

## Cetting 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

- Advising Center

Building 6, First Floor

- Enrollment Center

Building 10, Fourth Floor

- 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 Library 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 O or L means the lower levels.

- Tartan Campus Store (Bookstore), First Floor, Building 7
- Tartan Marketplace (Food Service), Lower Level, Building 7
- Library

Building 7, Lower Level

- Teleport

Library, Building 7, Lower Level

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www.sinclair.edu my.Sinclair.edu

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## www.sinclair.edu my.Sinclair.edu

## To Students

Note: This catalog contains official information for the academic years 2007 and 2008. 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. Students should check the Sinclair Community College web site at my.Sinclair.edu, the official catalog.

## To Prospective and Current Students

Thiscataloghasbeen designed to providestudents 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 current information:

- (937) 512-3000
- 1-800-315-3000 (Indiana and Ohio)
- 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: Senior Vice President, 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, Human Resources office, Room 7340, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460, (937) 512-2514.

## Accreditation

Sinclair is accredited by The Higher Education 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).

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 Communications, 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 the fall 2005 of the 1,433 first-time, full-time, degree seeking students who entered Sinclair in fall 2002, $79.2 \%$ had graduated, were still enrolled at Sinclair, had transferred to another college or university, or left Sinclair in good standing.

## Outcome

89 graduated within 3 years* $6.2 \%$
334 transferred by fall $2005 \quad 23.3 \%$
263 enrolled at Sinclair fall 2005 18.4\%
449 left Sinclair in good standing** 31.3\%

* This includes those who earned an associate degree within three years or a certificate within $150 \%$ of normal time of completion ( 1.5 years for a regular certificate, varies for short term certificates).
**Includes only those who had not graduated or transferred as of fall 2005 , and who were not enrolled here as of fall 2005.


## Jeanne Clery Act

(Campus Security Act of 1990)
The federal Jeanne Clery Disclosure of the Campus Security Policy and CrimeStatistics 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 public may obtain a copy of the report by contacting the Sinclair Police department at (937) 5122700 or by accessing the following web site: www.sinclair. edu/departments/police.

## Welcome to Sinclair

## Sinclair...a great place to begin or continue your education.

## 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 also in 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!

Steven Lee Johnson
President


## 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 anine-memberboard of trustees. Downtownland, 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 Workforce Development and Corporate \& Community Services division of the college.

In 1993, the Advanced Integrated Manufacturing (AIM) Center, ajoint program of Sinclair and the University of Dayton, began with theopening 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 students of the region.

In 2006, Sinclair opened Learning Centers at YMCA's in Englewood and Huber Heights. In 2007, Sinclair opened the Courseview Campus Center in Mason, Ohio.

## Governance

In 1966, when Sinclair moved from private to public status, Montgomery County Commissioners and Ohio's Governor appointed an 11-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 Foundation was established in 1969 to keep higher education accessible to Miami Valley residents and to help Sinclair remain among the nation's leading community colleges. As the fundraising arm of the college, the Sinclair Foundation is a separate 501c3 tax exempt organization which provides funding for student, faculty, and college needs not otherwise covered by tuition and tax revenues. The foundation currently has assets exceeding $\$ 28$ million and recently completed the Changing Lives campaign which raised $\$ 13.2$ million for Readiness, Resources and Retention programs.

A volunteer board of trustees composed of representatives of business and industry, community leaders, alumni and employees governs the foundation. They are listed on page ??.

For further information, Sinclair Foundation, (937) 512-2510.

## Vision and Mission

## 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.

## Mission

We help individuals turn dreams into achievable goals through accessible, high quality, affordable learning opportunities.

## 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.

# Evidence of Excellence 

## Sinclair Successes

## Top 10 Digital Community Colleges for 2007

Thisaward,named by the Center for Digital Education and the American Association of Community Colleges, was received for the Sinclair's work on deploying technology to streamline operations and better serve students, faculty and staff.

## The Largest Accreditation of all Community Colleges

The Engineering \& Industrial Technologies division at Sinclair has nine engineering technology programs accredited byTechnology Accreditation Commission of the Accreditation Board for Engineering \& Technology, ABET, Inc. This recognized accreditor for college and university programs is a federation of 28 professional and technical societies. ABET has provided leadership and high quality assurance in higher education for over 70 years, and is recognized by the Council for Higher Education Accreditation.

## NISOD

Sinclair's excellence in teaching was recognized by the 2007 National Institute for Staff and Organizations Development (NISOD) Awards for Teaching Excellence. This award was given to six faculty members, one from each of the academic divisions.


## Karen Fleming

Associate Professor
Developmental Studies


Dona Fletcher
Professor
Sociology


## Sarah Gross

Associate Professor Marketing


Kevin Harris
Associate Professor
Art


Tom McElfresh
Professor
Mental Health Technology


Steve Wendel
Professor
Engineering Technology Design

# Academic Calendar 

## Fall Quarter

Labor Day holiday; campus closed.
Fall Conference
Full Session and First Five-Week (A-Term) Classes Begin
Faculty Learning Day
First Five-Week (A Term) session ends
Second Five-Week (B Term) session begins
Veterans' Day holiday; campus closed.
Full Session and Fall B Term classes end
Thanksgiving holiday; campus closed.
Employee Learning Day; campus closed*
Winter holiday; campus closed.
New Year's Day holiday; campus closed.

