTER			
BIO	112	General Biology II	4
BTN	140	Cell Culture	3
CHE	122	Introduction to Biochemistry	4
ENG	112	English Composition II	3
TOTAL			14
FOURTH QUARTER			
COM	206	Interpersonal Communication or	3
	211	Effective Speaking I or	
	225	Small Group Communication	
BIS	160	Introduction to Word, PowerPoint, & Excel Humanities Elective*	3
TOTAL			9
FIFTH QUARTER			
BIO	107	Human Biology	5
BTN	210	Protein Purification & Analysis	6
BIO	113	General Biology III	4
TOTAL			15
SIXTH QUARTER			
BTN	220	Microbiology & Fermentation Methods	4
BTN	230	Molecular Biology Techniques	6
BTN	295	Biotechnology Seminar	2
—	—	Humanities Elective*	3
TOTAL			15
SEVENTH QUARTER			
BTN	240	Bioinformatics	3
—	—	Elective	3
—	—	Multicultural Elective	3
—	—	SOC/BEH Elective	3
TOTAL			12

* See page 66.

Short Term Certificates

Family Advocate

(23 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	
	160	Introduction to Word, PowerPoint, & Excel	—
TOTAL			6
SECOND QUARTER			
SOC	112	General Sociology II	3
SWK	206	Social Work as a Profession	4
TOTAL			7
THIRD QUARTER			
SWK	211	Basic Practice Theory I	3
SOC	115	Today's Changing Family	4
TOTAL			7
FOURTH QUARTER			
SWK	212	Basic Practice Theory II	3
TOTAL			3

Social Service

(30 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 I	3
SOC	111	General Sociology I	3
TOTAL			6
SECOND QUARTER			
COM	286	Public Relations Principles	3
SOC	205	Social Problems	4
SOC	215	Cultural Diversity	4
TOTAL			11
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			
SOC	297	Special Topics - Sociology	3
TOTAL			3

LAS

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	134	(5)
MAT	151	(3)
MAT	201	(5)
MAT	202	(5)
MAT	203	(5)
MAT	204	(5)
MAT	215	(5)
MAT	216	(4)
MAT	218	(5)
MAT	220	(4)

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	141/147	(4)
BIO	142/148	(4)
BIO	143/149	(4)
BIO	171/177	(5)
BIO	172/178	(5)
BIO	173/179	(5)
BIO	205/206	(4)
BIO	222	(3)
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	(6)
PHY	202	(6)
PHY	203	(6)

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)

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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)
LIT	240	(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)

Other Approved Courses

ENG	250	(3)
COM	211	(3)

Course Descriptions



“The nursing program at Sinclair was challenging and rewarding.”
Cynthia Young

Accounting (ACC)
African-American Studies (AFR)
Allied Health (ALH)
American Sign Language (ASL)
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)

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.

Extended Learning (EXL)
Financial Management (FIN)
Fire Science Technology (FST)
French (FRE)
Geography (GEO)
Geology (GLG)
German (GER)
Health Information Management (HIM)
History (HIS)
Hospitality Management (HMT)
Humanities (HUM)
Industrial Design & Graphic Technology (DRT)
Industrial Engineering Technology (IET)
Tooling & Manufacturing Technology (INT)
Integrative Medical Massage Therapy (IMT)
Interior Design (IND)
Japanese (JPN)
Journalism (JOU)
Law (LAW)
Law Enforcement (LEP)
Literature (LIT)
Management (MAN)
Management of Volunteer Programs (VOL)
Marketing (MRK)
Mathematics (MAT)
Mechanical Engineering Technology (MET)
Medical Assistant Technology (MAS)
Mental Health Technology (MHT)
Music (MUS)
Nursing (NSG)
Occupational Therapy Assistant (OTA)
Paralegal (PAR)
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, work-sheets, and financial statements.
Prerequisites: 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.
Prerequisites: ACC 111 and 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 select asset accounts such as cash.
Prerequisites: 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 owner's 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.
Prerequisites: ACC 113, ACC 115

212 Cost Accounting II 3 Cr. Hrs.
Managerial cost control through budgets, distribution costs, direct costs, 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.

222 Federal Taxes II 3 Cr. Hrs.
Continuation of ACC 221 with emphasis on corporate income taxation.
Prerequisite: ACC 221

223 Advanced Taxation 3 Cr. Hrs.
Advanced Federal tax law concepts including installment sales, capital gains and losses, Federal excise tax, corporate tax provisions and fiduciary income tax returns.
Prerequisites: ACC 221 and ACC 222

225 Professional Tax Preparation 3 Cr. Hrs.
Practical Federal, state and local income tax preparation experience through service learning, including tax form completion for a variety of clients using tax software. Tax law applications and professional accounting ethics. Service learning required through the Voluntary Income Tax Assistance (VITA) program.
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 program.
Prerequisites: ACC 115, ACC 113

270 Accounting 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.

295 Accounting Seminar 3 Cr. Hrs.
Application of accounting theory to forms and procedures of an accounting practice.
Prerequisite: ACC 201

297 Special Topics in Accounting R 0.5-6 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.

African-American Studies (AFR)

111 African-American Studies I 3 Cr. Hrs.
Origins, relevance and scope of African-American Studies, including African and African-American historical background, black male and female relationships, Afrocentricity and multiculturalism.

112 African-American Studies II 3 Cr. Hrs.
Practical exercises and simulated problems on recent advancements and expansions of African-American studies, including Black psychology, creative production, Afrocentricity, Black women studies, Blacks in science, and multicultural studies.
Prerequisite: AFR 111

121 Basic Swahili I 3 Cr. Hrs.
Introduction to Swahili with emphasis on developing basic listening, speaking, reading, and writing skills as well as conversation on everyday topics and familiarity with Swahili culture.

122 Basic Swahili II 3 Cr. Hrs.
Continuation of Basic Swahili I, AFR 121, incorporating more advanced work to further develop listening, speaking, reading, and writing skills, emphasizing conversation on everyday topics and familiarity with Swahili culture.
Prerequisite: AFR 121

297 Special Topics in African-American Studies R 1-6 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.

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, medical-legal, and patient rights. Also includes a brief description of Sinclair health programs. The optional credit hour will cover basic computer terminology, and its applications in health care.

106 Introduction to Basic Health Care Practice
2 Cr. Hrs.

Orientation to safe and effective basic health care practice including patient assessment and documentation, infection control, body mechanics, oxygen delivery, and environmental safety considerations. One lecture, two lab hours per week.

107 Introduction to Electrocardiography
3 Cr. Hrs.

Principles of electrocardiography including equipment operation, recording and troubleshooting, as well as fundamental principles of cardiovascular physiology and basic EKG interpretation. Two lecture, two lab hours per week.

108 Lab for 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 basic hematology, venipuncture and microcollection techniques, along with routine processing and special testing procedures. Two lecture, two lab hours per week.

112 Lab for 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.

Prerequisites: BIO 107, BIO 121 or BIO 131

114 Specialized Phlebotomy
1 Cr. Hr.

Clinical methods and practices of phlebotomy, including peripheral IV therapy, microcollection techniques, and special testing procedures. Two lab hours per week.

Prerequisite: ALH 113

120 Nurse Aide Training
6 Cr. Hrs.

Seventy-eight clock hours of nurse aide training and competency evaluation required by the State of Ohio to be eligible to take the state certification test. Nursing related services for patients or residents in a long-term care facility. Two lecture, four lab, four clinical hours per week.

Prerequisites: DEV 065 and DEV 075 and DEV 085

121 Allied Health Management
3 Cr. Hrs.

The basic concepts of supervision encountered in hospitals and other health care agencies for those aspiring toward first-line supervision.

122 Pharmacy Technician I
5 Cr. Hrs.

Scope of pharmacy practice including legal aspects of drug dispensing and specific role of pharmacy technicians. Scientific terminology and dosage calculations essential for pharmacy technicians.

123 Pharmacy Technician II
5 Cr. Hrs.

Scope of pharmacy practice including handling of infectious and hazardous waste, interpersonal skills, and beginning pharmacology and dose calculations.

Prerequisite: ALH 122

124 Pharmacy Technician III
5 Cr. Hrs.

Scope of pharmacy practice including sterile compounding, non-sterile compounding, inventory control, beginning pharmacology, and pharmaceutical calculations. On site clinical experiences in all pharmacy practices. Three lecture, two clinical hours per week.

Prerequisite: ALH 123

125 Basics of Activities Programming
3 Cr. Hrs.

First of a series of three courses following the 90 Hour National Certification Council for Activity Professionals (NCCAP) guidelines. 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 for the Health Care Provider
R 1 Cr. Hr.

Principles of electrocardiography including equipment operation, recording and troubleshooting. Two lab hours per week.

Prerequisite: BIO 107 or equivalent

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.

Prerequisites: 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.

Prerequisites: 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. Four lecture, one half lab, four clinical hours per week.

Prerequisites: ALH 120 or State Tested Nurse Aide Certificate and 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. Three lecture hours per week.

Prerequisite: ALH 125

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. One half lecture, one half lab hours per week.

Prerequisite: 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.

Prerequisites: Completion of ALH 140 or current BLS certification at health care provider level.

Open only to ALH students in their final quarter of training or licensed health care professions.

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.

Prerequisites: BIO 107, BIO 162, BIO 143 or BIO 122

**144 American Heart Association
Heartsaver 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, start a stopped heart, and 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 from colonial times to present. How wars and other sociological events affected health care practices, the emergence of allied health workers, reforms and transformation and the evolution of changes which led to our current health care system.

148 Health Care Law & Ethics 2 Cr. Hrs.

Overview of how medical law and ethics impact the clinical practices of allied health professionals. Ethical theories and models, principles of beneficence and non-maleficence, patient autonomy, and informal consent, confidentiality, ethics of diversity, risk management, common law, the tort of negligence and legal doctrines.

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.

Prerequisites: ALH 125 and ALH 135

**160 Learning Communities for Health
Care Professionals** 1 Cr. Hr.

Learning communities natural to Allied Health Technologies will be used to develop an understanding of individual learning styles and the learning methods which facilitate success within a health care environment.

201 Survey of Drug Therapy 2 Cr. Hrs.

Overview of the conventional drug classes presenting only the more commonly prescribed preparations primarily emphasizing common effects and indications for use.

Prerequisites: BIO 107, BIO 122

**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.

Prerequisites: Signature of IMT coordinator

**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.

Prerequisites: BIO 143 or BIO 211 or equivalent

220 Pathophysiology 4 Cr. Hrs.

Study of human disease using a system approach emphasizing abnormal physiological processes that result in the signs and symptoms of each disorder.

Prerequisites: BIO 107 or BIO 211 or BIO 143

**230 Quality Management in Health
Care** 1 Cr. Hr.

Continuous quality improvement (CQI) 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.

Prerequisites: MAN 237 and MAN 232 and MAN 231 and MAN 230 and ALH 230

297 Special Topics in Allied Health
R 1-6 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.

M25 Intravenous Therapy 1 Cr. Hr.

Multi-skilling module designed to provide the experienced health care provider with the knowledge and skills to competently insert an intravenous (I.V.) line, maintain it, administer fluids and medications, and discontinue the line. Identifying and troubleshooting common complications of I.V. therapy will be discussed. A clinical experience is incorporated within the module requirements.

Prerequisites: RET 224 and co-requisite: ALH M26

**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. *Co-requisite:* ALH M25 and restricted to RET majors

**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
4 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. Two lecture, four lab hours per week.

Prerequisite: ARC 101

**103 3-D Design & Architectural
Modeling** 3 Cr. Hrs.

Three-dimensional architectural design, applying principles of axonometric projections, perspectives and model building. Rendering of 3-D architectural drawings with the use of AutoCAD applications. Two lecture, two lab hours per week.

Prerequisite: ARC 199

105 Construction Materials & Methods 5 Cr. Hrs.

Construction materials origin, development use. Methods of construction for buildings and heavy and highway projects. Emphasis on processes and techniques. Understanding of blueprint reading of the architectural drawings. Three lecture, four lab hours per week.

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. Two 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

135 Architecture Design I 2 Cr. Hrs.

Design fundamentals for architects emphasizing the design process. Projects investigate 2-D and 3-D relationships, form, function and ornament. One lecture, two lab hours per week.

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 2-D commands and page layout. One lecture, two lab hours per week.

Prerequisites: DRT 198 and ARC 101

211 Building Systems Design 3 Cr. Hrs.

Basic drafting and blueprint reading of building systems and materials applicable to commercial construction; plumbing, HVAC, electrical systems components, acoustics, and lighting design. Assignments that reflect the current zoning code, the basic building code requirements for fire resistance ratings, means of egress, accessibility and plumbing code requirements. Two lecture, two lab hours per week.

Prerequisites: ARC 105 and ARC 107 and ARC 240 and 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 to Present 3 Cr. Hrs.

Architecture history including Renaissance, Baroque, 18th and 19th centuries modern and post-modern.

240 Architectural Design Studio II – Structure 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.

Prerequisites: ARC 135 and ARC 199

241 Architectural Design Studio III – Construction Documents 4 Cr. Hrs.

Design studio for a multi-story commercial structure. Students will develop and document their own design and produce a set of Construction Documents for the project. Two lecture, four lab hours per week.

Prerequisite: ARC 240

270 Architectural Technology Internship R 1-12 Cr. Hrs.

Preparing a portfolio based on work-related/on-the-job experience.

278 Architectural Technology Capstone 5 Cr. Hrs.

Assessment of achievement by Architectural Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Two lecture, six lab hours per week.

Prerequisites: ARC 211 and ARC 241 and MET 207

297 Special Topics in Architectural Technology 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 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 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 Fine Arts Sampler 4 Cr. Hrs.

Creativity enhancement for the non-art major. Studio experience in drawing, design fundamentals and three-dimensional processes, including clay. Two lecture, four lab hours per week.

107 Beginning Photoshop 3 Cr. Hrs.

An 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. Two lecture, four lab hours per week.

109 Elements of Composition 3 Cr. Hrs.

The study of composition and visual elements in a studio setting with emphasis on hands-on learning. Two 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. Two lecture, four lab hours per week.

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. Two lecture, four lab hours per week.

Prerequisite: ART 111

113 Art Drawing III 3 Cr. Hrs.

Foundation drawing emphasizing color theory through the use of color drawing media. Two lecture, four lab hours per week.

Prerequisites: ART 112 or 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. Two lecture, four lab hours per week.

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. Two lecture, four lab hours per week.

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. Two lecture, four lab hours per week.
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. Two lecture, four lab hours per week.

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. Two lecture, four lab hours per week.
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. Two lecture, four lab hours per week.
Prerequisite: ART 132

136 Introduction to Virtual Sculpture 3 Cr. Hrs.
The study of sculpture using NURBS (non-uniform rational B-splines) modeling. Emphasis on translating forms curves surfaces and solids into accurately modeled sculptures on the computer.

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. Two lecture, four lab hours per week.

142 Ceramic Art II 4 Cr. Hrs.
Introduction of the potter's wheel, with an emphasis on functional pottery; experimentation with various glazing techniques. Two lecture, four lab hours per week.
Prerequisite: ART 141

143 Ceramic Art III 4 Cr. Hrs.
Focus on personal development and expression in pursuing individual projects; contemporary issues in clay. Two lecture, four lab hours per day.
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. Two 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 151; 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 their own adjustable camera (35mm or 120), film and print paper. Two 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 adjustable camera (35mm or 120), film and print paper, retouching supplies, and photo mounting supplies. Two lecture, four lab hours per week.
Prerequisites: 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 adjustable camera (35mm or 120 or 4x5), film and print paper, retouching supplies, and dry mounting agents. Two lecture, four lab hours per week.
Prerequisites: ARV 162 or ART 162

164 Photo Restoration 3 Cr. Hrs.
The Photo Restoration course is designed for students in the Photographic Technology certificate program. In this course students will learn manual and computerized methods of restoring photographs.
Prerequisites: ART 161 or ARV 161

170 Non-Silver Photography 4 Cr. Hrs.
Principle and theories of non-silver chemical processes used for print production including gum, cyanotype, and Van Dyke Brown printing. Two lecture, four lab hours per week.
Prerequisites: 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 of all camera formats. Two lecture, four lab hours per week.
Prerequisites: 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.
Prerequisite: ART 161

176 Computer Photography II 3 Cr. Hrs.
Advanced computer software to create fine art in the digital medium. Advanced Photoshop techniques including layers, color correction, masking and special effects.
Prerequisite: ART 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. Two lecture, four lab hours per week.

194 Photography Portfolio I R 1 Cr. Hr.
One-to-one instruction regarding the student's photography portfolio, establishing groundwork for remaining courses. Instructor meets 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 required course should be taken after completing the first four photography courses, halfway through the program. 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.
Prerequisites: 12 credit hours in the photography certificate program: ART 161, 162, 163, 164, 170, 171, 175, 265, declared Photography certificate major

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.
Prerequisites: 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.

211 Advanced Drawing I 3 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** 3 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** 3 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. Two lecture, four lab hours per week.
Prerequisite: ART 111
- 217 Life Drawing & Anatomy II** 4 Cr. Hrs.
Advanced with a foundation in anatomical study. Continued development of design and proportion with an application towards 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. Two lecture, 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. Two lecture, four lab hours per week.
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. Two lecture, four lab hours per week.
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. Two lecture, four lab hours per week.
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. Two lecture, four lab hours per week.
Prerequisite: ART 143
- 242 Advanced Ceramic Art II** 4 Cr. Hrs.
Exploration of personal style, extending to experimentation in low fire clay and glazes. Two lecture, four lab hours per week.
Prerequisite: ART 241
- 243 Advanced Ceramic Art III** 4 Cr. Hrs.
Specialization and research in one area, presentation of research, development of personal style. Two lecture, four lab hours per week.
Prerequisite: ART 242
- 251 Advanced Sculpture** 4 Cr. Hrs.
Selection of an area of research with formulation of goals that develop personal expression and style. Two lecture, four lab hours per week.
Prerequisite: ART 133
- 261 Watercolor** 4 Cr. Hrs.
Technical variety and experimentation with selected design problems; for both the beginning and experienced watercolorist. Two lecture, four lab hours per week.
Prerequisite: ART 111
- 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.
- 264 Woodcut Printmaking** 4 Cr. Hrs.
Introductory printmaking course using wood cutting tools and printing editions by hand; overview of the history of woodcuts. Two lecture, four lab hours per week.
Prerequisite: ART 111
- 265 Color Photography I** 3 Cr. Hrs.
An introduction to the technique of color photography and processing. The color negative process will be explored. Student to supply own adjustable camera (35mm or 120), films and paper, polarizing filter and specified conversion filters.
Prerequisites: ARV 161 or ART 261
- 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 adjustable camera (35mm or 120), film and paper. Two lecture, four lab hours per week.
Prerequisite: ART 265
- 267 Color Photography III** 4 Cr. Hrs.
The advanced photographic course. Creative darkroom and camera techniques will be explored. Portfolio to be produced. Student to supply own adjustable camera (35mm or 120), film and paper. Two lecture, four lab hours per week.
Prerequisite: ART 265
- 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. Two lecture, four lab hours per week.
Prerequisites: 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, understanding slide cataloging, or doing a specific project with the permission of the chairperson.
- 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. Two lab hours per week.
Prerequisites: 20 hours of certificate complete. *Restricted to Arts Administration certificate majors*
- 294 Photography Portfolio Development 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 3 times to achieve a passing grade. Failure to take and pass this course will make the student ineligible for the Photography certificate.
Prerequisites: 28 hours of Photography courses and/or taken during final quarter of study. *Photography certificate major*

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.

297 Special Topics in Art

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.

Arts & Science 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.

Prerequisites: DEV 065 and DEV 075

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.

Prerequisites: MAT 102 or sufficient score on placement test

American Sign Language (ASL)

101 Orientation To Deafness 3 Cr. Hrs.

History and culture of the Deaf and sign language with an introduction to collectivist and individualist cultures. Includes the structure of the hearing mechanism and the types and causes of hearing loss; effects of hearing loss on the individual and the family.

102 Interpreting For Deaf I 3 Cr. Hrs.

An overview of the legislation impacting the education and legal rights of Deaf individuals. Examination of the history of interpreting; the terminology of the field; the ethics of interpreting; the interpreting process and the national certification of interpreters.

Prerequisites: ASL 101 or MAC 101, ASL 228 or MAC 131

103 Interpreting for Deaf II 3 Cr. Hrs.

An introduction to specialized areas of interpreting, including the role and ethics of the interpreter in various settings. Specialized interpreting techniques for serving Deaf-Blind and oral Deaf populations. Introduction to theatrical, mental health, education, and legal interpreting.

Prerequisites: ASL 102 or MAC 102

111 Beginning American Sign Language I 3 Cr. Hrs.

Introductory course in American Sign Language (ASL) emphasizing conversational skills. Includes basic sentence structure of ASL, fingerspelling and numbers. Classroom work stresses practice of conversational ASL, both expressive and receptive; also, introduces to the American Deaf Culture.

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, including additional types of sentence structure. Practice of conversational ASL, both expressive and receptive and the continuing study of American Deaf culture.

Prerequisites: ASL 111 or 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.

Prerequisites: ASL 112 or MAC 112

116 Community Resources for the Deaf 3 Cr. Hrs.

An overview of service accessibility for Deaf, Hard-of-Hearing and Deaf-Blind consumers, including mental health, drug and alcohol treatment and prevention, health care, housing, transportation, and employment. Also includes agency referral process, eligibility process for services, and funding sources.

201 Interpreting I 4 Cr. Hrs.

Introduction to the principles and techniques of interpreting between English and American Sign Language (ASL) as both target and source languages. Classroom activities and testing include basic interpreting role plays. Also includes English idioms and cognitive processing techniques.

Prerequisites: ASL 132 or MAC 132

202 Interpreting II 4 Cr. Hrs.

Further development and competency demonstration of the basic principles and techniques of the interpreting process between English and American Sign Language (ASL), including interpreting of idiomatic cultural expressions and accommodating linguistic variation in the interpreting process. Introduction of team interpreting process and continued acquisition of cognitive processing techniques.

Prerequisites: ASL 201 or MAC 201

203 Interpreting III 4 Cr. Hrs.

Advanced principles and techniques of the interpreting process. Classroom activities and testing include role plays incorporating advanced techniques and principles.

Prerequisites: ASL 202 or MAC 202

204 Interpreting IV 4 Cr. Hrs.

Development and demonstration of further mastery of advanced interpreting principles and techniques. Platform interpreting, team interpreting, and applications of the code of ethics to interpreting situations.

Prerequisites: ASL 203 or MAC 203

207 Role of Interpreter 4 Cr. Hrs.

Role of the interpreter in a variety of interpreting situations, including one-to-one interpreting and voice-to-sign interpreting, student performances, instructor critique and feedback.

Prerequisites: ASL 102 or MAC 102 and ASL 229 or MAC 132

212 Specialized Interpreting 4 Cr. Hrs.

Introduction to American Sign Language vocabulary related to sexual behavior/sexual abuse and drug use/abuse. Designed to increase student's comfort and skill level for interpreting medical, substance abuse treatment, counseling, and legal settings.

Prerequisites: ASL 232 or MAC 232

228 Intermediate American Sign Language I 4 Cr. Hrs.

The first intermediate course in the study of American Sign Language (ASL). Includes increasing the conversational skills, additional types of sentences and discourse structure. Continued development of expressive and receptive skills. Study of relevant issues within the American Deaf culture.

Prerequisites: ASL 113 or MAC 113

229 Intermediate American Sign Language II 4 Cr. Hrs.

The second intermediate course in American Sign Language (ASL) focusing on upper level grammatical features and functions. Development of receptive and productive capabilities of these upper level features. Discussion of Deafness as a culture and a community and the role of American Sign Language in the community. Introduction to the interpreting process.

Prerequisites: ASL 228 or MAC 131 and ENG 111

230 Intermediate American Sign Language III 4 Cr. Hrs.

The third intermediate course in American Sign Language (ASL) with further mastery of upper level grammatical features and functions. Continued development of both receptive and expressive abilities. Development of basic interpreting skills through classroom activities. Additional discussion regarding Deaf culture characteristics.

Prerequisites: ASL 229 or MAC 132

231 Advanced American Sign Language I 4 Cr. Hrs.

The first advanced course in the study of American Sign Language (ASL) is an intensive study of the linguistic structure of English and American Sign Language (ASL). Students explore the syntactic similarities and differences between the two languages and learn how to find functional equivalence between the two languages.

Prerequisites: ASL 230 or MAC 133

232 Advanced American Sign Language II 4 Cr. Hrs.

The second advanced course in the study of American Sign Language (ASL). The course focuses on student's receptive and productive mastery of using multiple grammatical features, narrative and explanatory discourse, and targeted vocabulary. Principles of self-assessment of both productive and receptive abilities introduced.

Prerequisites: ASL 231 or MAC 231

233 Advanced American Sign Language III 4 Cr. Hrs.

The third advanced course in the study of ASL. Designed to achieve fluency of most basic and complex grammatical features of ASL. Activities include incorporating into sign production the necessary adjustments for registers, emotive components, and cultural background.

Prerequisites: ASL 232 or MAC 232

236 Transliterating 4 Cr. Hrs.

A preparatory course for the Registry for Interpreters for the Deaf Certificate Transliteration exam. The Signing Exact English System of manually coded English is introduced, and conceptual accuracy is stressed for educational interpreting.

Prerequisites: ASL 230 or MAC 133

261 ASL Practicum I 3 Cr. Hrs.

The first of three practicum courses. Students are required to complete 100 clock hours of practical experience in order to develop knowledge and skills in the professional field. Students must also attend weekly seminar meetings. Two lecture, seven practicum hours per week.

Prerequisites: ASL 103 or MAC 103, ASL 230 or MAC 133, ASL 201 or MAC 201, ASL 207 or MAC 207

262 ASL Practicum II 3 Cr. Hrs.

The second of three practicum courses. Students are required to complete 100 clock hours of practical experience. Students will be given increased responsibility under the supervision of a qualified mentor. Students will attend weekly seminar meeting. Two lecture, seven practicum hours per week.

Prerequisites: ASL 261 or MAC 261 and ASL 236 or MAC 236

263 ASL Practicum III 3 Cr. Hrs.

Third and final practicum placement. Continuation of 100 clock hours. Students prepare for local agency evaluations and educational interpreter licensure. Students also will attend weekly seminar meetings. Two lecture, seven practicum hours per week.

Prerequisites: ASL 262 or MAC 262

Astronomy (AST)**101 Survey of Astronomy** 4 Cr. Hrs.

A survey of the solar system, galaxies, stellar evolution, recently discovered phenomena and cosmology. Three lecture, three lab hours per week.

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 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; origins 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 Lab 1 Cr. Hr.

Lab and field activities to supplement AST 111. Three lab hours per week.

Co-requisite: AST 111

118 Solar System Lab 1 Cr. Hr.

Lab and field activities to supplement AST 112. Three lab hours per week.

Co-requisite: AST 112

119 Stars, Galaxies, & Cosmology Lab 1 Cr. Hr.

Lab and field activities to supplement AST 113. Three lab hours per week.

Co-requisite: AST 113

297 Special Topics in Astronomy R 1-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (TV and newspaper) as well as special interest topics in astronomy. Objectives will vary with the particular content area.

Automotive Technology (AUT)

100 Basic Automotive Systems 3 Cr. Hrs.

Language of automotive systems and major automotive functions. Students will change oil and lubricate own car, perform safety check, ignition tune up, and brake inspection, service cooling system, and evaluate used cars. Basic hand tools required. One lecture, four lab hours per week.

102 Dealership Principles for ASEP/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 cars 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 Engine Performance I R 0.1-7 Cr. Hrs.

Operation and service of fuel injection (including computer control) and fuel delivery system, emission control systems and engine fuels. Operation of "On Board Diagnostic" systems. Basic hand tools required. Three lecture, eight lab hours per week.

124 Electrical/Electronic Systems Level I 5 Cr. Hrs.

Basic electricity, Ohm's Law, voltage drops, digital meter usage, schematics, batteries, starting and charging system operation, diagnosis of wire repair procedures and service. Three lecture, four lab hours per week.

Prerequisites: Co-registration with AUT 124

125 Electrical/Electronic Systems II R 0.1-7 Cr. Hrs.

Advanced automotive electrical/electronic systems covering strategy based diagnostic procedures for troubleshooting lighting, instrumentation, body controls and other accessory circuits. Air bags theory is discussed along with respective testing and diagnostic procedures. New trends in electrical/electronic technology will be introduced, example - hybrid vehicles. Introduce module communication data bus systems. Ignition system operations are discussed for example: distributorless and coil-on-plug. Three lecture, eight lab hours per week.

Prerequisite: AUT 124

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. Complete set of hand tools and eye protection required. Three lecture, four lab hours per week.

Prerequisite: AUT 108

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 0.1-5 Cr. Hrs.

Theory and operation of hydraulic braking systems; drum brake, disc brake, and power assist diagnosis and service. 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, and 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 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.

Prerequisites: AUT 108 or approval of instructor

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 high performance use. Complete cylinder head blueprinting. Three lecture, eight lab hours per week.

Prerequisites: AUT 108 or approval of instructor

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.

Prerequisites: AUT 108 or approval of instructor

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 approval of chairperson

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 II R 0.1-7 Cr. Hrs.

Advanced diagnostics and repair with engine, ignition, fuel, emission and cooling systems; advanced computer controlled fuel system diagnosis and repair. Basic hand tools required. Three lecture, eight lab hours per week.

Prerequisite: AUT 115

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.
Prerequisites: AUT 165 and AUT 125

270 Automotive 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 Automotive**Technology 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.

Prerequisite: Approval of chairperson

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.

Prerequisites: DEV 065 or ENG 111, ENG 121, ENG 131 and DEV 085**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/Private Pilot**4 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 065 or ENG 111 and DEV 085 or ENG 112**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**R 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 or bulkhead fittings. One lecture, four lab hours per week.

Prerequisite: AVT 135**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 Private Pilot Flight 2 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.

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 Private Pilot Practicum 1 Cr. Hr.

Provides hands-on flight training in a combination of aircraft and simulators. Flight hours logged in this course are qualified by the FAA for credit toward this and more advanced pilot ratings.

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.

Co-requisite: 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: speed, 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, and arc 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 airframe and powerplant 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 Instrument Ground School 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, minimum meteorological conditions, Federal Aviation Regulations (FARs), and approaches and missed approaches.

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.
Prerequisites: PHY 131 or permission of chairperson/instructor

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 Pilot Flight 3 Cr. Hrs.

Provides pilots in the Professional Pilot degree option with the flight knowledge necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Instrument rating.

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 Instrument Pilot Practicum 1 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.

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 lab per week.

Prerequisites: AVT 131 and 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 trouble shooting, and engine troubleshooting. One lecture, four lab hours per week.

Prerequisites: AVT 226, AVT 126

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.

Prerequisites: DEV 065 or ENG 111 or ENG 121 or ENG 131 and DEV 085 or permission of chairperson/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 sections, 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.

Prerequisites: DEV 065 or ENG 111 or ENG 121 or ENG 131 and DEV 085

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.

Prerequisites: DEV 065 or ENG 111 or ENG 121 or ENG 131 and DEV 085

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.

Prerequisites: DEV 065 or ENG 111, ENG 121 or ENG 131 and DEV 085

246 Air Traffic Control Communications
3 Cr. Hrs.

Approach, missed approach, departure and vectoring language and procedures. Includes role-playing through a wide variety of flight scenarios in order to build confidence in the pilot.

247 Flight Controls 3 Cr. Hrs.

Provides pilots and other aviation professionals with instruction on flight controls. The course explores basic concepts of flight controls from conventional systems to advanced fly-by-wire systems.

Prerequisite: AVT 206

248 Aircraft Structures & Systems
3 Cr. Hrs.

Basics of load bearing structural airframe components and related aircraft systems, operational limitations, failure modes, corrosion, repair, inspection, certification, FARs, and documentation. Survey of various models of airframes, from simple light single-engined aircraft to commercial systems. One lecture, four lab hours per week.

250 Commercial Pilot Ground School
4 Cr. Hrs.

Constant speed propellers, advanced fuel systems, retractable landing gear systems, complex maneuvers, and high altitude operations of complex and high performance aircraft.

251 PCATD Lab 2 Cr. Hrs.

Provides pilots with access to Sinclair's Personal Computer Aviation Training Device (PCATD) flight simulator lab. Course emphasizes maintaining flight proficiency on the instrument skills required for advanced ratings in the Professional Pilot program. Students must complete a minimum of 10 simulator hours to successfully complete the course. Four lab hours per week.

252 VFR Proficiency Course 1 Cr. Hr.

Transitional flight training for students who require conversion to professional aviation procedures and FAA Part 141 rules and regulations.

253 Commercial Pilot Flight 2 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 Commercial Pilot certificate.

254 GAT II Instruction R 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 Pilot Ground School
4 Cr. Hrs.

Advanced aircraft systems, fuel management, engine failures, asymmetric thrust, and advanced weight and balance calculations required to operate multi-engine aircraft.

256 Multi-Engine Flight 2 Cr. Hrs.

Provides aviation pilots in the Professional Pilot option with the knowledge necessary to pass the Federal Aviation Administration (FAA) practical test requirements for the Multi-Engine rating.

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. Three lab hours per week.

Prerequisites: AVT 120 or permission of chairperson

258 Flight Instructor Ground School
4 Cr. Hrs.

Includes ground training in instructional methods, including learning processes, lesson planning, and student evaluation processes. Aeronautical training includes the teaching of aviation concepts and principles from beginning pilot to multi-engine pilot, but not instrument rated pilots.

259 Flight Instructor Flight School
2 Cr. Hrs.

Provides aviation pilots in the Professional Pilot option with the knowledge necessary to pass the stage checks and end-of-course tests for the Certified Flight Instructor (CFI) certificate.

261 Airframe I 3 Cr. Hrs.

Practical and lab component of A&P program. Limited to A&P students only. One lecture, six lab hours per week.

263 Commercial Pilot Practicum
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 Multi-Engine Pilot Practicum
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. One lecture, four lab hours per week.

269 Flight Instructor Practicum 1 Cr. Hr.
Provides pilots in the Professional Pilot option with the flight training necessary to pass the FAA end-of-course test requirements for the Certified Flight Instructor (CFI) certificate.

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.

Prerequisites: Department chairperson's signature

275 Instrument Instructor Ground School
2 Cr. Hrs.

Ground training in instructional methods for Certified Flight Instructors (CFI) to support qualification as CFII (Certified Flight Instructor, Instrument). Also includes instrument technology and procedures to VFR (Visual Flight Rules) for IFR (Instrument Flight Rules) pilot upgrades.

276 Instrument Instructor Flight School
2 Cr. Hrs.

Advanced ground training in aviation technologies and procedures. This course contains competencies that are required to upgrade a Certified Flight Instructor (CFI) to a Certified Flight Instructor, Instrument (CFII).

277 Instrument Flight Instructor Practicum 1 Cr. Hr.

Hands-on training in an aircraft and/or simulator to develop the knowledge and skills required to become a Certified Flight Instructor, Instrument (CFII) and to complete the certification process by successfully passing all stage checks, examinations, and/or end-of-course tests.

285 Multi-Engine Instructor Ground School
2 Cr. Hrs.

Ground training in instructional methods for Certified Flight Instructors (CFI) to attain qualification as Multi-Engine Flight Instructors (MEI), including the legal, operational and technical aspects of multi-engine flight.

286 Multi-Engine Instructor Practicum
1 Cr. Hr.

Flight training in instructional methods for Certified Flight Instructors (CFI) to qualify them as Multi-Engine Flight Instructors (MEI). The MEI's teach the legal, operational and technical aspects of multi-engine flight.

297 Special Topics in Aviation
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.

Prerequisites: Permission of department chairperson

R - Course may be repeated for credit. **NOTE:** See divisional sections for curriculum changes.

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.
Prerequisites: DEV 065 and DEV 075 and DEV 085

108 Lab for BIO 107
Laboratory must be taken with BIO 107.

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, 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 (BIO 119) hours per week.
Prerequisites: BIO 112

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.

125 Cardiopulmonary Anatomy & Physiology 5 Cr. Hrs.
Advance study of adult lung, heart, and renal anatomy and physiology including: ventilation, pulmonary mechanics, diffusion, gas transport, cardiac function and pulmonary perfusion, acid-base balance and interpretation with emphasis on patient scenarios.
Prerequisite: BIO 107

131 Radiologic Anatomy & Physiology I 5 Cr. Hrs.
Structure and function of the human body and radiologic appearance. Four lecture, two lab hours (BIO 137) per week.
Prerequisites: DEV 065, DEV 075 or DEV 085 or equivalent

132 Radiologic Anatomy & Physiology II 5 Cr. Hrs.
Structure and function of the human body. 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. Three lecture, two lab hours (BIO 147) per week.
Prerequisites: 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. Three lecture, two lab hours (BIO 148) per week.
Prerequisites: BIO 141 or BIO 121

143 Principles of Anatomy & Physiology III 4 Cr. Hrs.
Continuation of BIO 142/148, Principles of Anatomy and Physiology II, with an emphasis on cardiovascular, lymphatic, immune, respiratory, urinary systems, and water, electrolyte, and acid/base balance. Three lecture, two lab hours (BIO 149) per week.
Prerequisite: BIO 142

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 & physiological function 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.
Prerequisites: BIO 161 or BIO 166

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 hours (BIO 177) per week.
Prerequisites: DEV 065 and DEV 075, MAT 101 or equivalent

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 hours (BIO 178) 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 hours (BIO 179) 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.
Prerequisites: BIO 107, BIO 111, BIO 115, BIO 121, BIO 141, BIO 161, BIO 211, 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 TRACT 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.

Prerequisites: 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.

Prerequisites: BIO 107 or 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, three lab hours (BIO 226) 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, multi-cultural exposure.

Prerequisites: Permission of instructor

235 Genetics

5 Cr. Hrs.

Fundamental principles, concepts, and techniques of genetics. Classical/transmission genetics, molecular genetics, population genetics, quantitative genetics, and the impact of genetics on technology and society. The laboratory will emphasize basic methods of genetic research and analysis. Four lecture, three lab hours (BIO 236) per week.

Prerequisites: BIO 113 or BIO 173 or BIO 143 and MAT 116

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, two lab hours (BIO 246) per week.

Prerequisites: BIO 105 or BIO 113

245 Concepts in Biology

5 Cr. Hrs.

Basic concepts and applications of biology, including basic needs of living things, growth and development, structure and function of organisms including cells, tissues, organs; basic heredity, basic botany, ecological principles and environmental education. Applications use an inquiry learning environment which emphasizes science process skills integrated with mathematics. Early childhood education majors only. Does not satisfy biology requirement for middle childhood education majors. Four lecture, three lab hours per week.

Prerequisites: MAT 110 and ASE 145

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 in Biology

R 1-6 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses, workshops, and special interest topics in Biology.

Business Information Systems (BIS)

101 Personal Computer Keyboarding

2 Cr. Hrs.

Development of "touch" keyboarding using word processing software on a personal computer; development of competency on the ten-key pad; minimum of 20 WPM expected. Out-of-class lab work required.

102 Document Formatting 2 Cr. Hrs.

Introduction to word processing software and continued development of personal computer skills; format and produce reports, letters, memos, multiple-column tables, and other business documents; minimum speed of 35 wpm expected. Completion of BIS 101 or OIS 101 or 118, and completion of or concurrently taking BIS M61 and BIS M62 or OIS M61 and OIS M62. Out-of-class lab work required.

Prerequisites: 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.

Prerequisites: BIS 102 or OIS 102 and BIS M62 or OIS M62 or BIS 161 or OIS 161

104 Introduction to P.C. Usage 2 Cr. Hrs.

This hands-on class focuses on the components of a personal computer, including an introduction to the Windows graphic user interface, use of the mouse and understanding icons, buttons, and menus. Also includes creating directories, copying and moving files, and changing and enhancing desktop features. Introduction to application software and the World Wide Web. Elementary P.C. assignments require lab time outside of class.

105 Computer Concepts 3 Cr. Hrs.

Introduces students to personal computers, software, peripheral devices, and other current and developing hardware and software elements within the home or office setting. History, equipment, programming concepts, information media and literature of computer information systems in business and industry are introduced. Elementary P.C. assignments require lab time outside of class.

109 Keyboarding Speed/Accuracy Development 4 Cr. Hrs.

Development of increased personal computer keyboarding speed and accuracy through proper diagnostic testing and corrective procedures.

114 Records Management & Electronic Files 3 Cr. Hrs.

Introduction to the methods of appropriately saving, naming, and managing files for paper-based and electronic storage and retrieval. Also includes alphabetic filing, numeric, alpha/numeric, and other classification systems in addition to about archive creation and confidentiality, choosing equipment and supplies. Backups, disaster planning/recovery programs, and the life cycle of recorded media will be covered. Emerging technologies within electronic records storage and retention will be included.

115 Work Place Technologies 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.

Prerequisites: BIS 136 or OIS 136 and BIS 102 or BIS 103 or OIS 102 or OIS 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.

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. BISM 11 must be taken as a co-requisite.

Prerequisites: BIS 103 or OIS 103 and ENG 132 or ENG 112

BIS M11 must be taken as a co-requisite

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, nervous, cardiovascular, respiratory, blood and lymphatic systems 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.

Prerequisites: BIS 136 or OIS 136

143 Introduction to Transcription & Legal Terms 4 Cr. Hrs.

Spelling, pronunciation, and definitions of legal terms and their proper use by legal professionals. Transcription of correspondence from dictated media cassettes into proper business formats using transcribers and personal computers and an up-to-date word processing software package, emphasizing English grammar and proofreading skills.

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). Fundamental concepts and applications of Microsoft Word, Powerpoint, and Excel. Not for BIS majors. Assumes experience with Microsoft Word, Powerpoint, and Excel. Keyboarding skills necessary. Out-of-class 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). Intermediate concepts and applications of Microsoft Word, Powerpoint, and Excel. Not for BIS majors. Assumes experience with Microsoft Word, Powerpoint, and Excel. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisites: 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). Advanced concepts and applications of Microsoft Word, Powerpoint, and Excel. Not for BIS majors. Assumes experience with Microsoft Word, Powerpoint, and Excel. Keyboarding skills necessary. Out-of-class work required.

Prerequisites: BIS 161 or BIS M42 and BIS M52 and 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.

Prerequisites: BIS 161 and BIS M32 or BIS M32 and BIS M42 and BIS M52 and BIS M62

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 Advanced Customer Service Concepts 3 Cr. Hrs.

This course will introduce students to the electronic application of customer service. Topics to be covered will include the use of emerging technology within the customer service setting, quality tools and tracking, phone-based customer service, and scenarios/cases.

Prerequisite: BIS 201

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.

Prerequisites: BIS 116 and BIS 251 or OIS 116 and OIS 251, 80 credit hours

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.

251 Medical Transcription I 4 Cr. Hrs.

Transcription of medical/surgical reports on a personal computer with word processing software into an accurate and acceptable format using medical terminology.

Prerequisites: BIS 103 or OIS 103 and BIS 137 or BIS 138 or OIS 137 or OIS 138

252 Medical Transcription II 4 Cr. Hrs.

Continuing emphasis on precision of transcription and personal computer word processing skills in preparation of complex medical reports. Second of a two-course sequence.

Prerequisites: BIS 251 or OIS 251

270 Business Information Systems Internship R 1-9 Cr. Hrs.

See EBE 270.

Prerequisites: Approval of department

297 Special Topics in Business Information Systems R 0.5-6 Cr. Hrs.

Provides opportunity to receive credit for new and non-traditional courses within developing technology and career-related courses/opportunities, or service learning courses/activities, including special interest topics, workshops or customized training.

M21 Introduction to Desktop Publishing 1 Cr. Hr.

Introduction to desktop publishing for office applications using Microsoft Publisher software for creation of proposals, flyers, newsletters, and web pages. Keyboarding skills required. Out-of-class lab work required.

M22 Intermediate Desktop Publishing 1 Cr. Hr.

Intermediate level of desktop publishing for office applications using Microsoft Publisher software for creation and enhancement of proposals, flyers, newsletters, and web pages using styles and other special features. Keyboarding skills required. Out-of-class lab work required.

Prerequisite: BIS M21

M31 Introduction to Access 1 Cr. Hr.

Introduction to basic database features of Microsoft Access. Skills and activities used to create databases and tables, enter and update data, display and print records, create forms and queries, and create reports. Assumes experience with computers and Microsoft Windows. Keyboarding skills required. Out-of-class lab work required.

M32 Intermediate Access 1 Cr. Hr.

Intermediate database features and applications used to search through databases, create reports, create subforms and update form and report designs. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisites: BIS M31 or 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.

Prerequisites: BIS M32 or 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.

Prerequisites: BIS M41 or BIS 160 or 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 WordArt 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.

Prerequisites: BIS M42 or BIS 161 or OIS M65

M44 Expert Excel 1 Cr. Hr.

This brief, one credit-hour module covers expert competencies associated with Microsoft Excel. Skills and activities covered within this module 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 prerequisites.

Prerequisites: BIS M43 or BIS 162

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, 35 mm slides, and the Internet. Assumes experience with computer and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

Prerequisites: BIS M51 or BIS 160 or 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 clipart from the web. Also develop skills using PowerPoint's web features, Office integration, PowerPoint macros, and add-in programs.

Prerequisites: BIS M52 or 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.

Prerequisites: BIS M61 or BIS 160 or OIS M61 or OIS 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.

Prerequisites: BIS M62 or 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.

Prerequisites: BIS M63 or BIS 162

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. *Prerequisites: BIS M70 or OIS M70 or CIS M70*

M81 Intermediate 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.

115 Careers in Biotechnology 1 Cr. Hr.

The biotechnology job market, resumes and portfolios, interviewing, essential work place skills, professionalism in the work place, small-group interactions.

120 Laboratory Safety & Regulatory Compliance 3 Cr. Hrs.

Overview of laboratory safety procedures and precautions, biosafety, radiation safety, compliance standards of regulatory agencies. Also includes current Good Laboratory Practice (cGLP) and current Good Manufacturing Practice (cGMP).

Prerequisite or concurrent course CHE 131 or CHE 120 or equivalent and restricted to majors

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 hours (BTN 131) per week.

Prerequisites: BTN 120 and CHE 131 or CHE 120 or equivalent, MAT 106 or MAT 116 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. Two lecture, three lab hours (BTN 141) per week.

Prerequisites: BIO 111 and BTN 120, 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.

Prerequisites: BIO 112 and CHE 122 and BTN 120 and BTN 130, MAT 106 or 116 or equivalent

211 Lab for BTN 210

Laboratory must be taken with BTN 210.

220 Microbiology & Fermentation Methods 4 Cr. Hrs.

Introduction to microbiology, metabolism and genetics of microorganisms, food and water microbiology, use of microbes in biotechnology, principles of fermentation, batch vs. continuous cultures, use of bioreactors for large-scale propagation. Two lecture, four lab hours (BTN 221) per week.

Prerequisites: BIO 112 and CHE 122 and BTN 120 and BTN 130, MAT 106 or 116 or equivalent

221 Lab for BTN 220

Laboratory must be taken with BTN 220.

230 Molecular Biology Techniques 6 Cr. Hrs.

Structure of nucleic acids, DNA replication mechanisms, DNA cloning, genetic engineering techniques, use of plasmids and viruses as vectors, nucleic acid analysis by electrophoresis, Southern and Northern hybridization, DNA amplification and sequencing. Three lecture, six lab hours (BTN 231) per week.

Prerequisites: BIO 112 and CHE 122 and BTN 120 and BTN 130 and MAT 106 or 116 or equivalent

231 Lab for BTN 230

Laboratory must be taken with BTN 230.

235 HPLC Methods 2 Cr. Hrs.

Introduction to high performance liquid chromatography (HPLC) instrumentation and application. Overview of HPLC terminology, fundamentals of the different types of chromatography, and sample preparation; includes establishing parameters for chromatographic separations.

Prerequisite: 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.

Prerequisites: BIO 113 and BTN 210 and BTN 230 and BIS 160 or equivalent

241 Lab for BTN 240

Laboratory must be taken with BTN 240.

270 Biotechnology Internship R 3-6 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.

Prerequisites: Approval of department

295 Biotechnology Seminar 2 Cr. Hrs.

Review of current issues in biotechnology through student literature research and presentation.

Prerequisites: Permission of instructor

297 Special Topics in Biotechnology R 1-3 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses, workshops, and special interest topics in Biotechnology.

Prerequisite: Instructor's 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. Internal Revenue Service prepared materials.

110 Small Business Management 3 Cr. Hrs.

Organization and operation of small-scale retail, trade, service, or manufacturing business. Problems of location, financing, marketing, labor supply, accounting, production, stock control, taxes, and insurance will be studied as they apply to operation and management of the small enterprise.

Prerequisite: BUO 105

125 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.

Students earn credits toward degree requirements for work experiences. Learning experiences relate to the concepts of owning and operating a small business.

297 Special Topics in Small Business R 0.5-6 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses as well as special topics in the discipline. Objectives vary with the particular content area.

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.

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, four lab hours per week.

Prerequisites: 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.

Prerequisites: DEV 108 or equivalent math score

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 Safety & Skills 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. One half lecture, three lab hours per week.

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. Three lab hours per week.

120 Introduction to Construction Trades 3 Cr. Hrs.

An orientation to the various construction trades including carpentry, ironwork, masonry, concrete, electrical, plumbing and HVAC. One lecture, six lab hours per week.

141 Portland Cement Concrete Level I 4 Cr. Hrs.

Introduction to the craft of working with concrete with strong emphasis on hands-on learning exercises. Two lecture, six lab hours per week.

Prerequisites: CCT 118, CCT 120

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.

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.

181 Construction Techniques I R 1-8 Cr. Hrs.

Basic Safety, hand and power tools, wood building materials and fasteners and framing systems.

182 Construction Techniques II R 1-8 Cr. Hrs.

Construction of concrete structures including forming, placing and finishing.

Prerequisite: CCT 181

183 Construction Techniques III R 1-8 Cr. Hrs.

Exterior and interior finishing of frame structures including roofing materials, siding, drywall, stairs, doors and trim.

Prerequisite: CCT 182

184 Construction Techniques IV R 1-8 Cr. Hrs.

Development of advanced skills for construction technicians including site layout, floor and roof systems and metal buildings. An introduction to welding, light equipment operation and project management.

Prerequisite: CCT 181

203 Subdivision Design 4 Cr. Hrs.

Research of court house records for deed transfers and descriptions. Study of subdivision regulations for a finished plat. Grading and storm water control. Two lecture, four lab hours per week.

Prerequisite: CCT 247

206 Reinforced Concrete Design 4 Cr. Hrs.

Theories of structural analysis with emphasis on the design of reinforced concrete. Hands-on laboratory problems will enable students to demonstrate design concepts. Two lecture, four lab hours per week.

Prerequisites: CCT 105 and MET 207

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.

Prerequisites: CCT 105 and CCT 256 and MAT 131 and MET 198 and either ARC 101 and ARC 105 or ARC 138

226 Heavy Highway Construction 3 Cr. Hrs.

Highway engineering design utilizing the Ohio Department of Transportation (ODOT) manuals and specifications. Interpretation of the relationships of plans, elevations, sections, and details along with the coordination with published specifications. Two lecture, two lab hours per week.

Prerequisite: DEV 108

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.

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.

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. Two lecture, two lab hours per week.

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.

Prerequisites: CCT 105 and CCT 198 and MET 203 and ENG 122

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.

Prerequisites: CCT 102 and CCT 103 and DRT 198 and MAT 131 or equivalent math score

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.

Prerequisites: CCT 246 and MAT 132

248 Advanced Construction Layout 3 Cr. Hrs.

Solving complex surveying problems for construction layout of buildings, sites and roads using appropriate mathematical calculations and surveying equipment. Two lecture, two lab hours per week.

Prerequisites: ART 138 and 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.

Prerequisites: CCT 103 and CCT 105 and MET 198 and ENG 121 and either ARC 138 or ARC 101 and ARC 105

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.

Prerequisites: CCT 216 and CCT 256 and ENG 122

270 Civil Engineering Technology Internship R 1-12 Cr. Hrs.

Earn credits toward degree requirements for work learning experience. Students establish learning objectives and prepare related reports and/or projects.

278 Civil Engineering Technology Capstone 4 Cr. Hrs.

Assessment of achievement by Civil Engineering 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.

Prerequisites: CCT 245 and CCT 247 and CCT 258 and MET 207

297 Special Topics in Civil Engineering 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, videotape, etc. *Prerequisites: 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 lab hours per week.

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 hours (CHE 126) per week.

Prerequisite: DEV 085

121 Introduction to Organic Chemistry 4 Cr. Hrs.

An introduction to alkanes, alkenes, alkynes, aromatic hydrocarbons, alkyl halides, aldehydes, ketones, alcohols, ethers, amides, carboxylic acids, amines, esters, stereoisomerism, polymers, and compounds containing phosphorous and sulfur. Three lecture, three lab hours (CHE 127) per week.

Prerequisite: CHE 120

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 hours (CHE 128) per week.

Prerequisite: CHE 120

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.

An applied chemistry course for students in Engineering Technology. Topics considered include atomic structure, elements, compounds, the periodic table, chemical bonding, nomenclature, chemical reactions, chemical calculations, the states of matter, equilibria, acids and bases, oxidation-reduction reactions, electrochemistry, and elementary organic chemistry. Three lecture, three lab hours (CHE 137) per week.

Prerequisites: MAT 102 or MAT 103

134 Environmental Analytical Chemistry 4 Cr. Hrs.

Field data acquisition techniques; separation techniques, volumetric techniques, gravimetric techniques, gas and high pressure chromatographic techniques, atomic absorption techniques of analysis; and statistical methods using EPA protocols. Two lecture, six lab 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 in chemistry for the non-science major. Atomic theory, the periodic law, chemical bonding, kinetics and equilibrium, nuclear chemistry and energy. Three lecture hours, two lab (CHE 147) hours per week.

Prerequisite: DEV 085

142 College Chemistry II 4 Cr. Hrs.

A continuation of CHE 141. Acids and bases, oxidation and reduction, sources of inorganic materials, organic chemistry and industrial applications, polymer chemistry, and biochemistry. Three lecture hours, two lab (CHE 148) hours per week.

Prerequisites: CHE 141 or CHE 120 or CHE 151

143 College Chemistry III 4 Cr. Hrs.

A continuation of CHE 142. The chemistry of water, the atmosphere, agriculture, nutrition, medicine, household chemistry, transportation chemistry, and the chemistry of imaging. Three lecture, two 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 in chemistry for science and engineering majors. Atomic theory, periodic law, chemical bonding, nomenclature, stoichiometry, and elementary organic chemistry. Four lecture, three lab hours per week (CHE 157).

Prerequisites: MAT 102 or MAT 103

152 General Chemistry II 5 Cr. Hrs.

A continuation of CHE 151. Emphasis is placed on the study of ideal and non-ideal states of matter—gases, solids, liquids, solutions and colloids, thermodynamics, kinetics and basic equilibria. Four lecture; three lab hour (CHE 158) per week.

Prerequisites: CHE 151 and MAT 116

153 General Chemistry III 5 Cr. Hrs.

A continuation of CHE 152. An in-depth study of applied equilibria, pH, electrochemistry, and nuclear chemistry. The descriptive chemistry of selected elements is discussed and a chemically oriented industry is toured. In addition to the above topics, qualitative analysis, gas chromatography, and visible IR and atomic absorption spectroscopy are studied in the laboratory. Three lecture, six lab hours (CHE 159) 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, stereochemistry, alkyl halides, organometallic compounds, alcohols, ethers, and epoxides.

Prerequisite: CHE 153

202 Organic Chemistry II 5 Cr. Hrs.

Alkenes, alkynes, aromatic hydrocarbons, aldehydes, ketones, carboxylic acids, and spectroscopic methods of organic analysis. Four lecture, three lab hours (CHE 208) per week.

Prerequisite: CHE 201

203 Organic Chemistry III 5 Cr. Hrs.

Derivatives of carboxylic acids, enolates, carbanions, amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, polymers, composite materials, and biochemistry. Four lecture, three lab hours (CHE 209) 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 electrochemistry. Two lecture, six lab hours (CHE 217) per week.

Prerequisites: CHE 143 or CHE 153

212 Analytical Chemistry II 4 Cr. Hrs.

Traditional instrumental analysis including: colorimetry, infrared, ultra-violet, visible, atomic absorption and various chromatographic methods. Two lecture, six lab hours (CHE 218) per week. Primarily for the associate degree student.

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.

Prerequisites: MAT 110, ASE 145 or equivalent

270 Chemistry Internship

R 2-12 Cr. Hrs.

The internship is designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgment of that learning with internship credit upon submission of a portfolio to an evaluation committee. 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.

297 Special Topics in Chemistry

R 1-6 Cr. Hrs.

To provide 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. Course is repeatable as topics change.

Chinese (CHN)**100 Conversational Chinese I** 3 Cr. Hrs.

Basic 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)

100 CIS Student Orientation for Success 2 Cr. Hrs.

An introduction to Sinclair Community College services, the Computer Information Systems (CIS) department, and the career field of Information Technology (IT). Provides an opportunity to acquire and adopt methods to support student success in college. Emphasis on the development of practical knowledge, skills and information needed to assist learners in the attainment of career goals.

101 Computer Networks & Security 3 Cr. Hrs.

Information and skills needed to setup and provide minimum security for a personal and/or home office network. Includes detailed instructions on how to plan and set up home networks; router set up and programming (wired and wireless) are also addressed. This course prepares students for more advanced topics in securing business networks.

Prerequisite: BIS 105

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 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 OS for the Network Manager 3 Cr. Hrs.

Introduces the current version of Windows operating system, including the graphical user interface, file manipulation, basic network operations and system administration. This course has a technical focus and is intended for CIS majors who have strong user-level knowledge of Windows. It is assumed that students have keyboarding and mouse skills, and have completed all Developmental (DEV) requirements. An assessment of basic computer concepts, keyboarding and mouse skills will be done upon entering the course. Recommend BIS 105 and CIS 107 (or equivalent knowledge).

Prerequisite: BIS 105

111 Introduction to Problem Solving & Computer Programming 4 Cr. Hrs.

Introduction to logical problem solving techniques used in programming. The course focuses on developing problem solving and program design abilities. Topics covered include problem solving, structured design involving sequence, selection and repetition structures using both flowcharts and pseudocode, arrays and array processing, and application of the program development process: design, code, and test. Prerequisite: MAT 101 or higher.

Prerequisites: MAT 101 or MAT 116 or MAT 121 or MAT 102

Recommended prerequisite: BIS 105 or equivalent.

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.

The course presents the concepts and vocabulary of Object Oriented Design, then investigates in detail the "three pillars" of object oriented programming: Inheritance, Encapsulation, and Polymorphism. Design case studies are an essential component of this course.

Prerequisite: Approval of chairperson and five or more years of programming experience or equivalent education and experience.

130 Introduction to Web Development 3 Cr. Hrs.

Introductory study of the web design and development process. Students will use web authoring software to create, edit and update web pages. Emphasis is on creating web pages for a business environment.

Prerequisite: BIS M71

131 Intermediate Web Development 3 Cr. Hrs.

This course focuses on the design principles for information web sites with a focus on the end user. Key underlying technologies will be discussed, such as XHTML and CSS. Students will create several web sites and present those sites for critique of the class. Familiarity with the Dreamweaver authoring tool is required.

Prerequisites: CIS 136 and CIS 137 and CIS 130 or CIS 129 and CIS 130

134 Macromedia Flash 3 Cr. Hrs.

Development of interactive, animated, digital creations appropriate for disk, CD or web delivery. The primary authoring tool is Macromedia's Flash with other authoring tools being reviewed. The course is best described as a community of learners who develop collaborative project skills as they develop Flash expertise.

Prerequisite: CIS 130

136 Introduction to XHTML 3 Cr. Hrs.

Introduction to Extensible HyperText Markup Language (XHTML) and design issues involved in creating documents for distribution on the World Wide Web. The standard XHTML tags will be covered, including basic formatting, headers, body attributes, page layout, links, tables, frames, forms, and style sheets.

Prerequisites: OIS M71 or BIS M71 or CIS M71

137 Introduction to JavaScript 3 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.

Prerequisites: CIS 136 and CIS 111 or equivalent

138 Advanced Macromedia Flash 3 Cr. Hrs.

Expansion of the skill set taught in CIS134 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 (CFML) 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.

Prerequisites: CIS 129 or CIS 136, CIS 111 and CIS 265

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.
Prerequisites: CIS 129 or CIS 136 and CIS 137, CIS 111 and CIS 265

147 Visual Basic.Net Programming I 3 Cr. Hrs.

Development and implementation of event driven, object oriented programs for graphical user interfaces within the Windows environment using the Visual Basic .NET programming language. Learning outcomes include: using the Visual Basic .NET development environment, implementation of fundamental Visual Basic .NET control objects and an introduction to ADO controls; use of selection and repetition programming structures, manipulating data obtained through user input, sequential files, random access files and arrays; implementation of modular programming through use of sub and function procedures; string data manipulation through VB.NET properties, methods and statements; how to set up and print formal business reports, and an introduction to the development and implementation of user interfaces to a database.
Prerequisites: CIS 111, CIS 112 and CIS 107 or CIS 108

148 Advanced Visual Basic.Net 3 Cr. Hrs.

Advanced programming in the Visual Basic .NET environment. Primary topic is developing Windows-based graphical user interfaces to relational databases. Other topics include the use of Visual Basic .NET system classes along with creating user defined classes in applying object oriented programming techniques, web forms with ASP.NET, accessing databases with web forms, and developing multi-tiered programs.
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.
Prerequisites: 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

200 Fundamentals of Programming a Firewall 4 Cr. Hrs.

Information and skills needed to program a state-of-the-art firewall to secure a small office and/or home office network. Includes detailed instructions in the planning, setup, and programming of small Cisco IOS-based PIX firewalls; also prepares students for more advanced topics in securing branch and corporate office networks. Other manufacturers or models may be used in lieu of the PIX 501.
Prerequisite: CIS 242 or equivalent

201 Wireless Network Administrator 4 Cr. Hrs.

Planning, installing and maintaining a wireless network. Included will be topics necessary for the successful completion of both vendor neutral and vendor specific wireless certifications.
Prerequisites: CIS 230 or CIS 241

206 Network Security I 3 Cr. Hrs.

A current overview of both network and Internet-based security practices and conventions. Includes planning, implementing, and managing network security. Through an exploration of security technologies, vulnerability assessment and attack methods, this course addresses how to minimize potential security risks. Preparation will also be given for the Security+ certification.
Prerequisites: CIS 230 or CIS 241, CIS 108 or CIS 271 or equivalent knowledge such as TCP/IP networks and network operating systems.

207 Network Security II 3 Cr. Hrs.

An advanced course in network and Internet-based security practices and conventions. Includes advanced level planning, implementing, and managing network security. Also includes detailed study of security risks and responses. Preparation will also be given for the Security+ certification.
Prerequisite: CIS 206
Working knowledge of TCP/IP networks and other network operating systems.

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

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 a simple e-commerce application.
Prerequisites: 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.

Prerequisites: CIS 131 or CIS 141 or CIS 143 or CIS 144 or CIS 284 or CIS 285

225 Operating Systems Troubleshooting 3 Cr. Hrs.

Introduction to theoretical and practical concepts related to modern, personal computer (P.C.) operating systems. Includes functions and characteristics of current operating systems in common use. Lab projects will be assigned.

Prerequisites: CIS 107 or CIS 108

229 Advanced JavaScript 3 Cr. Hrs.

This course introduces the student to the more advanced topics of JavaScript and provides 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.

Prerequisites: 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).

Prerequisites: 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 Shell Programming 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 4 Cr. Hrs.

Introduction to the C++ programming language, building on prior introduction to programming studies. Topics include C++ syntax with its constructs, data types, logic and repetition structures, input/output methods, one dimensional arrays, structures, and classes.

Prerequisite: CIS 111

234 C++ Programming II 4 Cr. Hrs.

This course builds on the foundation of C++ studies covered in CIS 233. Introduction to object based and object oriented programming using C++, including data encapsulation and methods (abstract data type classes), class objects, constructors, destructors, operator overloading, inheritance, friends, virtual functions. Concepts addressed include searching sorting, n-dimensional arrays, vectors, and pointers; programming assignments require additional time outside of class.

Prerequisite: CIS 233

236 C++ Programming III 4 Cr. Hrs.

Advanced C++ programming: Basic data structures including lists, stacks, queues, trees, and to introduce analysis of simple algorithms. Enrolling students should already know the C++ programming language.

Prerequisite: CIS 234

237 Data Structures In Java 4 Cr. Hrs.

The course covers data structures, methods of organizing large amounts of data; and algorithm analysis, the estimation of the running time of algorithms. The goal of this course is to teach students good programming and algorithm analysis skills so that they can develop efficient programs.

Prerequisites: CIS 281 and MAT 116

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 computer 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 (CIS241). 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 threaded 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.

Prerequisites: 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 recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.

Prerequisites: CIS 244 or CCNA certification

247 Multilayer Switching for CCNP®
4 Cr. Hrs.

Building campus networks using multi-layer 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. *Prerequisites: 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. *Prerequisites: 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.
Prerequisites: CIS 111 and CIS 137
*Recommended CIS 233 or CIS 280***253 Securing a Windows Network Environment** 4 Cr. Hrs.

Provides students with the knowledge and skills to successfully plan, implement, and troubleshoot security for a Microsoft Windows network using the current version of the Microsoft Server operating system. Topics include implementing baseline security; managing software updates through service packs and updates; securing local and remote network access; managing a Public Key Infrastructure (PKI); monitoring and responding to security incidents. Prepares students for the industry-standard certification exam. Assignments require lab time outside of the classroom.
Prerequisites: CIS 271, CIS 272 or equivalent knowledge

255 Securing a Unix/Linux Operating System 4 Cr. Hrs.

Introduction to the most common tools used to protect a UNIX/Linux Operating System environment from unauthorized use. In addition, the course provides an overview of vulnerable areas related to network security. *Prerequisites: CIS 231, CIS 232 or equivalent knowledge*

257 Microsoft Internet Security & Acceleration (ISA) Server 4 Cr. Hrs.

Planning, implementing, installing and troubleshooting the current version of the Microsoft Windows firewall product (Internet Security and Acceleration Server). Various topologies, installation, configuration, and ISA hosting are also addressed. Prepares students for the industry standard certification exam related to this product. Assignments require lab time outside of the classroom.
Prerequisite: CIS 272

259 Designing Security for Windows Networks 4 Cr. Hrs.

Conceptual, logical and physical design of a network security infrastructure; includes analyzing business and technical requirements. Prevention, detection and isolation of various threats. Design of a public key infrastructure using Certificate Services; strategies for secure user authentication; operating system software update methods; security of data transmission using IPSec policies and virtual private networks (VPNs); securing wireless communication; and specific security requirements for various enterprise services, e.g., web, database and mail servers.
Prerequisites: CIS 272 and CIS 273 and CIS 274

260 Microsoft Exchange Server 4 Cr. Hrs.

Skills needed to install, configure and manage information systems that incorporate Microsoft Exchange Server. Topics will relate to installing, configuring and managing Exchange Server on a computer platform running a current Microsoft Windows Server operating system.
Prerequisites: CIS 272 and CIS 274

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.
Prerequisites: 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. This course will prepare 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.
Prerequisites: CIS 225 and CIS 238

265 Database Management Systems 3 Cr. Hrs.

Introduction to application development in a database environment. Discussion of data structure and database models. Discussion of database administration and analysis (design and implementation). An explanation and comparison of the various database models: relational, network, and hierarchical. Students will design and develop a simple database and implement a small portion of this project. Project requires lab time outside of class.
Prerequisites: CIS 111 or OISM69 or BISM32 or CIS M69

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.
Prerequisites: CIS 113 or CIS 111 and BIS M31

267 Administering Windows XP Professional 4 Cr. Hrs.

Installing and administering information systems that incorporate the 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.
Prerequisites: CIS 108, CIS 230

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.
Prerequisites: CIS 265 or CIS 266

270 CIS 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.

271 Administering a Microsoft Windows Client Operating System 4 Cr. Hrs.

Installing and administering systems that incorporate the current Microsoft 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.

Prerequisites: CIS 108, CIS 230

272 Microsoft Windows Server Operating System 4 Cr. Hrs.

Intermediate and advanced aspects of the administration and support functions of a Windows Server administrator. Outcomes include installation and setup of the current Windows Server operating system, setup and administer a client server network and in-depth knowledge of the current Windows Server operating system. Prepares students for the industry certification exam. Assignments require lab time outside of class.

Prerequisites: CIS 108 and CIS 230 and CIS 271

273 Managing a Windows Network Infrastructure 4 Cr. Hrs.

Intermediate and advanced aspects of the administration and support functions of a Windows network infrastructure using the current Windows Server operating system. Focus on the ability to install, manage, monitor, configure, and troubleshoot DNS, DHCP, Remote Access, Network Protocols, IP Routing, and WINS in a Windows network. Prepares students for the industry certification exam. Assignments require lab time outside of class.

Prerequisite: CIS 272

274 Windows Directory Services Administration 4 Cr. Hrs.

Provides students with the knowledge and skills to successfully plan, implement, and troubleshoot a Microsoft Windows Active Directory® infrastructure using the current version of the Microsoft Server operating system. The course focuses on a Windows directory service environment, including forest and domain structure, Domain Name System (DNS), site topology and replication, organizational unit structure and delegation of administration, Group Policy, and user, group, and computer account strategies. Prepares students for the industry standard certification exam. Assignments require lab time outside of the classroom.

Prerequisite: CIS 272

275 Designing Windows Active Directory & Network Infrastructure 4 Cr. Hrs.

Intermediate and advanced aspects of the design and support functions of Windows Active Directory (AD) Services and Network Infrastructure. Focus is on the ability to design and analyze Directory Services architecture and Network Services requirements. Prepares students for the industry certification exam. Assignments require lab outside of classroom.

Prerequisites: CIS 274 and CIS 273

277 Planning a Windows Network Infrastructure 4 Cr. Hrs.

The 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. Heavy emphasis on planning a network design using the current Windows Server operating system. Prepares students for the industry certification exam.

Prerequisites: 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. Three lecture, two lab hours per week.

Prerequisites: Counselor's signature required

279 Microsoft SQL Server Administration 4 Cr. Hrs.

Provides skills and resources needed to install, configure and administer MS SQL Server. Outcomes include installation and setup of the MS SQL Server; setup and administration of a client server database and an in-depth knowledge of the MS SQL Server Database Application and its application interfaces and client tools. This course also prepares students for the Microsoft certification exam.

Prerequisite: CIS 272

280 Java Programming I 4 Cr. Hrs.

The course covers the 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.

Prerequisites: CIS 111 and 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 designed for professional programmers wishing an accelerated course which combines the content of CIS 280 (Java Programming I) and CIS 281 (Java Programming II). Included is most of the material in the Sun Java Programmer Certification and part of the Sun Java Developer Certification.

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.

Prerequisites: CIS 111 and OISM68 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.

Prerequisites: CIS 280 or CIS 283 and 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.

Prerequisites: 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.

Prerequisites: CIS 283, CIS 285

297 Special Topics in Computer Information Systems

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. Three lecture, two lab hours per week.

Prerequisites: CIS 210, CIS 222, CIS 265, COM 211

M72 Cyber Security Tools 1 Cr. Hr.

Intermediate aspects of the World Wide Web, Internet, electronic tools and virtual libraries with emphasis on the ability to use various electronic tools such as academic portals and specialized databases; determining secure modes of electronic research and communication; securing electronic documents, e-mail, and personal computers. Also examines cyber-user vulnerabilities and risk factors. Assignments may require lab time outside of class.

Prerequisites: BIS 105, BIS M71

M73 Cyber Ethics 1 Cr. Hr.

A thoughtful examination of legitimate use of information found on the Internet. Includes practical application of ethical questions and issues regarding computer and Internet use. Privacy in cyberspace is examined as well as employer/employee cyberspace related security expectations. Appropriate for any major. Assignments may require lab time outside of class.

Prerequisites: BIS 105, BIS M71

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.

This course focuses on the development of effective verbal and nonverbal interactions between two people, stressing better methods of initiating and maintaining effective communication with and understanding of others through learning and applying interpersonal communication theory.

Prerequisites: DEV 065 and DEV 110 or any college level English course

211 Effective Speaking I 3 Cr. Hrs.

Designed to help individuals speak and listen effectively through the study of organization, 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.

Prerequisites: COM 206 or COM 225

235 Principles of Interviewing 3 Cr. Hrs.

Development of theoretical understanding and effective skills in the interviewing process, as both interviewer and interviewee. Practical experience in key types of interviews including problem solving, appraisal, informational, and employment interviews.

Prerequisites: DEV 065 and DEV 110 or any college level English course

245 Intercultural Communication 3 Cr. Hrs.

Analysis of issues associated with communicating across cultures, including study of communication norms characteristic of major contemporary cultures and emphasizing effective cross-cultural communication in interpersonal and organizational contexts.

Prerequisites: DEV 065 and DEV 110 or equivalent on placement test

250 Applied Health Communication 3 Cr. Hrs.

Overview and application of communication theories directly impacting 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 non-verbal communication behaviors, camera work, switching graphics, meeting preparation and basic technology needs will be covered.

270 Communication 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.

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.

Prerequisites: COM 201 and COM 206 and COM 211 and COM 225

285 Business & Professional Communication 3 Cr. Hrs.

Principles and skills of effective face-to-face communication in business and professional settings; on-the-job communication skills that enhance success for individuals and the organization.

286 Public Relations Principles 3 Cr. Hrs.

Principles and skills of public relations in organizations and in society, 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. Solid foundation in relevant listening theory.

Prerequisites: DEV 065 and DEV 110 or any college level English course

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 in Communication R 1-6 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.

Community Based Corrections (COR)

101 Corrections Ethics 3 Cr. Hrs.

This course is designed to give correctional officers an understanding of the challenges, expectations, and demands of this occupation. Ethical behavior, along with professionalism, and the critical nature of following appropriate standards will be emphasized.

102 Crisis Intervention 3 Cr. Hrs.

The purpose of this course is to enable the correctional staff to take necessary measures to develop a comprehensive riot control plan for their institution, and to implement appropriate responses to maintain order and restore peace to the institution in a legal and human fashion.

103 Legal Issues in Correctional Institutions 3 Cr. Hrs.

This course is designed to help the correctional officer understand the many legal issues he or she may face while working in correctional institutions. Topics include suicide prevention, conditions of confinement, use of force, and the right to exercise or practice one's religion. These are just a few of the issues commonly litigated today that were not considered by inmates or correctional administrators thirty years ago.

104 Written Communications in Corrections 3 Cr. Hrs.

This course is a practical experience in preparing the diverse forms, notes and reports that accompany correctional work. Emphasis is on specific skills necessary for accurately completing these writing 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.

This course is designed to give the new correctional worker an understanding of the demanding daily workload within the institutional setting. The critical issues affecting security, custody control, and institutional programs will be emphasized so that the student will know the interaction of the various organizational components within the institution.

126 Correctional Services in the Community 3 Cr. Hrs.

Community resources that can be used in the correctional task (both diversionary and rehabilitative). On-the-scene examination or an orientation by an expert from each prominent resource.

190 Corrections Workshop R 1-6 Cr. Hrs.

Workshops offered as part of Sinclair's continuing education program for persons in and interested in the criminal justice system. Will be offered throughout the academic year in a variety of subject areas and for varying lengths of time. May be repeated for credit as topic changes.

205 Law & the Juvenile Offender 3 Cr. Hrs.

The juvenile justice system and the laws that protect the alleged delinquent. The rights and non-rights of juveniles, philosophy and goals of the juvenile court and its programs, and the community attitude toward delinquency.

206 Corrections 3 Cr. Hrs.

Reception, classification, program (job) assignment, and release. Jail programs that are or could be implemented are reviewed. Juvenile diversion, holding and detention facilities and practices, and the functions of the custodial staff are examined.

226 Contemporary Practices in Corrections 3 Cr. Hrs.

Modern trends in community based corrections. Some of the more advanced concepts and experiments, i.e., work-release, half-way houses, school-release, family conjugal visits, and others are analyzed and evaluated.

270 Corrections 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 related reports and/or projects each quarter.

295 Corrections Seminar 3 Cr. Hrs.

Identification and analysis of current issues and problems within the field of corrections.

Prerequisites: 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.

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 I 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, 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, combination of movements and basic steps.

174 Jazz I R 3 Cr. Hrs.

Basic fundamentals of jazz techniques. 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 warm-up exercises, isolations and basic movements.

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.
Basic movement classes for students with no previous dance experience. Class work consists of placement exercises. Classes based on dances of various countries and cultures.

178 Technical Theatre for Dancers
2 Cr. Hrs.

Survey of technical aspects of the theatre, including the technical vocabulary required to communicate the unique needs of dancers who are choreographing or performing in a variety of theater settings; and the expectations of theater personnel related to dance productions.

180 Music for Dancers 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.
Prerequisites: DAN 272 or intermediate level skill

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.
Prerequisites: DAN 273 or intermediate level skill

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.
Prerequisites: DAN 274 or intermediate level skill

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. Audition will consist of: 1. Playing one prepared piece (i.e. a Schubert waltz) 2. Sight reading one piece selected by instructor.

241 Dance Composition I R 3 Cr. Hrs.
Rules and theory of basic dance composition.

242 Dance Composition II R 3 Cr. Hrs.
Continuation of the 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.
Prerequisites: DAN 111 or DAN 172

273 Modern Dance II R 3 Cr. Hrs.
Intermediate modern level. Working knowledge of modern dance technique required.
Prerequisite: DAN 173

274 Jazz II R 3 Cr. Hrs.
Intermediate jazz dance level stressing techniques and styles needed for musical theatre performance.
Prerequisite: DAN 174

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

297 Special Topics in Dance
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 TV, video tape, 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.
Prerequisites: BIO 141 and BIO 142

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.
Prerequisites: BIO 141 and BIO 142

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.
Prerequisites: BIO 141 and BIO 142

109 Lab for DEH 103
Laboratory must be taken with DEH 103.

111 Pre-Clinical Dental Hygiene Technique 4 Cr. Hrs.
Scientific principles of dental hygiene with emphasis on data collection, client assessment, oral health education, and basic instrumentation. Practice of infection control standards and regulations are an integral component. Two lecture, six lab hours per week.
Prerequisites: DEH 103 and 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. Two lecture, six clinical hours per week.
Prerequisite: DEH 111

113 Clinical Dental Hygiene I 3 Cr. Hrs.
Skill development focusing on the practitioner's ability to assess, diagnose, plan, implement, and evaluate dental hygiene care. Emphasis is placed on preventive and child patient care. One lecture, ten directed practice hours per week.
Prerequisites: DEH 112 and 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.