## 2007-2008

September 3 (Mon.)
September 4 (Tues.)
September 5 (Wed.)
October 10 (Wed.)
October 10 (Wed.)
October 17 (Wed.)
November 11-12 (Sun., Mon.)
November 21
(Wed. - classes beginning after 4:00 p.m. will not meet)
November 22-25 (Thurs.-Sun.)
December 20 (Thurs.)
December 21-26 (Fri.-Wed.)
December 31-January 1 (Mon., Tues.)

## Winter Mini Term

Classes begin
Classes end

November 26 (Mon.)
December 14 (Fri.)

## Winter Quarter

Full Session and First Five-Week (A Term) classes begin Martin Luther King, Jr., holiday; campus closed.
First Five-Week (A Term) session ends
Second Five-Week (B-Term) session begins
Full Session and Second Five-Week (B Term) classes end

January 7 (Mon.)
January 21 (Mon.)
February 11 (Mon.)
February 18 (Mon.)
March 23 (Sun.)

## Spring Quarter

Full Session and First Five-Week (A Term) classes begin
First Five-Week (A Term) session ends
Second Five-Week (B Term) session begins
Memorial Day holiday; campus closed.
Commencement
Classes end

March 31 (Mon.)
May 5 (Mon.)
May 12 (Mon.)
May 26 (Mon.)
June 13 (Fri. - 7:00 p.m.)
June 15 (Sun.)

## Summer Quarter

Classes Begin
First Five-Week Term
Seven-Week Term
Ten-Week Term
Second Five-Week Term
Independence Day holiday ; campus closed.
Classes end
First Five-Week Term
Seven-Week Term
Ten-Week Term
Second Five-Week Term

June 16 (Mon.)
June 16 (Mon.)
June 16 (Mon.)
July 21 (Mon.)
July 4 (Fri.)
July 19 (Sat.)
August 2 (Sat.)
August 23 (Sat.)
August 23 (Sat.)

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# Sinclair at a Glance 

## Accomplishments

Named one of 12 Vanguard Learning Colleges in the nation; an active board member college in the League for Innovation in the Community College and recognized as having the lowest tuition of any two or four year college/ university in the state of Ohio. Thirteen Sinclair students named to the All-USA Academic Team for community and junior colleges.

## Academic Year

Quarter system: Fall, Winter, Spring and Summer.

## Enrollment (Fall 2006)

22,555 headcount with full-time equivalent enrollment at 12,183

- $41 \%$ men
- $59 \%$ women
- $35 \%$ full-time students
- $65 \%$ part-time students
- $20 \%$ new students
- $51 \%$ continuing students
- $22 \%$ returning/former students
- $5 \%$ transfer students
- $2 \%$ transient students


## Residency Status (Fall 2006)

| Montgomery County | $68 \%$ |
| :--- | ---: |
| Other Ohio County | $30 \%$ |
| Out-of-State \& International | $2 \%$ |

## Ethnicity (Fall 2006)

Caucasian $\quad 71 \%$

African-American/Black 16\%
Hispanic $1 \%$

Asian/Pacific Island 2\%
International $1 \%$
Native American/AK 1\%
Unknown 8\%

## Enrollment Patterns (Fall 2006)

Day students
Evening students
Weekend students ..... 2\%
Student-Faculty Ratio ..... 19:1

## Age Distribution (Fall 2006)

| Under 17 | $1 \%$ |
| :--- | ---: |
| $17-19$ years | $17 \%$ |
| $20-29$ years | $41 \%$ |
| $30-39$ years | $15 \%$ |
| $40-49$ years | $10 \%$ |
| $50-72$ years | $10 \%$ |
| Over 72 | $5 \%$ |
| *Average age 31 |  |

## Financial Assistance (2005-2006)

$\$ 29$ million was awarded to approximately $37 \%$ of the students registered and eligible to receive various types of financial assistance (grants, loans, work study, scholarships, loans).

## Degrees Granted

Associate degrees in arts, sciences, applied science and individualized and technical study.
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

## Campus Safety

Sinclair Police department has 23 sworn police of officers, 85 part-time security officers and 10 student security officers. This provides visible police presence to prevent crime.

## Organizations \& Clubs

The college encourages participation in the co-curricular life of Sinclair as another way of learning. If students are interested in joining one or more of the clubs or organizations listed in the college catalog, they should stop by the office of Student Leadership Association, Student Center, Building 8.

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

## Founded

1887 as part of the "Dayton YMCA;" became "Sinclair College" in 1948 and "Sinclair Community College" in 1966; relocated to current main campus in 1972.

## Location

Dayton, Ohio, western edge of downtown Dayton, adjacent to Interstate 75.

## Campus

62+ acres of land with 20 buildings sitting amidst a blend of modern architecture and green space. Also, 42 off-campus locations throughout Montgomery and surrounding counties.

## Accreditation

North Central Association of Colleges and Schools (and a member of the Ohio Association of Community Colleges).

## Governance

Eleven-member Board of Trustees; six appointed by Montgomery County Commissioners, four appointed by Ohio's Governor, one by Warren County Commissioners.

## Financial Resources

Revenues derived from a 2.5 mill, 10-year tax levy approved in 1998 by Montgomery County voters and fees paid by students. Operating and capital funds are received from state subsidy and federal grants and appropriations.

# www.sinclaireedu my.Sinclairedu 

## How to Begin

## It's Easy to get Started at Sinclair!

## 1 Complete the Application for Admission

## 2 Find your student type

## 3 Follow the easy steps to enrollment

Admission to Sinclair is open to all applicants except international students on an F-1 visa. A one-time, non-refundable $\$ 20$ application fee will be assessed at the time of your initial registration for classes. There are five new student types.