120 Introduction to Dental Terminology 1 Cr. Hr.
Orientation to terms related specifically to the science of dentistry to prepare students for the dental hygiene program. The method of presentation includes a "sounds like" pronunciation system along with definitions and relationships of words to other similar dental terms.

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. Two lecture, two lab hours per week.
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.

Prerequisites: ALH 104 and DEH 155

157 Research Methodology 2 Cr. Hrs.

Overview of statistical terminology and notations needed for dental hygiene research and literature review.

Prerequisite: DEV 105

165 Computer Applications in Dentistry 1 Cr. Hr.

Eaglesoft Dental Software acquaints students to dental office applications. Orientation to the use of technology in the dental office delivery system including developing and editing patient information systems, recare management, scheduling procedures, insurance claims, custom route slips, productivity and financial analysis. Also includes restorative charting, perio charting, clinical exam, medical history, treatment planning and managing progress notes.

Prerequisites: ALH 104 and restricted to DEH majors

210 Drug Therapy in Dentistry 2 Cr. Hrs.

Overview of conventional drug classes with emphasis on actions, effects and indications for dental practice.

Prerequisites: BIO 141 and BIO 142

211 Clinical Dental Hygiene II 6 Cr. Hrs.

Skill developments focusing on the practitioner's ability to assess, diagnose, plan, implement, and evaluate dental hygiene care. Emphasis is placed on caring for children and with disabilities, nutritional counseling, adjunctive therapies, and case presentation. Two lecture, twenty directed practice hours per week.

Prerequisite: DEH 113

212 Clinical Dental Hygiene III 6 Cr. Hrs.

Skill developments focusing on the practitioner's ability to assess, diagnose, plan, implement, and evaluate dental hygiene care in various settings. Emphasis is placed on oral health care throughout the life cycle, special needs patient care, and case presentation. Two lecture, twenty directed practice hours per week.

Prerequisite: DEH 211

213 Clinical Dental Hygiene IV 6 Cr. Hrs.

Skill developments focusing on the practitioner's ability to assess, diagnose, plan, implement, and evaluate dental hygiene care in various settings. Emphasis is placed on advanced dental hygiene procedures and smoking cessation program development. Two lecture, twenty directed practice hours per week.

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 practice settings. One lecture, two lab hours per week.

Prerequisites: 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 promotions 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 course 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 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.

Prerequisites: 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.

Prerequisites: 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 lifelong learning; and organized dental hygiene.

Prerequisite: DEH 212

Developmental Studies (DEV)

045 ESL 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).

046 ESL 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 ESL 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 ESL Intermediate I R 4 Cr. Hrs.

For non-native speakers of English: grammar and writing skills using all verb forms, modifiers, and selected sentences patterns; reading, discussing and summarizing short essays (not an intensive course).

Prerequisites: DEV 046, DEV 047

049 ESL 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).

Prerequisites: DEV 048

050 ESL 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

063 Basic Reading Skills 4 Cr. Hrs.

Course is designed to allow students to develop basic reading skills with an emphasis on strategies to learn new vocabulary, find main ideas, analyze paragraph structures, and write summaries. Course will prepare students to move into DEV 064, Fundamentals of Reading.

Prerequisite: Approval of division counselor or placement scores

064 Fundamentals of Reading 4 Cr. Hrs.

Develop reading skills with an emphasis on strategies to acquire vocabulary, recognition of main ideas and supporting details, general comprehension of paragraphs and articles, and written and oral summaries.

Prerequisites: Counselor's signature and placement test score

065 Developmental Reading 4 Cr. Hrs.

Through individual and collaborative activities, course will prepare students for college level reading and will introduce basic critical reading and thinking strategies and a variety of study skills that promote student development and achievement.

Prerequisites: DEV 064 or placement scores

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.

Prerequisite: Placement test score or approval of division counselor

075 Fundamentals of English 4 Cr. Hrs.

Introduction to basic paragraph writing (topic sentence, body sentences, concluding sentence) and the principles of correct grammar, usage, punctuation, and mechanics.

Prerequisites: DEV 074 or placement test score

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.

Prerequisite: Placement test score

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 and measurements. Brief introduction into signed numbers.

Prerequisites: DEV 084 or satisfactory score on placement test

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.

Prerequisites: DEV 064 and DEV 085

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 or placement test score

110 Introduction to Composition 4 Cr. Hrs.

Introduction to the fundamentals of composition, including the stages of the composing process—pre-writing, drafting, and revising; introduction and planning outlining, editing, and proofreading of the essay. Review of the grammatical principles governing correctness and effectiveness of expression in the use of the parts of speech, phrases and clauses, sentence structure, and paragraph organization.

Prerequisites: DEV 064 and DEV 075 or placement test score

130 Critical Reading & Writing 4 Cr. Hrs.

Development of basic reading, writing, and research skills. Introduction to summarizing, paraphrasing, and quoting in order to develop the reading and writing connection in the literary analysis, argument, and research papers. Review of grammar, basic essay writing, revising, and editing techniques. Emphasis is placed on reflective and analytical thinking.

Prerequisites: DEV 075 and DEV 064.

Placement and/or instructor recommendation

297 Special Topics in Developmental Studies R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for additional learning opportunities in basic skills through special topics and alternative learning modes.

Disability 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 paraeducator. 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: 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: DIS 105 or concurrent

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: 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: 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.

Prerequisites: DIS 106 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.

Prerequisites: DIS 105 or permission of instructor

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 paraeducator as a collaborative team member.

Prerequisite: 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.

Prerequisites: DIS 105 or permission of instructor

190 Disabilities Intervention Services Workshops R 0.5-6 Cr. Hrs.

Overview of current topics in developmental disabilities, learning, curriculum or instruction.

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.

Prerequisites: DIS 108 and DIS 206 or concurrent

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 108 or concurrent

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.

Prerequisites: 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.

Prerequisites: DIS 201 or permission of instructor

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 non-verbal strategies, augmentative and alternative communication; role of collaborative team.

Prerequisites: 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.

Prerequisites: 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: 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.

Prerequisites: 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.

Prerequisites: DIS 105 or permission of instructor

226 Instructional Techniques in Math/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.

Prerequisites: 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 one quarter in advance.

Prerequisites: 12 credit hours within CFE department which includes DIS 105 or DIS 106 or DIS 108

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 Food & 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, professional meeting attendance and guest speakers.

110 Contemporary Nutrition 6 Cr. Hrs.

Introductory course for nutritional care personnel in health care institutions. Overview of nutrition, medical nutrition therapy, and menu planning. Three lecture, six practicum hours per week.

Prerequisites: Signature of department chairperson

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.

112 Medical Terminology for DIT 2 Cr. Hrs.

The use of prefixes, suffixes, root words and the combining forms, as related to anatomy and physiology, diseases, laboratory operations and drugs.

118 Dietary Food Service Supervision 7 Cr. Hrs.

Principles of supervision for the dietary/food service manager; planning, staffing, directing, controlling, and budgeting functions as well as ethics and labor relations. Four lecture, six practicum hours per week.

Prerequisites: Signature of department chairperson

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.

Prerequisites: Permission of department 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.

Prerequisites: DIT 129 and signature of department chairperson

137 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.

140 Nutrition & Total Wellness R 2 Cr. Hrs.

Provides a balanced wellness program of weight management that incorporates food patterns, market strategies, menus, exercise, and behavior modification techniques, including thoughts and feelings about food, exercise, and dieting.

143 Healthy Cooking 2 Cr. Hrs.

An exploration of the basic principles of nutrition, food selection, meal preparation, recipe modifications/substitutions that promote healthy eating and disease prevention. Menu planning and sanitation principles will be incorporated. Celebrate life by being healthy is the theme of this course.

145 Nutritional Trends 2 Cr. Hrs.

Up-to-date reviews, summaries, and commentaries on the role of food and nutrition in various conditions during the human life cycle. The course is designed to help students critique information for validity and separate nutritional experts from sensational journalists and nutritional frauds.

200 Dining Assistant 1 Cr. Hr.

Practical skill development in feeding techniques and working with the elderly. The program is designed to ensure that dining assistants have a basic understanding of the nutritional needs of the residents, communications and interactions involving the residents and staff, and behavior challenges and safety procedures.

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.

Co-requisite: DIT 207

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.

Prerequisites: DIT 137 or DIT 138

208 Advanced Food Preparation & International Cuisine 2 Cr. Hrs.

Identification of basic baking and production principles of classical soups, secondary sauces, meats, poultry, and fish. Exploration of ingredients, flavor profiles, and preparation techniques of international cuisines.

Prerequisites: HMT 112 and HMT 113 or approval of department chairperson

209 Laboratory for DIT 208 2 Cr. Hrs.

Laboratory component of DIT 208; addresses production of classical soups, secondary sauces, meat, fish and poultry, as well as basic baking principles. Ingredients and flavor profiles of international cuisine and preparation techniques.

Prerequisites: HMT 112 and HMT 113 or approval of department chairperson

216 Food Preparation & Dietary Service 4 Cr. Hrs.

Food preparation in institutions including quantity cooking principles, recipe standardization, equipment layout/design and menu planning. Four lecture hours.

Prerequisites: HMT 112 and HMT 113 or approval of department chairperson

218 Directed Practice for DIT 216 3 Cr. Hrs.

A hands-on course related to food preparation in institutions including quantity cooking principles, recipe standardization, equipment layout/design, modified texture and therapeutic menu planning, and food safety and sanitation. Six hours at directed practice site per week.

Prerequisites: HMT 112 and HMT 113 and approval of department chairperson

219 Laboratory for DIT 216 1 Cr. Hr.

Laboratory component of DIT 216. Menu planning, quantity cooking principles, modified and therapeutic diets, recipe standardization, kitchen equipment, food cost control and cost relationships.

Prerequisites: HMT 112 and HMT 113 or approval of department chairperson

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).

Prerequisites: DIT 135 or permission of department chairperson

222 Medical Nutrition Therapy II 3 Cr. Hrs.

Medical nutrition therapy including diet writing for the diseases of the heart and blood vessels; gastrointestinal tract; gallbladder; pancreas; kidney and liver.

Prerequisites: DIT 221 or permission of department chairperson

223 Medical Nutrition Therapy III 3 Cr. Hrs.

This is a capstone course for the medical nutrition therapy series. This course includes medical nutrition therapy for cancer and AIDS, and review modules for tube feeding, diabetes, severe stress, cardiovascular disease, upper and lower gastrointestinal disorders, gallbladder and pancreatic disorders, liver and renal disease. Case studies and critical thinking exercises have been incorporated addressing the diseases covered in the medical nutrition therapy series.

Prerequisites: DIT 222 or permission of department chairperson

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.

Prerequisites: Signature of department chairperson

225 Educational Methods & Materials 3 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 practicum hours per week.

Prerequisite: To be taken concurrently with DIT 221; signature of department chairperson

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 practicum hours per week.

Prerequisite: To be taken concurrently with DIT 222; signature of department chairperson

228 Dietetics Directed Practice III 3 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. Six hours per week.

Prerequisites: DIT 222 and DIT 227 or approval of department chairperson

236 Dietary Organization & Management 4 Cr. Hrs.

Management principles and practice for the dietary/food service supervisors; planning, staffing, directing, controlling, and budgeting functions as well as labor relations.

Prerequisites: DIT 216 and DIT 217 and DIT 218 or approval of department chairperson

237 Directed Practice for DIT 236 3 Cr. Hrs.

Management principles and practice for the dietary/food service supervisors; planning, staffing, directing, controlling and budgeting functions as well as labor relations. Six hours of clinical laboratory experience per week.

Prerequisites: DIT 216 and DIT 218 and DIT 219 or approval of department chairperson

240 Food & Culture 2 Cr. Hrs.

Explore the relationship between food and culture, including geography, religion, mores, and life cycle rituals. Discuss the world cuisines and development of Asia, Middle East, Africa, Europe, Mediterranean, and the Americas.

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.

Prerequisites: Permission of department chairperson

297 Special Topics in Nutrition R 0.5-6 Cr. Hrs.

Topics and trends in nutrition and dietetics for personal enrichment and continuing education.

Industrial Design & Graphic 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. One lecture, two lab hours per week.

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 and editing commands, drawing magnification, and drawing output using the latest release of AutoCAD. One lecture, two lab hours per week.

Prerequisites: DRT 196 or 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 techniques using AutoCAD software. Emphasis in on 2-D drawings productivity and 3-D solids development. Two lecture, two lab hours per week.

Prerequisites: DRT 198 and MET 198

200 Engineering Technology Graphics 5 Cr. Hrs.

Utilization of parametric design in the creation of both two-dimensional and three-dimensional drawings. Both individual detail drawings and assembly drawing types will be used. Three lecture, four lab hours per week.

Prerequisites: DRT 198 and MET 198

205 Advanced AutoDesk Parametric Design 5 Cr. Hrs.

Application of advanced parametric design tools in the creation of 3-D assembly models. Assembly animations, software customization, utilization of varied drawings outputs are applied. Three lecture, four lab hours per week.

Prerequisites: Either DRT 200 and DRT 255 or DRT 200 with DRT 255 as a co-requisite

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.

Prerequisites: DRT 196 and INT 109

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 2-D and 3-D drawings; applying colors, textures, images onto objects and creating a short animation; light and camera placements, and object rendering. Two lecture, two lab hours per week.

Prerequisite: DRT 199

229 AutoCAD Certificate 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.

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.

Prerequisites: DRT 110 and DRT 217 and MAT 131 and COM 206

240 Graphical Design Analysis 3 Cr. Hrs.

An introduction to design analysis with a software applications emphasis. Beginning with a historical perspective, fundamental concepts, data input and interpretation of results lead to emerging trends in the field. This is an applications based course designed to complement analysis theory studied in related courses. Two lecture, two lab hours per week.

Prerequisites: DRT 110 and DRT 200 and DRT 217 and DRT 234 and PHY 131

247 SolidWorks Basics 5 Cr. Hrs.

Utilize SolidWorks mechanical design automation software to build parametric models of parts and assemblies and learn how to make drawings of those parts and assemblies. Two lecture, six lab hours per week.

Prerequisite: DRT 110

248 SolidWorks Advanced 5 Cr. Hrs.

The focus of this course is two-fold. 1) Apply SolidWorks fundamental skills, tools, and concepts central to successfully building freeform shapes. 2) Utilize the assembly modeling capabilities of SolidWorks mechanical design automation software. Two lecture, six lab hours per week.

Prerequisites: Either DRT 247 and DRT 255 or DRT 247 with DRT 255 as a prerequisite

249 SolidWorks® CAD Update 1 Cr. Hr.

Provide SolidWorks® users with a summary of the new features (updates) provided in each major release. One half hour lecture, one hour lab per week.

Prerequisite: DRT 247

250 Technical Software Integration 3 Cr. Hrs.

Incorporate various software tools to document the development of a design project. An emphasis for the course is to integrate various software tools used in industry. A formal written report and oral presentation are required in addition to the drawings typically required for product/process documentation. Two lecture, two lab hours per week.

Prerequisite: DRT 240

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, six lab hours per week.

Prerequisites: DRT 110 and DRT 200 and DRT 217 and 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 hours per week.
Prerequisites: DRT 234 and DRT 265 and PHY 131

265 Unigraphics® Level I 5 Cr. Hrs.

An introduction to Unigraphics® 3-D 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 200

266 Unigraphics® Level II 5 Cr. Hrs.

Provides a sound understanding of constraint based modeling, assemblies and the creation of working drawings using Unigraphics® 3-D 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.
Prerequisites: DRT 265 and DRT 266

270 Industrial Design & Graphic Technology Internship R 1-12 Cr. Hrs.

Earn credits toward degree requirements for work learning experience. Students establish learning objectives and prepare related reports and/or projects.

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.
Prerequisites: DRT 250 and DRT 260 and MET 207

297 Special Topics in Industrial Design & Graphic Technology 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, videotape, etc.

Experience Based Education (EBE)**100 Prior Learning Portfolio Development** 3 Cr. Hrs.

A course to help students prepare a portfolio describing and documenting their learning from experience. Upon completion, the portfolio is evaluated and college credit is awarded to the extent the learning is college equivalent.

104 Passport to Campus Resources 1 Cr. Hr.

Use this 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 the students' time schedule.

130 A.T.S./A.I.S. 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.
Prerequisites: DEV 065 and DEV 110 or equivalent

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.

200 Portfolio Update R 1 Cr. Hr.

A continuation of Prior Learning Portfolio Development, facilitated through individual sessions with a portfolio faculty person.
Prerequisites: 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 cul-

ture, environment, or geographic region; cultural focus identified each term. A creative opportunity to study the daily needs and problems as encountered by individuals from different cultures living in the Dayton community or in a specific world area/foreign country. Participation in a local or international field experience is required.

261 Cross-Cultural Awareness 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. Participation in an internship/volunteer field experience in the Dayton community or in a foreign country emphasizing activities associated with diverse cultures which promote a meaningful lifestyle. Course is divided into 1-credit-hour modules of Cross-Cultural Experiences, Work learning Objectives, and Fundraising.
Prerequisite: EBE 260

270 Cooperative Education/Internship 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.
Prerequisites: 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 which will focus 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 or approaches to learning, career-related courses/opportunities, and service learning courses/activities, including special interest topics, workshops or customized training.

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.
Prerequisites: DEV 065 and DEV 075 or equivalent

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 the young child. Developing and implementing routines and activities in early education and care settings. Ohio Child Day Care Laws and Rules. Center observation required.

Prerequisites: DEV 065 and DEV 075 and DEV 085 or equivalent

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, familiar support, day care issues. Center participation required.

112 ECE 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). Center participation 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.

Language and literacy development in young children. Supporting family literacy, assessing the young child's language and literacy development, locating professional resources, and planning curriculum to facilitate the individual development of language and literacy in young children.

Prerequisites: DEV 065, DEV 075 or equivalent score on placement test

118 Math & Science Experiences in Early Childhood 4 Cr. Hrs.

Creating a developmentally appropriate math and science curriculum for preschool children following guidelines and standards established by the major professional organizations and the Ohio Department of Education Early Learning Content Standards for Mathematics and Science.

Prerequisites: ECE 120 and SOC 215 and ENG 112

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.

Prerequisites: ECE 129 and MUS 121 and ECE 150

120 Observing Young Children 3 Cr. Hrs.

Observing and recording the behaviors of young children in early childhood settings utilizing authentic assessment techniques. Center observations required.

Prerequisites: ECE 101, ECE 106, ECE 160 and ENG 111

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. Advance written application required. Two lecture, six lab hours per week.

Prerequisites: ECE 101 and ECE 106 and ECE 120

135 Group Care for Infant & Toddler 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.

145 Guidance & Discipline 3 Cr. Hrs.

Guidance and problem solving strategies used by early childhood professionals to help young children develop positive social and emotional skills. Practical application of guidance and problem solving techniques. Center observation required.

Prerequisite: DEV 075 or equivalent

146 The Challenging Child 3 Cr. Hrs.

An overview of children's behavior identified by practitioners as challenging; development of an operational definition of challenging behaviors; causes, techniques and interventions to address challenging behaviors.

Prerequisites: ECE 145, ECE 120

150 The Young Child 4 Cr. Hrs.

Promoting positive growth of infants, toddlers, and preschoolers. Impact of the learning environment including family, community and culture on the child's development.

Prerequisites: DEV 065, DEV 075 or equivalent

160 Teaching Techniques in Early Childhood Education 3 Cr. Hrs.

Planning quality learning experiences and environments for young children. National and state curriculum standards. Factors influencing curriculum development in early childhood education.

Prerequisites: ECE 117, ECE 118, ECE 119, ECE 135, ECE 229

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 with 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 with 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 with be planned, scheduled, and offered throughout the academic year in a variety of subject areas and for varying lengths of time.

215 Building Family & Community Relationships 3 Cr. Hrs.

Family dynamics, family development and culturally responsive practices in early childhood education. Creating respectful reciprocal relationships with family and community resources. Supporting and communicating with families.

Prerequisites: SOC 115, ECE 229, DIS 205

216 Integrating Social Studies into the Early Childhood Curriculum 3 Cr. Hrs.

Integrating social studies into the early childhood curriculum using a variety of domains, projects, materials and activities. Key knowledge and social studies concepts developmentally appropriate for young children. State of Ohio Department of Education Early Learning Content Standards for Social Studies.

Prerequisites: ECE 120, SOC 215, ENG 112

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 ECE 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, personnel management. Center participation required.

226 Activities for Young Children 2 Cr. Hrs.

Characteristics of age appropriate activities for preschool children; teaching skills for implementing activities. Practical ideas for activities including seasonal holiday, etc. Development and utilization of materials for activities. Center participation 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.

229 Principles & Practices of Interaction 3 Cr. Hrs.

Selected interaction techniques used by early childhood professionals to support children's physical, social, emotional, aesthetic, language, and cognitive development. Observation of teacher-child interactions within a play setting.

Prerequisites: SOC 215, ECE 120, COM 206 or COM 211, ENG 112 and approval of chairperson

275 Internship R 1-4 Cr. Hrs.

Utilizes students' experience 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.

280 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.

Prerequisites: ECE 160, SOC 115, ENG 113

281 ECE Student Teaching II 7 Cr. Hrs.

Supervised student teaching experience in an assigned early childhood program. Development of teaching portfolio. Written application required one quarter in advance.

Prerequisites: ECE 182 or ECE 280

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.

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Economics & Finance (ECO)

105 General Economics 3 Cr. Hrs.

The basic concepts, principles, terminology, and philosophy of economics from both the social and political viewpoint for the non-business student.

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.

The analysis of economic theory of money and monetary policy. Micro-economic theory considers price theory, the theory of the firm, resource demand and ways 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, 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 multinational companies in the area of competition.

Prerequisite: ECO 201 or ECO 216

216 Principles of Macro-economics 4 Cr. Hrs.

Basic economic principles with macro sequence. Interrelationship of households, business, and government with an examination of Keynesian theory, fiscal policy and monetary policy.

Prerequisites: DEV 108 and successful completion of 30 credit hours of non-DEV college course work.

218 Principles of Micro-economics 4 Cr. Hrs.

Micro-economic theory including price theory, the theory of the firm, resource demand and wage determination. Also includes public policy toward business, economic inequality, labor, trade, balance of payments, and the economics of third world nations.

Prerequisites: DEV 108 and successful completion of 30 credit hours of non-DEV college course work.

297 Special Topics in Economics 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.

Education (EDU)

100 Foundations of Education 4 Cr. Hrs.

Introduction to the teaching profession. A variety of experiences to facilitate exploration of the role of school and its relationship to society. The knowledge, skills, dispositions and performances necessary for an individual to become an effective teacher.

105 Introduction to Exceptionalities 4 Cr. Hrs.

Survey of developmental characteristics of persons with and without exceptionalities. Introduction to foundations, theory, legal issues, intervention strategies and service delivery models for working with exceptional individuals in educational, community, residential and work settings.

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.

Prerequisite: Approval of chairperson

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 operation with emphasis on applications to problems in electrical and electronic engineering used in electronic industries.

Prerequisite: DEV 108

123 High Reliability Soldering 3 Cr. Hrs.

High Reliability Soldering concepts and soldering standards as applied to Through Hole Technology installation and rework on single-sided, double-sided, and multi-layer printed circuit boards, trace and pad repair, safety and ESD concerns, component identification, value codes and schematic symbols. Two lecture, two lab hours per week.

124 Surface Mount Soldering Techniques

4 Cr. Hrs.

High Reliability Soldering concepts and soldering standards as applied to Surface Mount Technology soldering & rework, covering installation and removal of chip components, SOTs, SOICs, PLCCs, QFPs, using soldering iron, extractor, ThermoTweez, ResisTweez, & ConducTweez hand pieces. Additional components, hand pieces, and trace repair. Three lecture, two lab hours per week.

Prerequisite: EER 123

125 Printed Circuit Board Design

3 Cr. Hrs.

Various materials, design, processing and soldering of Printed Circuit Boards. Artwork and the processing of Printed Circuit Boards. Two lecture, two lab hours per week.

Prerequisite: EER 123

126 D.C. Circuits

4 Cr. Hrs.

Basic 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.

Prerequisites: EER 121 or MAT 101

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. Three lecture, two lab hours per week.

Prerequisites: EER 126 or EER 131

128 Discrete Electronics

4 Cr. Hrs.

Semiconductor diodes, bipolar junction transistor, field-effect transistors, biasing techniques, amplifier operation and analysis, various types of amplifiers, D.C. power supplies. Three lecture, two lab hours per week.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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 principle, theory, operation and characteristics of common D.C. and A.C. machinery. Three lecture, two lab hours per week.

Prerequisites: EER 127 or EER 133 or EET 119

141 Residential Wiring

3 Cr. Hrs.

Modern wiring procedures, installation 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 conductors. Three lecture, three 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.

Prerequisites: 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.

Prerequisites: 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, over-current protection, wiring devices, distribution equipment, transformers, calculations for motor circuits; motor maintenance and controls; and basics of HVAC systems.

Prerequisite: EER 182

184 Electrical Construction IV
R 3-8 Cr. Hrs.

Calculation procedures for residential, commercial and farming applications, various wiring systems, stand by 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 Electrical & Electronics Repair 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 Electrical & Electronics Repair
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.

Prerequisites: Permission of chairperson

Electronics Engineering Technology (EET)

104 Introduction to Electronics 3 Cr. Hrs.

A non-mathematical survey 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, function generators and frequency counter. Two lecture, two lab hours per week.

Prerequisite: DEV 108

116 Electronics Schematics & Layout
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

121 Electronics Workshop 3 Cr. Hrs.

Manual skills training covering safety, soldering, wiring, electronic component identification, schematic symbols, wiring diagrams, blueprint reading, resistor color code, and use of tools. Two lecture, two lab hours per week.

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.

Prerequisites: EET 114 and 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. instruments and the oscilloscope. Three lecture, two lab hours per week.

Prerequisites: 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, 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- and 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 transformations, 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), 3-pin integrated circuit regulators, voltage controlled oscillators, phase lock loops and their applications. Three lecture, two lab hours per week.

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. One lecture, two lab hours per week.

Prerequisites: EET 114 and 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.

Prerequisites: 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.

Prerequisites: EET 114 and 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.

Prerequisites: EET 201, EET 231

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 LabVIEW graphical language, front panel and diagram windows, controls and indicators, wiring steps and Sub Virtual Instruments, loops and conditional statements, data display, arrays and clusters, data acquisition hardware and driver software, instrument control and data analysis for problem solving involving physical principles and engineering applications. Programming assignments require lab time outside of class. Two lecture, two lab hours per week.
Prerequisites: EET 116 and EET 105 or 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. Three lecture, two lab hours per week.
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. Three lecture, two lab hours per week.
Prerequisite: EET 261

264 P.C. Troubleshooting & Repair I 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.

265 P.C. Troubleshooting & Repair II 3 Cr. Hrs.
Installation of basic computer operating systems (OS), network hardware topologies, computer peripherals and accessories; identification and resolution of basic computer troubleshooting issues with hardware and relevant software diagnostics.
Prerequisite: EET 264

270 EET 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.

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.
Prerequisites: EET 231 and 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.
Prerequisites: EET 231 or EER 136

282 Advanced Programmable Logic Controller 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.
Prerequisites: EET 201 or EER 128

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 optic heterodyne receiver. Two lecture, two lab hours per week.
Prerequisites: EER 128 or EET 201

285 Digital Communications 3 Cr. Hrs.
Information theory and elements of a digital communication system: source encoding to binary, digital signal processing, data compression of speech and images, digital modulation and demodulation, channel encoding, interference and crosstalk, and course decoding. Two lecture, two lab hours per week.
Prerequisite: EET 251

287 Telecommunications Project 6 Cr. Hrs.
Design, fabricate and test a telecommunications prototype circuit complete with schematics, drawings, printed circuit board layouts and wiring diagrams, and technical report; brief presentation and demonstration of working prototype. Three lecture, six lab hours per week.
Prerequisites: EET 207 and EET 226

297 Special Topics in Electronics Engineering Technology 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.
Prerequisites: Permission of chairperson

Engineering (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 work station and equipment design. Two lecture, two lab hours per week.
Prerequisite: ENG 121

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 skills 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. Two lab hours per week.

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, and focusing on 2-D techniques and commands. Two lecture, two lab hours per week.

206 Engineering Technology Economics 3 Cr. Hrs.

Basic economic concepts, decisions, analysis and evaluations as applied to engineering design, production, maintenance and quality control. Two lecture, two lab hours per week.

Prerequisites: MAT 131 and MET 198

208 3-D 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.

Prerequisites: EGR 128 and IET 198 or chairperson permission

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.

Prerequisites: EER 136 and EER 139 and MAT 132

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.

Prerequisites: EGR 128 and EER 166

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.

Prerequisites: MAT 111 or MAT 131

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. Two lecture, two lab hours per week.

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.

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.

Prerequisites: MAT 113 or MAT 133

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 Manufac-

turing (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.

The fundamentals, definitions and terminology of robot technology, robot justification and availability, proper selection, acceptance, principles and general applications of robots. Two lecture, two lab hours per week.

247 Operating & Programming Robots 3 Cr. Hrs.

Introduces the student to modes and techniques of operating robots, safety and programming for different manufacturing and process control operations.

Prerequisite: EGR 246

248 RC 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.

Prerequisites: EGR 128 and IET 198

249 Robot 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.

Prerequisites: 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.

Prerequisites: EGR 100 and EGR 252

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.

Prerequisites: EGR 252 and EER 136

252 KAREL Robot Programming 3 Cr. Hrs.

Introduction to KAREL robot controllers programming, including controls functions, program development and editing, incorporating various industrial sensors & controls for input and output. Two lecture, two lab hours per week.

Prerequisites: EGR 128 and 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. Two lecture, two lab hours per week.

Prerequisites: EGR 261 and 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 workcell controller; introduction to manufacturing application protocols, MAP and vision robot guidance. Two lecture, two lab hours per week.

Prerequisites: EGR 217 and EGR 252 and 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.

Prerequisites: EGR 252 and EGR 261 and 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. Two lecture, two lab hours per week.

Prerequisites: EER 136, EGR 252 and 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.

Prerequisites: EGR 252

261 Engineering Problem Solving Using "C"

4 Cr. Hrs.

Computer solutions of engineering problems using C and C++ incorporating, compiling, running, editing and debugging techniques along with language specific functions, array and pointer structures and stream I/O. Three lecture, two lab hours per week.

Prerequisites: MAT 131 and IET 198

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

270 Engineering 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.

278 Automated Manufacturing Project

3 Cr. Hrs.

Performance based review of the major components of the Electromechanical Engineering Technology associate degree program, with emphasis on robot workcell system design, layout and integration of related industrial systems, and skills from the following areas: robots and programming languages, electronic systems, component installation, troubleshooting, mechanical repair, and preventative maintenance. Additional focus on graphics, word processing, analytical and simulation tools, assembly, testing, troubleshooting and repair of a functional robot workcell. One lecture, four lab hours per week.

Prerequisites: EGR 220 and EGR 254

297 Special Topics in Engineering Technology

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.

Prerequisites: Permission of department 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. Two and one half lecture, one half lab hours per week.

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). Three lecture, four lab hours per week.

Prerequisite: Must be 18 years old

116 EMT-Basic Theory & Practice II

R 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. One lecture, three lab, one half clinical hours per week.

Prerequisite: EMS 115

117 EMT-Basic Theory & Practice

I & II

8 Cr. Hrs.

Caring for sick and injured people, handling emergency situations, and developing self confidence are the areas important within this course. It meets the current standards of National Standard Curriculum of EMT-Basic as well as Basic Life Support. At the end of this course, successful students will be eligible to sit for Ohio certification testing as an EMT-B (Basic).

Prerequisite: Must be at least 18 years old

118 Lab For EMS 117

Co-requisite EMS 117

120 EMT-Basic Refresher R

2.5 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, one lab hour per week.

Prerequisite: Current certification as EMT-Basic

125 Emergency Medical Technician:

Intermediate

6-7 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. Four lecture, one lab, two clinical hours per week.

Prerequisites: 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. Five lecture, two lab, six clinical hours per week.

Prerequisite: Ohio State EMT-Basic Certification

136 EMT-Paramedic II: Cardiovascular Emergencies 8 Cr. Hrs.

Following the 1998 National Standard Curriculum for EMT-Paramedics, emphasis on general anatomy and physiology of the cardiovascular system, assessment, management and evaluation of the cardiac patient. Five lecture, two lab, six clinical hours per week.

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. Five lecture, two lab, six clinical hours per week.

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, gastroenterology, allergic reactions, renal emergencies, gerontology, toxicology and behavioral emergencies. Five lecture, two lab, six clinical hours per week.

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. Four lecture, two lab, eight clinical hours per week.

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. Three lecture, two lab hours per week.

Prerequisite: Ohio state certification as an EMT-paramedic

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.

Prerequisites: DEV 110 or DEV 130 and DEV 065 or equivalent

112 English Composition II 3 Cr. Hrs.

Further development of writing skills with emphasis on critical 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 Building 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

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

122 Technical Composition II 3 Cr. Hrs.

Further development of critical writing and reading skills for students in the technical fields with emphasis on informal and formal report writing, including research and documentation techniques.

Prerequisite: ENG 121

131 Business Communications I 3 Cr. Hrs.

The four major types of business letters, emphasizing use of correct grammar, punctuation, spelling, and vocabulary.

Prerequisites: DEV 110 or ENG 111

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

Prerequisites: ENG 111 and ENG 112 or ENG 131 and ENG 132

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, 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.

Prerequisites: ENG 256 or permission of instructor

260 Memoir Writing 3 Cr. Hrs.

Writing and reading of autobiographical essays in a workshop setting.

264 Advanced Poetry Writing 3 Cr. Hrs.

Advanced study of the elements of poetry, including the mechanics of manuscript submission, in a workshop setting.

Prerequisites: ENG 255 or permission of instructor

297 Special Topics in English R 1-6 Cr. Hrs.

Opportunity to study specialized rhetorical and linguistic topics such as stylistics, sentence combining, heuristics, history of English, dialects.

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.
Prerequisites: EVT 110 and 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.
Prerequisites: EVT 110 and CHE 131 and MAT 131

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 air quality, surface water and groundwater. Two lecture, two lab hours per week.

180 Solid Waste Management 3 Cr. Hrs.

Identify, describe and use the various methods and basic design concepts of solid waste treatment and disposal. Design concepts include landfilling, incineration, recycling and composting. Federal and state regulations are also presented and discussed. Two lecture, two lab hours per week.

200 Environmental Waste Management 4 Cr. Hrs.

Environmental reduction of hazardous waste that is generated prior to treatment, storage, or disposal in industry and the public sector; methods to minimize waste production for small and large quantity generators.
Prerequisite: EVT 110

210 Environmental Site Assessment 4 Cr. Hrs.

Environmental liability aspects of property transfer; environmental liability reduction; records review; on-site inspection; site assessment for transfer of single family, multiple family, and commercial properties required by private and governmental organizations. Three lecture, two lab hours per week.

215 Asbestos Management 3 Cr. Hrs.

Instruction in the management, identification and removal of asbestos. Emphasis on management, safety, effects of 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, effects of lead on the human body, associated diseases, identification and removal techniques, personal protective equipment, decontamination and proper disposal techniques. Two lecture, two lab hours per week.

217 Confined Space Management 2 Cr. Hrs.

A detailed examination of the regulations and procedures required for entry into confined spaces. Analysis of the hazards of confined spaces and below ground environments as well as the application of confined space entry techniques are covered. One lecture, two lab hours per week.

240 Groundwater/Basic Fluid Mechanics 4 Cr. Hrs.

Examination of the basic concepts of the hydrologic cycle, hydrogeology, aquifers, groundwater supply and demand, contamination and decontamination. Techniques of groundwater protection are discussed and analyzed. Fluid flow types, laminar flow and turbulent flow, are presented. The principles of flow in open channels and pipes are discussed. Flow in natural as well as engineered systems is also analyzed. Two lecture, four lab hours per week.
Prerequisites: PHY 131 and MAT 133

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.
Prerequisites: EVT 110 or SRM 101 and CHE 131 or equivalent

265 Remediation 3 Cr. Hrs.

Overview of the corrective action process related to contamination at Resources Conservation and Recovery Act permitted facilities. Description and evaluation of remedial technologies. Two lecture, two lab hours per week.
Prerequisites: EVT 260 and CHE 131 and 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.

Prerequisites: 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, euphemism, Greek and Latin roots, prefixes/suffixes, visual memory practice, and word games.
Prerequisites: DEV 074, DEV 064

105 Study Skills 2 Cr. Hrs.

The purpose of this course is to help students develop habits and concepts of practical and sound study skills and to enable them to transfer these skills into the content area subjects. This course provides basic study skills including time management, concentration, memory, textbook reading, organization of information, listening and notetaking from lectures, test taking, and library skills.
Prerequisites: DEV 063 or DEV 064 and DEV 074 and DEV 084

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.

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

140 Speed Reading 2 Cr. Hrs.

Development of increased reading speed and comprehension. Includes reading strategies to increase speed, comprehension, and efficiency in processing written information through the use of regulators and speed reading software.
Prerequisite: DEV 065 or equivalent

297 Special Topics in Extended Learning R 1-6 Cr. Hrs.

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

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.

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.
Prerequisites: FIN 200, FIN 105

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 R 3 Cr. Hrs.

Credits toward degree requirements for work experiences. Learning experiences relate to the financial services industry.
Prerequisite: FIN 105

295 Financial Management Seminar 3 Cr. Hrs.

Application of previously learned financial management principles. This course will serve as an overall assessment of the student's learning within the financial management program. Case studies, readings, ethics, and discussions of issues that impact modern financial institutions are covered. Demonstration of competency in the program learning outcomes and financial management principles and practices. Students will work collaboratively to solve complex financial management problems.
Prerequisites: ECO 202, FIN 205, FIN 245, FIN 246 and ACC 113 and MAT 122 80 credit hours

297 Special Topics in Financial Management 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; history of life and property loss by fire.

102 Fire Protection & Organization 4 Cr. Hrs.

The organization and function of public, governmental, and private sector fire protection agencies; applications of various insurance rate making methods including the Insurance Service Office Fire Suppression Rating Schedule.

103 Fire Prevention Fundamentals, Codes & Ordinances 4 Cr. Hrs.

Interpretation and application of the Ohio Fire Code and the Life Safety Code (NFPA 101); 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 Protections 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 and chemical fire suppression systems using appropriate national fire codes. Two lecture, two lab hours per week.
Prerequisite: FST 116

120 Fire Safety Inspector 6 Cr. Hrs.
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.

Prerequisites: Permission of chairperson

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.

Prerequisites: FST 101, FST 181 or permission of chairperson

152 Technical Rescue Refresher R 2 Cr. Hrs.
Practical application to assure that the student has maintained pertinent knowledge, skills and information required to handle technical rescue emergencies. Emphasis will be on personal safety, site hazards, personal protective equipment and incident management. Two lecture, two lab hours per week.

Prerequisites: FST 171 and FST 179 or Level I Firefighter

169 Rapid Intervention Team R 2 Cr. Hrs.
An examination of procedures, skills and techniques needed to operate as a member of a Rapid Intervention Team (RIT). Covered will be the fire scene factors involved in implementing a RIT. Completion of several practical exercises will be required. This course meets the requirements of the Rapid Intervention Team component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. One lecture, two lab hours per week.

Prerequisites: FST 171 and FST 179

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 Technical Rescue 3 Cr. Hrs.
An overview of the National Fire Protection Association Technical Rescue Standards 1670 with emphasis on the role of technical rescue in emergency response, application of the physics concepts needed for technical rescue and the application of Incident Management System (IMS) within the framework of the rescue program.

172 Vehicle Rescue 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 meets the requirements of the vehicle rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. One lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 173 and FST 179

173 Rope Rescue 3 Cr. Hrs.
A detailed 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 meets the requirements of the rope rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. Two lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 179

174 Confined Space Rescue 3 Cr. Hrs.
A detailed examination of the removal of a victim from a confined space. Analyses 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 exercises is required. This course meets the requirements of the confined space rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. Two lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 173 and FST 179

175 Machine/Rigging Rescue 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 meets the requirements of the machine rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. One lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 172 and FST 173 and FST 179

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 environments, proper use of rescue tools and apparatus, proper shoring tech-

niques, stabilization of the trench area and the incident management requirements of a trench rescue. Completion of a practical exercise is required. This course meets the requirements of the trench rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. One lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 172 and FST 173 and FST 179

177 Building Collapse Rescue 3 Cr. Hrs.
This course is a component of the Basic Emergency Rescue Technician program, which includes an examination of the rescue needs of victims trapped during a structural collapse. 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 are also included. Completion of a practical exercise is required. This course meets the requirements of the collapsed building rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. Two lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 172 and FST 173 and FST 176 and FST 179

178 Swift Water Rescue 3 Cr. Hrs.
An examination of the rescue needs of victims involved in water emergencies that are primarily 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 meets the requirements of the swift water rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. Two lecture, two lab hours per week.

Prerequisites: FST 169 and FST 171 and FST 173 and FST 179

179 Victim Location, Operation Level 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. Includes fundamentals of search operations, search tactics and strategies and Incident Management Systems requirements. Completion of a practical exercise is required. This course meets the requirements of the victim rescue component of the National Fire Protection Association (NFPA) Standard on Technical Rescue Training 1670. One lecture, two lab hours per week.

Prerequisite: FST 171

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, rescue and survival. Six lecture, 20 lab hours per week.

Prerequisites: Permission of chairperson

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, rescue and survival. Three lecture, ten lab hours per week.

Prerequisites: Permission of chairperson

191 Volunteer Firefighter 3 Cr. Hrs.

Basic instruction in fire suppression; fire chemistry and behavior; rescue; firefighting tools, appliances and equipment and firefighting safety and survival.

Prerequisites: 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, rescue and survival. Two lecture, six lab hours per week.

Prerequisite: FST 191

193 Firefighter II Transition 8 Cr. Hrs.

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. Three lecture, ten lab hours per week.

Prerequisite: FST 192

194 Fire Brigade Training 3 Cr. Hrs.

Basic instruction in extinguishing fire in the incipient stage. Instruction includes fire chemistry and behavior, rescue, operation of sprinkler systems and stand pipes and operation of fire extinguishers. This course meets the requirements of 29 CFR 1910 Subpart L, 1910.156 Fire Brigade. Two lecture, two lab hours per week.

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.

Prerequisites: 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

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.

Prerequisites: FST 102 and 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.

Prerequisites: FST 102 and FST 205

208 Incident Command System II

4 Cr. Hrs.

The principles of preparation and coordination of an emergency response agency to major disasters. Disaster planning, inter-agency coordination, dealing with media, communications and resource management. Response to a variety of man-made disasters (hazardous materials, fires, etc.) as well as natural disasters (weather, earthquake, etc.).

Prerequisites: FST 206 or FST 251

209 Fire Service Instructor 6 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. Five lecture, two lab hours per week.

Prerequisite: Five years experience as a firefighter and pass firefighter knowledge pre-test

210 Water Suppression System 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, development, 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.

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.

Prerequisites: 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.

Prerequisites: Permission of chairperson

Geography (GEO)

101 Physical Geography 4 Cr. Hrs.

Analysis of the principle “spheres” of Earth— atmosphere, lithosphere, hydrosphere, and biosphere; an explanation of processes involved in shaping the Earth’s physical environment; and current environmental issues such as global warming, ozone depletion, air and water pollution. Laboratory will include use of the Internet and various computer softwares. Three lecture, two lab hours per week.

102 Human Geography 3 Cr. Hrs.

Introduction to aspects of geography concerned with the efforts of humans to cope with their environment: population and settlement forms; utilization of resources; spatial distribution of language and religion; the influence of political systems on culture; and the origin and dispersal of cultural elements among the various world realms.

145 Introduction to Meteorology 4 Cr. Hrs.

Survey of major atmospheric elements such as temperature, pressure, moisture, and precipitation and the concepts of meteorology followed by weather analysis and forecasting. Through computer simulations, exploration and introduction to the formation and development of individual weather disturbances such as thunderstorms, tornadoes and hurricanes. Also included are impacts of human actions on the atmosphere. Laboratory exercises will combine 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.

Prerequisites: GEO 102 or instructor signature

297 Special Topics in Geography R 1-6 Cr. Hrs.

To provide 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. Course is repeatable as topics change.

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)

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, plate tectonics; interior forces that cause earthquakes, volcanoes, mountain building. Three lecture, two lab hours (GLG 147) per week.

142 General Geology II 4 Cr. Hrs.

The Earth in space, physical evolution of oceans, atmosphere and continents, origin of life and its evolution, physical and biological development of North American continent. Three lecture, two lab hours (GLG 148) per week.

Prerequisites: GLG 141, GLG 147

143 General Geology III 4 Cr. Hrs.

Use and misuse of resources, hazardous environments, engineering difficulties, waste disposal, pollution problems. Analysis of natural hazards; floods, volcanoes, earthquakes, mass wasting, subsidence, coastal threats and others. Consequences of human activities on the environment and on human populations; as well as mitigation and remediation strategies and processes. Three lecture, two lab (GLG 149) hours per week.

Prerequisites: GLG 141, GLG 147

144 Geological Field Trip 4 Cr. Hrs.

Hands-on experience during several Saturday, day-long field trips to different locations in Ohio. Field activities are meant to mimic what field geologists do and include, but are not limited to, direct observation, measurement and identification of minerals, rocks, fossils and features and the construction of stratigraphic columns. On-site study of rock formations, weathering characteristics, glaciation and natural resources. Use of observations to interpret and understand the processes involved in the building of the Appalachian Mountains and the geological development of Ohio.

Prerequisites: GLG 141, GLG 147 and GLG 142, GLG 148

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. Applications use an inquiry learning environment which emphasizes science process skills integrated with mathematics. Early and Middle Childhood Education majors only. Four lecture, three lab hours per week.

Prerequisites: MTH 110, ASE 145 or equivalent

270 Geology Internship R 2-12 Cr. Hrs.

The internship is designed to support a variety of experiential learning needs. Adult learners with extensive learning from prior experience may receive acknowledgment of that learning with internship credit upon submission of a portfolio to an evaluation committee. 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.

297 Special Topics in Geology R 1-6 Cr. Hrs.

To provide 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. Course is repeatable as topics change.

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 hours per week.
Prerequisites: DEV 065, 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 hours per week.
Prerequisites: HIM 110 and permission of chairperson

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

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 hours per week.

135 Medicolegal Aspects of Health Care Records 3 Cr. Hrs.

Evaluation of health care records as legal documents; special emphasis on policies and procedures concerning release of medical information and patient confidentiality; principles and organization of the judicial system; risk management. Two lecture, two lab hours per week.
Prerequisites: HIM 110, permission of chairperson

137 Lab for HIM 231 Laboratory must be taken with HIM 132.

202 Medical-Surgical Transcription Lab Practice 3 Cr. Hrs.
Lab practice for HIM 132. Student transcribes English and foreign physician dictation in a simulated office environment.
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 roll, purpose and use of health information systems, the computer-based patient record, various health information system applications, information systems life cycle and future technologies. Two lecture hours per week.
Prerequisites: HIM 111 and permission of chairperson

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.
Prerequisites: HIM 111 and 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.
Prerequisites: Permission of chairperson

222 Coding & Billing in Long Term Care 3 Cr. Hrs.

The reimbursement system in long term care facilities will be examined with specific emphasis on the ICD-9 and CPT Coding Process as well as the billing procedures used. Two lecture, two lab hours per week.

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.
Prerequisites: ALH 142 and ALH 201 and permission of chairperson

231 Inpatient ICD-9-CM Coding 5 Cr. Hrs.

Theory and application of skills necessary to assign ICD-9-CM diagnosis and procedure codes to inpatient cases for reimbursement and research. Additional time required outside of class for testing. Three lecture, four lab hours per week.
Prerequisites: HIM 265 and HIM 236 or HIM 262 and 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, two lab hours per week.
Prerequisites: HIM 111 and 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 the CPT and ICD-9-CM classification system. Additional time outside of class required for testing. Two lecture, two lab hours per week.
Prerequisites: HIM 265 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, two lab hours per week.
Prerequisites: HIM 111 and 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.
Prerequisites: HIM 111 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. Eight hours per week in 1/2 term.
Prerequisites: HIM 111 and HIM 135 and permission of chairperson

251 Supervised Professional Practice II
3 Cr. Hrs.

Practical application of health information management processes including medicolegal release of medical information, patient registration, patient accounts, DRG coordination and assignment, ambulatory coding, flowcharting, generation of job procedures and optical disk scanning. 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, hospital-wide 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.

Prerequisites: HIM 231 and HIM 251 and permission of chairperson

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 possess proficiency in basic medical terminology. Additional out-of-class assignments required.

Prerequisites: HIM 121 or BIS 137 and 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 possess proficiency in basic medical terminology. Additional out-of-class assignments required.

Prerequisites: HIM 121 or BIS 137

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.

Prerequisites: HIM 122 and BIO 107 and HIM 260 and HIM 261

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.

Prerequisites: HIM 231, must be taken prior to or concurrently with HIM 264 and permission of 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 case mix. Two lecture, two lab hours per week.

Prerequisites: HIM 110 and HIM 260 and HIM 261, permission of chairperson

278 HIM Capstone 3 Cr. Hrs.

Projects, oral and written presentations, case studies, creation of a 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 in Health Information Management
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 the present.

106 Civil Rights Era in the U.S. 3 Cr. Hrs.

Historical development of civil rights movement in U.S. 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 superpowers and the U.N. and the resulting crises.

297 Special Topics in History
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.

Hospitality Management (HMT)

101 Dining/Kitchen Orientation

2 Cr. Hrs.

Knowledge and skill development of dining room and commercial kitchen proficiency. Through lecture and demonstration modules, students will attain skills in these two environments. One lecture, two lab hours per week.

Prerequisites: DEV 065 and DEV 085 and DEV 110

105 Survey of the 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's operation and management of food service organizations.

Prerequisites: 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.

Prerequisites: 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 related to nutrition and health (also offered as DIT 108).

110 Menu Planning

2 Cr. Hrs.

Menu development and design to include facility design implications, equipment needs, efficiency in the kitchen and cost controls related to the hospitality industry.

Prerequisites: DEV 065 and DEV 085 and DEV 110

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.

Prerequisites: HMT 107, DEV 085 or equivalent

113 Lab for HMT 112

Laboratory must be taken with HMT 112.

114 Advanced Food Preparation

5 Cr. Hrs.

Introduction to basic baking principles; production of meats, poultry, seafood and sandwiches as well as breakfast cookery methods. Two lecture, six lab (HMT 115) hours per week.

Prerequisites: HMT 112, HMT 113

115 Lab for HMT 114

R

Laboratory must be taken with HMT 114.

118 Artisan Breads I

5 Cr. Hrs.

Techniques for professional development and introduction to artisan yeast raised products. Two lecture, six lab hours per week.

Prerequisites: HMT 208 and HMT 238

125 Bar Operations Management

3 Cr. Hrs.

Various aspects of mixology, focusing on pouring techniques, drink recipes, computation of beverage costs, and beverage law. Hands-on experience in pouring using non-alcoholic beverages.

128 Cake Production & Decorating

5 Cr. Hrs.

Understanding of cake production methods, production of a variety of cakes, icings and decorating techniques in a commercial baking atmosphere culminating in an artistic display of a multi-tiered cake.

Prerequisites: HMT 114 and HMT 115

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 buffet utilizing vegetable carvings, ice carvings, platter layout, display and design. Two lecture, six lab hours per week.

Prerequisites: HMT 114, HMT 115

207 Butchery & Fish Management

3 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. One lecture, four lab hours per week.

Prerequisites: HMT 114 and HMT 115

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, pre-

sentation and application to classical dessert making. One lecture, six lab (HMT 238) hours per week.

Prerequisites: HMT 114, HMT 115

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 lab (HMT 239) hours per week.

Prerequisites: HMT 114, HMT 115, HMT 206, HMT 236, HMT 208, HMT 238

210 Hotel-Lodging Operations

Management

3 Cr. Hrs.

Operational management in the lodging industry to include the use of the Property Management System functions and risk management.

Prerequisites: HMT 105 and approval of chairperson

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.

Prerequisites: HMT 105, BIS 160 or equivalent

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.

Prerequisites: HMT 105, ACC 112

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.

Prerequisites: MAN 205, HMT 105

226 Purchasing for the 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.

Prerequisites: 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.***237 Lab for HMT 207** 2 Cr. Hrs.

This is a co-requisite laboratory course to be taken with HMT 207, Butchery and Fish Management. Includes hands-on learning associated with several varieties of meats and seafood; butchery and commercial kitchen considerations. Four lab hours per week.

Prerequisites: HMT 114 and HMT 115

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.

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.

292 Food Service Internship II R 3 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.

293 Food Service Internship III R 3 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.

295 Food Service Management Seminar 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.

Prerequisites: HMT 215, HMT 225 and MAN 205

297 Special Topics in Hospitality Management 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 social, political, cultural, and business conditions in the international arena and of social and business practices in various environments. Also offered as MRK 115; students may enroll in either course but not both.

125 The Human Image 3 Cr. Hrs.

Explores the nature and content of the humanities by examining and comparing our culture with various cultures from the past.

130 Humanity & the Challenge of Technology 3 Cr. Hrs.

Opportunities and dangers faced by humankind in the evolution of new technologies through examining several instances of contemporary technological development.

131 The Search for Utopia 3 Cr. Hrs.

A survey of humanity's creative search for the ideal society with special emphasis on important concepts/beliefs 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 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.

Examine and analyze leadership in its various dimensions; study and evaluate leaders in several elements and fields.

205 Cultures of Ancient Greece & Rome 3 Cr. Hrs.

Rise and fall of these cultures; their contributions to Western culture.

236 International Studies 6 Cr. Hrs.

Under the supervision of Sinclair faculty, visit another country, study activities related to specific academic majors.

245 The Vietnam War: Narratives & Issues 3 Cr. Hrs.

History of American military involvement in Vietnam, emphasizing narratives written by those involved in both 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 in Humanities 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.

Industrial Design & Graphic Technology (DRT)

See page 220

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.

The 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 Teams Leadership 3 Cr. Hrs.

Introduction to the fundamental techniques of industrial supervision and team leadership, including supervision functions, work teams leadership functions, leadership styles, employee motivation, and supervision of union personnel.

130 Lean Manufacturing 3 Cr. Hrs.

Lean Manufacturing principles 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 break even points; cost-volume-profit relationships, cost estimating, and Activity Based Costing (ABC).

Prerequisites: 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: Permission of instructor

162 IET Tech Prep Seminar II 1 Cr. Hr.

Industry site tours and classroom contact with practicing industrial and manufacturing engineers.

Prerequisite: IET 161

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 .5-3 Cr. Hrs.

Various topics related to Industrial Engineering Technology.

198 Computer Quantitative Analysis in Engineering Technology 2 Cr. Hrs.

Application of computer tools to analyze and solve engineering technology problems; emphasizing the advanced use of spreadsheets, including programming with macros. One lecture, two lab hours per week.

201 Computer Integrated Workcells I 3 Cr. Hrs.

Study and application of computer integrated manufacturing equipment, including the integration and coordinated use of tactile and light sensors, electronic and pneumatic communications and control systems, microcomputers, material handling equipment, robots, 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.

Prerequisites: EGR 252 or IET 201

205 Manufacturing Processes 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

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.

Prerequisites: IET 205, permission of instructor

207 Manufacturing System 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.

Prerequisites: IET 205 or permission of instructor

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 Technology 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

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.
Prerequisite: Permission of instructor

**297 Special Topics in Industrial
Engineering Technology R 0-8 Cr. Hrs.**

New developments in Industrial Engineering and Manufacturing Technology and their impact on manufacturing operations, competitiveness and productivity.
Prerequisite: Permission of instructor

Integrative Massage Therapy (IMT)

**101 Integrative Medical Massage
Therapy I 3 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. Two lecture, two lab hours per week.
Prerequisites: BIO 107 and ALH 151, restricted to IMT majors

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.
Prerequisites: BIO 143 and ALH 151 and IMT 101 and signature of chairperson

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.
Prerequisites: Admission to IMT program and signature of IMT coordinator

**106 Business Ethics for the Massage
Therapist 1 Cr. Hrs.**

Application of a professional code of ethics to practical clinical behavior.
Prerequisite: IMT 105

**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.
Prerequisites: BIO 143 and IMT 101 and signature of chairperson

108 Lab for IMT 107
*Laboratory must be taken with IMT 107.***151 Introduction to Holistic Therapies 1 Cr. Hrs.**

Exploration and development of a holistic approach to therapeutic interventions.
Prerequisite: Restricted to IMT majors

**152 Pain Management for Massage
Therapists R 2 Cr. Hrs.**

Pathology of pain; traditional and complementary medical and holistic approaches to pain management, including use of passive modalities.
Prerequisite: IMT 101 or approval of chairperson

**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.
Prerequisites: IMT 103 and IMT 107 and signature of chairperson

206 Lab for IMT 205
*Laboratory must be taken with IMT 205.***207 Integrated Medical Massage 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.
Prerequisites: IMT 205 and IMT 210 and signature of chairperson

**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.
Prerequisites: IMT 207 and IMT 212 and signature of chairperson

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.
Prerequisites: IMT 103 and IMT 107 and signature of chairperson

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.
Prerequisites: IMT 205 and IMT 210 and signature of chairperson

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 course work in skeletal and muscle systems with application in massage therapy. Two lecture, six lab hours per week.
Prerequisites: IMT 207 and IMT 212 and IMT 216 and signature of chairperson

215 Lab for IMT 214
*Laboratory must be taken with IMT 214.***216 Business Practices for the Massage
Therapist I 3 Cr. Hrs.**

Introduction to "TouchPro" method of seated massage including application of technique and marketing. One lecture, two lab hours per week.
Prerequisites: IMT 205 and IMT 210 and signature of IMT coordinator

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. One lecture, seven clinical hours per week.
Prerequisites: IMT 207 and IMT 212 and IMT 216 and signature of chairperson

220 Anatomy & Physiology Seminar 3 Cr. Hrs.

A comprehensive review and application of anatomy and physiology principles for massage therapists.
Prerequisites: IMT 208 and IMT 218 and IMT 214, signature of chairperson

221 Massage Therapy Seminar 3 Cr. Hrs.

Comprehensive review of massage therapy theory and practice for the massage therapist.

Prerequisites: IMT 208 and IMT 214 and signature of chairperson

223 Business Practices for the Massage Therapist II 2 Cr. Hrs.

Development of a business plan for planning, marketing and maintaining a massage therapy practice.

Prerequisites: IMT 216 and signature of IMT coordinator

226 Lab for IMT 216

Laboratory must be taken with IMT 216.

228 Lab for IMT 218

Laboratory must be taken with IMT 218.

Interior Design (IND)

131 Interior Design I 3 Cr. Hrs.

Design foundations exploring profession, principles, elements, and processes; space planning and furniture arrangement fundamentals with emphasis on design drawings and professional presentation form. Two lecture, four lab hours per week.

132 Interior Design II 3 Cr. Hrs.

Data gathering, problem solving, psychological parameters of planning and selection of materials and furnishings; continuation of design, drawings, and processes. Two lecture, four lab hours per week.

Prerequisite: IND 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.

Prerequisites: IND 132 and ARC 101

134 Interior 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.

Prerequisites: IND 133 and 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

233 Advanced Interior Design III 3 Cr. Hrs.

Introduction to interior design business practices, including cost estimating, contract writing, sales and communication techniques.

Prerequisite: IND 232

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

Tooling & Machining Technology (INT)

109 Fundamentals of Tool & Manufacturing Processes 4 Cr. Hrs.

Nomenclature, functions and capabilities of the machine shop and manufacturing processes. Three lecture, two lab hours per week.

111 Tool & Manufacturing Processes I 3 Cr. Hrs.

An overview of, steel making, heat treatment, safety and measurement equipment emphasizing tool and manufacturing processes through machine tool projects and development of process charts. This course emphasizes the use of the Engine Lathe. 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 electrical discharge machining (EDM). Two lecture, two lab hours per week.

Prerequisite: INT 111

113 Fundamentals of CNC 3 Cr. Hrs.

Development of computer numerical control (CNC) programs for actual operations on the three-axis CNC equipment. Two lecture, two lab hours per week.

Prerequisites: INT 109 or INT 112

114 Jig & Fixture Design 3 Cr. Hrs.

Theory, principles, and drawing techniques for the design of jigs and fixtures. Two lecture, two lab hours per week.

Prerequisites: INT 109 or INT 112 and DRT 198

116 CNC Operations 3 Cr. Hrs.

Production operation of CNC machining centers and CNC lathes. Set up and operation of CNC machines in a production environment with emphasis placed on production troubleshooting, inspection, reporting, and process improvement. Two lecture, two lab hours per week.

121 Introduction to Pattern Making 2 Cr. Hrs.

Introduction to pattern making tools and safe operation practices.

122 Basics of Pattern Making 2 Cr. Hrs.
The various constructions, machinery and processes are demonstrated.

Prerequisite: INT 121

131 Basic Mold Making 3 Cr. Hrs.

Basic topics of mold making including material properties, injection, transfer and blow molding.

132 Advanced Mold Making 3 Cr. Hrs.

Advanced aspects of mold making including die casting, rubber molds, blow molding and mold construction.

Prerequisite: INT 131

141 Applied Shop Mathematics I 3 Cr. Hrs.

Topics in arithmetic and algebra that relate durability with problems encountered in a metal working training program.

Prerequisite: DEV 085

142 Applied Shop Mathematics II 3 Cr. Hrs.

Theory and applications of plane geometry encountered in the metal working industry.

Prerequisite: INT 141

143 Applied Shop Mathematics III 3 Cr. Hrs.

Theory and application of trigonometry as applied to the metal working industry: compound angles, tapers and measurement set-ups.

Prerequisite: INT 142

145 Shop Floor Programming 3 Cr. Hrs.

Operation and programming of conversational controlled two-axis milling machines. Includes programming and manufacturing a variety of machined parts utilizing Protrak and Amilam two-axis CNC controls. Two lecture, two lab hours per week.

Prerequisites: INT 109, INT 112 or approval of chairperson

151 Principles of Welding 3 Cr. Hrs.

General methods of welding, oxyacetylene, brazing, soldering, ARC, TIG, MIG, Heliarc, including typical operations such as butt, lap, fillet, and vee welds.

152 ARC Welding 3 Cr. Hrs.

Theory and background skills of ARC, TIG, MIG, and Heliarc welding. Hands-on projects and demonstrations.

153 Oxyacetylene Welding 3 Cr. Hrs.

Theory and background skills of oxyacetylene welding, brazing, soldering and torch cutting. Hands-on projects and demonstration. Three lecture, one lab hour per week.

161 Machine Operations Laboratory I
8 Cr. Hrs.

The student will be required to complete the following machine shop projects: T-slot cleaner, taper wedge, parallels, drift punch, center punch, edge finder, lathe and grinder, parallel clamp, non-twist clamp, 1-2-3 blocks, solid square, angle plate, and screw jack. Two lecture, eighteen lab hours per week.

162 Machine Operations Laboratory II
8 Cr. Hrs.

The student will be required to complete the following machine shop projects: surface gauge, magnetic parallels (2), V-block and clamp assembly, and double V-block and clamp assembly. Two lecture, eighteen lab hours per week.

Prerequisite: INT 161

163 Machine Operations Laboratory III
8 Cr. Hrs.

The student will be required to complete the following machine shop projects: sinebar, grinding vise, and other optional projects. Two lecture, eighteen 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. Three lecture, two lab hours per week.

Prerequisites: INT 109 or INT 112

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

209 Computer Numerical Control 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

211 Advanced Computer Numerical Control
3 Cr. Hrs.

Basics of CNC programming language, the programming format and CNC tools and equipment. Two lecture, two lab hours per week.

Prerequisite: INT 113

212 Computer Assisted Programming
3 Cr. Hrs.

Programming assignments and implementation with CNC equipment. Two lecture, two lab hours per week.

Prerequisite: INT 211

213 Computer Numerical Control Applications
3 Cr. Hrs.

Programming and operation of machines using single part and large volume production techniques with emphasis on workholding, rough machining, high precision machining, computer assisted programming, G-code programming, and conversational programming; production of a variety of products. Two lecture, two lab hours per week.

Prerequisite: INT 212

225 Tool Design
3 Cr. Hrs.

Scientific principles involved in the design and use of tools used for material removal, press working, casting, joining and inspection processes. Two lecture, two lab hours per week.

Prerequisite: INT 114

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, department chairperson signature

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.

Prerequisites: INT 226 and DRT 218 and QET 117 and department chairperson signature

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.

Prerequisites: INT 226 and DRT 218 and QET 117, department 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

Journalism (JOU)

101 Journalism I
3 Cr. Hrs.

Kinds of newspaper stories, practice in writing new stories, features and interviews, the history, scope and functions of newspapers. Keyboarding skills are required.

Prerequisite: ENG 111

102 Journalism II
3 Cr. Hrs.

Advanced reporting and news writing 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.

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.

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 in JPN 100 presenting a more complex syntactical pattern and idiomatic structure. Promotes free expression in Japanese within more specific and complex cultural contents.

Prerequisite: JPN 100

Law (LAW)

- 101 Business Law I** 4 Cr. Hrs.
The American legal system as it relates to business transactions including court systems, business crimes, e-commerce, business ethics, contract law, and sales.
- 102 Business Law II** 4 Cr. Hrs.
The American legal system as it relates to business transactions including the law of commercial paper, secured transactions, agency, corporations, partnerships and real property.
- 103 Consumer Law** 3 Cr. Hrs.
Review of state and federal consumer laws and how to enforce personal rights under the laws which regulate advertising, privacy, identity theft, debt collection, car repairs, lemon cars, warranties, purchasing and leasing a car, home improvement fraud, predatory lending, telemarketing, spam, Internet sales, and personal health care issues.
- 104 Environmental Law** 3 Cr. Hrs.
Protection of air, water, and land as it relates to the individual, business and government; role of administrative agencies, legislatures, industry and advocacy groups in prevention and control of pollution in the physical environment.
- 111 Personal Law** 3 Cr. Hrs.
The laws relating to homeowning, marriage, motor vehicles, insurance, investments, and estate planning. Subjects are approached in non-technical terms in an effort to aid understanding of laws that affect personal choices and decisions.
- 144 Domestic Civil Protection Orders** 2 Cr. Hrs.
Basic understanding of domestic violence dynamics and working knowledge of Civil Protection Order (CPO) law and procedures. Includes working knowledge of the forms and 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.
- 297 Special Topics in Law** 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.

Law Enforcement (LEP)

- 080 Private Police Officer Training Academy** 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 202-hours training program provides certification as a security officer by the Ohio Peace Officer Training Council, Officer of Attorney General, State of Ohio.
- 101 Constitutional Law** 3 Cr. Hrs.
Elements of Constitutional law of frequent concern in law enforcement. Utilizing the Constitution and pertinent Supreme Court rulings, the development of criminal law and its effect on law enforcement procedures from crime prevention to courtroom appearance is covered.
- 102 Criminal Law** 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.
The historical, philosophical and legal framework for security operations as well as detailed presentations of specific security programs and processes currently and historically used in providing security. Protection of governmental and proprietary systems, persons and facilities.
- 115 Police Operations** 3 Cr. Hrs.
Line activities of law enforcement agencies with emphasis on the patrol functions and the prevention of crime: includes traffic, investigations, juvenile, vice and other specialized units.
- 117 Principles of Loss Prevention** 3 Cr. Hrs.
Functional operations of various specialized areas of security such as theft and risk control, security surveys, and loss prevention programs and management in proprietary and governmental institutions.

- 125 Police Organization & Administration** 3 Cr. Hrs.
Principles of organization and management as applied to law enforcement agencies. Concepts of organizational behavior, administration of staff units.
- 130 Family Violence** 3 Cr. Hrs.
Domestic violence and how all affected (the family, authorities, legal professions, and educators) can deal with it. Also offered as SOC 130; students may enroll in either course, but not both.
- 190 Law Enforcement Workshop** R 1-6 Cr. Hrs.
Workshop topics are offered throughout the academic year in a variety of criminal justice subject areas and for varying lengths of time.
- 191 Law Enforcement Workshop II** 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.
- 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 Science** 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 of 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.

Participation in, and observation of, a variety of police functions at a local police department. Under agency and faculty supervision, the student will have an opportunity to observe the functions of police and participate on a limited basis. There will be a pre-determined number of hours of training and field experience.

280 Basic Peace Officer Training 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 function deemed essential by the state of Ohio before an individual can be certified to perform police duties.

295 Seminar in Law Enforcement & Administration of Justice R 3 Cr. Hrs.

Identification and analysis of current issues and problems in law enforcement and the administration of criminal justice.

Literature (LIT)**201 Survey of English Literature (to 1660)** 3 Cr. Hrs.

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 the 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.

Studies 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 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 1920s until the present.

215 Introduction to Science Fiction Literature 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 non-fiction 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 American 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, the Harlem Renaissance, the Black Revolution and contemporary social expression.

238 Appalachian Literature 3 Cr. Hrs.

Literary themes of selected contemporary writers identified with the Appalachian United States.

240 Children's Literature 3 Cr. Hrs.

A study of the literary elements in children's literature and its value in society. Classic and contemporary works will be examined and award winning texts will be discussed.

Prerequisite: ENG 111

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 folktales intertwine.

297 Special Topics in Literature R 1-6 Cr. Hrs.

Opportunity to receive credit for special literary topics such as mythology in literature, the family in literature, black literature, etc.

Management (MAN)

105 Introduction to Business 3 Cr. Hrs.
The American business system and basic principles of the free market system. Basic management, marketing, economic, and accounting principles.

110 Introduction to International Business 3 Cr. Hrs.
The 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 global operations.

201 Introduction to Supervision 3 Cr. Hrs.
Strategies and techniques for current as well as prospective supervisors emphasize the assessment of skills required, the analysis of situational factors, and the 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.
Prerequisites: 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.
The design, planning, organization, and control of productive systems.
Prerequisites: MAT 122, BIS 160

225 Human Relations & Organizational Behavior 3 Cr. Hrs.
Applications of modern psychological and organizational behavior principles in the leadership, training, and motivating of today's worker in modern work surroundings including quality of work life.
Prerequisite: MAN 205

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.

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.

232 The Organizational System 1 Cr. Hr.
Introduction to the developmental and improvement aspects of organizational structure and design. Emphasis is placed on the major components affecting the organizational system including: organizational culture and change, Total Quality Management and Reengineering and International and cross-cultural organizational behavior.

237 Human Resource Management 3 Cr. Hrs.
Contemporary approach 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, systems design, and simulation.
Prerequisites: MAT 122, CIS 119

261 Management Science II 3 Cr. Hrs.
A continuation of MAN 260. Greater emphasis is 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 and 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.

Prerequisites: 15 credit hours in MAN (MAN 105, MAN 201, MAN 225, MAN 255, MAN 216) 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.

297 Special Topics in Management

R 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses can apply toward an associate degree in Business.

Medical Assistant Technology (MAS)

101 Introduction to Medical Assisting

2 Cr. Hrs.

Overview of the health care industry, including organization of ambulatory care practice groups, solo practice offices, hospitals, professional organizations, and federal health care programs; health care delivery trends and issues; role of the medical assistant in different work environments.

102 Medical Office Accounting

3 Cr. Hrs.

Principles of bookkeeping, automated and manual patient financial accounting, collection techniques, employee payroll, banking procedures, medical supplies purchasing and inventory. Two lecture, two lab hours per week.

Prerequisites: MAS 101 and 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 procedures, and pediatric health fair. Two lecture, four lab hours (MAS 174) per week.

Prerequisites: MAS 103 and HIM 122 and 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. Two lecture, two lab hours per week.

Prerequisites: MAS 102 and 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. Two lecture, four lab hours per week.

Prerequisite: ALH 140

120 Health Unit Coordinator I 4 Cr. Hrs.

The role of the health unit coordinator as an allied health professional will be the focus of this course. A review of the history of the profession, the hospital environment, and management of the nursing unit will be covered.

Prerequisites: BIO 107 and BIO 108 and 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. Two lecture, two lab hours per week.

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 per week.

Prerequisites: MAS 104 and MAS 106 and 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 hours per week.

Prerequisites: HIM 122 and HIM 260 and HIM 261 and ALH 104

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 hours per week.

Prerequisites: MAS 104 and MAS 106 and COM 206 and MAS 105

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 hours per week.

Prerequisite: MAS 203

205 Medical Assisting Directed Practice III
5 Cr. Hrs.

Advanced 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; assisting with specialized clinical procedures, performing electrocardiograms, venipunctures and basic laboratory tests and advanced office management skills. One lecture, twenty clinical hours per week.

Prerequisite: MAS 204

206 Special Clinical Assisting Procedures
3 Cr. Hrs.

Techniques required to perform advanced/specialized procedures such as assisting with sigmoidoscopy, basic respiratory procedures, OB/GYN procedures, physical agents to promote tissue healing, and basic nutrition. Two lecture, four lab hours per week.

Prerequisites: MAS 201 and ALH 201

207 Medical Laboratory Procedures
3 Cr. Hrs.

Techniques required to perform laboratory procedures in a medical office, including collection of specimens for testing/transport, venipuncture, urinalysis, cultures, quality control, and laboratory safety. Two lecture, four lab hours per week.

Prerequisite: MAS 104

208 Medical Assisting Seminar
2 Cr. Hrs.

Discussion of directed practice experiences; preparation for the American Association of Medical Assistants (AAMA) National Certification Examination through student presentations and discussion topics relative to the medical assisting 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 in Medical Assisting
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.

Order of operations; exponents; absolute values; properties of real numbers; operations with fractions, signed numbers, polynomials and rational expressions; simplifying algebraic expressions; solving first degree equations and inequalities and second degree equations by factoring and applied problems; factoring polynomials; introduction to graphing.

Prerequisites: DEV 108 or satisfactory score on placement test

102 Intermediate Algebra 5 Cr. Hrs.

Factoring; operations with rational expressions, radical expressions and complex numbers; relations and functions; solving equations with rational expressions, equations with radical expressions, quadratic equations by completing the square and the quadratic formula, equations quadratic in form, systems of linear equations in two and three variables, applied problems, compound and absolute value inequalities, quadratic and rational inequalities; equations of lines; set operations; simplifying radical expressions; graphing lines and parabolas.

Prerequisites: Grade of "C" or better in MAT 101 or satisfactory score on placement test

105 Business Mathematics 4 Cr. Hrs.

Arithmetic of decimals and fractions, percentages, checking accounts, taxes, insurance, payroll, trade pricing, retail pricing, simple and compound interest, promissory notes, annuities, loans and elementary statistics.

Prerequisites: DEV 085 or DEV 108 or MAT 101 or satisfactory score on placement test

106 Allied Health Mathematics
4 Cr. Hrs.

Application of fraction, decimal, 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.

Prerequisites: DEV 085 or DEV 108 or MAT 101 or qualifying score on mathematics placement test

108 Math & the Modern World
3 Cr. Hrs.

Applications 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, logical reasoning, and growth and decay.

Prerequisites: MAT 102 or sufficiently high score on mathematics placement test

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.

Prerequisites: Acceptance into Nursing program or permission of the Math department

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.

Prerequisites: Grade of "C" or better in MAT 102 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.

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. A scientific calculator is required.

Prerequisites: Grade of "C" or better in MAT 116 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.

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.

Prerequisites: Grade of "C" or better in MAT 101 or equivalent, or satisfactory score on placement test. Students receiving a grade of "D" in this prerequisite may still be able to qualify by passing a qualifying exam.

122 Statistics I 4 Cr. Hrs.

Statistical techniques and methodology. Graphical and tabular presentation of data, probability, parameters, statistical distributions, sampling, confidence intervals, and tests of hypotheses. Three lecture, two lab hours per week.

Prerequisites: Grade of "C" or better in MAT 116 or MAT 121 or equivalent, or satisfactory score on mathematics placement test. Students receiving a grade of "D" in this prerequisite may still be able to qualify by passing a qualifying exam.

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 equation. Scientific calculator required.

Prerequisite: Grade of "C" or better in MAT 101 or sufficient 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, systems of equations, and theory of equations. Scientific calculator required.

Prerequisite: Grade of "C" or better in MAT 131 or sufficient 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.

133 Technical Mathematics III 5 Cr. Hrs.
Conic sections, polar coordinates, derivative of algebraic functions, application of the derivative, integration, application of integration. Scientific calculator required.

Prerequisites: Grade of "C" or better in MAT 132 or sufficient 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.

134 Technical Mathematics IV 5 Cr. Hrs.
Integration techniques, graphs of trigonometric functions, derivatives of transcendental functions, infinite series, and differential equations. Scientific calculator required.

Prerequisites: Grade of "C" or better in MAT 133 or sufficient 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.

141 Numerical Concepts for Teachers 4 Cr. Hrs.

Introduction to the basic mathematical concepts of arithmetic and problem solving as appropriate for early and middle childhood teachers. An inquiry and activity based approach is used to explore problem solving, sets, functions, numeration systems, whole numbers, basic number theory, integers, rational numbers, and real numbers. Three lecture, two lab hours per week.

Prerequisites: Grade of "C" or better in MAT 102 or sufficient score on mathematics placement test

151 Introduction to Mathematical Modeling 3 Cr. Hrs.

Includes data analysis (linear and nonlinear methods), modeling with continuous functions, modeling with discrete mathematics (matrices and graph theory).

Prerequisite: MAT 116

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.

Prerequisites: Grade of "C" or better in MAT 117 or MAT 133 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.

202 Calculus & Analytic Geometry II 5 Cr. Hrs.

The second quarter in a four-quarter sequence for science and engineering majors. Applications of the definite integral, derivatives and integrals involving exponential, logarithmic, trigonometric and hyperbolic functions and their inverses, techniques of integration, indeterminate forms, L'Hopital's Rule, improper integrals and conic sections.

Prerequisites: Grade of "C" or better in MAT 201 or MAT 134 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.

203 Calculus & Analytic Geometry III 5 Cr. Hrs.

The 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 in the plane and in space, vector valued functions, arc length and curvature.

Prerequisites: Grade of "C" or better in MAT 202 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.

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.

Prerequisites: Grade of "C" or better in MAT 203 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.

215 Differential Equations 5 Cr. Hrs.

Solutions and applications of ordinary differential equations including separable, exact, homogeneous and non-homogeneous linear equations and others. Numerical approximation methods as well as substitutions, the total differential, separation of variables, integrating factors, undetermined coefficients, variation of parameters, Laplace Transforms and power series methods are covered.

Prerequisites: MAT 203 grade of "C" or better or satisfactory score on 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.

216 Elements of Linear Algebra 4 Cr. Hrs.

Systems of linear equations, matrices, determinants, linear transformations, Euclidean n-space, coordinate vectors, abstract vector spaces, dimension and rank, eigenvalues, eigenvectors.

Prerequisites: Grade of "C" or better in one of the following MAT 203 or 204 or 215, 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.