## Open Admission

Admission is open to all applicants, with the exception of international students on an F-1 visa. Some academic programs have additional requirements that must be completed prior to actually beginning the program. These include all of the Allied Heath programs, Paralegal, Police Academy, Early Childhood Education, ASEP, CAP, Honda PACT, and the A.I.S. and A.T.S. degrees.

Applicants to Sinclair can apply online at www.sincair. edu/applynow or in person at the Enrollment Center, Building 10, Fourth Floor. A one-time, non-refundable \$20 application fee will be assessed at the time of the student's initial registration for classes.

Those who would like information about Sinclair Community College, the academic programs or would like to schedule a tour of the campus, contact Admissions, (937) 512-3000.
Monday-Thursday 8:00 a.m.-6:00 p.m.
Friday
8:00 a.m.-7:00 p.m.
(4:30 in the summer)
Saturday
9:00 a.m.-12:00 noon
(Closed in the summer)
Those who are ready to begin should go to the enrollment center.

## New Student Enrollment Center

## Building 10, Room 10422, (937) 512-3000

The New Student Enrollment Center is the starting place for all new students ready to begin at Sinclair. Students who are new to college, transferring from another institution, or just coming to pick up a couple classes will find helpful staff ready to assist them. Services include: Assistance with Sinclair's Admission Application, preparation for placement testing, registration, making an appointment for New Student Orientation / Academic Advising and other needed services and referrals.

Hours: Monday-Thursday, 8:00 a.m.-7:00 p.m.
Friday, 8:00 a.m.-4:00 p.m.
Saturday, 8:00 a.m.-12:00 p.m. (closed summer)

## Enrollment

## Begin by finding your new student type and follow the steps in the order listed:

## First Time College Student

Seeking a degree or certification from Sinclair Community 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.

## Step

1 Apply to Sinclair by completing an Application for Admission in one of these three ways. Students will receive acceptance letters within one week.

- Submit application online at www.sinclair.edu; or
- Mail application to the address provided on the application; or
- Submit the paper application in person to the New Student Enrollment Center, Building 10, Fourth Floor lobby
2 Complete Placement Testing. Go to the New Student Enrollment Center, Building 10, Fourth Floor lobby. Math, reading, and writing assessments are used for course placement only. Picture I.D. required for placement testing.
3 Attend New Student Orientation. Staff at the Enrollment Center will schedule students for this mandatory information session.
4 - Meet with an Academic Advisor or other counselor as assigned. The advisor will help select appropriate courses based on the students' educational goals and placement test results. Academic advisors are located in Building 6, First Floor. Call (937) 512-3700.
5 Develop a Class Schedule. Access Sinclair's online student system Web Advisor at my.Sinclair.edu to view course availability. On campus, staff at Sinclair Central, Building 10, Second Floor, will help students schedule days, times and sections of their courses and show how to access online registration. For questions, call (937) 512-3000, or 1-800-315-3000.
6 Register for Classes in one of these three ways:
- 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
7 Obtain a Tartan Card (Student I.D.) from Registration \& Student Records in Building 10, Second Floor, after submitting the initial course registration. (Englewood, Huber Heights students: see the site coordinator).
8 Pay for Classes by the quarterly deadline in one of these five ways:
- Online athttp:my.Sinclair.edu (login to my.Sinclair.edu, click the Web Advisor tab, the "current student," verify address, and then "Make Payment" under Financial Information): Visa or MasterCard only
- Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454: Visa or MasterCard only
- In person at the Bursar's (Cashier's) office in Building 10, Second Floor
- Mail to Bursar's (Cashier's) office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan (facts.sinclair.edu)

Go to the New Student Enrollment Center for assistance and questions, Building 10, Fourth Floor lobby.

## Incoming Transfer Student

Seeking a degree or certificate at Sinclair Community College Attended another college or university and is seeking a degree or certificate at Sinclair.

## Step

$1 \square$ Apply to Sinclair by completing an Application for Admission in one of these three ways. Students will receive acceptance letters within one week.

- Submit application online at www.sinclair.edu
- Mail application to the address provided on the application
- Submit the paper application in person to the Enrollment Center, Building 10, Fourth Floor lobby
2 Submit Transcripts. Have the issuing institution mail the students' "official" transcripts to Sinclair Community College, Registration \& Student Records, 444 West Third Street, Dayton, Ohio 45402-1460. Students can bring a copy of their "unofficial transcript" or grade reports for academic advising purposes only.
3 Attend New Student Orientation. Staff at the Enrollment Center will schedule students for this information session.
4 Meet with an Academic Advisor. The students' advisors will help select appropriate courses based on educational goals. Academic advisors are located in Building 6, First Floor. Call (937) 512-3700.
5 Develop a Class Schedule. Access Sinclair's online student system Web Advisor at my.Sinclair.edu to view course availability. On campus, staff at Sinclair Central, Building 10, Second Floor, will help schedule days, times and sections of courses and show how to access online registration. For questions, call (937) 512-3000, or 1-800-315-3000.
6 Register for Classes in one of these three ways:
- 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
$7 \square$ Obtain a Tartan Card (Student I.D.) from Registration \& Student Records in Building 10, Second Floor, after submitting the initial course registration.
8 Pay for Classes by the quarterly deadline in one of these five ways:
- Online at my.Sinclair.edu (login to my.Sinclair.edu, click the Web Advisor tab, the "current student," verify address, and then "Make Payment" under Financial Information): Visa or MasterCard only
- Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454: Visa or MasterCard only
- In person at the Bursar's (Cashier's) office in Building 10, Second Floor
- Mail to Bursar's (Cashier's) office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan (facts.sinclair.edu)

Go to the New Student Enrollment Center for assistance and questions, Building 10, Fourth Floor lobby.