218 Calculus for Business & Economics 5 Cr. Hrs.

Expanding the mathematical maturity of the student to the concepts of limits, differentiation, integration and their applications in the social, managerial and life sciences. Providing the student the necessary background in calculus which is needed for subsequent business courses. Enabling the student an appreciation of calculus as an aid to solving problems in business and as a tool in decision making.

Prerequisites: 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. Three lecture, two lab hours per week.

Prerequisites: 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 within the discipline, but not covered within existing courses.

Mechanical Engineering Technology (MET)

101 Mechanics for Skilled Trades 3 Cr. Hrs.

Fundamentals of mechanics including concepts of force, work, energy, stress, friction and basic properties of materials. Analysis of simple mechanical machines. *Prerequisites: 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*

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*

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 the 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 gener-

ation in water-based heating systems and gas-fired radiant heating systems.

Prerequisite: MET 106

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 in design of HVAC distribution systems including duct design, piping system design, fan selection and performance and pump selection and performance. Two lecture, two lab hours per week. *Prerequisites: MET 106 and MAT 101 or permission of chairperson*

126 Air & Water Distribution Systems 5 Cr. Hrs.

Theory and practice of fluid flow in HVAC distribution systems, including water system design and analysis, duct design and analysis, fan and pump selection, valve and damper selection, and evaluation of overall air and water system performance. Hand calculations and use of computer-based design and analysis tools; selected hands-on laboratory studies reinforce basic principles; proper installation practices are also included. Three lecture, four lab hours per week.

Prerequisites: MET 106 and MAT 101

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

Foundations in the application 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 and equipment sizing. Two lecture, two lab hours per week.

Prerequisites: MET 106 and MAT 101 or permission of chairperson

145 HVAC Loads & Psychrometrics 3 Cr. Hrs.

Theory and practice in design of present day air conditioning systems, including heating, cooling, and refrigeration load estimation, psychrometric analysis, and equipment sizing. Two lecture, two lab hours per week.

Prerequisites: MET 106 and MAT 101 or equivalent

146 Building Psychrometrics & Load Calculations 5 Cr. Hrs.

Theory and practice of performing psychrometric analysis of HVAC systems. Principles and practice performing detailed heating and cooling load calculations for commercial facilities. Students learn both hand calculations and use of computer-based design and analysis tools. Selected hands-on laboratory studies reinforce basic principles. Three lecture, four lab hours per week.

Prerequisites: MET 106 and MAT 101

150 Testing, Adjusting & Balancing in HVAC Systems 3 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. Two lecture, two lab hours per week.

Prerequisites: MET 111 and MET 120 and MET 130 or MET 130 and MET 125 or MET 126

151 Industrial Hydraulics I 3 Cr. Hrs.

Basic principles of hydraulics, hydraulic fluids, reservoirs, pumps, cylinders, motors, piping, and accessories with application of hydraulic circuit layout and control including pressure, directional, and speed control, sequencing, flow division, and cushioning. Two lecture, two lab hours per week.

Prerequisites: MET 102 or permission of chairperson

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. Two lecture, two lab hours per week.

Prerequisites: MET 151 or permission of chairperson

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.
Diagnostic methods of mechanical problem solving in heating and cooling systems; and procedures for proper component replacement. Other topics include common faults and how to avoid repair failures. Two lecture, two lab hours per week.
Prerequisites: MET 111 and MET 120 and MET 130

158 HVAC Electrical 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.
Prerequisites: MET 111 and MET 130 and 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 085

203 Statics 4 Cr. Hrs.
Various types of force systems, analysis of trusses, friction, center of gravity and moments of inertia.
Prerequisites: MAT 132, PHY 131

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 203

207 Strength of Materials 4 Cr. Hrs.
Stress and deformations, torsions, shear and moments in beams, stresses in beams, beam deflections, combined stresses, and eccentric loading. 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.
Prerequisites: MAT 216 and PHY 201

212 Engineering Mechanics II 5 Cr. Hrs.
Kinematics of particles and rigid bodies, acceleration, work-energy, impulse and momentum of particles and rigid bodies.
Prerequisite: MET 211

217 Introduction to Nanotechnology 3 Cr. Hrs.
General exposure to nanotechnology and its applications, including manufacturing, engineering, and material technologies. Introduction to the impacts of nanotechnology, current developments in the nano field, and discussion of the potential influence of nanotechnology on careers.

222 Mechanical Cost Estimating 3 Cr. Hrs.
Estimating of materials, labor and equipment costs for HVACR systems. Focuses on different estimating techniques for doing various types of estimates, including budget estimates and detailed estimates for bid packages. Two lecture, two lab hours per week.
Prerequisites: ARC 139 and MET 130 and MET 125 or MET 126

224 Industrial Ventilation 3 Cr. Hrs.
Selection and design of ventilation systems for industrial applications. Two lecture, two lab hours per week.
Prerequisite: MET 125

225 Thermodynamics 4 Cr. Hrs.
The laws and application of the principles of thermodynamics as they apply to internal combustion engines, steam cycles, and refrigeration.
Prerequisites: MAT 133, PHY 132

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 instrumentation and control systems. Two lecture, two lab hours per week.
Prerequisites: EET 119 and MAT 131

229 Controls for HVAC Systems 3 Cr. Hrs.
Theory and design practice of control systems in use in the heating and air conditioning of commercial, and industrial applications. Two lecture, two lab hours per week.
Prerequisites: MET 125 or MET 126 and MET 145 or MET 146 and MET 228

230 Elements 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

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.
Prerequisites: MET 204 and MET 207 and MET 203

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. Two lecture, two lab hours per week.
Prerequisites: MET 125 and MET 145

241 Advanced HVAC Applications II 3 Cr. Hrs.
This continuation of MET 240 (Advanced HVAC Applications) introduces additional advanced topics in HVAC design, operation and troubleshooting including noise, vibration, acoustics, water treatment, energy recovery systems, energy modeling, energy economics, and design of HVAC systems to meet requirements of national energy codes. Two lecture, two lab hours per week.
Prerequisite: MET 240

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. Two lecture, two lab hours per week.
Prerequisites: MET 125 and MET 145 and MET 198

243 Current Topics in Heating, Ventilating & Air Conditioning 3 Cr. Hrs.

Identification and analysis of current issues in HVAC design, installation, operation or troubleshooting. Topics reflect relevant concerns and issues in the field.
Prerequisites: MET 240 and MET 198

244 HVACR Applications Capstone Project 6 Cr. Hrs.
Application of design techniques including computer software to design of HVAC system for representative model office building. Four lecture, four lab hours per week.
Prerequisites: MET 229 and MET 241 or MET 242

260 Engineering Technology Applications with Computers

3 Cr. Hrs.

Computer solutions of engineering 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.

Prerequisites: MET 198 or IET 198 and MAT 133

270 Mechanical Engineering Internship

R 1-12 Cr. Hrs.

Preparing a portfolio based on work-related/on-the-job experience.

278 Mechanical Engineering Technology Capstone

3 Cr. Hrs.

Integration of knowledge and skills gained throughout the Mechanical Engineering Technology program. The final project includes individual and team-based applications to demonstrate comprehensive knowledge and skill attainment. Two lecture, two lab hours per week.

Prerequisites: MET 232, MET 231

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.

Prerequisites: MAT 132 and PHY 131

282 Certified Manufacturing Engineer Review

R 3 Cr. Hrs.

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

Prerequisite: MET 281

297 Special Topics in Mechanical Engineering

R 1-6 Cr. Hrs.

This course allows a student or group of students to study a topic of interest to the student(s) as approved by the instructors.

Prerequisite: DEV 085

Mental Health Technology (MHT)

101 Introduction to Mental Health Work

R 3 Cr. Hrs.

History, vocabulary, current concepts concerning delivery of services. Roles for workers in the field. Necessary skills and values in the helping process. Ethical issues and concerns of beginning helpers.

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.

Prerequisites: MHT 101, restricted to MHT majors

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.

Effects 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 C.D. 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 Substance Related Disorders

3 Cr. Hrs.

Substance abuse and dependency to harmful substances. Theories of addiction. Effects on the individual, family and society. Intervention, treatment modalities and recovery.

128 Family Dynamics of Chemical Dependency

4 Cr. Hrs.

Impact of chemical dependency on individual family members and overall family functioning, emphasizing the nature of co-dependency, its symptoms and treatment.

130 Treatment Techniques in Chemical Dependency

4 Cr. Hrs.

Treatment methods for alcohol/drug addictions. Individual, group, family counseling systems for residential and out-patient work.

132 Assessment & Diagnosis of Chemical Dependency

4 Cr. Hrs.

Holistic assessment and diagnosis of chemical dependency, skill development, use of and interpretation of assessment instruments. Use of current Diagnostic Statistical Manual (DSM) criteria.

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 A & D 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 Behavioral Health Care

3 Cr. Hrs.

Ethical responsibilities of practitioners in the human service field including chemical dependency counselor and social work assistants, 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.

141 Treating Potentially Dangerous People

1 Cr. Hr.

Integrative, practical, and analytical approach to understanding the self in order to understand the client's perception of you as the helper. Understanding one's own socialization process relative to successfully addressing clients and treating potentially violent clients.

142 Client Analysis: Preventing & Responding to Violence During Treatment

1 Cr. Hr.

An integrative, practical, and analytical approach to understanding the client and stimuli that may evoke violence.

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 4 Cr. Hrs.
Observing, interviewing, assessing, and report writing. Preparation for major clinical sequence. Three lecture, two lab hours per week.
Prerequisites: MHT 101 and 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. Four lecture, sixteen practicum hours per week.
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. Four lecture, sixteen practicum hours per week.
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. Four lecture, sixteen practicum hours per week.
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 3 Cr. Hrs.
Philosophy, knowledge and skill components for effective case management, including training content authorized by Ohio Department of Mental Health.

209 Treatment Planning 2 Cr. Hrs.
Purpose and process of treatment planning and clinician's role. Writing measurable goals and objectives. Includes Ohio Department of Alcohol and Drug Addiction Services levels of treatment and client placement criteria.

210 Professional Licensing & Credentialing Processes 3 Cr. Hrs.
Examines a short history and current status of various licenses and other mental health and addictions related credentials. Overview of requirements, procedures, skills and knowledge base required for human service related licensure in Ohio. A special emphasis is focused on Ohio Chemical Dependency Professional licensing and certification and Ohio Counselor, Social Worker and Marriage and Family Therapist requirements.

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 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, effective leadership characteristics. Two lecture, two lab 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 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 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.
Prerequisites: MHT 205 and ENG 112

296 Special Topics in Mental Health Technology R 0.5-6 Cr. Hrs.
Opportunities to earn credit for workshops and short-term courses on current topics in Mental Health and Human Services. Only nine hours earned by Special Topics may be applied toward an associate degree in Mental Health.

Marketing (MRK)

115 International Environment: Culture & Business 3 Cr. Hrs.
An exploration of the social, political, cultural and business conditions in the international arena will be presented. Social and business practices in various environments are explored. Student participation through discussion and a team project will be included. Also offered as HUM 115; students may enroll in either course but not both.

201 Marketing I 3 Cr. Hrs.
The economical and social impact of the "marketing concept" stressing a managerial approach. Environments (social, economic, legal, etc.) and their influence on consumer behavior and decisions of the marketing manager. Consumer sovereignty is stressed.

202 Marketing II 3 Cr. Hrs.
The marketing mix provides the focal point for analysis and discussion. The management process is integrated with materials on distribution, product, marketing communication, 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 Applications 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.
Prerequisites: MRK 201, MRK 202, 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.

Prerequisites: MRK 105 or MRK 201

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.

Prerequisites: 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.

Prerequisites: MRK 105 or MRK 201

246 Fashion Merchandising 3 Cr. Hrs.

The social, economic and psychological factors influencing fashion and of concern to the retail assistant buyer or fashion coordinator. Terminology and basic elements of fashion, the environment of fashion and fashion leaders and cycles.

Prerequisite: MRK 245

247 Retail Buying & Merchandising 3 Cr. Hrs.

The functions of buying and selling to provide consumer satisfaction along with retail mathematics, stock turnover, budgeting, promotion, inventory evaluation, merchandising strategies, cost analysis and control.

Prerequisite: MRK 245

265 Introduction to E-Commerce 3 Cr. Hrs.

Electronic commerce basics, including a definition of e-commerce, an explanation of how e-commerce differs from traditional commerce; also includes the history, development and impact of e-commerce. The global impact of e-commerce, the relationship of e-commerce to business practices, marketing, legal issues, accounting and e-commerce technology are also addressed.

270 Marketing 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.

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.

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)

104 MIDI Sequencing 3 Cr. Hrs.

Musical Instrument Digital Interface (MIDI) terms and concepts; hardware and software requirements and setup; inputting of sequencing information in various formats; editing of basic parameters.

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.

Prerequisites: Music major or permission of instructor

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

109 Using Finale 1 Cr. Hr.

A series of tutorial projects covering note entry methods, text entry, functions of the main tool palette, basic plug-ins, layout issues, and MIDI document import and export.

Prerequisite: Ability to locate notes on a keyboard recommended

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

114 Women's Ensemble R 1 Cr. Hr.

The women's ensemble is for vocalists with experience in choral singing. This ensemble sings treble literature from all musical periods. This is a select group requiring appearance in public recital each quarter.

Prerequisites: Audition, permission of instructor

115 Music Appreciation 3 Cr. Hrs.

Basic parameters of music through a survey from Gregorian Chant to jazz and current rock styles focusing on melody, rhythm, harmony, and form.

116 Music Major Piano Class I 1 Cr. Hr.

Instruction in correct piano playing techniques. One lecture, one lab hour per week.

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. One lecture, one lab hour per week.

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. One lecture, one lab hour per week.
Prerequisite: MUS 117

119 Men's Ensemble R 1 Cr. Hr.
The men's ensemble is for vocalists with experience in choral singing. This ensemble sings literature written for male voices from all musical periods. This is a select group requiring appearance in public recital each quarter.
Prerequisites: Audition, permission of instructor

120 African-American Music/Gospel Choir R 1 Cr. Hr.
The performance and presentation of mixed choral literature from the African-American Spiritual and Gospel music tradition. The choir will present at least one concert per quarter.
Prerequisites: Audition, permission of instructor

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. Selected piano literature, sight reading, all major scales and ensemble playing is stressed.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: Permission of instructor

125 History of Rock Music 3 Cr. Hrs.
The reasons and conditions under which rock music took root; the personalities, events and music that shaped rock, and the conditions under which rock music continues to flourish today. An audio cassette 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.

127 Chamber Choir R 1 Cr. Hr.
The rehearsal, performance, and presentation of SATB (soprano, alto, tenor, bass) mixed choral music, representing all peri-

ods and styles. This course is for experienced choral singers. The choir will present at least one concert per quarter.
Prerequisites: Audition, permission of instructor

131 Survey of Musical Styles I 3 Cr. Hrs.
The historical styles of Western music in chronological sequence through analysis of various musical compositions and musical forms from the Medieval, Renaissance, and Baroque eras.

132 Survey of Musical Styles II 3 Cr. Hrs.
The historical styles of Western music are explored in chronological sequence through an analysis of various musical compositions and musical forms from the Classical and early Romantic eras.
Prerequisite: MUS 131

133 Survey of Musical Styles III 3 Cr. Hrs.
The historical styles of Western music are explored in chronological sequence through an analysis of various musical compositions and musical forms from the late Romantic and Modern eras.
Prerequisite: MUS 132

135 Percussion Methods 1 Cr. Hr.
Students learn to identify and play the most common percussion instruments; read any percussion parts and know what substitutions to use if the correct instruments are not available. One lecture, two lab hours per week.
Prerequisites: 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.
Prerequisites: MUS 111 or permission of instructor

139 Music Technology for Music Majors 1 Cr. Hr.
Introduction to the use and applications of computer-based resources including Internet sites that support Music department course curricula: MacGamut software; Auralia, Musition and Musica Practica software; Cakewalk Home Studio 2004 with MIDI sequencing and audio editing; and Finale 2003 and Finale Workbook.

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. One lecture, two lab hours per week.
Prerequisite: MUS 126

142 Singing & Dictation II 1 Cr. Hr.
Two voice counterpoint, dyads, triads, seventh chords, four-voice harmony, structure of harmonic vocabulary. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
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 theater, comedy, jazz and popular music. The Singers make many appearances on/off campus during the year. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
Prerequisite: Audition
- 163 Vocal Coaching R 1 Cr. Hr.
For musical theatre vocalists/students who want to improve vocal skills. Emphasis is on the development of the singing voice in musical theatre repertoire. Students work in a master class setting. This is not a beginning voice class. Memorization of at least three songs is required.
Prerequisites: Audition, permission of instructor
- 164 Vocal Styling R 1 Cr. Hr.
For music and theatre students who have had some experience in performing and have had vocal training. Emphasis is on the development of free-flow movement, characterizations, and mood of songs from musicals. Expression, phrasing, interpretation and performance of at least three musical theatre songs. One lecture, one lab hour per week.
Prerequisites: Audition, permission of instructor
- 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. One lecture, two lab hours per week.
Prerequisite: Audition
- 167 Applied Music: Jazz Piano R 1-4 Cr. Hrs.
- 169 Applied Music: Organ R 1-4 Cr. Hrs.
- 170 Applied Music: Piano R 1-4 Cr. Hrs.
- 171 Applied Music: Voice R 1-4 Cr. Hrs.
- 172 Applied Music: Percussion R 1-4 Cr. Hrs.
- 173 Applied Music: Violin R 1-4 Cr. Hrs.
- 174 Applied Music: Viola R 1-4 Cr. Hrs.
- 175 Applied Music: Cello R 1-4 Cr. Hrs.
- 176 Applied Music: String Bass R 1-4 Cr. Hrs.
- 177 Applied Music: Flute R 1-4 Cr. Hrs.
- 178 Applied Music: Clarinet R 1-4 Cr. Hrs.
- 179 Applied Music: Saxophone R 1-4 Cr. Hrs.
- 180 Applied Music: Oboe R 1-4 Cr. Hrs.
- 181 Applied Music: Bassoon R 1-4 Cr. Hrs.
- 182 Applied Music: Trumpet R 1-4 Cr. Hrs.
- 183 Applied Music: Trombone R 1-4 Cr. Hrs.
- 184 Applied Music: French Horn R 1-4 Cr. Hrs.
- 185 Applied Music: Baritone Horn R 1-4 Cr. Hrs.
- 186 Applied Music: Tuba R 1-4 Cr. Hrs.
- 187 Applied Music: Guitar R 1-4 Cr. Hrs.
- 188 Applied Music: Electric Bass R 1-4 Cr. Hrs.
- 189 Applied Music: Jazz Drumming R 1-4 Cr. Hrs.
- 190 Applied Music: Classical Guitar R 1-4 Cr. Hrs.
- 192 Applied Music: Harpsichord R 1-4 Cr. Hrs.
- 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. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
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. One lecture, one lab hour per week.
Prerequisites: Music major or permission of instructor.
- 207 Voice Pedagogy II 1 Cr. Hr.
A continuation of MUS 206. One lecture, one lab hour per week.
Prerequisite: MUS 206
- 208 Voice Pedagogy III 1 Cr. Hr.
A continuation of MUS 207. One lecture, one lab hour per week.
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. One lecture, one lab hour per week.
Prerequisite: MUS 118
- 217 Music Major Piano Class V 1 Cr. Hr.
Continuation of MUS 216.
Prerequisite: MUS 216
- 218 Music Major Piano Class VI 1 Cr. Hr.
Continuation of MUS 217. One lecture, one lab hour per week.
Prerequisite: MUS 217
- 221 Sight Singing for Singers I 1 Cr. Hr.
Developing and understanding of solfeggio through the practice of singing exercises utilizing the syllables of Solemnization to recognize the notes, rhythms and intervals important to basic sight reading skills. One lecture, one lab hour per week.
Prerequisites: MUS 105 and permission of instructor
- 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. One lecture, one lab hour per week.
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. One lecture, two lab hours per week.
Prerequisites: Music major or permission of instructor
- 227 Brass Methods II 1 Cr. Hr.
Continuation of MUS 226. One lecture, two lab hours per week.
Prerequisite: MUS 226
- 229 Conducting Fundamentals 2 Cr. Hrs.
Fundamentals of conducting music ensembles with emphasis on basic baton technique, meters, cueing, addressing different styles, conducting terminology and score reading.
Prerequisites: MUS 211, counselor's signature
- 236 Jazz Improvisation I 2 Cr. Hrs.
Students will learn the art of spontaneously creating music (extempore) while performing. One lecture, one lab hour per week.
Prerequisite: MUS 111

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. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
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. One lecture, two lab hours per week.
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 Intership 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.
Prerequisites: Permission of chairperson

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.
Prerequisites: Permission of chairperson

296 Classical Guitar Ensemble R 1 Cr. Hr.
The performance and study of selected Classical Guitar Ensemble literature. The literature covered will determine the size and performance level of the class. Public performance. One lecture, one lab hour per week.
Prerequisite: Audition

298 Performance Class R 1 Cr. Hr.
Performance repertoire from intermediate to advanced levels. Designed to antic-

ipate 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).

Prerequisites: Permission of chairperson

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.

Prerequisites: Permission of 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.

Prerequisites: BIO 141 and PSY 119 and ENG 111 and COM 206 and ALH 103

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. Two lecture, three lab hours per week.

Prerequisites: BIO 141 and PSY 119 and ENG 111 and COM 206 and ALH 103

122 Promoting Healthy Responses to 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. Four lecture, twelve clinical hours per week.

Prerequisites: NSG 120 and NSG 121 and BIO 141 and BIO 142 and BIO 205 and MAT 109, acceptance in Nursing program

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 set-

tings across the health care continuum. Two lecture, three lab hours per week.

Prerequisites: NSG 120 and NSG 121 and BIO 141 and BIO 142 and BIO 205 and MAT 109, acceptance in Nursing program

130 Role Transition for LPNs 10 Cr. Hrs.

Focuses on the transition of the 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, three lab, twelve clinical hours per week.

Prerequisites: BIO 211 and COM 206 and PSY 119 and ENG 111

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, resources management, and critical pathways across the health care continuum. Four lecture, twelve clinical hours per week.

Prerequisites: NSG 123 and 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. This course meets 16 hours per week for one half of the quarter.

Prerequisites: NSG 220 and PSY 208 and ALH 219

222 Promoting Healthy Responses to Specific Stressors II 4 Cr. Hrs.

Analyzes human responses to specific stressors affecting circulation and oxygenation. Applies nursing process, diagnostic reasoning, and collaborative judgment to multidisciplinary care in a variety of settings across the health care continuum. This course meets 16 hours per week for one half of the quarter.

Prerequisites: NSG 220 and PSY 208 and ALH 219

223 Promoting Healthy Responses in Women 4 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. This course meets 16 hours per week for one half of the quarter.
Prerequisites: ALH 104 and NSG 221 and NSG 222

224 Promoting Healthy Responses to Specific Stressors III 4 Cr. Hrs.

Analyzes human responses to specific stressors affecting urinary elimination, moving (musculo-skeletal), sensory, and neurological integrative functions. Applies nursing process, diagnostic reasoning, and collaborative judgment to participate in multidisciplinary care in a variety of settings across the health care continuum. This course meets 16 hours per week for one half of the quarter.

Prerequisites: ALH 104 and NSG 221 and NSG 222

225 Promoting Healthy Responses in the Child & Family 4 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. This course meets 16 hours per week for one half of the quarter.

Prerequisites: NSG 223 and NSG 224 and ENG 112

226 Promoting Healthy Responses to Interrelated Path-Physiological Stressors 4 Cr. Hrs.

Applies critical thinking to utilize the theory and skills necessary to care for patient/families responding to life threatening complex stressors requiring continuous monitoring and interventions. This course meets 16 hours per week for one half of the quarter.

Prerequisites: NSG 223 and NSG 224 and ENG 112

228 Advanced Physical Assessment 4 Cr. Hrs.

Enhances the nurse's skill in collecting and organizing data, performing basic and advanced physical assessment skills by physiological systems and documenting the information. Reviews signs/symptoms particular to each system in regard to normal/abnormal functions. Includes classroom instruction and college lab experience.

230 Directed Nursing Practice 7 Cr. Hrs.

Moves the individual from nursing student to beginning associate degree nurse through a directed nursing practice. Emphasizes professional development, nurse's role in health promotion and disease prevention, management of care for a group of patients, decision making, interpersonal relationships, responsibility and accountability. Three lecture, twenty clinical hours per week.

Prerequisites: NSG 225 and NSG 226, portfolio elective

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" medications, 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.

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 Women's Health Issues 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, including comparison of assessment and treatment of patients with mild to severe brain injury during the immediate post trauma phase with focus on maintaining adequate cerebral perfusion and restoring neuronal function. Case presentations and discussions will be divided equally into acute care and rehabilitation. Multidisciplinary goal-directed plan of care will be individualized based on severity of brain injury. Resources for patient and family will be addressed.

251 Assessment & Management of Neuromuscular Movement Disorders 1 Cr. Hr.

Pathophysiology and assessment of common neurological conditions (Parkinson's Disease, Multiple Sclerosis, Amyotrophic Lateral Sclerosis, and Spasticity in Stroke and other Movement Disorders). Designed to increase the neuro assessment competency of nurses, hands-on practice in comprehensive neurological assessment will be incorporated in the

workshop. Group discussion will focus on the pivotal role of the nurse in the collaborative management plans.

252 Stroke Management Continuum: Prevention, Acute Care & Rehabilitation 1 Cr. Hr.

This course will review the subtypes of stroke, pathophysiology of cerebrovascular disease that can predispose to stroke, team management and the continuum of care. Presentation and discussions will encompass 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 emphasis will be placed on public health education initiatives for prevention and awareness of the emergency nature of acute ischemic attack. Update on clinical management by the stroke team will focus on the recommended guidelines from coalition of stroke organizations. Application of the nursing process in stroke care from acute to subacute transitional setting, and rehabilitation in a long term care facility or home will address current evidence based practice and secondary prevention.

258 Strategies & Techniques for Test Taking 1 Cr. Hr.

This course is designed to assist learners in the AD Nursing Program to identify priorities in learning and to focus study time to maximize individual test performance. Learners will be introduced to strategies and techniques of test taking. Testing situations are built on actual clinical nursing experience. Techniques learned will help improve thinking and discrimination skills to enhance test performance.

Prerequisite: NSG major

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.

Prerequisites: NSG 224, current RN license

281 RN Refresher 12 Cr. Hrs.

This course has been developed to update the registered nurse's knowledge and clinical skills which are required in the delivery of professional nursing care in today's health care settings. The theoretical portion concentrates on changes in pathophysiological status, diagnostic workup programs, treatment and pharmacological modalities, and nursing interventions guided by the nursing process. The clinical portion provides learning experiences in acute care, long term care, and/or home health care settings. The evolving role of the nurse is emphasized. Six lecture, twelve clinical hours per week.

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 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.

296 Drug Update: Endocrine Drugs 1 Cr. Hr.

Pharmacological principles of drugs that mimic or influence thyroid, pancreatic and ovarian function. 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.

297 Special Topics in Nursing 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 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.

Prerequisites: BIO 141 or BIO 121

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.

Prerequisites: OTA 101 and admission to program

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 9 Cr. Hrs.

The contrast of normal development and disability from conception to senescence including genetic, environmental and aging factors as well as frequently used diagnostic procedures, screening and evaluation techniques. Continued experience in a community setting involving structured observations relating to dysfunction issues; documentation of observations with weekly verbal report to peers. Five lecture, six 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. One lecture, eight clinical hours per week.

Prerequisites: Signature of department 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.

Prerequisites: Signature of department chairperson

221 Clinical Affiliation II 3 Cr. Hrs.

Advanced clinical experience under the supervision of a licensed occupational therapist or certified occupational therapy assistant which must be successfully completed before the student is eligible for certification examination. Forty contact hours per week 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, six lab, eleven clinical hours per week.

Prerequisite: OTA 133

232 Treatment Issues II 9 Cr. Hrs.

Issues of community wellness, low tech and high tech adaptive technology needs of the client/consumer, OTA specialty areas, as well as reimbursement and ethical issues in an ever-changing health care arena. Five lecture, six lab, and eight clinical hours per week.

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 classroom and 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 Occupational Therapy Assistant 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.

Paralegal (PAR)

105 Paralegal Principles 4 Cr. Hrs.

Legal system and the function of the paralegal within that system. The role of case law, statutes, administrative regulations, the constitution, and court rules within that system and analysis of various judicial opinions.

Prerequisites: Concurrent registration with PAR 106. Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

106 Paralegal Principles: Technology 2 Cr. Hrs.

Introduction to the technology used by paralegals in law firm environments. Includes software programs for file management, timekeeping and legal research on the Internet. Students will also learn to use of various types of office equipment.

Prerequisites: Concurrent registration with PAR 105. Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

111 Legal Research & Writing 4 Cr. Hrs.

An introduction to major Ohio legal publications and techniques of legal research and writing. Students will complete problems assigned in legal research and a memorandum of law.

Prerequisites: PAR 105

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

112 Legal Research & Writing II 4 Cr. Hrs.

Builds on and develops skills learned in Legal Research & Writing I. Use of federal and national regional legal materials. Students will prepare a memorandum of law and actual brief.

Prerequisites: LAP 111 or PAR 111

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

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 system; preparation of memoranda of law.

Prerequisites: LAP 112 or PAR 112

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

115 Contract Law & the Uniform Commercial Code 3 Cr. Hrs.

Principles of contract law and Uniform Commercial Code (U.C.C.) emphasizing sales, secured transactions and consumer law; problems in contract agreements and accompanying documents.

Prerequisites: LAP 105 or PAR 105 and PAR 106. Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

121 Litigation I 3 Cr. Hrs.

The basics of jurisdiction of state and federal courts, tort law and the rules of evidence. Emphasis is on the Rules of Civil Procedure.

Prerequisites: LAP 105 or PAR 105 and PAR 106. Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

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.

Prerequisites: LAP 121 or PAR 121

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

131 Real Estate Transactions I 3 Cr. Hrs.

The law of real property and common types of real estate transactions and conveyances, such as deeds, real estate sales contracts, and leases and an overview of the system of recording. Problems in instrument drafting.

Prerequisites: LAP 105 or PAR 105 and PAR 106

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

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.

Prerequisites: LAP 131 or PAR 131

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

201 Business Organization I 3 Cr. Hrs.

Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements and employment contracts.

Prerequisites: LAP 105 or PAR 105 and PAR 106

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

202 Business Organization II 3 Cr. Hrs.

Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements, and employment contracts.

Prerequisites: LAP 201 or PAR 201

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

205 Criminal Law & Procedure 3 Cr. Hrs.

The Ohio Criminal Code and the Criminal Procedure Laws. Pleadings of criminal trials.

Prerequisites: LAP 105 or PAR 105 and PAR 106

Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

211 Probate Law I 3 Cr. Hrs.
A survey of probate law including summary administrations of estates, full estate administration, adoption, guardianship, name change, minor settlement, wrongful death, and testamentary trusts.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

212 Probate Law II 3 Cr. Hrs.
The law of wills and estates, and estate administration including Ohio tax returns and fiduciary accounting.
Prerequisites: LAP 211 or PAR 211
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

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.
Prerequisites: LAP 211 or PAR 211
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

215 Family Law 3 Cr. Hrs.
Divorce and dissolution and all matters relating to the ending of a marriage. Preparation of pleadings, forms, and court decrees. Ethical concerns in a family practice.
Prerequisites: LAP 121 or PAR 121
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

220 Legal Ethics 3 Cr. Hrs.
Ethical issues facing paralegals in various size law firms are assessed including the unauthorized practice of law, confidentiality, and conflicts of interest. Ethical issues related to time keeping, client's files, record maintenance, organizational skills and software are emphasized.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

235 Bankruptcy Law 3 Cr. Hrs.
Federal bankruptcy statutes. Procedures required to file bankruptcy and skills necessary to gather information are stressed.
LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

240 Social Security Law 1.5 Cr. Hrs.
Introduction to Social Security Law concepts and practices.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

241 Workers' Compensation Law 1.5 Cr. Hrs.
Introduction to concepts and practices of Ohio Workers' Compensation Law and the Industrial Commission.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

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.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

243 Legal Interviewing Skills 1.5 Cr. Hrs.
The role of a legal assistant in client and witnesses interviews, including interpersonal skills and ethical concerns.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

244 Ohio 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 and 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.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

245 Administrative Law 1.5 Cr. Hrs.
Introduction to Federal and Ohio Administrative Law and Agencies.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

246 Juvenile Law 1.5 Cr. Hrs.
Juvenile delinquency, parentage, child custody and child support and all matters relating to juveniles in the justice system.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

247 Legal Technology Resources 1.5 Cr. Hrs.
Use of software in a legal environment, including spreadsheets, databases, data backup media, group calendaring, and research on the Internet.
Prerequisites: LAP 105 or PAR 105 and PAR 106 and BIS 160 or equivalent
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass.

291 Paralegal 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 (8) practicum hours per week. (Eighty hours per quarter)
Prerequisites: LAP 112 or PAR 112 and LAP 220 or PAR 220 and LAP 121 or PAR 121
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass. Permission of department chairperson.

292 Paralegal 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 (8) practicum hours per week. (Eighty hours per quarter)
Prerequisites: LAP 291 or PAR 291
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass. Permission of chairperson

297 Special Topics in Paralegal
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.
Prerequisites: LAP 105 or PAR 105 and PAR 106
Student must be accepted into the Paralegal program. Grade of "C" or better required to pass. Permission of department chairperson.

Physical Education (PED)

101 Beginning Swimming R 1 Cr. Hr.
Elementary knowledge of swimming techniques and overcoming the fear of water. Instruction in basic swimming strokes including front crawl plus elementary diving and water safety skills. Two lab hours per week.

102 Intermediate Swimming R 1 Cr. Hr.
Increases skill in basic swimming strokes, such as the breast stroke, side stroke, back stroke, front and back crawl plus diving and water safety skills. Two lab hours per week.
Prerequisites: 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. Two lab hours per week.

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. Two lab hours per week.

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. Two lab hours per week.

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. Two lab hours per week.

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. Two lab hours per week.

125 Bowling R 1 Cr. Hr.
Beginning skills, rules and regulations, and courtesies. Emphasis on the basic approach, delivery, follow through, plus scoring. Two lab hours per week.

126 Volleyball R 1 Cr. Hr.
Develops basic skills including the various serves, spikes, sets, team strategy, rules and regulations, and skill techniques. Two lab hours per week.

127 Basketball R 1 Cr. Hr.
Develops fundamental skills and techniques of basketball such as shooting, passing, dribbling and team strategy, including terminology, rules and basic drills. Two lab hours per week.

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. Two lab hours per week.

132 Intermediate Tennis R 1 Cr. Hr.
Intermediate skill techniques plus playing strategy for both singles and doubles related to shot selection and placement. Two lab hours per week.
Prerequisites: PED 131 or equivalent skill

133 Advanced Tennis R 1 Cr. Hr.
Develops advanced skill techniques related to actual game strategy and the psychological aspect of the competition. Two lab hours per week.
Prerequisites: PED 132 or equivalent skill

134 Snow Ski Conditioning R 1 Cr. Hr.
A general conditioning and/or fitness class designed for skiers that develops cardiovascular endurance, muscle strength, and flexibility. Two lab hours per week.

136 Beginning Yoga R 1 Cr. Hr.
Introduction and practical application of basic yoga methods including a historical and philosophical review. Two lab hours per week.

137 Intermediate Yoga R 1 Cr. Hr.
Intermediate skills regarding positions and methods of yoga. Two lab hours per week.
Prerequisites: PED 136 or equivalent skill

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. Two lab hours per week.

143 Intermediate Pilates R 1 Cr. Hr.
This course is designed to introduce the student to the intermediate mat Pilates' method of body conditioning. This higher level of Pilates will help enhance posture and balance, provide better flexibility, and train the mind and body to work together toward the goal of overall health and fitness. Two lab hours per week.
Prerequisite: PED 142

144 Advanced Jogging/Fitness R 2 Cr. Hrs.
Knowledge and procedure(s) for obtaining advanced jogging/fitness. Detailed, individually formulated running and exercise program. One lecture, two lab hours per week.
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. Two lab hours per week.

149 Intermediate Social Dance R 1 Cr. Hr.
Improves knowledge and skill related to the popular ballroom dance steps, developing grace and self-confidence. Two lab hours per week.
Prerequisite: PED 148 or equivalent skill

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. Two lab hours per week.

152 Intermediate Square Dance R 1 Cr. Hr.
Develops seventy-five basic skills associated with modern square dance. Two lab hours per week.
Prerequisite: PED 151 or equivalent skill

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. Two lab hours per week.

154 Aerobic Conditioning R 1 Cr. Hr.
A program of fitness composed of exercise routines performed with music. Aerobics increases cardiovascular endurance, flexibility, and strength through selected movements. Two lab hours per week.

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. Two lab hours per week.

162 Intermediate Racquetball R 1 Cr. Hr.
Intermediate skills and techniques. Emphasis on shot selection, placement, strategy and overall consistency. Two lab hours per week.
Prerequisites: 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. Two lab hours per week.
Prerequisites: Successful completion of PED 162, instructor's approval or a "B" rating based on league competition.

164 Cardio Sculpt R 1 Cr. Hr.
Introduction to four different approaches to strength training by using a choreographed, group training program. These approaches employ a progressive, goal-based routine that incorporates modern lifting techniques to optimize results. Two lab hours per week.

165 Country Western Dance R 1 Cr. Hr.
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. Two lab hours per week.

166 Fitness Walking R 1 Cr. Hr.
Techniques of power walking, physiological involvement, proper stretching exercises, diet and nutrition and mobile meditation related to cardiovascular improvement. Two lab hours per week.

167 Lifetime Fitness R 1 Cr. Hr.
To provide students the opportunity to experience a variety of lifetime physical activities/ exercises that will maintain or improve their quality of life. Two lab hours per week.

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. One lecture, two lab hours per week.
Prerequisite: PED 106 or permission of instructor

170 Tai Chi R 1 Cr. Hr.

The ancient art of Tai Chi Chuan was developed out of the Taoist traditions in China. The Taoists were interested in the rhythms of nature. Since people are a part of nature, they devised movements and breathing techniques that would bring people into harmony with their environment. Tai Chi can be done for health, meditation or martial arts, but today it is mostly practiced for its health benefits, which are well documented by various scientific studies. Two lab hours per week.

171 Beginning Self Defense R 1 Cr. Hr.

Development of fundamental skills and techniques associated with the martial arts of Karate, Judo and Aikido. Two lab hours per week.

172 Intermediate Self Defense R 1 Cr. Hr.

Development of the intermediate skills and techniques associated with the martial arts. Two lab hours per week.

Prerequisites: 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. Two lab hours per week.

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. Two lab hours per week.

193 Physical Fitness Evaluation R 3 Cr. Hrs.

To provide students the opportunity to experience and understand the process of evaluating basic physical fitness levels in cardio-respiratory endurance, flexibility, strength and body composition on an individual basis in order to enhance selection of physical activities. This will enable the students to determine the desirable level of physical fitness to best meet the personal needs/requirements of the client.

Prerequisite: Suggested BIO 107

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. Two lab hours per week.

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. One lecture, two lab hours per week.

Prerequisite: PED 154 or permission of instructor

206 Water Safety Instruction R 3 Cr. Hrs.

Content and teaching methods necessary to instruct all levels of the American Red Cross swimming program. One and one half lecture, three lab hours per week.

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. One lecture, two lab hours per week.

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. Two lab hours per week.

Prerequisite: PED 125 or equivalent skill

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. Two lab hours per week.