## Transient Student

Not seeking a degree or certificate at Sinclair Community College
Currently enrolled in another college or university and is taking Sinclair courses to transfer back to the home institution. Declare Personal Interest (PI) as the major on the Sinclair Community College admissions application.

## Step

$1 \square$ Apply to Sinclair by completing an Application for Admission in one of these three ways. Students will receive acceptance letters within one week.

- Submit application online at www.sinclair.edu
- Mail application to the address provided on the application
- Submit the paper application in person to the Enrollment Center, Building 10, Fourth Floor lobby
$2 \square$ Submit Transcripts. Students should bring a copy of their "unofficial transcript" or grade reports for academic advising purposes only. For questions or assistance, e-mail Sinclair at enrollmentcenter@sinclair.edu.
$3 \square$ Develop a Class Schedule. Access Sinclair's online student system Web Advisor at my.Sinclair.edu to view the current course schedule. On campus, staff at Sinclair Central, Building 10, Second Floor, will help schedule days, times and sections of courses and show how to access online registration. For questions, call (937) 5123000, or 1-800-315-3000.
$4 \square$ Register for Classes in one of these three ways:
- 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
$5 \square$ Obtain a Tartan Card (Student I.D.) from Registration \& Student Records in Building 10, Second Floor, after submitting the initial course registration.
6 Pay for Classes by the quarterly deadline in one of these five ways:
- Online at my.Sinclair.edu (login to my.Sinclair.edu, click the Web Advisor tab, the "current student," verify address, and then "Make Payment" under Financial Information): Visa or MasterCard only
- Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454: Visa or MasterCard only
- In person at the Bursar's (Cashier's) office in Building 10, Second Floor
- Mail to Bursar's (Cashier's) office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan (facts.sinclair.edu)

Go to the New Student Enrollment Center for assistance and questions, Building 10, Fourth Floor lobby.

## Former Student

Returning to Sinclair after an absence of two years or more.

## Step

$1 \square$ Complete the Sinclair Application for Admission if students have not enrolled in classes during the past year.

- Submit application online at www.sinclair.edu
- Mail application to the address provided on the application
- Submit the paper application in person to the Enrollment Center, Building 10, Fourth Floor lobby
$2 \square$ Meet with an Academic Advisor or other counselor as assigned. The advisor will help students select appropriate courses based on their educational goals. Academic advisors are located in Building 6, First Floor. Call (937) 512-3700.
$3 \square$ Develop a Class Schedule. Access Sinclair's online student system Web Advisor at my.Sinclair.edu to view the current course schedule. On campus, staff at Sinclair Central, Building 10, Second Floor, will help students schedule days, times and sections of their courses and show how to access online registration. For questions, call (937) 512-3000, or 1-800-315-3000.
$4 \square$ Register for Classes in one of these three ways:
- 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
5
$\square$ Obtain a Tartan Card (Student I.D.), if students do not have one already, from Registration \& Student Records in Building 10, Second Floor, after submitting the initial course registration.
$6 \square$ Pay for Classes by the quarterly deadline in one of these five ways:
- Online at my.Sinclair.edu (login to my.Sinclair.edu, click the Web Advisor tab, the "current student," verify address, and then "Make Payment" under Financial Information): Visa or MasterCard only
- Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454: Visa or MasterCard only
- In person at the Bursar's (Cashier's) office in Building 10, Second Floor
- Mail to Bursar's (Cashier's) office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan (facts.sinclair.edu)


## Personal Interest (PI) and/or Career Development (CD)

Not seeking a degree or certificate at Sinclair Community College Taking classes for personal interest or job/career development and not seeking a degree or certificate at Sinclair. Declare Personal Interest (PI) or Career Development (CD) as the major on the Sinclair Community College admissions application.

## Step

$1 \square$ Apply to Sinclair by completing an Application for Admission in one of these three ways. Students will receive acceptance letters within one week.

- Submit application online at www.sinclair.edu
- Mail application to the address provided on the application
- Submit the paper application in person to the Enrollment Center, Building 10, Fourth Floor lobby
2 Develop a Class Schedule. Access Sinclair's online student system Web Advisor at my.Sinclair.edu to view the current course schedule. On campus, staff at the Enrollment Center, Building 10, Fourth Floor lobby, will help students schedule days, times and sections of their courses and show how to access online registration. For questions, call (937) 512-3000, or 1-800-315-3000.
$3 \square$ Register for Classes in one of these three ways:
- 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
$4 \square$ Obtain a Tartan Card (Student I.D.) from Registration \& Student Records in Building 10, Second Floor, after submitting the initial course registration.
$5 \square$ Pay for Classes by the quarterly deadline in one of these five ways:
- Online at my.Sinclair.edu (login to my.Sinclair.edu, click the Web Advisor tab, the "current student," verify address, and then "Make Payment" under Financial Information): Visa or MasterCard only
- Telephone (T-Reg) by calling (937) 512-5454 or 1-866-512-5454: Visa or MasterCard only
- In person at the Bursar's (Cashier's) office in Building 10, Second Floor
- Mail to Bursar's (Cashier's) office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan (facts.sinclair.edu)

Go to the New Student Enrollment Center for assistance and questions, Building 10, Fourth Floor lobby.

## Additional Enrollment Categories

- College Advance Program for students seeking to enroll at Sinclair while still attending pre-college school. Obtain the College Advance Program (CAP) Petition and Registration Form from a school guidance counselor, at 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). Note: Admissions to specific courses is made at an academic advisor's discretion.
- Post Secondary Enrollment Options (PSEO) Program for 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.
- 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 (ESL) students seeking to enrollatSinclair must first meet with the ESL coordinator who will assist with application and the enrollmentsteps. ESL students are required to take ESL classes based on placement test results. The ESL coordinator is located in Educational SupportServices, Building 10, Fourth Floor, Room 10421, (937) 512-5113.
- Golden Age senior citizens who are 60 years or better who want to take classes free of charge must complete a Golden Ageapplication/registrationform, availablefrom Registration \& Student Records or College for Seniors in Building 10, Room 10424. Enroll on an audit, space available basis during the Late Registration period. (937) 512-2372.


## Helpful Information

## Enrollment Center <br> Building 10, Fourth Floor

Assistance and Testing Hours:

| Monday - Thursday | 8:00 a.m. - 7:00 p.m. |
| :--- | :--- |
| Friday | 8:00 a.m. - 4:00 p.m. |
| Saturday | 8:00 a.m. - 12:00 p.m. |

* The Enrollment Center will be closed on Saturdays during summer quarter and winter break.
Be sure to allow at least two hours to complete the placement test before closing.
Access the Sinclair E-mail Account. This is how Sinclair will communicate with students about registration, financial aid, and payment. Once the application has been processed, students will receive an e-mail account. To access the e-mail account, go to my.Sinclair.edu. Once logged in, students can access their e-mail accounts by clicking on the "Student EMail" tab. For additional technical assistance accessing the e-mail account, students should call (937) 512-HELP (4357) or 1-866-781-4357.
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 $4-8$ weeks for processing and actual awarding of aid. Students must also complete the internal office application available from the Financial Aid \&Scholarships office in Building 11, Third Floor, Room 11346 or online at www. sinclair.edu/stservices/fas/index.cfm. Submit this form to
the Financial Aid \& Scholarships office by the deadlines noted below. For additional information call (937) 512-3000, toll free for Ohio and Indiana residents, 1-800-315-3000.
- Priority date for the academic year: May 1
- Priority date for fall quarter: August 1
- Priority date for winter quarter: November 15
- Priority date for spring quarter: February 15

NOTE: The priority dates are the dates that all forms must be submitted to Financial Aid including the results of thestudents' FAFSA application. It is recommended that students begin the process3-4 weeks prior to the priority date. All communication from the Financial Aid \& Scholarships office will be sent to the students' Sinclair e-mail account. Please check it regularly.

## Placement Testing Preparation

- Academic Resource Center (ARC) Need a refresher to increase 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! The students' skill levels are initially assessed and then they areguided 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 to take Sinclair's ACCUPLACER placement test and raise overall test scores, students may find it helpful to first take some free practice tests. Visit the study guide web site: www.testprepreview.com/accuplacer_practice.htm
- Online/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." For additional information call (937) 512-2990 or toll free 1-888-226-2457.

Purchase Books and Course Materials. Obtain the fee bill at my.Sinclair.edu (click on Web Advisor) and students must take it with them to purchase their books and required course materials at the Tartan Campus Store in Building 7, First Floor, or purchase them online at Tartanstore.sinclair.edu. For additional information, please call (937) 512-2506.
Auditing Classes Enroll on an audit, space available basis during the late registration period.
Pay all laboratory fees and purchase required books and materials. Refer to the quarterly schedule for late registration dates, or call (937) 512-3000, or toll free at 1-800-315-3000 for Ohio and Indiana residents.
Disability Services Applicants with disabilities who would like assistance can contact the office of Disability Services, Building 10, Fourth Floor, Room 10421, (937) 512-5113.
Career Services Career Services has free services including an extensive career library, computerized career guidance system, career/life development workshops, and career counseling. Call (937) 512-2772.
Residency Information obtained from the application for admission (more than the current address) will be used to determine residency for tuition purposes. Please refer to the Sinclair catalog for a comprehensive description of residency related to the fees that are assessed. If students feel they qualify as a State of Ohio or Montgomery County resident, contact the office of Registration \& Student Records, (937) 512-3000 for specific policies, procedures, time frames, and required documentation.

## Academic Advising Center

Building 6, First Floor Atrium, (937) 512-3700
Students are encouraged to meet with an academic advisor early in their studies at Sinclair. Academic advisors 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 a student's
recommended that students see their academic advisor. Academic advisors are in Building 6, First Floor.

## Other Counseling

Counseling Services
Room 10424
(937) 512-2752

Career Services
Room 10315
(937) 512-2772

Sinclair Central
Room 10242
(937) 512-2201

## Admissions

## Building 10, Room 10112

(937) 512-3000, or 1-800-315-3000 (Ohio)
www.sinclair.edu, TDD 512-2187
Hours:
Monday-Thursday 8:00 a.m.-6:00 p.m.
Friday
Saturday
8:00 a.m.-6:00 p.m.
(4:30 p.m. in summer)
9:00 a.m.-12:00 noon
(closed during summer)

## Overview

Choosing a college is one of the most important decisions that you will make in your life. And the best way to make that decision is to schedule a time to visit the campus. The staff in Admissions is available to meet with you to discuss your educational and career goals, the variety of academic programs at Sinclair, an overview of financial aid and scholarships, and the enrollment process. Campus tours are also available. Scheduling an appointment can be done in three ways:

- On the web at dynamic.sinclair.edu/admissions_forms/ appt_request/
- By telephone by calling 937-51ADMIT
- In person by stopping by Room 10112

Students tell us that they like Sinclair because it is convenient, offers a quality education and is very affordable. The tuition is $\$ 45.00$ a credit hour for Montgomery County residents, $\$ 73.50$ for other Ohio residents, and $\$ 145.00$ for those who live outside of Ohio. United States. That means a Montgomery County student who enrolls in 15 credit hours each quarter would only pay about $\$ 1,910.00$ in tuition per academic year.