Prerequisite: PED 126 or equivalent skill

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. Two lab hours per week.

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 O.H.S.A.A. and students passing the final exam will be certified to officiate in Ohio.

216 Football Officiating 2 Cr. Hrs.

Basic information about rules, regulations and officiating techniques. Materials will be supplied by O.H.S.A.A. Students passing the final exam will be certified to officiate in Ohio.

217 Baseball Officiating 2 Cr. Hrs.

Basic information about rules, regulations and umpiring techniques in baseball. Materials supplied by O.H.S.A.A. Students passing the final exam will be certified to officiate in Ohio.

219 Standard First Aid & Cardiopulmonary Resuscitation 3 Cr. Hrs.

Basic principles related to personal safety, accident prevention, treatment and cardiopulmonary resuscitation. National Red Cross Certification will be issued upon successful completion of the class.

224 Intermediate Golf R 1 Cr. Hr.

Basic fundamentals are reviewed with emphasis on intermediate skills. Grip, stance, swing, chipping and putting are reviewed and shot selection and strategy are emphasized. Two lab hours per week.

Prerequisite: PED 119 or equivalent skill

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. One lecture, two lab hours per week.

Prerequisite: PED 209 or approval of department

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 approval of department

232 Lifeguard Training 3 Cr. Hrs.

Expansion of training in the knowledge and skills required as a lifeguard in all areas of activity around an aquatics facility. Successful completion results in Red Cross certification. One and one half hour lecture, three hours lab per week.

Prerequisite: PED 102 or equivalent skill

234 Concepts of Total Fitness R 3 Cr. Hrs.

An orientation to total fitness with an emphasis on evaluation and maintenance. A lifetime concept of fitness is presented that will help students understand and develop a positive healthy lifestyle.

235 Introduction to Physical Education 3 Cr. Hrs.

The profession of physical education, its history, basic principles, relation to growth and mental health. Professional opportunities in health, physical education, and recreation.

236 Personal & Community Health 3 Cr. Hrs.

Enables the student to build a philosophy of health. Basic health principles and theories are applied to both personal and community health problems on a local and national level.

237 Organization & Administration of Intramurals 2 Cr. Hrs.

Philosophy and program development for the intramural program. Includes promotion, awards, officiating, rules and organization for competition.

238 Physical Education for the Elementary School 3 Cr. Hrs.

Designed to acquaint students with a variety of teaching techniques; to review current programs and practices in elementary physical education and to plan physical education classes for elementary 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.

250 Introduction to Exercise Science R 3 Cr. Hrs.

This course provides students an opportunity to define professional goals and assess personal strengths and weaknesses in light of competencies essential for an exercise science career.

251 Principles & Methods of Training 3 Cr. Hrs.

An exploration of physiology related to the utilization of the components of physical fitness needed to individualize an exercise prescription. Includes the opportunity to design an exercise prescription. PED 193 is a recommended prerequisite.

253 Advanced Water Aerobics R 2 Cr. Hrs.

An advanced fitness concept comprised of a series of exercises performed in the water with music. One lecture, two lab hours per week.

Prerequisite: PED 153 or permission of instructor

270 Physical Education Internship R 1-12 Cr. Hrs.

Provides the student with a basic understanding of what it means to be a physical educator. The student will serve as a teaching assistant in several activity classes, work with the athletic or intramural programs in some capacity and visit an off-campus physical education class.

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. *Prerequisites: Will vary according to topic area*

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 in Philosophy 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. *Prerequisites: DEV 108 or MAT 106*

104 Sound, Light & Modern Physics 4 Cr. Hrs.

Survey of sound, music, light, color, atomic, and nuclear physics and relativity for nonscience majors. Three lecture, three lab hours per week.

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.

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.

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.

133 Technical Physics III 4 Cr. Hrs.

A non-calculus course in electricity including electrostatics, electric fields, D.C. electric circuits, capacitance, magnetism, electromagnetic 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.

Prerequisites: 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 (PHY 207) hours per week.

Co-requisite: MAT 201

202 General Physics II 6 Cr. Hrs.

Oscillations, gravity, fluids, waves, sound, thermodynamics and kinetic theory, using calculus as appropriate. Five lecture, three lab (PHY 208) per week.

Prerequisites: PHY 201, co-requisite: MAT 202

203 General Physics III 6 Cr. Hrs.

Electrostatics, D.C. conduction and circuits, magnetism, electromagnet induction, quantum mechanics and special relativity. Calculus used extensively. Five lecture, three lab (PHY 209) hours per week.

Prerequisites: PHY 202, co-requisite: MAT 203

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.

220 Introduction to Computational Physics 3 Cr. Hrs.

Provides students with an introduction to the modeling and simulation of physical systems using MATLAB. Topics include the MATLAB desktop, array manipulations, relational and logic operations, control flow, creating M-files, low-level I/O, graphics, and symbolic manipulations. Two lecture, two lab hours per week.

Prerequisites: PHY 201 and MAT 201 or equivalent

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.

Prerequisites: MAT 110, ASE 145, ENG 112

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 (PHY 296) but not to exceed six credit hours. Open to second year students with 3.0 GPA in physics and mathematics.

Prerequisites: Permission of instructor

297 Special Topics in Physics

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. Two lecture, three lab hours per week.

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.

Prerequisites: PLA 106 or permission of instructor

208 Plastics Materials Processing I

4 Cr. Hrs.

An overview of different plastic 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: PLA 208 or permission of instructor

Political Science (PLS)

101 American Federal Government I 3 Cr. Hrs.

American political system at the national level, process of government, democratic theory and development of the Constitution, citizen participation through voting, interest groups and political parties.

102 American Federal Government II 3 Cr. Hrs.

American political system at the 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.

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 Political Science 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.

Prerequisites: PRT 101 or GRA 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

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 adjustment necessary for top quality printing. Use of pressroom and quality control equipment.

Prerequisite: PRT 221

270 Graphic Arts 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.

271 Digital PrePress I 3 Cr. Hrs.

Fundamentals of digital prepress and the techniques used to prepare page layouts and designs for printing.

Prerequisites: VIS 146, VIS 147 and VIS 148

272 Digital PrePress II 3 Cr. Hrs.

Advanced digital prepress and color separation techniques used to prepare page payouts 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 the 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.

A survey of topics in the field of psychology, appropriate for some technical programs. This course is NOT accepted as the general psychology requirement for Sinclair and university parallel programs. PSY 119 and PSY 121/122 cover the same material in more depth and are transferable.

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 included: 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, including: history, research, physiology, sensation and perception, learning, memory, consciousness, personality, development, gender, social, cognition, motivation, emotion, stress, disorders and therapies. Students should have reading and comprehension skills commensurate with the accelerated pace required for combining two courses in one quarter.

121 General Psychology I 3 Cr. Hrs.

First of a two-course sequence covering: history of psychology, research methods, physiology of behavior, sensation and perception, learning, memory, states of consciousness, and personality theories. Many Sinclair Community College and university parallel programs will not accept PSY 121 without subsequent completion of PSY 122.

122 General Psychology II 3 Cr. Hrs.
Second of a two-course sequence (with PSY 121) covering developmental psychology, psychology of gender, social psychology, cognition, motivation, emotion, stress, psychological disorders and therapeutic approaches.

Prerequisite: PSY 121

123 Honors Seminar for PSY 121

1 Cr. Hr.

An academically accelerated introduction to the study of behavior, including theories, methods and research in the major areas of psychology. The course requires advanced written work, presentations and group discussion/activities. Topics include history, research, physiology of behavior, sensation, perception, consciousness, learning, memory, and personality theory.

Prerequisites: Concurrent registration for PSY 121, permission of chairperson

124 Honors Seminar for PSY 122

1 Cr. Hr.

Topics include language and cognition, intelligence, motivation, emotion, life span development, stress and health, psychological disorders, and an overview of psychotherapy. An academically accelerated introduction to the study of behavior, including theories, methods and research in psychology, which requires advanced written work, presentations and group discussion/activities.

Prerequisites: PSY 121, concurrent registration for PSY 122, permission of chairperson

126 Stress Management 3 Cr. Hrs.

An opportunity for experiential learning through application of diverse stress management techniques. Topics covered include: assertiveness, stress related personality factors, holistic health, relaxation techniques, communication patterns, cognitive restructuring and time management.

130 Effective Parenting 3 Cr. Hrs.

Techniques for effective parenting behavior; addressing issues and concerns confronting parents, exploring practical application of proven psychological approaches to resolving areas of conflict in the parent-child relationship. Relevant theoretical concepts from behavioral and humanistic psychology and recent research in the areas of childhood development are reviewed.

131 Psychology Applications for PSY 121

1 Cr. Hr.

This recommended companion course to PSY 121 is a hands-on introduction to the study of behavior covering such topics as the history of psychology, research in psychology, the physiology of behavior, sensation and perception, states of consciousness, learning, memory, and personality theory. Through individual and

group activities students will explore theories, methods, and research in these major areas of psychology with an emphasis on learning through experience.

Prerequisite: Concurrent registration for PSY 121

132 Psychology Applications for PSY 122

1 Cr. Hr.

This is a recommended companion course to PSY 122. Topics include development, gender, social, cognition, motivation, emotion, stress, disorders and therapies. A hands-on introduction to the study of behavior, covering theories, methods and research in psychology, consisting of individual and group activities conducted in the psychology laboratory, emphasizing learning through experience.

Prerequisite: Concurrent registration for PSY 122

135 Living with Loss, Death & Grief

3 Cr. Hrs.

Integrates multidimensional aspects of living with loss and grief and covers experiences of loss, grief, imperatives for caregivers, 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.

141 Love & Personal Growth

3 Cr. Hrs.

Research and theory concerning diverse scientific definitions of love and the development of love throughout the life cycle with special focus being given to communication styles, lifestyles, values, and mortality.

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 goals.

145 Patterns of Human Relationships

3 Cr. Hrs.

Theoretical perspectives of traditional and non-traditional styles of relating and covers how psychological development affects choices of partners, effects of culture and historical age on relating, love/romance, power, jealousy, loneliness, fairness, equity theory, therapeutic interventions and sexuality.

159 Cross Cultural Psychology 3 Cr. Hrs.

Introduction to understanding cultural contexts of human behavior and thinking through experimental evidence; also includes classroom experiences and community involvement.

160 African-American Psychology

3 Cr. Hrs.

Multi-disciplinary study of theories, cultural themes and psychological constructs used to further promote understanding of thoughts, feelings and behaviors of African-Americans.

165 Sport & Exercise Psychology

4 Cr. Hrs.

Introductory course for novice or elite athletes, athletic trainers, coaches, or "weekend warriors" interested in enhancing their performance. Application of scientific principles of psychology to maximize performance in sporting events with emphasis on the practical application of theories to a variety of sports.

180 Psychology of Gender 3 Cr. Hrs.

Introduction to the basic theories and principles of the psychology of gender in a multicultural context. Perspectives of women and men of diverse cultural backgrounds are considered. Topics include gender stereotypes and social constructions, theories of gender development, biological and cognitive differences, and implications of gender for work, family, and mental and physical health.

205 Child Development 4 Cr. Hrs.

Research and theory concerning the physical, cognitive, and psychosocial development of children from conception to puberty. Covers the impact of genetic, prenatal and environmental factors and challenges appropriate to this age range. This course covers the same basic content as the first half of PSY 208.

Prerequisites: PSY 119 or PSY 122

206 Adolescent & Adult Psychology

3 Cr. Hrs.

Research and theory concerning physical, cognitive, social and psychological development from adolescence through old age. Focus is on developmental tasks and issues such as education, marriage, family, work, leisure and facing death.

Prerequisites: PSY 119 or PSY 122

207 Psychology of Aging 3 Cr. Hrs.

Research and theory concerning the physical, cognitive and social issues of aging.
Prerequisites: PSY 119 or PSY 122

208 Life Span Human Development 5 Cr. Hrs.

Research and theory concerning the physical, cognitive, and social development of a person from conception to death. The course covers conception, prenatal and child development issues, definition and tasks of adolescence, adult life crises, marriage, family, work, leisure and facing death.
Prerequisites: PSY 119 or PSY 122

214 Drugs & Behavior 4 Cr. Hrs.

Overview of the neuropharmacology of various psychoactive substances and their effects on physiology and behavior. Topics include basic principles of neurophysiology, neuropharmacology, and pharmacodynamics, including drug absorption, distribution, and elimination, physiology of tolerance and dependence, and ligand-receptor interactions.
Prerequisites: PSY 119 or PSY 121

217 Abnormal Psychology 4 Cr. Hrs.

A study of the diagnostic criteria, symptoms, causes, and treatments of the *Diagnostic and Statistical Manual for Mental Disorders*. Emphasis is on current scientific research.
Prerequisites: PSY 119 or PSY 122

218 Principles of Counseling 4 Cr. Hrs.

An introduction to professional issues in the helping profession of counseling with emphasis on the development of basic interviewing and counseling skills, a survey of classic and contemporary theories and techniques of the counseling process, and a comparison of various theoretical approaches.
Prerequisites: PSY 119 or PSY 122

220 Personality Psychology 4 Cr. Hrs.

An introduction to the bases of acquiring personality with emphasis on principles, theories, and research. Specific topics include psychodynamic theory, ego-psychology, object relations theory, trait/biological theory, phenomenology, behavior-environmental theory, and cognitive/self regulation theory.
Prerequisites: PSY 122 or PSY 119

223 Cognitive Psychology 4 Cr. Hrs.

A comprehensive review of the methods, theories, and principles associated with human mental processes such as information processing, parallel distributed processing, and neurocognitive perspectives on the interactions among mind, brain, and behavior. Specific topics include perception, attention, memory, language development, cognitive development, and intelligence.
Prerequisites: PSY 119, PSY 122

225 Social Psychology 4 Cr. Hrs.

A study of the interaction between the individual and social environment, looked at through a multicultural context. Topics covered include: self-concept formation, attitudes, persuasion, attribution (inferences), group structure and processes, prejudice, aggression, and violence. Meets LAS multicultural studies requirement.
Prerequisites: PSY 119 or PSY 122

228 Psychology in the Work Place 4 Cr. Hrs.

The contributions of psychology to human resource management, organizational science, and human factors engineering are examined. The student will understand relevant theories and applications within organizational settings. Specific topics to be presented include motivation, group decision making and development, leadership, work place politics, employee selection, work related stress, performance evaluations, and organizational improvement.
Prerequisites: PSY 119 or PSY 122

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.

235 Research Methods for Social Sciences 4 Cr. Hrs.

An overview of basic research methods for the social sciences covering: experimental design, dependent and independent variables, experimental and control conditions, selection of subjects, data collection, and reading and writing research reports.
Prerequisites: PSY 119 or PSY 122

236 Behavioral Science Statistics 4 Cr. Hrs.

An exploration of basic statistical techniques used in behavioral sciences, including descriptive and inferential statistics, frequency distributions, measures of central tendency and distribution, non-parametric statistics, 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 including research evidence to develop and provide effective learning experiences in various educational environments.
Prerequisites: PSY 119, PSY 122

270 Psychology Internship R 1-6 Cr. Hrs.

Involvement in a field related experience outside the classroom setting, in which the learning outcomes and the form of evaluation will be determined by the supervising psychology instructor.
Prerequisites: 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. Open only to second year students with a 3.0 average.

297 Special Topics in Psychology R 1-6 Cr. Hrs.

Opportunity to receive credit for non-traditional courses (TV and newspaper), workshops and special interest topics in the discipline of psychology.

Physical Therapist Assistant (PTA)

106 Introduction to Physical Therapy 1 Cr. Hr.

Purpose, philosophy, history and development of the Physical Therapy profession. PTA duties, PT/PTA relationship, essential functions, legal and ethical responsibilities and professional behaviors. Function of regulatory agencies, licensing bodies and professional associations.

110 Fundamentals of PTA Practice 2 Cr. Hrs.

Scope and practice of the PTA; introduction to human response; critical thinking and decision making and collaborative practice with the PT; foundation of therapeutic communication and medical terminology used in documentation of treatment interventions.
Prerequisite: HIM 121 and approval of chairperson

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.
Prerequisites: BIO 142 and signature of chairperson

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.
Prerequisites: PTA 116 and PTA 117, approval of chairperson

119 Lab for PTA 118*Laboratory must be taken with PTA 118.***120 Pathology & Clinical Practice**

5 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.

*Prerequisites: PTA 116 or PTA 106***124 Clinical Procedures I**

5 Cr. Hrs.

Physiology and clinical rationale for use and application of treatment interventions including passive and mechanical physical agents, transfer techniques and gait training. Three lecture, four lab hours per week.

*Prerequisites: PTA 118 or PTA 120***125 Lab for PTA 124***Laboratory must be taken with PTA 124.***130 Therapeutic Exercise I**

4 Cr. Hrs.

Theory and clinical rationale for use and application of therapeutic exercise, functional activities with emphasis on case studies, advanced posture and gait and patient teaching in a variety of settings. 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.

*Prerequisites: 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 PT or PTA clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions. One lecture, twenty practicum hours per week.

*Prerequisites: PTA 221 and PTA 223 and restricted to majors***212 Clinical Practicum II**

3 Cr. Hrs.

Intermediate experience in the clinical setting under supervision of a PT or PTA clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions. Twenty-one practicum hours per week.

*Prerequisites: PTA 211 and PTA 235 and PTA 233***213 Clinical Practicum III**

3 Cr. Hrs.

Advanced experience in the clinical setting under supervision of a PT or PTA clinical instructor. Application of entry level performance including communication skills, problem solving, critical thinking and safety in therapeutic interventions. Twenty-one practicum hours per week.

*Prerequisite: PTA 212***221 Clinical Procedures II**

2 Cr. Hrs.

Physiology and clinical rationale for use and application of athermal and deep thermal physical agents. One lecture, two lab hours per week.

*Prerequisite: PTA 124***222 Lab for PTA 221***Laboratory must be taken with PTA 221.***223 Therapeutic Exercise II**

4 Cr. Hrs.

Advanced theory and rationale for use of therapeutic exercises and functional activities, recognition and treatment of orthopedic conditions, complex and specialized diagnoses across the life span (cardiovascular, pulmonary, obstetric, and endocrine disorders) as seen in PT practice. Two lecture, four lab (PTA 224) per week.

*Prerequisites: PTA 130, PTA 131***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. One 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 223***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 PT 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.

Prerequisites: PTA 223 or PTA 221

Purchasing (PUR)

201 Purchasing Principles

3 Cr. Hrs.

The contribution of the purchasing organization within the firm; development of sources of supply; purchasing procedures, policies, and techniques. Basic functions of procurement and materials management common to manufacturing, service, and government organizations.

202 Advanced Purchasing

3 Cr. Hrs.

In-depth approaches to actual situations encountered by purchasing personnel: quality; pricing; types of contracts, international purchasing and the more challenging aspects of government purchasing.

*Prerequisites: PUR 201, MAT 116 or MAT 121***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 (JIT) Inventory**

Techniques 3 Cr. Hrs.

Development of Just-In-Time (JIT) manufacturing applications in the United States through present day setup and operation of JIT systems, Total Quality Control, Continuous Improvement, and a comparison of JIT with Materials Requirements Planning (MRP); supplier/transportation partnerships and functional integration.

*Prerequisites: PUR 201 or MAN 251***215 Inventory & Production Control**

3 Cr. Hrs.

The role of inventory and production control in modern industrial management with emphasis on data processing, MRP centralized control, standardization, obsolescence control and other modern techniques.

*Prerequisites: MAT 101 and PUR 201***220 Supplier Relationships**

3 Cr. Hrs.

Overview of determining vendor capability by sourcing/certification, and state-of-the-art approaches to supply chain management and auditing; role and impact of supplier relationships.

225 Negotiation Techniques

3 Cr. Hrs.

Psychology and techniques of conducting purchasing negotiations; mock negotiations using case studies. Principles apply to situations in personal life. Class is open to non-purchasing students.

270 Purchasing 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.

297 Special Topics in Purchasing
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, three lab hours per week.

101 Survey of Total Quality 2 Cr. Hrs.

Basic principles, concepts and philosophy of total quality. Extensive use of teamwork, problem solving activities and tools. Two lecture hours per week.

Prerequisite: MET 198, co-requisite: QET 171 (lab for QET 101)

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, paperboard, and films using appropriate ASTM and TAPPI standards. Two lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent

107 Engineering Disasters 1 Cr. Hr.

A study of engineering disasters and their underlying causes. Discussion of the concept of acceptable risk. Introduction and use of a simple problem solving tool, Fault Tree Analysis. Small group discussion.

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.

Prerequisites: QET 100 or QET 112 and DRT 100 and DRT 106, DRT 196 and INT 143 or MAT 131

114 Advanced Coordinate Measurement 3 Cr. Hrs.

Operating techniques and practice for a 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, two lab hours per week.

Prerequisites: QET 112 or equivalent, permission of department chairperson

120 Process Metrology 3 Cr. Hrs.

Fundamental methods, standards, processes and procedures for measurement and non-destructive testing based upon physical and standards of length, time, temperature, pressure and electricity. Two lecture, two lab hours per week.

Prerequisites: DEV 108 and DEV 065 or equivalent

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 of Non-Destructive Testing (ASNT) requirements. One lecture, three lab hours per week.

Prerequisite: QET 120

124 Industrial Radiography 3 Cr. Hrs.

Radiographic techniques including X-ray, gamma and dark room procedures, as well as radiographic interpretations are introduced. Two lecture, two lab hours per week.

Prerequisite: DEV 108 or equivalent

125 Ultrasonic Testing 3 Cr. Hrs.

Review of fundamental 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 (ASNT) requirements. Two lecture, two lab hours per week.

Prerequisites: DEV 108 or permission of instructor

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.

Prerequisites: MAT 101 or INT 141 or equivalent

132 Metallurgy 2 Cr. Hrs.

Terminology, designations of metals and the relationship among the properties of metals, the environment, and heat treatment processes. Selecting and testing materials. Two lecture hours per week.

Prerequisites: MET 104 or QET M30 and PHY 131 or PHY 141

Co-requisite: QET 173 (lab for QET 132)

133 Non-Metallic Materials & Processes
2 Cr. Hrs.

Factors related to the selection of non-metallic materials and the relationship between the nature of the materials and their properties. Thermoplastics, thermosetting, composites and glasses are included. Two lecture hours per week.

Prerequisites: MET 104 or QET M30

Co-requisite: QET 174 (lab for QET 133)

171 Lab for QET 101 1 Cr. Hr.

Co-requisite laboratory course to the lecture course QET 101: Survey of Total Quality. Two lab hours per week.

Co-requisite: QET 101

173 Lab for QET 132 1 Cr. Hr.

Laboratory activities to supplement QET 132: Metallurgy. Three lab hours per week.

Co-requisite: QET 132

174 Lab for QET 133 1 Cr. Hr.

Laboratory activities to supplement QET 133: Non-Metallic Materials and Processes. Two lab hours per week.

Co-requisite: QET 133

181 Lab for QET 201 1 Cr. Hr.

Laboratory activities for QET 201: Statistical Process Control. Two lecture hours per week.

Co-requisite: QET 201

182 Lab for QET 202 1 Cr. Hr.

Laboratory activities to supplement QET 202: Advanced Statistical Quality Control. Three lab hours per week.

Co-requisite: QET 202

183 Lab for QET 221 1 Cr. Hr.

Laboratory activities to supplement QET 221: Quality Assurance. Three lab hours per week.

Co-requisite: QET 221

184 Lab for QET 261 1 Cr. Hr.

Laboratory activities to supplement QET 261: Continuous Process Improvement. Three lab hours per week.

Co-requisite: QET 261

185 Lab for QET 217 1 Cr. Hr.
Laboratory activities to supplement QET 217: Measurement and Calibration. Two lab hours per week.
Co-requisite: QET 217

190 Quality Control Workshop R 0.5-3 Cr. Hrs.

Various topics related to Quality Control.

200 Quality Technician Review R 2 Cr. Hrs.

Review of the core requirements and topics covered by the various technician exams offered by the American Society for Quality (ASQ). This course should be taken concurrently with an accompanying technical certification, such as QET 266, QET 267, QET 268 or QET 269.

201 Statistical Process Control 2 Cr. Hrs.

A continuation of the introductory quality course (QET 101) with emphasis on process capability, control charts techniques, and analysis. Two lecture hours per week.

Prerequisites: QET 101 and MAT 101 or INT 141
Co-requisite: QET 181 (lab for QET 201)

202 Advanced Statistical Quality Control 3 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 hours per week.

Prerequisites: QET 201 and MAT 132 or MAT 102
Co-requisite: QET 182 (lab for QET 202)

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.
Prerequisites: QET 211 and QET 201 or MAT 122

215 Certified Reliability Engineering Review R 1 Cr. Hr.

Review of the requirements and topics to become certified by the American Society for Quality (ASQ) as a Certified Reliability Engineer (CRE) with emphasis on previous preparation efforts. This course should be taken with QET 285. Two lab hours per week.

Co-requisite: QET 285

217 Measurement & Calibration 2 Cr. Hrs.

Selection of appropriate measurement tools, gage R&R, calibration and certification of linear measuring tools, and development and testing of control and inspection plans. Two lecture hours per week.

Prerequisites: QET 100 and QET 201 and QET 113 or DRT 217

Co-requisite: QET 185 (lab for QET 217)

221 Quality Assurance 3 Cr. Hrs.

Applying 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. Three lecture hours per week.

Prerequisite: QET 201

Co-requisite: QET 183 (lab for QET 221)

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.

Prerequisites: QET 223 and MET 198 or permission of instructor

225 Certified Quality Engineering Review R 1 Cr. Hr.

Review of the requirements and topics to become certified by the American Society for Quality as a Certified Quality Engineer (CQE) with emphasis on previous preparation. This course should be taken with QET 285. Two lab hours per week.

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.

Prerequisites: QET 223 or permission of instructor

235 Certified Quality Auditor Review 1 Cr. Hr.

Audit function, nature of audits, and evaluation of corrective action. Review of the requirements and topics to become certified by the American Society for Quality (ASQ) as a Certified Quality Auditor (CQA). This course should be taken with QET 285. Two lab hours per week.

245 Certified Quality Manager Review 1 Cr. Hr.

Review of the requirements and topics to become certified by the American Society for Quality (ASQ) as Certified Quality Manager (CQM) with emphasis on previous preparation. Two lab hours per week. This course should be taken with QET 285.
Co-requisite: QET 285

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.

Prerequisites: PHY 131 and QET 134 and 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.

Prerequisites: QET 105 and QET 134 and QET 212

254 Package Shock & Vibration 3 Cr. Hrs.

The 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.

Prerequisites: QET 212 and QET 250

261 Continuous Process Improvement 2 Cr. Hrs.

Selection and application of the appropriate problem solving models and tools for the improvement of process quality, throughput and waste reduction. Two lecture hours per week.

Prerequisites: QET 201 and QET 221 and IET 130 and QET 202 or MAT 220

Co-requisite: QET 184 (lab for QET 261)

265 Certified Software Quality Engineer Review R 1 Cr. Hr.

Review of the requirements and topics to become certified by the American Society for Quality (ASQ) as a Certified Software Quality Engineer (CSQE) with emphasis on previous preparation. This course should be taken with QET 285. Two lab hours per week.

266 Certified Calibration Technician Review R 1 Cr. Hr.

Review of the topics to become certified by the American Society for Quality (ASQ) as a Certified Calibration Technician (CCT). This course should be taken with QET 200. Two lab hours per week.
Prerequisites: QET 120 and QET 217

267 Certified Mechanical Inspector Review R 1 Cr. Hr.

Review of the topics to become certified by the American Society for Quality (ASQ) as a Certified Mechanical Inspector (CMI). This course should be taken with QET 200. Two lab hours per week.
Prerequisites: QET 101 and QET 100

268 Certified Quality Improvement Associate Review R 1 Cr. Hr.

Review of the topics to become certified by the American Society for Quality (ASQ) as a Certified Quality Improvement Associate (CQIA). This course should be taken with QET 200. Two lab hours per week.
Prerequisites: QET 101

269 Certified Quality Technician Review R 1 Cr. Hr.

Review of the topics to become certified by the American Society for Quality (ASQ) as a Certified Quality Technician (CQT). This course should be taken with QET 200. Two lab hours per week.
Prerequisites: QET 223 and QET 201 and QET 100

270 Quality Control Internship R 1-12 Cr. Hrs.

Preparing a portfolio based on work-related/on-the-job experience.

285 Quality Engineering & Quality Management Certification Review 2 Cr. Hrs.

Review of the requirements and topics to become certified as an American Society of Quality (ASQ) professional. This course should be taken concurrently with an accompanying technical certification, such as QET 215, QET 225, QET 235, QET 245 or QET 265.

295 Quality Engineering Technology Capstone 3 Cr. Hrs.

The student plans, implements an improvement project within the context of work or the community. A systems approach to managing organizational change is studied.
Prerequisites: QET 202 and QET 211 and QET 221 and ENG 122 or permission of instructor

297 Special Topics in Quality Engineering 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 the General Machine Operator 4 Cr. Hrs.

Introduction to radiographic imaging principles including basic patient positioning, radiation biology, safety and physics, image production and film processing. Three lecture, two lab hours per week.
Prerequisites: BIO 107 and 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 performance, film analysis and presentation. Sixteen clinical hours per week.
Prerequisite: RAT 121

112 Clinical Competency Development II 4 Cr. Hrs.

Continuation of clinical competency development involved with skeletal and chest radiography with emphasis on 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 per week.
Prerequisite: Admission 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 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 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 per week.
Prerequisite: Admission to program

132 Ethics & Law in Medical Imaging 2 Cr. Hrs.

The historical and philosophical basis of ethics, elements of ethical behavior and practical dilemmas, concepts of law and legal principles including professional standards and scopes of practice.
Prerequisite: RAT 131, restricted to RAT majors

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, MR, 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 competency development with emphasis in mobile radiography, pediatrics, alternative rotation experience, formulating technique and film critique. Twenty-four clinical hours per week.
Prerequisite: RAT 112

213 Clinical Competency Development IV 8 Cr. Hrs.

Clinical development opportunity continues including an alternative schedule experience, elective rotations in special imaging modalities; competency development in fluoroscopy, general and mobile radiography. Thirty-two clinical hours per week.
Prerequisites: RAT 212, RAT 212

214 Clinical Education Development Capstone 4 Cr. Hrs.

Total exposure to the hospital environment and all functions performed by entry level radiographers; completion of final clinical competency assessments. Twenty-four clinical hours per week.
Prerequisites: 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.
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 Techniques** 5 Cr. Hrs.
Principles of exposure formulation, image quality factors and variables, quality assurance and testing, film and image processing. Four lecture, two lab hour 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. Hr.
Basic principles and concepts of quality management and overview of quality assurance testing applicable to the radiographic system.
Prerequisite: RAT 222, restricted to RAT majors
- 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 computer tomography.
Prerequisites: RAT 199 and 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.
Prerequisites: RAT 199 and RAT 231
- 243 Principles of Magnetic Resonance Imaging (MRI)** 4 Cr. Hrs.
Basic physics concepts involving the generation and construction of human planar images using magnetic resonance imaging technology.
Prerequisite: RAT 243
- 244 Magnetic Resonance Imaging (MRI) 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.
Prerequisites: RAT 199 and 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 required
- 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 required
- 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 required
- 249 Mammographic Practicum** R 2 Cr. Hrs.
Clinical experience in a mammography facility performing all functions including routine and special mammographic procedures, quality assurance testing and image analysis.
Prerequisite: Permission of chairperson required

- 250 Quality Management in Radiography** 3 Cr. Hrs.
Fundamental and advanced quality management practices in the medical imaging sciences to include film, film processors, imaging equipment and accessories. One lecture and four lab hours per week.
- 261 Radiography Practicum** R 2-8 Cr. Hrs.
Clinical experience involving a variety of patient procedures. Experiences include, but are not limited to, fluoroscopy, mobile and general radiography.
Prerequisite: Permission of chairperson required
- 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 required

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 in Religion** 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.

Prerequisite: RES 121

201 Real Estate Principles & Practices 4 Cr. Hrs.

Areas encompassed in the real estate sales industry. The market, investment and brokerage areas and contractual and property rights which concern both the real estate practitioner and investor consumer.

202 Real Estate Law 4 Cr. Hrs.

The legal phases of a realty transaction. Examined are types of estates in land, co-ownership, mortgages, Ohio license law and landlord-tenant law.

203 Real Estate Finance 2 Cr. Hrs.

The institutions, methods, instruments and procedures involved in the financing of real estate. Nature of mortgage market and effects of government monetary or fiscal policies are considered.

204 Real Estate Appraisal for Realtors 2 Cr. Hrs.

Methodology of appraising urban property, three basic techniques of appraising and the theory underlying these techniques.

205 Real Estate Appraisal II 4 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.

Prerequisites: RES 201, RES 202, RES 203, RES 204

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.

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 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.

Prerequisites: RES 121, RES 122, RES 201, RES 202, RES 203, RES 204, RES 205, RES 210 and RES 221

297 Special Topics in Real Estate R 1-6 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.

Respiratory Care (RET)

110 Respiratory Therapeutics I 5 Cr. Hrs.

Respiratory care theory, procedures, and equipment to include: applied principles of physics, pulmonary assessment, oxygen therapy and appliances, humidity and aerosol therapy and equipment, sustained maximal inspiration therapy and a review of theory and procedures acquired in ALH 106 as they apply to respiratory care and entry into the clinical setting. Four lecture, three lab hours per week.

Prerequisite: ALH 106

111 Lab for RET 110 Laboratory must be taken with RET 110.

118 Cardiopulmonary Rehabilitation 1 Cr. Hr.

Basic principles of patient selection, program components, goals, sequencing, equipment, outcomes, and reimbursement of cardiac and pulmonary rehabilitation programs.

Prerequisite: DEV 065

120 Respiratory Therapeutics II 4 Cr. Hrs.

Theory, application, equipment, and skill development of procedures required for clinical practice including medicinal aerosol therapy, bronchopulmonary hygiene, suctioning, positive pressure inflation techniques, non-invasive monitoring, and resuscitation techniques. Three lecture, three 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.

Prerequisite: RET 120

140 Adjuncts to Respiratory Care 11 Cr. Hr.

Theory and application of procedures and diagnostic tests utilized in their treatment of critically ill patients including intermittent positive pressure breathing, BiPAP, intrapulmonic percussive ventilation, cleaning and sterilization of equipment, principles of fluidics, home care, pulmonary rehabilitation and an introduction to mechanical ventilation. Two lecture, three lab and twenty-four clinical hours per week.

Prerequisite: RET 130

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 4 Cr. Hrs.

Continued clinical practice of routine respiratory care procedures and introduction to respiratory care speciality areas of airway care, home care, pulmonary rehabilitation, and critical care.

Prerequisite: RET 140

224 Cardiopulmonary Pharmacology 3 Cr. Hrs.

Actions, effects, dosages, and indications for drug classes commonly used to treat pulmonary and cardiovascular diseases.

Prerequisite: RET 120

225 Respiratory Care Department Administration 2 Cr. Hrs.

Basic principles of management and leadership, legal issues and ethical dilemmas, health care systems, health promotion and health education, professionalism, health care trends, and other aspects and interrelationships pertinent to effective management of a respiratory care department.

Prerequisite: RET 140

230 Respiratory Critical Care I 10 Cr. Hrs.

Ventilator selection, support techniques, monitoring, discontinuance, therapeutic application and clinical application of blood gases. Four lecture, three lab, fifteen clinical hours per week.

Prerequisites: RET 140 or permission of department chairperson

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

10 Cr. Hrs.

Advanced respiratory care of critically ill pediatric and adult patients focusing on medical and surgical conditions that require intensive cardiopulmonary monitoring and therapeutic care. Four lecture, three lab, fifteen clinical hours per week.

Prerequisites: RET 230 or permission of department chairperson

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

3 Cr. Hrs.

Development of the fetus, anticipation of high risk pregnancies and evaluation and care of the newborn infant emphasizing neonatal and pediatric pulmonary physiology and disease. Two and one half lecture, one and one half lab 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.

Advanced pulmonary physiology and pathology as it relates to pulmonary function testing and 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 a pulmonary function technologist. Two and one half lecture, one and one half lab hours per week.

Prerequisite: RET 240

261 Lab for RET 260

Laboratory must be taken with RET 260.

280 Correlations in Respiratory Care

5 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. One lecture, twelve clinical 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 in Respiratory Care

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 topic/issues changes. Approved for Continuing Respiratory Care Education (CRCE) credit.

M01 Durable Medical Equipment

R 2 Cr. Hrs.

Assembly and application of durable medical equipment, and appropriate use of universal precautions, body mechanics and environmental safety in the home care setting.

Prerequisite: High school graduate or GED; signature of chairperson

M02 Driver Safety for Home Care

Oxygen 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. Hrs.

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 Practicum for Home Medical

Equipment R 1 Cr. Hr.

Hands-on experience with durable medical equipment and common home care oxygen equipment in the industry.

Prerequisites: RET M01 and RET M02 and RET M03 and RET M04 and RET M05, high school graduate or GED; signature of chairperson

Russian (RUS)**100 Conversational Russian** 3 Cr. Hrs.

Understanding and speaking in conversational settings, using knowledge of Russian-speaking cultures.

Sociology (SOC)**111 General Sociology I** 3 Cr. Hrs.

Contemporary American society with a special focus on culture, socialization, groups and association, 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, minorities, collective behavior, social change, population and urbanization.

Prerequisite: SOC 111

114 Courtship & Marriage 3 Cr. Hrs.

Courtship, dating, and marriage; realities surrounding affectional relationships and marital conflict. Budget planning, buying insurance, writing a will, and purchasing a home. Divorce, remarriage and step-parenthood.

Prerequisites: SOC 111 or SOC 120

115 Today's Changing Family 4 Cr. Hrs.

The developmental stages of the family life cycle from the childless couple through death or divorce, family issues and problems.

Prerequisites: SOC 111 or SOC 120

117 Popular Culture 3 Cr. Hrs.

Exploration of popular culture in the last half of this century with projected trends; examination of influence of popular culture on the development of a unique American society and culture through media, music, sports, entertainment.

120 General Sociology 5 Cr. Hrs.

Analysis of contemporary American society with review of major sociological theories, research methods, culture, socialization, groups, social structure, social institutions, deviancy, social inequalities, social processes, and social change. Not open to students with SOC 111.

125 Drug Implications 3 Cr. Hrs.

Use, misuse and abuse of the most common drugs, emphasizing extent, effects, prevention and treatment.

130 Family Violence 3 Cr. Hrs.

The nature of family violence: child abuse, abuse of elderly parents, sexual abuse, incest, marital rape, marital violence, effects of family violence, and societal reactions to family violence. Also offered as LEP 130; students may enroll in either course, but not both.

Prerequisites: 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.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: SOC 111 or SOC 120

216 Human Sexuality 3 Cr. Hrs.
The interrelatedness of the biological, psychological, religious and sociological factors in influencing attitudes toward sexuality.

217 Human Sexuality II 3 Cr. Hrs.
This course focuses on male and female anatomy, physiology, conception, contraception, sexually transmitted diseases and sexual violence.
Prerequisite: SOC 216

225 Juvenile Delinquency 3 Cr. Hrs.
Extent, theories, treatment and prevention of juvenile delinquency.
Prerequisites: 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.
Prerequisites: 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.
Prerequisites: SOC 111 or SOC 120

270 Sociology Internship R 1-12 Cr. Hrs.
Involvement in a field related experience outside the classroom setting, in which the learning outcomes and the form of evaluation will be determined by the supervising sociology instructor.