Admissions serves as the Welcome Center for prospective students who want information about Sinclair. The "Welcome Center" is staffed by trained student workers who provide individuals with general information about academic programs and services to students, college publications such as catalogs and class schedules, and enrollment information.

Admissions packets include the application for admission with steps for the enrollment process, and information about admissions and financial aid, and "About Sinclair." About Sinclair contains the campus crime statistics and the graduation rates, which is information that federal law requires be shared with all prospective students. Special admissions packets are also available for the Allied Health, Paralegal, and other limited enrollment programs.

The Campus Visitation Program is offered for groups and individuals. Typically over 60 groups with over 5,000 potential students visit Sinclair on an annual basis. A "visit" includes a welcome session, a Sinclair information packet, a tour of campus, and upon request, visits to particular labs and program specific areas.

Pre-enrollment counseling for prospective students is available on an appointment or walk-in basis daily and on Saturdays when the campus is open.

Distribution of the college catalog, class schedules, other college publications and maintenance of the campus information racks of academic program literature is another function of this area.

High School Recruitment focuses Sinclair as the college of first choice for the traditional age student. This is done through high school visits and class presentations, college day/night programs, career days at the high schools, and special on-campus events such as Senior Saturdays, the Multicultural Visitation Day, Junior Discovery Day, and Spring Affair at Sinclair. Principals and advisors from area high school participate in on-campus events throughout the year to learn about new programs and services that they can share with their high school students.

Adult Recruitment is targeted to adults who are beginning or returning to college, outreach to this population is through on-site enrollment information sessions at community agencies, neighborhood centers and area churches. On-campus "Adult Advantage" Information Sessions are held on a quarterly basis. The Mobile Recruitment program takes Sinclair to the community by participating in festivals, community events, career fairs at companies, and local trade shows

Outreach and recruitment functions are targeted to the high school age and adult populations to encourage access to successful learning experiences at Sinclair. Prospective students can request information online at www.sinclair. edu and click on Future Students and then Admissions.

## Appalachian Studies

The Appalachian Studies area of emphasis allows students to focus on the rural and urban Appalachian regions of the United States. Courses provide students with the opportunity to study historic, social, cultural, political, economic, and environmental issues important to both rural and urban Appalachia. Additionally, this program provides students an opportunity to study the area in which they live and work.

## Think College Program <br> Grades 11 and 12 , Building 13, Room 13402, (937) 512-2126

Think College emphasizes the value of college and promotes lifelong learning. One of its prime objectives is to increase the college going rates in the urban Appalachian neighborhoods of Dayton and the Miami Valley region. It encourages students to develop a vision of being a college student; makes students aware that a college education increases life choices; informs students of the variety of courses available in a college and community college setting; provides students with information about college admissions and financial aid processes; and provides instruction for developing positive attitudes toward college.

## Golden Age Senior Citizen Applicants

Auditing a class at Sinclair can be an exciting and rewarding experience.

Those who are age 60 or better may enroll in Sinclair's classes tuition free by doing the following:

- Completea Golden Age Application/RegistrationForm. This form is available at the Registration counter, Building 10, Second Floor, or from the College for Seniors office, Building 10, Fourth Floor, Room 10424.
- Enroll on an audit, space-available basis during the late registration period for each quarter. This is usually a one-week period, with the exception of registration for the summer term.
- Pay all laboratory fees, and purchase the required books and materials.
- Follow the guidelines for "Auditing a Course," as described in the catalog on page 30 .
For any questions, or more information about specific classes and how to enroll, call the College for Seniors office at either (937) 512-5184 or (937) 512-2372. Visitors may go to Building 10, Fourth Floor, Room 10424.


## 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, nonrefundable 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.


## Basic Skills Assessment Policy

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

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

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

Students mustbegin mathematics and/or English course sequences at 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.

## Residency

## Readmission Policy for Dismissed Students

Student who have been dismissed from Sinclair for academic reasons and want to be readmitted, must petition for readmission. The petition must be submitted to the appropriate division academic advisor's office at least three weeks before the first day of classes for the quarter students want to enter. Only the division dean and division advisor 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.
- Petitions for readmission are available in the office of the student's academic advisor.
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 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 residencein 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 adependentstudentand atleastone of his orher 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 whohas 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 orheremployer 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 attendingSinclair 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 asa 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 presentevidence 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.

## 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, through the telephone registration system,(937) 512-5454, following the voice instructions, or through WebAdvisor (login to my.Sinclair.edu, click the WebAdvisor tab, the "CurrentStudent," verify address, and then "Make Payment" under Financial Information).


## Check account balance:

- Call telephone registration at (937) 512-5454 and listen to the voice prompts.
- Use Web Advisor to print the "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 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.

## 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 <br>  <br> International <br> Residents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Students |  |  |  |  |  |  |
| Instructional Fees | \$ 41.50 |  | 41.50 |  |  | 41.50 |
| Instructional |  |  |  |  |  |  |
| Surcharge |  |  | 28.50 |  |  |  |
| Tuition |  |  |  |  |  |  |
| Surcharge |  |  |  |  |  | 00.00 |
| General Fee | \$ 3.50 | \$ |  |  |  | 3.50 |
| Total |  |  |  |  |  |  |
| 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) |  |  | \$ | 10.00 |  |  |
| Laboratory fees determined for individual classes. |  |  |  |  |  |  |
| * NOTE: New incoming international (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 Plan

## Payment Plan

FACTS Tuition Payment Plan (available from FACTS Management Company)
FACTS is a payment plan offered to help students budget tuition costs. It automatically withdraws a non-refundable $\$ 15$ per quarter 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. Adeposit plusa 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 students' 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 students' 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.
(continued next page)


## 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 nonrefundable 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?
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 agreementor 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 students withdraw 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 students (see refund check information at the end of this section). After that date, students 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 students withdraw after the eighth day of the quarter, they 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, students must submit a tuition refund appeal request to the Bursar's office, Second Floor, Building 10.

If Sinclair Community College cancels the students' class, they will receive a $\mathbf{1 0 0 \%}$ refund. Refunds are issued by check one week after the close of the refund period. Checks will be mailed to the students' 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.

## New Student Enrollment Center

## Building 10, Room 10422

The Enrollment Center assists new students with Sinclair's new Student Enrollment Process, including:

- placement testing
- scheduling new student orientation
- an appointment with a advisor who will assist with choosing first quarter classes.
Placement testing is done on a drop-in basis-no appointment needed. Picture I.D. is required.

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 Friday
Saturday
8:00 a.m. - 7:00 p.m.
8:00 a.m. - 4:00 p.m.
8:00 a.m. - 12:00 p.m. (closed summer)
Please allow approximately two-three hours to complete the tests. Holiday office hours vary.

## Online Services

## Opportunity at Your Fingertips www.sinclair.edu <br> My.Sinclair.edu

Many admission and registration services are available on Sinclair's web page at www.sinclair.edu. See page 22 and 29 for details.

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


# Registration \& Student Records 

www.sinclair.edu Building 10, Second Floor (937) 512-3000, TDD (937) 512-3096

## Hours

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

## Summer Term

Friday, 8:00 a.m. - 4:30 p.m.
Saturday, 9:00 a.m. - 12:00 noon, before and after the first day of classes each quarter

## Services

- Handles student records, registration for classes, transcripts, diplomas, Tartan I.D. cards
- Reviews student eligibility for awards such as scholarships, graduation honors, Dean's List and degrees
- Processes student personal information changes, such as change of address, residency, and name


## Overview

The Registration \& Student Records office handles every step of enrolling in, changing, or withdrawing from classes. This is the department of student records: class registration, access to grades, transcripts and diplomas. The office also issues the college Tartan identification card, required for accessing college services and activities. It is vital that and change of personal contact information such as name or address must be provided to Registration \& Student Records.

Registration \& Student Records services are readily available to students online, by phone, or in person. Sinclair now offers the ability to register for classes and make credit card payments online through the my.Sinclair portal. Grade reports and transcript orders are available online. Students can register, add or drop classes, and review their schedules by calling the automated Telephone Registration System, (937) 512-5454.

Registration information also is available by contacting Sinclair's Call Center, (937) 512-3000. Or, students can come in person to the second floor lobby of Building 10 .

## How to Get Started

There are three steps to registration for classes.

1. See an academic advisor to discuss program and schedule needs.
2. Access the quarterly Class Schedule to select classes.

- Online - My.Sinclair.edu

About two weeks before registration begins, the schedule of classes is available online by accessing Web Advisor at My.Sinclair.edu. This is the most up-to-date schedule.

- In Print - About one week before registration begins; the printed schedule is distributed at various locations on and off campus.

NOTE: Courses in the 100 series usually are recommended for first-year students and courses in the 200 series for second-year students. Those numbered below 100 are developmental courses, do not count toward a degree and may not be accepted by other colleges and universities as transfer credits.

## 3. Register for Classes

Sinclair students have three ways to actually register. Students should check the Sinclair web site, www.sinclair.edu or the printed quarterly schedule for the date registration will open each term and then register by any one of three methods below:

1. Web Advisor - My.Sinclair.edu is Sinclair's online registration and student record system.
Adding courses, dropping courses and payment all can be done from Web Advisor. Register from home or anywhere else with computer access.

- Registration by web begins at 12:01 a.m. on the first day of the registration period each quarter. For dates, check the calendar in the catalog, on the web, or call (937) 512-3000.
- Log on to my.Sinclair.edu and click the Web Advisor tab.
- Search for classes and build a schedule.
- Register!

2. Telephone - (937) 512-5454 or 1-866-512-5454

- Registration by phone begins at 12:01 a.m. on the first day of the registration period each quarter.
- Call (937) 512-5454 or 1-866-512-5454 and follow the voice prompts.

3. In Person - Building 10, Second Floor Lobby

- In-person registration begins at 8:00 a.m. on the first day of the registration period each quarter.
- Registration forms and drop/add/withdrawal forms are available and may be processed at Sinclair Central, Building 10, Fourth Floor or in Registration \& Student Records, Building 10, Second Floor Lobby.

NOTE: Registration is final when the bill is paid.