295 Independent Study Sociology R 1-3 Cr. Hrs.
Examines social conditions, problems, and issues which are of interest to the student under the directions of a faculty member. May be repeated for a total of six (6) credit hours.

297 Special Topics in Sociology 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.

Spanish (SPA)

100 Conversational Spanish I 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 in Spanish R 1-12 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses such as courses by television and newspaper as well as special interest topics in the discipline.

Safety Engineering Technology (SRM)

101 Introduction to Safety Engineering Technology 3 Cr. Hrs.

Overview of basic elements of an industrial risk management program; evolution of risk management; development of legal/moral precepts that lead to major occupational safety, health and environmental reform.

110 OSHA Compliance 3 Cr. Hrs.

Selected OSHA standards, relating to confined space, hazard communication and occupational health and environmental control. Two lecture, two lab hours per week.

120 Safety Lab 2 Cr. Hrs.

Active participation to recognize, understand and handle common safety hazards including scaffolding, personal protection, rigging, crane operations, permit required confined space (PRCS) and machine guarding. One lecture, two lab hours per week.

Prerequisites: SRM 101 and MAT 116, CHE 151 or equivalent

130 Trainer Course for Occupational Safety & Health for the Construction Industry 3 Cr. Hrs.

Allows the student to become a certified trainer in the OSHA Outreach Program, conduct the 10- and 30-hour construction industry courses (SRM 232 and SRM 231) and issue OSHA certification cards to participants verifying course completion. Covers training techniques, workshops, demonstrations and detailed information on construction work place implementation of the OSH Act. Also includes an introduction to OSHA's Construction Standards, 29 CFR 1926, and an overview of the requirements of the more frequently referenced standards.

131 Trainer Course for Occupational Safety & Health for the General Industry 3 Cr. Hrs.

Provides an understanding of the General Industry requirements of the Occupational Safety and Health Act, 29 CFR 1910. With successful completion, the student becomes a certified trainer in the OSHA Outreach Program. Includes development of effective training technique, lectures, workshops, demonstrations; also presents detailed information on general industry work place OSH Act implementation and effective teaching.

132 OSHA Construction Trainer Update 2 Cr. Hrs.

Construction trainer update that provides relevant information on the Code of Federal Regulations, 29 CFR 1926. Introduces new amendments and promulgations of 29 CFR 1926 as well as hazard recognition, evaluation, control of evolving technologies, and most frequent site violations in the construction industry. Includes updated training techniques: lectures, workshops, and demonstrations.

Prerequisite: SRM 130 or equivalent

133 OSHA General Industry Trainer Update 2 Cr. Hrs.

Review and update of training skills and relevant changes of the Occupational Safety and Health Act for the General Industry. Includes updated and detailed information on the Code of Federal Regulations, 29 CFR 1910, for relevant standards applicable to the general industry trades and the most frequently cited violations.

Prerequisite: SRM 131 or equivalent

138 Machine & Machine Guarding Standards 3 Cr. Hrs.

Introduction to various types of common machinery and related safety standards. Includes hazard recognition associated with points of operations, rotating parts, flying chips and sparks as well as abatement alternatives. Two lecture, two lab hours per week.

139 Respiratory Protection 3 Cr. Hrs.

Requirements for establishing, maintaining, and monitoring a respirator program. Includes terminology, OSHA and ANSI standards, NIOSH certifications, and medical evaluation recommendations. Laboratories include respirator selection and an array of respiratory and support equipment for hands-on training. Two lecture, two lab hours per week.

144 Fall Arrest Systems 3 Cr. Hrs.

Overview of state-of-the-art technology for fall protection and current OSHA requirements. Includes the principles of fall protection, the components of fall arrest systems, the limitations of fall arrest equipment, and OSHA policies regarding fall protection; features a one-day field exercise demonstrating fall protection equipment. Two lecture, two lab hours per week.

146 OSHA Recordkeeping 1 Cr. Hr.

Identification and fulfillment of employer responsibilities for posting certain records, maintaining records of illnesses and injuries, and reporting specific cases to OSHA. Includes several practice sessions.

151 OSHA 1910.120 Hazardous Waste Operations 5 Cr. Hrs.

Training required to work on a hazardous waste site with emphasis on personnel safety, site hazards, toxicology, personal protective equipment, decontamination, site characterization, and site control. Four lecture, three lab hours per week.

152 OSHA 1910.120 Hazardous Waste Operations Refresher 1 Cr. Hr.

Provide classroom and practical application to assure the student has maintained pertinent knowledge, skills and information required to handle hazardous material/wastes emergencies. Required for entering and/or working on a hazardous waste site. Emphasis on personnel safety, site hazards, toxicology, personal protective equipment, decontamination, site characterization and site control.

153 Introduction to Transportation Safety 1 Cr. Hr.

Rules, interpretations, record keeping and standards required by US DOT (49 CFR 172 Subpart H) for the transportation of hazardous materials.

154 Introduction to OSHA Construction Standards 1 Cr. Hr.

Introduction to rules, interpretations, recordkeeping and standards required by OSHA (29CFR Part 1926) for the construction industry to ensure employees a safe, healthful work place. The course complies with the guidelines and requirements for the OSHA 10-hour outreach training completion card.

155 Introduction to OSHA General Industry Standards 1 Cr. Hr.

Introduction to rules, interpretations, record keeping and standards required by OSHA (29CFR Part 1910) for the general industry to ensure a safe, healthful work place. The course complies with the guidelines and requirements for the OSHA 10-hour outreach training completion card. One lecture, one lab hour per week.

211 Applied Industrial Risk Management 3 Cr. Hrs.

A comprehensive approach to the factors that contribute to safe and environmentally sound practices in businesses and industries.

212 Hazard Control Analytical Methods 4 Cr. Hrs.

Application of engineering principles and methods to minimize health and safety risks through design and quality analysis of product, manufacturing processes, equipment, facilities, and operations. Three lecture, two lab hours per week.

Prerequisites: MAT 116 and MAT 122

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. Predication 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 of parameters which may present a health hazard to humans. Two lecture, two lab hours per week.

Prerequisite: SRM 215

221 Safety & Health Program Management 3 Cr. Hrs.

The fundamental components of safety policies, procedures, practices and administrative controls to minimize accidents in business and industry.

222 Product Safety Management 3 Cr. Hrs.

Introduction to the identification and avoidance of potential hazards from consumer, industrial, and commercial products.

Prerequisite: SRM 212

230 Occupational Safety & Health 4 Cr. Hrs.

Study of requirements of Occupational Safety and Health Act emphasizing standards governing general industry production type operations.

231 OSHA Construction Standards 4 Cr. Hrs.

Rules, interpretations, recordkeeping and standards required by OSHA (29CFR 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 work sites. Two lecture and two lab hours per week.

Prerequisite: SRM 231

270 Safety Engineering Technology Internship R 3 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. Six practicum hours per week.

278 Safety Engineering Technology Capstone 3 Cr. Hrs.

Assessment of achievement by Safety and Risk Management degree students in attaining program outcomes by employing reflective learning through demonstration of occupational safety, health, and environmental related principles and practices. Two lecture, two lab hours per week.

295 Seminars for Safety Risk Manager R 1-4 Cr. Hrs.

Current issues relating to responsibilities of safety risk manager for applying new Occupational Safety and Health Administration standards, Workers Compensation, statutes such as hazardous waste, product liability and court decision.

297 Special Topics in Safety Engineering Technology R 0.5-6 Cr. Hrs.

Varied content offerings of special interest to the discipline but not covered within existing courses; brief descriptions of topics will be given when the course is offered.

Surgical Technology (SUT)

111 Surgical Technology Fundamentals 6 Cr. Hrs.

Discusses the framework and environment for the practice of Surgical Technology. Introduces the use of therapeutic communication, group process, and critical thinking in perioperative care. Focuses on safety through preoperative preparation, asepsis, and an overview of anesthesia. Four lecture, four clinical hours per week.

Prerequisites: BIO 161 and COM 206 and ALH 103 and HIM 121 and ENG 111

112 Surgical Process 10 Cr. Hrs.

Establishes the techniques for preparing the operating room, instruments, supplies, and the equipment to be used during a surgical procedure. Applies these techniques to basic abdominal surgeries. Five lecture, sixteen directed practice hours per week.

Prerequisites: BIO 162 and PSY 119 and SUT 111

211 Surgical Procedures I 10 Cr. Hrs.

Discusses specific surgical procedures of the gastrointestinal, urinary, and reproductive systems. Adapts surgical care concepts to geriatric and pediatric patients. Correlates intraoperative procedures with postoperative care. Five lecture, sixteen directed practice hours per week.

Prerequisites: BIO 205 and SUT 112 and 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, sixteen directed practice hours per week.

Prerequisites: ALH 201 and MAT 106 and SUT 211

213 Surgical Procedures III 11 Cr. Hr.

Discusses specific orthopedic, neurological, and thoracic surgical procedures. Examines immediate postanesthesia care. Five lecture, nineteen directed practice hours per week.

Prerequisites: ALH 220 and ENG 112 and SUT 212

220 Surgical Technology Role Transition 10 Cr. Hrs.

Focuses on role transition to beginning Surgical Technology Practitioner. Emphasizes a common systematic approach to all surgeries. Introduces Surgical Technologist's role on specialty teams, as second circulator, in ambulatory surgery centers, and in pediatrics. Five lecture, twenty-five directed practice hours per week.

Prerequisite: SUT 213, ALH elective

297 Special Topics in Surgical Technology R 0.5-6 Cr. Hrs.

Provides the opportunity to receive credit for career-related courses, workshops, or customized learning experiences. Topics include current practices and special interest topics in perioperative health care.

Social Work (SWK)

206 Social Work as a Profession

4 Cr. Hrs.

Introduction to social work; history of social welfare and social work. Also addresses the emergence, development, and changing nature of social needs relating to social policy, social services and programs in response to prevailing social conditions and social problems. Exploration of feelings, beliefs and values regarding social problems; the role of professional social workers and the preparation required for professional generalist social work practice.

Prerequisites: SOC 111 is recommended, not required.

211 Basic Practice Theory I

3 Cr. Hrs.

First course in a series of three dealing with practice theories and methods and their application to direct social work practice. Beginning theoretical concepts, values and principles that form the framework for a generalist social work practitioner. Focuses on theory and practical application for intervention with individuals, families, small groups, organizations, and communities. Also includes analysis of at-risk populations based on socioeconomic class, disablement, race, ethnicity, gender, and sexual orientation.

Prerequisites: SOC 111 or SOC 120 recommended

212 Basic Practice Theory II

3 Cr. Hrs.

Social work practice theories, methods, and applications; theoretical concepts, values and principles that form the framework for a generalist social practitioner with emphasis on intervention with individuals, families, small groups, organizations, and communities. Also includes analysis of special at-risk populations. Students complete a practicum as a local agency with an absolute minimum of 32 hours.

Prerequisite: SWK 211

213 Social Welfare & Social Services

3 Cr. Hrs.

Generalist social work roles and practice settings; impact of social policy on the service delivery system. Exploration of social work values and ethics as related to practice and social welfare policy. Includes examination of the consequence between personal values and social work values, especially regarding diversity. Students are required to complete a practicum as a local agency with an absolute minimum of 32 hours.

Prerequisites: SWK 206, SOC 111 and 112 or SOC 120 are recommended

Theatre (THE)

103 Acting for the Non-major

3 Cr. Hrs.

Introduction to the art of acting. Focus on acquainting non-acting majors with the concepts and skills taught to acting students. One lecture, four lab hours per week.

105 Theatre Appreciation

3 Cr. Hrs.

Theatre as an art form presented from the historical, literary and production points of view. (Greeks to the present).

106 Stagecraft

3 Cr. Hrs.

Theories and techniques of designing, building, and painting stage setting, organization and operation of production crews. Basic lighting techniques for Blair Hall Theatre will be presented.

Prerequisite: THE 107 must be taken concurrently

107 Lab for THE 106

Laboratory must be taken with THE 106.

108 Voice & Speech for the Actor

3 Cr. Hrs.

Basic training and practice in the actor's use of voice and speech. One lecture, four lab hours per week.

109 Movement for the Actor

3 Cr. Hrs.

Basic training and practice in movement for the stage. One lecture, four lab hours per week.

110 Drafting for the Theatre

3 Cr. Hrs.

Introduction to basic drafting tools and practices. Focus on drafting techniques used in theatre technology and design. One lecture, four lab hours per week.

Prerequisite: THE 106

111 Acting I

3 Cr. Hrs.

Basic training and practice in vocal, physical, and creative processes used by the actor. One lecture, four lab hours per week.

112 Acting II

3 Cr. Hrs.

Continuation of Acting I, with emphasis on scene work from 1850-1950. One lecture, four lab hours per week.

Prerequisite: THE 111

113 Acting III

3 Cr. Hrs.

Continuation of the study of acting techniques examined in Acting II, with additional emphasis on acting styles. One lecture, four lab hours per week.

Prerequisite: THE 112

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. Two lecture, two lab hours per week.

Prerequisite: THE 117 must be taken concurrently

116 Stage Lighting Design

3 Cr. Hrs.

Creative principles and procedures in the design of stage 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 Lab for THE 115

Laboratory must be taken with THE 115.

122 Theatre Sound Fundamentals

3 Cr. Hrs.

Introduction to the technical processes of theatre sound production.

123 Lab for THE 122

Laboratory must be taken with THE 122.

125 Costume Fundamentals

3 Cr. Hrs.

Survey of the costume production process, with emphasis on research methodologies, costume construction and sewing techniques.

126 Stage Make-Up

3 Cr. Hrs.

A basic approach in facial adaptation from youth to old age, achieving a likeness of fictional and non-realistic characters, use of beards and hair, three-dimensional builds and prosthetics. Primarily for the stage; however, there will be a brief excursion into techniques for film and television. One lecture, four lab hours per week.

127 Introduction to Stage Combat

3 Cr. Hrs.

An introduction to theatrical violence and fighting styles with emphasis on integration of technical skills and characterization. One lecture, four lab hours per week.

129 Lab for THE 125

Laboratory must be taken with THE 125.

137 Elizabethan Weapons

3 Cr. Hrs.

Basic fundamentals of theatrical swordplay using the single rapier and courtsword including cuts and thrust parries, disarms, footwork, movement patterns, wounds and kills, and movements prior to attack. One lecture, four lab hours per week.

165 Children's Theatre

R 3 Cr. Hrs.

A course designed to cover dramatic composition and practical production procedures for child audiences. One lecture, four lab hours per week.

Prerequisites: Permission by the chairperson

166 Creative Dramatics

3 Cr. Hrs.

Overview of creative dramatics, focusing on how to bring out creativity in children. Theatre games and creative play will be used for personal development and for future classroom use in Early Childhood Education. One lecture, four lab hours per week.

- 198 Applied Theatre Technology**
R 1 Cr. Hr.
Provides the student the opportunity to acquire credit for production experience which takes place with Sinclair Theatre and Dance productions. Required assignments are made through the department technical director.
- 201 History of Theatre I** 3 Cr. Hrs.
The world of theatre from its origins through 1000 A.D. A close look at the architecture, costuming, acting and plays of the Egyptian, Greek, Roman, and Medieval periods.
- 202 History of Theatre II** 3 Cr. Hrs.
Survey of the history and development of theatrical production during the Renaissance and Restoration periods.
- 203 History of Theatre III** 3 Cr. Hrs.
Survey of the history and development of theatrical production from the 18th century to the present day.
- 206 Script Analysis** R 3 Cr. Hrs.
Principals 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.
An intensive study of the art of acting, focusing on the integration of truth, technique and style. One lecture, four lab hours per week.
Prerequisite: THE 113
- 212 Advanced Acting II** 3 Cr. Hrs.
A continuation of THE 211, with emphasis on preparation for acting as a profession. One lecture, four lab hours per week.
Prerequisite: THE 211
- 213 Auditions** 2 Cr. Hrs.
An overview of skills needed for successful auditioning. One lecture, two lab hours per week.
Prerequisite: THE 111
- 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.
- 218 Musical Theatre Performance**
R 3 Cr. Hrs.
To learn the historical background of this 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.

- 220 Theatre Portfolio** 2 Cr. Hrs.
Process for creating a theatre resume and portfolio; development of presentation and interview skills.

Prerequisites: 15 hours from THE department and approval of division counselor

- 235 Scene Design & Set Construction**
3 Cr. Hrs.

A course explicitly dealing with planning, designing and construction of scenery for theatrical productions. Emphasis will be given to coordination of visual and aesthetic aspects of stagecraft. One lecture, four lab hours per week.

Prerequisites: THE 106 and THE 115

- 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.

Introduction to the art and techniques of directing for the stage, including visual story telling, script analysis and working with actors. One lecture, four lab hours per week.

Prerequisite: THE 111

- 255 Theatre Workshop** R 3 Cr. Hrs.

Focused on a specialized area in the theatre. This laboratory course is designed to bring together performance, direction, and production. One lecture, four lab hours per week.

- 278 Theatre Capstone** R 1 Cr. Hr.

A course designed for the graduating theatre major which emphasizes a demonstration of student's acquired skills and abilities.

Prerequisite: THE 206

- 298 Theatre Practicum: Technical**
R 1-6 Cr. Hrs.

Theatre Practicum: Technical provides the student who is interested in the technical theatre the opportunity to acquire credit for practical experience in production. If the experience takes place off campus, then arrangements for supervision must be made through the department chairman.

- 299 Theatre Practicum: Performance**
R 1-6 Cr. Hrs.

Theatre Practicum: Performance provides the student who is interested in the performance aspects of production the opportunity to receive credit for practical experience. If the experience takes place off campus, then arrangements must be made through the department chairperson.

Tooling & Machining Technology (INT)

See page 241

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.

Prerequisites: DEV 065, DEV 085, DEV 110 or equivalent

- 102 Travel Sales & Telephone Techniques** 1 Cr. Hr.

Methods and standards for effective travel industry sales practices.

Prerequisite: TNT 100

- 104 Tariff & Ticketing: North America**
3 Cr. Hrs.

Airline tariff interpretation, fare calculation/rating, transportation taxes, rules, and procedures for ticketing.

Prerequisites: TNT 100, TNT 112, MAT 105

- 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, reservations ethics, and map locations of major North American airports.

Prerequisites: DEV 065, DEV 085, DEV 110 or equivalent

- 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, and South Pacific.

Prerequisites: TNT 104, TNT 112

- 122 Airline Computer I** 3 Cr. Hrs.

Airline reservation system focusing on displaying availability, space confirmation, and passenger record building and modifying. Two lecture, two lab hours per week.

Prerequisites: TNT 100, TNT 112 and one of: BIS 160, BIS 119 or BIS M41, BIS M51, BIS M61, BIS 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. One lecture, two lab hours per week.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: TNT 108, TNT 123

225 Advanced Airline Computer II 2 Cr. Hrs.
Application of airline computer reservation system beyond airline, car, airfares, hotel, and client profiles. Airline computer reference systems and other travel reservation capabilities. One lecture, two lab hours per week.

Prerequisites: TNT 114, TNT 123

250 Travel Sales Practicum 3 Cr. Hrs.
Study and application of advanced sales techniques which apply to the travel industry.

Prerequisites: TNT 100, TNT 102, TNT 104, TNT 108, TNT 109, TNT 112, TNT 114, TNT 122, TNT 123, TNT 130, TNT 131, MRK 201

270 Travel & Tourism Internship R 3 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.

Prerequisites: TNT 100, TNT 102, TNT 104, TNT 106, TNT 108, TNT 112, TNT 114, TNT 122, 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.

Prerequisites: Approval of coordinator

297 Special Topics in Travel & Tourism R 1-3 Cr. Hrs.

Topics within the program not covered within existing courses; opportunities for non-traditional learning.

Transportation Management (TRA)

120 Transportation Logistics 3 Cr. Hrs.
Overview of all modes of transportation in a national and international interlocking network, emphasizing interdependent relationships 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 system, including its transportation publications known as classifications, procedures, practices, documents, regulation, computerization, and jargon.

Prerequisite: TRA 120

210 Transportation Claims Management 3 Cr. Hrs.

Basis of carrier liability, including current regulations covering freight charge billings and resolution of claims. Resolving undercharge/overcharge claims.

Prerequisite: TRA 120

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 120

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.

Prerequisites: TRA 120 or AVA 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.

Prerequisites: 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.

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 Transportation 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 VIS Tech Prep Seminar R 3 Cr. Hrs.
A preparatory course designed as an overview of interactive media technology.

Prerequisite: Acceptance into the Tech Prep program

102 VIS Tech Prep Seminar II R 1 Cr. Hr.

An introductory overview of interactive media technology components and issues in designing and producing interactive media.

Prerequisite: Acceptance into the Tech Prep program

103 VIS Tech Prep Seminar III
R 1 Cr. Hr.

A more advanced 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: 2-D 3 Cr. Hrs.

Introduction to 2-D design fundamentals applied to visual communications, printing and the arts. Two lecture, four lab hours per week.

107 Design Basics: 3-D 3 Cr. Hrs.

Introduction to 3-D 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.

Prerequisites: ART 111 or IND 131

114 Interactive Digital Theory 3 Cr. Hrs.

Various concepts of interactive design principles and methods, including the fundamentals of contemporary digital design and process from analysis and design through production and delivery.

115 Digital Video 3 Cr. Hrs.

Introduction to digital video editing software and the development of digital video for multimedia graphics.

Prerequisites: VIS 104 and VIS 114

116 Digital Animation 3 Cr. Hrs.

Introduction to 2-D & 3-D animation software and the development of animations for presentations and multimedia applications.

Prerequisites: VIS 104 and VIS 114

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.

Prerequisites: (VIS 104 or CIS 107 or OISM70 or OIS M71 or CIS 219) and VIS 114 and VIS 147

146 Digital Illustration 3 Cr. Hrs.

Computer illustration techniques using vector based software.

Prerequisites: VIS M05 or VIS 104

147 Digital Imaging 3 Cr. Hrs.

Computer imaging and photo manipulation using raster based software.

Prerequisites: VIS M05 or VIS 104

148 Digital Page Layout 3 Cr. Hrs.

Introduction to computer page layout and composition using desktop publishing software.

Prerequisites: VIS 108 and VIS 146 or VIS 147 or (VIS M42 and M44)

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.

Prerequisites: VIS 146 and VIS 147 and VIS 148, co-requisite: VIS 236

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.

Prerequisites: VIS 206, co-requisite: VIS 237

236 Design Applications I 4 Cr. Hrs.

Application of symbology created in Design Principles I to the development and examination of a signage system. Two lecture, four lab hours per week.

Prerequisites: VIS 146 and VIS 147 and VIS 148, co-requisite: VIS 206

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.

Prerequisites: VIS 236, co-requisite: VIS 207

265 Digital Authoring 3 Cr. Hrs.

Fundamentals of 3-D graphics software and the development of print, presentation and multimedia graphics. One lecture, four lab hours per quarter.

Prerequisite: VIS 116

266 3-D Digital Graphics II 3 Cr. Hrs.

Advanced 3-D 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.

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.

276 Visual Communications Portfolio Development 4 Cr. Hrs.

Each second year student will develop a portfolio from portfolio projects work experience, free lance, 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. Two lecture, four lab hours per week.

Prerequisites: IND 232 or VIS 237

278 Visual Communications Capstone
3 Cr. Hrs.

Comprehensive application of all skills and techniques learned in prior visual communications classes and resources available in the Design department. Three lecture hours per week.

Prerequisites: VIS 207 and VIS 237

297 Special Topics in Visual Communications

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 Applied Arts.

Management Volunteer Program (VOL)

190 Volunteer Seminars

R 0.5-3 Cr. Hrs.

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

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Who's Who



"The staff and faculty were supportive in helping me achieve my academic goals."

Lynnell Walker

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B.S., Brigham Young University
M.S., Wright State University
Ph.D., Utah State University
- Daryl Davis (2001)**
Counselor, Enrollment Services
B.A., Oakwood College
M.A., University of Maryland
- William Dean, III (1998)**
Network Administrator, Information Technology
A.A.S., I.T.T. Institute
- Gregory H. Deye (1998)**
Manager, Learning Technology Production, Distance Learning & Instructional Support
M.Ed., University of Missouri
- Yvonne Dorsett (2000)**
Counselor, Student Success Planning Services
B.S., Manchester University
M.S., Purdue University
M.A., M.A., Bowling Green State University
- Don Drumheller (1972)**
Sports Information Director, Coordinator, Physical Activity Center
A.B., Lebanon Valley College
M.D., United Theological Seminary
- Alexis Duff (1993)**
Manager, General Accounting, Accounting Services
A.A.S., Clark State Community College
B.A., Wittenberg University
- Douglas N. Easterling (1991)**
Director, Institutional Planning & Research
B.A., University of Texas at Austin
M.P.A., University of Massachusetts, Amherst
- Fola G. Fadeyi (1998)**
Program Director, Student Support Services
B.B.A., M.P.A., Western Michigan University
Ph.D., Iowa State University
- Michael R. Fiszlewicz (1997)**
Systems Engineer, Systems & Network Administration, Information Technology
A.A.S., Sinclair Community College
- Mike Freed (1999)**
Manager, Industry Engagement
B.S., Rensselaer Polytechnic Institute
- Angela Fuerst (1999)**
Applications Analyst, Student Services Information Technology
A.A., Sinclair Community College
B.S., Park College
M.Ed., University of Dayton
- Mary Tripp Gaier (2003)**
Director of the President's Office
B.S., Wright State University
M.Ed., Xavier University
Ph.D., University of South Florida
- Geoffrey Garrison (2002)**
Coordinator, Fire Academy
B.S., Miami University
- Jennifer Gaston-Smith (2004)**
Counselor, Student Success Planning Services
B.S., M.S., Mississippi State University
- Polly Girvin (1987)**
Counselor, Experienced Worker Program
B.A., University of Kansas
M.H.R.D., University Associates
- Danny L. Gisewite (1980)**
Supervisor, Payroll
- Kate Glover (1991)**
User Support Specialist, Database Administration & Business Intelligence, Information Technology
A.S., Sinclair Community College
B.S., Wilberforce University
M.A., University of Phoenix
- Marianne Gorczyca (1990)**
Director, Sinclair Foundation
B.A., M.A., University of Dayton
- Shawn Gormley (2004)**
Senior Web Developer, Web Systems, Information Technology
B.A., Antioch College
M.A., Antioch University McGregor
- Diane L. Graham (1999)**
Sales Manager, Corporate & Community Services
B.A., University of Dayton
- Tanya Grant (1999)**
Assistant Director, Human Resources
B.A., Spelman College
M.P.A., Atlanta University
- Larry D. Green (1998)**
Counselor, Student Support Services
B.A., M.S., Wright State University
- Robert Gutendorf, Jr. (2002)**
Network Operations Center Coordinator, Information Technology
B.S., Bowling Green State University

- Ann E. Hall (1991)**
Academic Counselor, Allied Health Technologies
B.A., Ohio University
M.S., University of Nebraska at Omaha (LPC, NCC)
- Michael Haltresht (2005)**
Senior Programmer Analyst, Administrative Systems, Information Technology
M.A., Stanford University
M.A., Indiana University
M.Ed., Texas A&M
M.S., Cleveland State University
Ph.D., Emory University
- John Hawkins (1982)**
Lieutenant, Campus Police
A.A.S., Sinclair Community College
- Joyce Haywood (1990)**
Academic Counselor, Liberal Arts & Sciences
A.A.S., A.A., Sinclair Community College
B.S., Wright State University
M.Ed., University of Dayton
- Nathan Hellmers (2002)**
Reference Librarian, Library, Information Technology
B.A., University of Alabama at Birmingham
M.A., University of Wyoming
M.L.S., Indiana University
- Jeffrey Heard (2002)**
Technical services Librarian, Library, Information Technology
B.A., Northwestern College
M.L.S., Mankato State University
- Neil Herbkersman (1986)**
Director, Grants Development & Governmental Information
B.S. Ed., Kent State University
M.En., Miami University
- Dennis Hess (2004)**
Voice Telephone Administrator, Information Technology
B.S., Ohio State University
- Karla Hibbert Jones (1990)**
Assistant Director, Grants Development & Governmental Information
A.A.S., Sinclair Community College
B.A., M.A., Wright State University
- Ronald C. Hittle (1990)**
Recruitment & Development Specialist, Career Services
A.S., Northwestern Michigan College
B.S. Ed., Western Michigan University
M.Ed., University of Dayton
- Gary T. Honnert (1988)**
Director, Public Information
B.S., Bowling Green State University
- James Horton (2002)**
Administrator, CISCO Academy
A.A.S., Sinclair Community College
B.S., Faith Baptist College
- Letha Houston (1995)**
Counselor, Student Success Planning Services
B.S., College of St. Scholastica
- Madeline J. Iseli (2003)**
Director of Government Relations
B.A., Miami University
- Laura N. Jackson (2004)**
Coordinator, Young Scholars Program
B.S., Miami University
M.S.W., Ohio State University
- Tracy Jayne (1998)**
Assistant Coordinator, Tech Prep, Miami Valley Tech Prep Consortium
B.F.A., Wright State University
M.Ed., University of Dayton
- Patricia J. Jayson (2000)**
Academic Counselor, Allied Health Technologies
B.S., University of Dayton
M.Ed., Miami University
- Mary Jenkins (1996)**
Counselor, Student Success Planning Services
B.A., Virginia Union University
M.Ed., Howard University
(N.C.C and L.P.C.)
- Edel M. Jesse (1996)**
Performance Consulting Manager, The Learning Center, Miami Valley Research Park
A.S., Sinclair Community College
B.S., Park University
- Archna Jindal (2005)**
Web Developer, Web Systems, Information Technology
B.S., University College, India
M.C.A., Thapar Institute of Engineering & Technology, India
- Mortenous A. Johnson (1994)**
Manager, Enrichment Center
B.S., Wilberforce University
M.S., University of Dayton
- Gwendolyn M. Jones (1993)**
Ombudsman/Student Advocate
B.A., Central State University
M.A. Ed., University of Michigan
- Janet Jones (2000)**
Director, Human Resources
B.A., Capital University
M.A., Antioch University
- Katrina S. Jordan (2002)**
Director, Career Services
B.S., M.P.A., Kentucky State University
Ed.D., University of Cincinnati
- Kathleen Kaiser (1996)**
Web Applications Administrator, Web Systems, Information Technology
A.S., Sinclair Community College
- Douglas Kaylor (2004)**
Director, Library, Information Technology
B.A., University of Cincinnati
M.S.L.S., University of Tennessee
- Kelly Kennedy (2004)**
Network Application Specialist, Information Technology
B.S., Wright State University
B.S., Franklin University
- S. Dawayne Kirkman (2002)**
Admissions Officer, Admissions
B.A., Berea College
M.A., Wright State University
- Sonya A. Kirkwood (1975)**
Librarian, Reference, Library
B.A., Duke University
M.L.S., Indiana University
- Bernard J. Kirley (1983)**
Bursar
B.S., M.B.A., Wright State University
- Karl Konsdorf (1992)**
Manager, Database Administrator, Database Administration & Business Intelligence, Information Technology
A.S., Sinclair Community College
B.S., Wright State University
M.B.A., University of Dayton
- Ione Kotis (2002)**
Systems Engineer, Information Technology
B.A., Indiana University
B.S., Eastern Kentucky University
- David Krasofsky (2002)**
Manager, Systems & Network Administration, Information Technology
A.S., Sinclair Community College
B.S., Wright State University
M.B.A., Xavier University
- Ron Labatzky (1994)**
Chief, Campus Police
A.A., Sinclair Community College
B.S., University of Dayton
- David Landom (2004)**
Project Manager, Strategic Project Management
B.A., University of North Dakota
M.A., Black Hills State College
M.A., Certificate in Project Management, George Washington University
- Carrie Larger (2004)**
Academic Counselor, Liberal Arts & Sciences
B.S., University of Hawaii
M.S.Ed., University of Dayton
- Jana L. Lehman (2004)**
Academic Counselor, Engineering & Industrial Technologies
A.A., Sinclair Community College
B.A., Bluffton University
(Certified Store Professional)
- Donald F. LeVan (1985)**
Senior Programmer Analyst, Administrative Systems, Information Technology
B.S., Wright State University
C.A.P.C., Southern Ohio College
- Robert Levine (1998)**
Systems Administrator, Information Technology

- Stephen J. Linderman (1987)**
Enterprise Applications Administrator,
Information Technology
B.S., National College of Business
- Russ Little (1993)**
Manager, Web Systems, Information
Technology
A.T.S., Sinclair Community College
- Sheila Magnuson (1999)**
Academic Counselor, Fine & Performing
Arts
B.A., State University of New York at
Buffalo
M.M., Yale University
M.S., University of Dayton
- Douglas Mahoney (1986)**
Supervisor, Maintenance, Facilities
Management
(IBEW/NECA Electrician)
- Elizabeth A. Maurice (1984)**
Applications Analyst, Student
Services Information Technology
A.A.S., Sinclair Community College
B.S., Park College
M.S.A., Central Michigan University
- Melanie Maurice (1977)**
Assistant Bursar
A.A.S., Sinclair Community College
B.S., Park College
- Anna Mays (1990)**
Director & Systems Manager, Student
Success Services
B.A., University of Arizona
M.Ed., University of Dayton
- Thomas McAllister (2004)**
Coordinator, Education Programs at
DCI/MEPRC
B.A., Antioch College
M.S., University of Dayton
- Sherry McAndrew (2001)**
Manager, Web Course Development,
Distance Learning
B.A., University of Missouri-Kansas City
M.A., Antioch University McGregor
- C. Pat McClelland (2004)**
Galleries Coordinator/Collection
Curator
B.F.A., Wright State University
M.F.A., University of Cincinnati
- Scott A. McCollum (1988)**
Director, Information Technology
Services, Information Technology
A.A.S., A.S., Sinclair Community College
B.S., University of Dayton
- Candace McGowan (1993)**
Financial Aid Officer, Financial Aid &
Scholarships
B.S., Park University
M.Ed., University of Dayton
- Timothy McKinney (2001)**
Counselor, Developmental Studies
B.S., Central State University
M.S., University of Dayton
- Larry McMillan (1991)**
Manager, Engineering & Computer
Services
A.A.S., Sinclair Community College
- Robert L. McNally (1998)**
Producer/Editor, Learning Technology
Production
B.A., Wright State University
- Sandra Meadows (2001)**
Financial Aid Officer, Financial Aid &
Scholarships
B.S., M.S., Wright State University
- John Meister (1986)**
Manager, Media Services
B.A., Wittenberg University
- Laura A. Mercer (1989)**
Director, Strategic Project Management
B.S., Wright State University
M.A., George Washington University
- Sue Merrell (1993)**
Director, Curriculum & Assessment
B.S., Miami University
M.S., University of Dayton
Ph.D., Capella University
- Thomas Messinger (2002)**
Director, Facilities Management
B.S., Pennsylvania State University
(Registered Engineer, Pennsylvania)
- Jeffrey A. Miller (2000)**
Manager, Purchasing
B.S., Missouri Baptist College
M.B.A., Western Connecticut State
University
- Marcus Milligan (2002)**
Manager, Administrative Systems,
Information Technology
B.S., University Ulster, Ireland
M.B.A., University of Phoenix
- Debra Moody (2001)**
Counselor, Disability Services
A.A., Sinclair Community College
B.A., Capital University
M.R.C., Wright State University
- Robin Moore-Cooper (1993)**
Coordinator, Disability Services
A.A., Sinclair Community College
B.A., M.R.C., Wright State University
- Sharyn A. Morgan (1996)**
Academic Counselor, Business
Technologies
A.A.S., Sinclair Community College
B.A., Antioch University
M.S., University of Dayton
- Rex Mt. Castle (1995)**
Web Developer, Web Systems,
Information Technology
A.A.S., Sinclair Community College
- Hoang Nguyen (2001)**
Web Systems Administrator, Web
Systems, Information Technology
A.S., Sinclair Community College
B.S., University of Dayton
- Joseph V. Must (1977)**
Manager, Grants Accounting & Payroll
A.S., Sinclair Community College
B.S., University of Dayton
- Dan O'Callaghan (2001)**
Chief Information Security Officer,
Information Technology
A.A.S., Community College of the Air
Force
A.A.S., B.S., M.B.A., Wayland Baptist
University
- Julie E. Orenstein (2004)**
Records Manager/Archivist
B.A., M.A., Wright State University
- Julie Overholser (1999)**
Applications Analyst, Student Services
Information Technology
A.A.S., Sinclair Community College
- Cheryl Palafox-Stewart (2001)**
Senior Web Developer, Web Systems,
Information Technology
A.A.S., Sinclair Community College
B.S., Wright State University
M.S., University of Dayton
- Theresa Parker (2001)**
Supported Education Specialist,
Educational Support Services
B.S., M.A., Bowling Green State
University
(L.S.W.)
- Penelope Parmer (2000)**
Project Analyst, Institutional Planning &
Research
B.S., Xavier University
M.G.S., Miami University
- Joan Patten (1986)**
Assistant Director, Institutional Planning
& Research
B.S., M.S., Wright State University
- Latonia Peak-Brown (2001)**
Counselor, Enrollment Services
B.S., Central State University
M.C., Arizona State University
- Michael W. Plourde (1984)**
Director, Accounting Services
B.S., Wright State University
(Certified Public Accountant)
- Omar Powell (1999)**
Counselor, Minority Student Retention,
Counseling Services
B.S., Central State University
M.S.Ed., University of Bridgeport
- Julie E. Preisser (1981)**
Librarian, Periodicals/Reference, Library
B.A., Stanford University
M.S.L.S., University of Michigan
- Meredith A. Rainey (1986)**
Academic Counselor, Business
Technologies
A.A.S., Westchester Community College
B.S., Central State University
M.S., Wright State University
- Jeanna Reedy (1987)**
Manager, Help Desk & Information
Technology Labs, Information
Technology
A.A.S., Sinclair Community College
B.S., A.I.U. University

Alice Renner (2002)

Web Course Facilitator, Distance Learning

B.A., M.Ed., Miami University
M.Ed., Wright State University

Allison Rhea (1998)

Acting Registrar, Registration & Student Records

B.S., Wright State University
M.A., Illinois School of Professional Psychology

Becky Rittner (1995)

I.T. Lab Coordinator, Information Technology

A.A.S., Sinclair Community College

Tom Roberts (1998)

Advisor, Sinclair Ohio Fellows Leadership Program

B.A., University of Dayton

Marilyn Rodney (1991)

Coordinator, Service Learning

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

Chad Rumbarger (2004)

Network Engineer/SNA, Information Technology

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, Administrative Systems, Information Technology

B.A., Antioch College

Patricia Schlaerth (1990)

Counselor, Student Success Planning Services

B.A., D'Youville College

M.S., Wright State University

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

Cynthia L. Shoenleben (2003)

Applications Administrator, Administrative Systems, Information Technology

A.S., Edison Community College

Tabitha A. Shuey (2003)

Supervisor, Call Center

B.S., Ohio State University

Deborah A. Shuler (1996)

Projects Manager, 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

Donald Smith (1998)

Manager, Programs & Support, Distance Learning

A.S., Community College of the Air Force

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

Sara Porter Smith (1988)

Director & Systems Manager, Outreach Services

B.S., M.S., Indiana 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)

Recruitment Manager, 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, Instructional Development Support Center

A.A., A.S., Sinclair Community College

Cheryl Stewart (2000)

Policy & Procedures Specialist, Learning Technology Production

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

Linda Stowe (1972)

Coordinator, Distance Learning Services, Distance Learning Programs & Support

A.S., Sinclair Community College

B.A., Antioch University

M.Ed., Ohio 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, Distance Learning & Instructional Support

B.A., Bridgewater State College

M.S., Wright State University

Ph.D., Nova Southeastern University

Kimberly J. Thomas (1998)

Counselor, Student Success Services

B.A., Florida State University

M.Ed., Boston University

Joseph F. Tobias (1985)

Manager, Tartan Campus Store/
Materials Management

B.S., Taylor University

M.B.A., University of Phoenix

(Certified College Retailer)

Melissa A. Tolle (2004)

Admissions Officer, Admissions

A.A., Sinclair Community College

B.A., Miami University

M.S., University of Dayton

Chris Tomlinson (1997)

Programmer & Analyst, Business

Systems & Programming, Information Technology

B.A., Wright State University

John Tomoser (1988)

Coordinator, Off-Campus Sites, Distance Learning Program Support

A.A., A.S., Sinclair Community College

B.S., Wright State University

Winnie Tseng (1990)

Librarian, Reference,

Library

B.S., Utah State University

M.L.S., University of Kentucky

Deidre Turner (2005)

Financial Aid Officer, Financial Aid & Scholarships

B.A., Ohio State University

Karen L. Usrey (1999)

Coordinator, Alumni Affairs

A.A., Sinclair Community College

B.A., M.A., Antioch University

David P. Wells (2002)

Database Administrator, Database

Administration & Business

Intelligence, Information Technology

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

Kathy Wiesenauer (1990)

Director, Financial Aid & Scholarships

B.A., Miami University

M.A., Bowling Green State University

Ph.D., University of Dayton

Ellis Willis (2004)

Coordinator, Criminal Justice Training Academy

A.A., Sinclair Community College

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,
Administrative Systems, Information
Technology

A.A.S., Sinclair Community College
B.S., Park University

Jody Yarnell (1994)

Assistant Manager, Tartan Campus
Store/Materials Management
A.S., Sinclair Community College

William Young (1997)

Coordinator, Academic Computer
Center

A.A.S., Sinclair Community College

Full-Time Faculty

Barbara Adams (1982)

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

Phyllis Adams (2003)

Assistant Professor, American Sign
Language

B.A., Antioch University McGregor
M.Ed., Ohio University

Marlon Aldridge (1998)

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

Mohammed B. Ali (2004)

Assistant Professor, Computer
Information Systems

A.A.S., Sinclair Community College
B.S., Wright State University
M.S., University of Dayton

Derek Allen (1996)

Associate Professor, Hospitality
Management

A.A.S., Sinclair Community College
B.S., Central State University
M.B.A., Wright State University

Shepherd Anderson (1996)

Associate Professor, Chairperson,
Industrial Engineering Technology,
Quality 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.)

Natalie Andrews (2004)

Assistant Professor, Business
Information Systems

A.A.S., Sinclair Community College
B.S., University of Cincinnati
M.Ed., Wright State University

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)

Assistant Professor, Business
Information Systems

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

Deborah Badonsky (1978)

Professor, Paralegal
B.A., Valparaiso University
J.D., University of Toledo

Kenneth A. Baker (2000)

Associate Professor, Business
Information Systems

B.S., Bowling Green State University
M.B.A., University of Dayton
Ph.D., Capella University

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

Dorothy Bely (2004)

Assistant Professor, Developmental
Studies

B.S., Ball State University
M.S., University of Dayton

E. Rocky Belcher (2001)

Assistant Professor, Business
Information Systems
B.S., Wright State University
M.S., Columbus University

Moez Ben-Azzouz (2004)

Assistant Professor, Mathematics
B.S., M.S., Wright State 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, Paralegal
B.A., Wright State University
J.D., Salmon P. Chase School of Law

Dennis Brode (2004)

Assistant Professor, Management
BSEET, DeVry Institute
M.B.A., Wright State University

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)

Associate Professor, Computer
Information Systems
B.A., Wright State University
M.S. Ed., University of Dayton

Brian Cafarella (2003)

Assistant Professor, Developmental
Studies
B.S., Pace University
M.Ed., Cambridge College

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)**
Associate 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.E.T., University of Dayton
M.B.A., Wright State University
- Adrienne Cassel (2005)**
Assistant Professor, English
B.A., Central State University
M.A., Wright State University
M.F.A., Bennington College
- 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)**
Professor, Criminal Justice
B.S., M.S.Ed., University of Dayton
- Robert Chambers (2002)**
Assistant Professor, Fire Science
Technology
A.A.S., Sinclair Community College
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
- Robert Coates (2004)**
Assistant Professor, Art
B.F.A., Wright State University
M.F.A., University of Pennsylvania
- Carol Cole (2004)**
Assistant Professor, Art
B.S., ED., Bowling Green State University
M.S., Miami 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
- 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)**
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)**
Associate 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
- Walt Davis (2004)**
Assistant Professor, Chairperson,
Aviation Technology
B.C.E., Ohio State University
M.B.A., University of Southern
California
(Registered Engineer)
- 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
- Jeff Donbar (2004)**
Associate Professor, Aviation
B.S., University of Cincinnati
M.S., Ph.D., University of Michigan
- Diane Drummer (2000)**
Associate 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, 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

Crystal Echols (1992)

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

Mark Echnert (1995)

Professor, Art
B.F.A., University of Wisconsin at
Milwaukee
M.F.A., Miami University

Pamela G. Edwards (1988)

Professor, Dental Hygiene
A.A.S., Sinclair Community College
B.S.Ed., M.S.Ed., University of Dayton
(R.D.H.)

Suzanne M. Ehrlich-Martin (2003)

Assistant Professor, American Sign
Language
B.S., Xavier University
M.Ed., University of Cincinnati

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)

Associate 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

Sherry Farra (2001)

Associate Professor, Nursing
B.S.N., Wayne State University
M.S.N., Wright State 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

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
Studies
B.S., M.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)

Associate Professor, English
B.A., Miami University
M.F.A., University of Arkansas

Jamie C. Fries (2004)

Assistant Professor, History
Advisor, Phi Theta Kappa
B.A., M.A., Truman State University
M.A., Ph.D., Ohio University

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

Kathryn Geiselman (2000)

Assistant Professor, English
B.A., M.A.T., Indiana University

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. Giambone (1972)

Professor, Chairperson, Mathematics
B.S., University of Dayton
M.S., Ohio State University

Jack Giambone (2005)

Associate Professor
B.S., University of Dayton
M.S., ED., Ohio State University

Joseph A. Giardullo (1988)

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

Anita Gilkey (2000)

Assistant Professor, Quality Engineering
Technology
A.T.S., Sinclair Community College
B.S., Wilberforce University
M.B.A., Jones International University
(C.Q.I.A.)

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)

Assistant Professor, 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, Chairperson,
Humanities, Government & Modern
Languages
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)

Associate Professor, Chemistry
B.S., M.S., Wright State University

Daniel Greene (1989)

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
- Carolyn J. Hannah (1998)**
Associate Professor, Computer Information Systems
B.S., M.S., Wright State University
- Kevin Harris (2000)**
Associate Professor, Art
B.A., Hampton University
M.F.A., University of Cincinnati
- Susan Harris (1995)**
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
- Bahar Hartmann (2004)**
Assistant Professor, Modern Languages
B.A., M.A., Wright State University
Ed.D., University of Cincinnati
- 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.)
- Anne Henry (1994)**
Associate Professor, Geology
B.S., M.S., Wright State University
- Karl Hess (2003)**
Assistant Professor, Mathematics
A.S., Edicon State Community College
B.S., Wright State University
M.A., Bowling Green 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
- Donald Homan (2002)**
Assistant Professor, Electronics Engineering Technology
B.S., M.S., University of Dayton
- Rob Hoopes (2000)**
Associate Professor, American Sign Language
B.A., University of Akron
M.A., Gallaudet University
J.D., University of Cincinnati
- James Houdeshell (1978)**
Professor, Quality Engineering Technology
B.S., Rose-Hulman Institute
M.S., Wright State University
M.S., University of Dayton
Ed.D., Nova Southeastern University
(C.Q.A., C.R.E., P.E.)
- Paula Hraban (1988)**
Professor, American Sign Language
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
B.A., Miami University
M.A., Ph.D., United States International University
- Sharyn Hunter (2004)**
Assistant Professor, Developmental Studies
B.A., Westminster College
M.A., Youngstown State University
M.A., University of Arizona
- DeAnn Hurtado (2002)**
Associate Professor, Business Information Systems
B.S., Miami University, Oxford
M.B.A., University of Dayton
- Ronald L. Hutchins (1984)**
Professor, Tooling & Machining Technology
A.A.S., Sinclair Community College
B.S., University of Cincinnati
(C. Mfg. E.)
- Sandra Hutchison (2004)**
Assistant Professor, Biology
B.S., University of California Los Angeles
Ph.D., Penn State University
- Elaine Isabell (1996)**
Professor, Psychology
B.A., M.A., St. Mary's University
- Shirley Ivory (1992)**
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 Engineering Technology, Electrical & Electronics Repair Technology, Automation & Control 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.)
- Amity Jetton**
Instructor, Developmental Studies
A.S., Sinclair Community College
B.S., Wright State University
- Abdullah Johnson (2002)**
Assistant Professor, Electrical & Electronics Repair
A.S., B.S., M.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.)
- Tarik W. Kamil (2003)**
Assistant Professor, History Advisor, Phi Theta Kappa
B.A., M.A., Northern Illinois University
Ph.D., Ohio University
- Lorraine Kapka (2004)**
Assistant Professor, Mechanical Engineering Technology
B.S.M.E., University of Missouri
M.S.I.M., Central Missouri State University
M.S.M.E., University of Dayton
Registered Professional Engineer, Ohio

Harmit Kaur (1984)

Professor, Electronics 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

Rex Kent (2004)

Assistant Professor, Automotive
Technologies
B.A., Illinois State University

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

Sarah Kiewitz (1999)

Associate Professor, English
B.A., M.A., University of Dayton

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

William G. Klopfenstein (1977)

Professor, Biology
B.S.Ed., M.A., Bowling Green State
University
Ph.D., Ohio State University

Kay Koeninger (2003)

Assistant Professor, Chairperson, Art
B.A., Kenyon College
M.A., Eastern Washington
M.A., University of California

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)

Associate 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., College of William & Mary
M.Ed., Trenton State College

Judy L. Kronenberger (1998)

Associate Professor, Medical Assistant
Technology
A.S., Sinclair Community College
B.A., Antioch University
M.Ed., University of Dayton
(C.M.A.)

Sally Lahmon (1997)

Associate Professor, English
B.A., M.A., Bowling Green State
University
M.A., Wright State University

Vickie Lair (2000)

Associate 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

Diana Leakas (2003)

Instructor, Design
B.S., Miami University

Frank Leibold (1994)

Associate Professor, Hospitality
Management
B.A., Athenaeum of Ohio

Robert G. Leonard (2003)

Assistant Professor, Communication
Arts
A.A., Sinclair Community College
B.A., Wright State University
M.A., University of Maine

Tess Little (1993)

Professor, Art
B.F.A., Wright State University
M.F.A., Cranbrook Academy of Art

Glen Lobo (2005)

Assistant Professor, Mathematics
B.S., Indian Institute of Technology,
India
M.S., A.B.D., University of Wisconsin,
Milwaukee

Nolan Wade Long (2004)

Assistant Professor, Music
B.S., Manchester College
M.M., University of Illinois

LeAnn Lucas (2005)

Assistant Professor, Psychology
B.A., Hampton University
M.A., University of New Haven
Psy.D., Wright State University

Vicki Jo Luster (2004)

Instructor, Radiologic Technology
A.A.S., Flathead Valley Community
College
B.S., University of St. Francis
(A.A.R.T.)

Peter Maggiamo (1995)

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)

Associate Professor, Surgical Technology
B.A., McGregor School of Antioch
College
M.A., Central Michigan University

Laurel Mayer (1989)

Professor, Humanities, Government &
Modern Languages
B.A., San Jose State University
M.A., University of Maryland
Ph.D., Miami University

Judith Mayo (2004)

Assistant Professor, Nursing
B.S.N., Baylor School of Nursing
M.S., State University of New York,
Binghamton

- Helen E. McCann (1977)**
Professor, Child & Family Education
B.S.Ed., Central State University
- Anne McCreia (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 Engineering Technology
A.S., Northwestern Michigan College
B.S., M.A., Central Michigan University
- Benjamin F. McKeever (1977)**
Professor, Developmental Studies
B.S.J., Ohio University
- Kevin McNeeley (2001)**
Assistant Professor, Tooling & Machining Technology
B.S., M.S., Bowling Green 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
- David G. Meyer (2000)**
Associate Professor, Industrial Engineering Technology
B.S., Ohio State University
M.B.A., Jones International 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, Radiologic Technology
B.S., M.S., University of Dayton (A.R.R.T.)
- Rebecca Morean (2004)**
Assistant Professor, English
B.A., University of California Santa Barbara
M.A., State University of New York at Stony Brook
- Richard Morales (2003)**
Instructor, Communication Arts
A.A., Sinclair Community College
B.A., Wright State University
- 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)**
Professor, English
B.A., Baylor University
M.A., Wright State University
- Kunthavi Natarajan (2000)**
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
- Michael Oaster (2003)**
Instructor, Emergency Medical Services
B.S., West Chester University
- Linda L. O'Keefe (1979)**
Professor, Physical Education
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
- Julie E. Orenstein (2004)**
Records Manager/Archivist
BA Wright State University
MA Wright State University
- John Parcell (2004)**
Assistant Professor, Music
B.A., Florida International University
M.A., State University of New York, Stony Brook
Ph.D., State University of New York, Stony Brook
- 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)**
Associate Professor, Experience Based Education
B.S., Bloomsburg University
M.S., West Chester University
- 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
- Derek A. Petrey (2003)**
Assistant Professor, Spanish
B.A., Wright State University
M.A., Ph.D., Ohio State University
- Anthony Ponder (1991)**
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)**
Assistant Professor, Nursing
B.S.N., M.S., 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
A.A., Sinclair Community College
B.A., M.A., University of Dayton
- Kathleen Querner (2004)**
Assistant Professor, Physical Education
B.S., M.A., Miami University
- Sue Raffee (2003)**
Assistant Professor, Dental Hygiene
A.A.S., Sinclair Community College
B.A., Capital University
M.S.A., Central Michigan University

Deanna Reas (1989)

Professor, Psychology
B.A., Berea College
M.S., Ohio University

Robert E. Reas (1968)

Professor, Accounting
B.B.A., M.B.A., University of Cincinnati
(Certified Public Accountant)

Nicholas Reeder (1998)

Professor, Electronics 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.D.E.C., N.C.I.D.Q.)

Kathleen Riehle (2001)

Assistant Professor, 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

Bob Rice (2001)

Chairperson, Criminal Justice
B.S., Cumberland College
M.S., M.Ed., Xavier University
Ed.D., University of Cincinnati

Daniel R. Ricca (2000)

Assistant Professor, Marketing
B.A., M.A., The McGregor School,
Antioch University

Kim Rickard (2003)

Assistant Professor, Developmental
Studies
B.A., M.F.A., Bowling Green State
University

Gordon L. Robinson (1978)

Professor, Counselor, Business
Technologies
A.B., Defiance College
M.Ed., College of William & Mary
(N.C.C., L.P.C.)

Mary E. Robinson (2005)

Assistant Professor, Computer
Information Systems
B.A., Creighton University
M.B.A., University of Dayton

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

Arthur Ross (1990)

Professor, Chairperson, Physics
B.S., M.S., Bowling Green State
University

Annette Ross (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
B.M., M.M., The Juilliard School
D.M.A., University of Cincinnati

Harry L. Ruth, Jr. (1987)

Professor, Mathematics
B.S., Miami University
M.S., Ohio State University

Marigrace Ryan (1993)

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, Chairperson,
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)

Nora Schaefer (1997)

Associate Professor, Dietetics &
Nutritional Management
B.S., Colorado State University
M.Ed., University of Cincinnati
(R.D., L.D.)

Deborah Schwartz (2003)

Instructor, Chairperson, Radiologic
Technology
A.A.S., Sinclair Community College
B.S., University of Dayton
(A.R.R.T.)

Lucinda Schweller (2003)

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

Lynn Seery (1994)

Professor, Quality Engineering
Technology
B.S., M.B.A., University of Toledo
(C.Q.A., C.Q.E., C.Q.M.)

Bonnie S. Shane (1989)

Professor, Chairperson, Paralegal/Law
B.A., Kent State University
J.D., University of Baltimore

Martha Shapiro (2000)

Assistant Professor, Nursing
B.S.N., Wright State University
M.S.N., University of Cincinnati

Robert Sherman (2000)

Associate 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)

Associate Professor, Chairperson, 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)**
Associate Professor, Chairperson,
Emergency Medical Services
B.S., M.Ed., 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
- Jack Steinmetz (1987)**
Professor, Electronics 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)**
Associate 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)**
Professor, Automotive Technology
B.S., University of Toledo
M.Ed., University of Dayton
- Anitra Terrell (2000)**
Assistant Professor, Marketing
B.S., Norfolk State University
M.B.A., Wright State University
- Adam Thompson (2004)**
Assistant Professor, Design
B.A., Cedarville University
- Cheryl M. Thompson (1998)**
Associate Professor, Geology
B.S., M.S., Wright State University
- Barbara L. Tollinger (2000)**
Associate Professor, Business
Information Systems
B.A., Wright State University
M.S., University of Dayton
- Viet Tran (1991)**
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)**
Associate Professor, Communication
Arts
B.S., M.A., Ph.D., Ohio University
- Richard Uchida (2004)**
A.A., Long Beach City College
B.S., M.S., California State University
- Jeff Vance (1999)**
Associate Professor, Chairperson,
Economics, Financial Management,
Real Estate, Business Ownership
B.S., M.B.A., Wright State University
- 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)
- 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., C.C.S.-P.)
- Betty Wallace (1978)**
Professor, Chairperson, Developmental
Studies
B.S., M.A., Ball State University
Ed.D., National-Louis 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
- 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)**
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
M.Ed., University of Dayton
- 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
M.Div., United Theological Seminary
- 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
- James Willis (2003)**
Assistant Professor, Mathematics
A.A., Oakland Community College
B.S., Lawrence Technical University
M.A., Wayne State University
- Thomas Wilson (1985)**
Professor, Mathematics
B.A., Wittenberg University
M.A.T., Northwestern University
M.A., Stanford University

Robert Willison (2004)

Associate Professor, Chairperson
 Mechanical Engineering Technology
 Heating, Ventilation, Air Conditioning,
 and Refrigeration Engineering
 Technology
 Engineering Science University Parallel
 B.S.M.E., M.S.M.E., Ph. D. West Virginia
 University
 Six Sigma Black Belt, Motorola
 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., West Virginia University
 M.Ed., 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.A., Antioch University
 M.B.A. Franklin 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, Chairperson, 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
 Ph.D., University of Dayton

Beth Zickefoose (1989)

Professor, Chairperson, 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 by their faculty colleagues and selected after careful consideration and vote of Instructional Council 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

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Liberal Arts & Sciences

Professor Mary W. Peelle (1986)

Business Technologies

Professor Robert W. Stuart (1986)

Business Technologies

Professor M. 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

Sr. 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 T. Hickey (1991)

Liberal Arts & Sciences

Professor James W. Walden (1991)

Business Technologies

Professor Joseph T. Polanski (1992)

Extended Learning & Human Services

Professor Vernon C. Watson (1992)

Engineering & Industrial Technologies

Professor Ellen M. 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

Professor Paul A. Rab (2004)
Liberal Arts & Sciences

Professor Clarence Walls (2004)
Fine & Performing Arts

Professor Jerome M. Kinsky (2005)
Business Technologies

Professor Yvonne C. Stebbins (2005)
Liberal Arts & Sciences

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Sinclair Community College (ex-officio)

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Owner, Bowman Funeral Chapel

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Bruce Feldman
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Gloria Goldman
Chairperson, Sinclair Nursing
Department
Faculty Representative

Sharon Howard
Director of Community Services
WDTN-TV2

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Senior Vice President
Fifth Third Bank

John C. Lombard
Coolidge, Wall, Womsley & Lombard

Joyce Mance
Operator
McDonalds Restaurants

John E. Neff
Vice President
Neff Packaging Solutions

Robert Nevin
Retired Vice President
Reynolds & Reynolds

Jan Rudd
Community Volunteer

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Retired Owner
Kurz-Kasch, Incorporated

Stephanie Y. Taylor
(Alumni Representative)
Project Director, ACS, Incorporated

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Community Volunteer

Richard Wick
Owner & Principal
Industrial Grinding Corporation

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Anchor Rubber

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Marianne Gorczyca
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Coordinator, Alumni Affairs

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Advisory Committees



"I chose Sinclair because they came highly recommended...the professors are more than willing to be available and the financial aid department has been remarkable."

Colin Berry

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

Dean, Business Technologies
Sinclair Community College

George Brack

Vice President of Community
Development
Fifth Third Bank

Charles Daley

Senior Tax Accountant
Battelle & Battelle LLP

Joseph Geraghty

CM&D

Ron Hittle

Recruiting & Development Specialist
Sinclair Community College

Ed Jacob

Treasurer
Jefferson Township

James Kurek

Part-time Faculty, Accounting
Sinclair Community College

Kevin McGree

General Accounting Manager
Globe Motors, Inc.

Joyce Meers

Accountant, Thompson Financial
Services

Thomas Miller

Divisional Controller
Globe Motors

Sharyn Morgan

Academic Counselor
Sinclair Community College

Patrick Ruetschle

Senior Staff Accountant
Roth & Company, CPAs

Jeff Sink

Vice President of Finance
Monarch Marking, Inc.

Donna Williams

Controller Wright-Patt Credit Union

American Sign Language Interpreting for the Deaf

Julie Becker

Associate Director of Related Services
Dayton Public Schools

Warren Buford

Deaf Senior Citizen

Tina Gonzalez

Chief Executive Officer
Miami Valley Interpreters

Barbara Hilderbrand

Retired Manual Communication
Professor
Sinclair Community College

Doris Miller

Retired Manual
Communication Professor
Sinclair Community College

Gary Miller

Educational Interpreter

Joan Milman-West

Retired Manual Communication
Professor
Sinclair Community College

Rev. John Paddock

Pastor
Christ Episcopal Church

Lisa Rhine

Assistant Provost for Academic Services
Wittenberg University

Ann Slaybaugh

Graduate, Manual Communication
Program
Sinclair Community College

David Slaybaugh

Member Deaf Community

Kathy Stanzino

Parent Advisor
Community Services for the Deaf

Paula Vaught

Interpreter Service Administrator
Community Services for the Deaf

Dorothy Weaver

Retired Manual Communication
Professor
Sinclair Community College

Architectural Technology

Brian Choi

Principal Architect
Architects Associated, Incorporated

Karen Planet

Architect
Earl Reeder Associates

Ed Rapp

Architect
E. Lynn App Associates

Alan Scherr

Principal Architect
Alan Scherr Architects

Automation & Control Technology

Ron Adams

DMAX Consultant

Alan Armbrewster

Delphi Chassis Systems

Jeff Atkinson

DT Advance Assembly Automation

Ann Centers

GM Moraine Assembly Plant

Bill Cunningham

Delphi Chassis Systems

Douglas Hammer

Siemens

Stephen Harris

Rixan Associates, Incorporated

Dennis Johnson

Carlisle Engineered Products

Michael Kohli

Kohltek

Ken Kuzon

Lau Industries

Ed Leonard

Delphi Chassis Systems

Lou Loudtke

National Composite Center

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Carlisle Engineered Products

Ryan Petterson

Fanuc Robotic Sales

Allen Poe

Vice President
Rixan Associates, Incorporated

Alessandro Rengan

Central State University

David Richard

National Composite Center

Darryl Russell
Westburne Electric

John Sassen
Central State University

Jim Scheweller
Arkay Industries

Bob Stone
C & E Sales

Dan Stacy
Centerville High School

Automotive Technology

Keith Booth
Automotive Instructor
Miami Valley Career Technology Center

James Brown
Technician
Montgomery County Engineers

Adam Pietrzak
Instructor
General Motors Training Center Satellite
(Sinclair)

Mike McCall
Executive Vice President
Dayton Area Auto Dealers Association

Aviation Technology

Mike Disbrow
Hartzell Propeller, Incorporated

Toby Eastin
Flight Basics, LLC

Dan Eiffert
ATC Specialist
Federal Aviation Administration

Tim Gaffney
Dayton Daily News

Donna Hanshew
Sinclair Community College

Jon Husted
Dayton Chamber of Commerce

Bill Knisley
Director of Maintenance
Ryan International

Jeff Leitte
Emery Worldwide Airlines

Lou Luedtke
Director, National Composite Center

Martha Lunken
Safety Program Manager
Federal Aviation Administration

Ahti Noris
Station Chief
Delta Connection Academy

Andy Packard
Delta Airlines, Incorporated/ComAir

Richard Pfenning
President/Chief Executive Officer
PSA Airlines, Incorporated

John Porter
Airborne Airpark

Jay Ratcliff
Northwest Airlines

William Rudy
178th Fighter Wing
Springfield - Beckley MAP

George Sehi
Dean, Engineering & Industrial Technologies
Sinclair Community College

Andrew Shepherd
Laboratory Assistant
Sinclair Community College

Ron Smith
Manager
Wright-Patterson Air Force Base Aero Club

Don Stark
Aviation Maintenance Coordinator
Sinclair Community College

Steve Thibodaux

John Thompson
178th Fighter Wing
Springfield - Beckley MAP

Kym Yahn
Work Force Development Manager
Dayton Area Chamber of Commerce

Biotechnology

Ralph Anderson
Anderson Consultants

Debra L. Davis
Associate Laboratory Director
Orchid-GeneScreen

William Boyko
Professor, Biology
Sinclair Community College

Angela Currier
Professor, Biology
Sinclair Community College

Jose Hanquier
Research Scientist
Eli Lilly & Company

Deborah Hoffer
Quality Control/Quality Assurance
Manager
The Rogosin Institute

Donna Jennings
Laboratory Manager, Biology
Sinclair Community College

Kunthavi Natarajan
Associate Professor, Biology
Sinclair Community College

Daniel Organisciak
Wright State University

Stephen Phanstiel
Team Leader - Bioproduct
Commercialization
Eli Lilly & Company

John Rowe
Chairperson, Biology
University of Dayton

Bill Tacon
Senior Program Director
OMERIS

Phyllis Williams (Board Secretary)
Chairperson, Biology
Sinclair Community College

Business Information Systems

Pam Boyd
Marketing Specialist
IBM

Joyce Brown
Financial Technician II
City of Dayton

Carolyn Cartwright
Executive Secretary/Human Resources
Mead Corporation

Earlene Dafler
Executive Secretary, Retired/President
Emeritus
Sinclair Community College

Valerie Doll
Professor Emeritus
College of Education & Human Services
Wright State University

Janet Dunwoody
Executive Secretary, Office of the
President
Sinclair Community College

David Farmer
Magistrate
Montgomery County

John Farrier
Software Integration Consultant
LexisNexis

Robert A. Fornal
Owner/Operator
i-CuHere.Com

Joe Gallagher
Magistrate
Montgomery County

Cindy Hall
Clerical Supervisor
Montgomery County Building
Regulations

Terry Heineman
Chief Operating Officer
MBI Solutions

Patricia Kanuckel
Director, Human Resources
Victoria's Secret Catalogue

Terry Kierce
Division Director, Finance and
Accounting
Robert Half International Incorporated

Linda Middlesworth
Training Supervisor
Dayton Power & Light

Patte Murry
Instructor/Office Technology Specialist
Program
Greene County Career Center

Tony Nichols
President - Finance
Ferco Tech Corporation

Karen Penney
Geeham Advisory Boards

Rita Quackenbush
Owner
Dynamic Strategies

Meredith Rainey
Academic Counselor, Business
Technologies
Sinclair Community College

Gloria Shafer
Contract Administrator Chair
Corporate Data Center
ITW Food Group

Sheila Suel
Coordinator
Business Technologies Co-op/Internship
Program
Sinclair Community College

Barb Temple
Corporate Executive Secretary, Retired
NCR

Jenny Warner
Director, Human Resources
YMCA of Greater Dayton

Evelyn Williams
Executive Secretary, ASC/YWR
Wright-Patterson Air Force Base

Business Information Systems/Medical Office Specialist

Joanne M. Coleman, C.M.T.
Business Instructor/Med. Office I & II
Warren County Career Center

Fran Coy
Administrative Manager
Medical Imaging/Centran
Miami Valley Hospital

Judy Cruea
Administrative Assistant
Marketing Communications
Children's Medical Center

Theresa Feeser, M.B.A.
Laboratory Manager
Dermatopathology Lab of Central State

Candy Henry
Assistant Supervisor/Medical Records
Combined Health District of
Montgomery County Visiting Nurses
Association

Tracy Johnson
Office Manager
Miami Valley Hospital Cardiology

Norma Kamerer
Medical Office Senior Instructor
Miami Valley Career Technology Center

Sharon Kiser
Director of Volunteer Resources
Grandview/Southview Hospitals

Liz Kramer
Registered Nurse Practitioner
Retired, Wright Health Associates

Sharyn Morgan
Academic Counselor, Business
Technologies
Sinclair Community College

Barbara Naill, C.M.T.
Lead Transcriptionist
Greene Memorial Hospital

Mary Beth Seevers
Administrator & Transcriptionist

Sheila Suel
Coordinator
Business Technologies Co-op/Internship
Program
Sinclair Community College

Dan Young
Business Manager
Dayton Head and Neck Surgeons

Career Services

Wendy Callahan
Assistant Director, Career Services
Sinclair Community College

Michael Clark
Information Systems & Service
Sinclair Community College

Charlene Edwards
Ohio Fellows
Sinclair Community College

Jacalyn W. Harding
Director, Human Resources
Woolpert LLP

Stephen Hart
Vice-President
Director of Quality & Testing
Reynolds & Reynolds

Ronald C. Hittle
Recruitment & Development Specialist,
Career Services
Sinclair Community College

Bobby James
Associate Professor, Industrial Design &
Graphic Technology
Sinclair Community College

Katrina S. Jordan
Director, Career Services
Sinclair Community College

T.R. Morton
CEO
International Reactor Corporation

David F. Abney, II
President
Wise Construction

Bryan Bucklew
Vice President, Economics Development
& Public Policy
Dayton Area Chamber of Commerce

Erman L. Cole, II
Research & Development, Ivorydale
Technical Center
Procter & Gamble

Linda Hanaway
Director, Training Services
Greater Dayton IT Alliance

Roger McDaniel
President/Owner
Duncan Oil Company

Kathleen O'Brien
Career Advisor
Edison State Community College

David Radkey
Director of Dining Services
Antioch University

William C. Roberts, II
Supervisor
Nova House Association

Amanda Romero
Assistant Professor, Design
Sinclair Community College

Student Representative
Sinclair Community College

Willie Styles
Culinary Arts Instructor
Dayton Job Corps Center

Lee Townsell
Court Administrator
Montgomery County Juvenile Court

Karen Usrey
Coordinator, Alumni Affairs
Sinclair Community College

Charlotte Wharton
Chairperson, Computer Information
Systems
Sinclair Community College

Christine Wiley
Assistant Director, Information
Technology Career Services
University of Dayton

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Business Manager
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Ken Delaney

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William Fannin

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Joe Hasenjager

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Len Hayes

United Auto Workers, Local 696

Dennis Henry

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Utility Workers, Local 175

Eldon House

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United Rubber Workers

James Keeney

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Bruce Pence

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Elder Beerman

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South Community, Incorporated

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Ohio Department of Health

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Jeanne Philipp

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Cindy Ratermann

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Laura Brockman

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Becky Cobb

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John Dandeneau

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Ken Dawson
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Sandy Feck
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Ronnie Wayne

Station Manager
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Commonly Used Terms



"The cost and convenience are key. I am a full-time student and hold down a full-time job. At Sinclair, cost and location do not trouble me as they have at other schools."

Jessica Lynn Cornett

Academic Counselor – Individuals in each academic division who help students plan their program of study and course selection.

Academic Credit Assessment Information Center (ACAIC) – This center provides information about non-traditional or alternative 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.

Academic 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.

Academic Probation – A student's grade point average is below 2.0 for two consecutive quarters and 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 Program – The student's academic area of study.

Academic Resource Center (ARC) – Academic Resource Center is a place where potential students can refresh basic skills in mathematics, English and reading either before taking the placement test or by enrolling in developmental studies classes.

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 colleges and universities agree to identify courses that will transfer and may 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, orientation, academic, 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.), and 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 as part of a degree program.

Career or Technical 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.)

Career Services – Students can find career counseling and assessment, a career and employment library and job information here. Employment services also arranges initial job interviews new graduates and alumni and conducts seminars on resume writing and interviewing techniques.

Certificate of Completion – This program of study trains students in skills essential to a particular career area, but not at the level required for an associate degree.

Change of Academic Program – To change from one academic program to another, students 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.

College for Seniors – This program coordinates opportunities for senior citizens, such as tuition free audit 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 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 (Co-op) – 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 academic program.

Dean – This administrator directs an academic division (such as “Liberal Arts & Sciences”) at the college.

Dean’s List – Students who 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 are on the “Dean’s List” each quarter.

Degree Audit – A review to determine progress toward the completion of a degree. For those who change academic programs, a separate degree audit is needed. (This is different from “auditing” a course.) Degree audits can be printed from Web Advisor.

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 pre-college courses in reading, mathematics, science, and English help develop basic skills and prepare students for college level course work.

Distance Learning – Take courses any time, any place through video, audio, print, CD-ROM, online and at off-campus sites.

Drop/Add – If students need to add a course or drop a course after registering or want to change sections, they have to complete the drop/add process, either on a form or on the web (Internet).

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, and Service Learning.

Early Childhood Education Centers (ECEC) – Provides full- or part-time care for young children and also serve as a learning laboratory for early childhood education academic programs.

Elective – Courses that fulfill the requirements for a degree but aren’t in the academic program subject area.

Financial Aid – Grants, scholarships, loans and college work-study position that help in financing college education.

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,” “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 completed in a given period.

Hold – Those students who owe fees or have books or equipment that belong to the college, they 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.

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.

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 a specialized area of study under an academic degree program.

Part-time Student – Carries 11 credit hours or less per quarter.

Personal Identification Number (PIN) – Originally your birth month and birth date, must be used for telephone registration, grade and reporting.

Personal Interest (P.I.) Courses – Courses which may be taken for personal interest rather than as part of a degree program.

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.

Placement Testing – Those who want to work toward a Sinclair degree or certificate take this assessment of skills in English, mathematics and reading to help determine course placement.

Prerequisite – For a particular area of study, students have to complete all courses as preliminary work before they can register for a more 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 and knowledge called outcomes.

Quarter - The academic year at Sinclair is divided into four terms known as fall, winter, spring and summer quarters.

Registration for Classes - 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 for that course.

Sequence – A series of courses taken in a specific order.

Service Learning – Service Learning is a teaching method that combines community service with academic instruction focusing on critical, reflective thinking and civic responsibility. Service Learning programs involve students in organized community service that addresses local needs, while developing their academic skills, sense of civic responsibility and commitment to the community.

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 pending 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 can obtain after registration. It is for certain facilities like the Library or PAC, and can use it to pay for services on campus (bookstore, copiers, parking, etc.).

Telephone Registration (TREG) – Students register for classes and change registration schedules using a touch-tone phone, Student I.D. 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 colleges, universities and employers may require this official written record of students' course registrations and grades.

Tuition – The dollar amount students pay for academic instruction. Sinclair's tuition is one of the lowest in the state.

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.

Web Advisor – Sinclair's online Registration & Student Records system.

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"The teachers are very dedicated and extend every opportunity possible."

Derek Brown

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Founder



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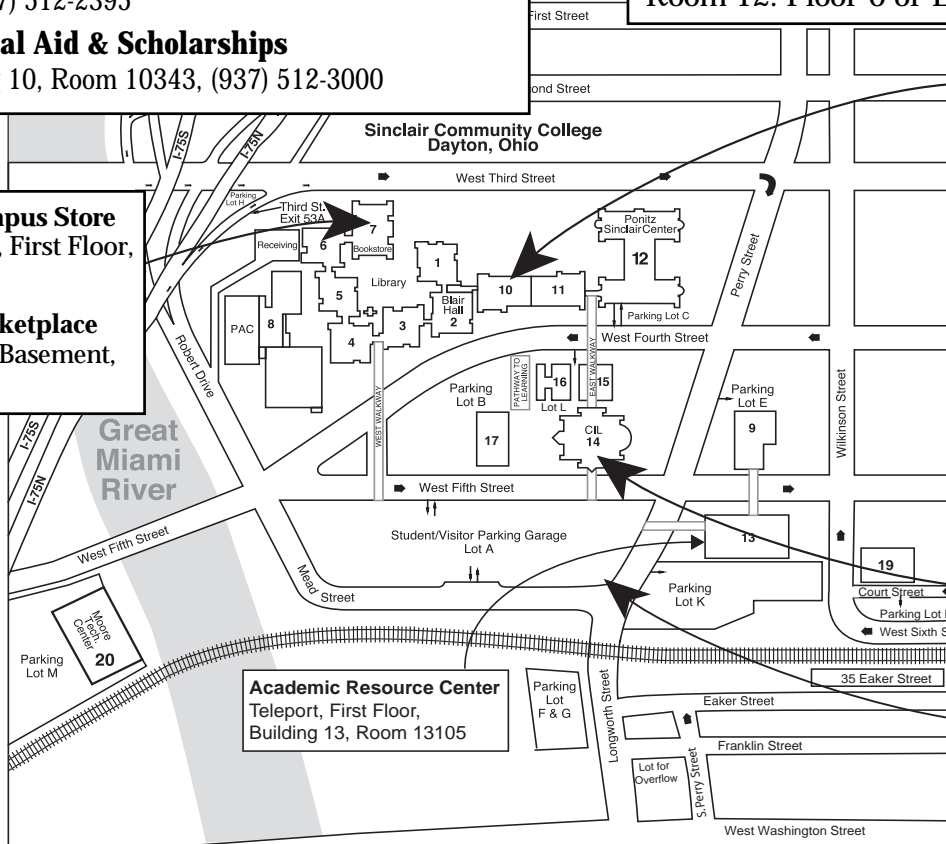
- **Admissions**
Building 10, Room 10112, (937) 512-3000, 1-800-315-3000 (Ohio), www.sinclair.edu, TDD (937) 512-2187
- **General Enrollment Information**
(937) 512-3000
- **Placement Testing**
Assessment Intake Center, Building 10, Fourth Floor, (937) 512-3076
- **Payment of Fees/Bursar**
Building 10, Room 10244, (937) 512-3000
- **Student I.D. Cards**
Registration, Second Floor, Building 10
- **Registration & Student Records**
Building 10, Second Floor, (937) 512-3000, TDD (937) 512-2395
- **Financial Aid & Scholarships**
Building 10, Room 10343, (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 main buildings. Each of the buildings on campus is numbered. 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), First Floor, Building 7
- **Tartan Marketplace** (Cafeteria), Basement, Building 7



- **Admissions**, First Floor, Building 10, Room 10112
- **Assessment Intake**, Fourth Floor, Building 10
- **Financial Aid**, Third Floor, Building 10, Room 10343
- **Pay Fees**, Second Floor, Building 10
- **Placement Testing**, Fourth Floor, Building 10
- **Registration**, Second Floor, Building 10
- **Teleport**, Third Floor, Building 11, Room 11346

- **Orientation**, Building 14, Room 14130

Parking
Get Tartan Card at Registration, put money on card at Bursar, and save!

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