## Auditing a Course

To audit a course means students:

- may attend class
- are not required to take exams
- do not receive a grade or credit
- pay the same fee as that for enrolling for credit

To register for a class to be audited:

- Registration in audit status will be accepted only during designated late registration periods and before the first meeting of a class. Check my.Sinclair.edu for deadlines.
- Mark an " A " in the audit column on the registration form
- Veterans may not use educational benefits to audit a course. Also, financial aid may not be used to pay for audited courses.


## 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. To make this change students must do the following:

- See their academic advisor if classes have begun
- Bring a drop/add form with the advisor's signature to Registration \& Student Records, Building 10, Second Floor Lobby


## Dropping Courses

Before withdrawing from one or more classes, students should consult an academic advisor and meet with the Financial Aid \& Scholarships office if using financial aid to pay tuition. Students may withdraw by phone or in person.

- Call the telephone registration system at (937) 512-5454 or
- Process the drop/add/withdrawal form in the office of Registration \& Student Records, Building 10, Second Floor
- Or, use the web through the my.Sinclair.edu portal
- To drop or withdraw from all classes for the quarter, students may use the Call Center, (937) 512-3000.
A copy of the processed withdrawal form will be mailed to the students. This is proof of withdrawal and should be kept for the students' records. Failure to follow one of these processes means the students will receive a grade, usually an " F " in the class.
NOTE:
- Veterans' benefits will be affected by withdrawal from one or more classes. Veterans should first contact the Veterans Assistance office, Building 10, Room 10324.
- Financial aid status of any students may be affected by withdrawing from one or more classes.


## Deadlines are important.

To withdraw from a standard term course:

- Withdraw during the first 8 calendar days of the quarter for $100 \%$ tuition refund and no record of the class on the transcript.
- Withdrawal later than the first 8 calendar days, but during the first 8 weeks of the term, means no refund and a grade of "W" on the permanent record.
- Withdrawal after the first 8 weeks of the term results in a grade of " F " and no refund
Short term courses of less than a quarter in length have special deadlines. Students should check the online quarterly calendar at my.Sinclair.edu, or the printed quarterly class schedule.
Summer quarter has multiple terms and varying deadlines. Check the summer quarter class schedule online or in print.


## Grades

Students have three ways to get their grades and should choose one of three ways.
Grades will be available the first Wednesday after the end of each quarter. There are three ways to access grades:

1. E-mail - A grade report will be e-mailed to all students by way of their my.Sinclair.edu e-mail address as soon as all grades for the term are received.
2. Web Advisor - If an official grade report is needed, students should access grades by way of their Web Advisor account, accessed through the my.Sinclair portal. Click on the "Grades by Term" link within Web Advisor. The "Grades by Term" screen will contain the students' name and should be considered an official grade report. Grades are available as instructors post them.
3. Telephone - Call (937) 512-5454 or 1-866-512-5454 to access grades. Follow the voice prompts. Grades will be available by phone for six weeks.

## Late Registration

Students may register for open classes during Sinclair's official late registration period.

Students may not register for any course that already has met once.

- Late registration period is the week before fall, winter or spring quarter begins but only the two days preceding summer term. See the quarterly class schedule for exact dates for each term.
- A non-refundable late fee of $\$ 30.00$ is charged for all late registrations except when adding a class when the students already have registered for the term.
- To audit a class,students register during late registration; there is no late fee charge.
Note: Online/Distance Learning classes are considered to have met as of 8:00 a.m. on the first day of the quarter.


## Personal Data

- To change a name or address:
- Apply online at Web Advisor at my.Sinclair.edu, or
- Complete a change of information form at the office of Registration \& Student Records, Building 10, Second Floor.
- To change a social security number, students must bring a copy of their card to the office of Registration and Student Records.
- Veterans must report any change to the Veterans office, Room 10324.
A change of address does not automatically change residency for fee purposes. For that, students must file a separate application for a change of residency and show proof of eligibility at the office of Registration \& Student Records. For deadline dates, see Registration at www.sinclair.edu ; call (937) 512-3000.


## Prerequisites

Some beginning or advanced courses have prerequisites: other courses that must be successfully completed first. All prerequisites are listed in the course descriptions located in the back of this catalog. Many beginning classes require the placement test or completion of developmental courses before students may enroll in them.

Transfer and transient students who want to substitute courses completed at another institution for Sinclair prerequisites may bring an unofficial transcript or a grade card to an academic advisor for review. If the students wish to receive credit for those courses at Sinclair, they must have their transcript sent from their former institution to the Sinclair office of Registration \& Student Records.

## Repeating a Course

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

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

## Sinclair Central

## Sinclair Central

Building 10, Room 10242, (937) 512-2201
Located near the Registrar's office, Sinclair Central is there to assist withenrollment and registration. Students also may call Sinclair Central at (937) 512-2201. Computers located there and also in the Registration lobby are available for students to access current information about open classes or to register online using Web Advisor. Sinclair Central services include:

- Registration and scheduling assistance
- Financial aid information
- General campus information (directions, campus policies, etc.)
- Referral to specialized services on campus


## 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 students' 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 students don't have to carry cash. On campus, money can be put on cards at various transfer stations (Building 3, 4, $7,8,10,11,13$ ), or online (www.sinclair.edu/tartancard).

The Bursar office has a $\$ 25$ minimum deposit requirement at the Cashier's window. Students wanting to deposit less than $\$ 25$ must use the VTS machines or the Online Card office. Money cannot be withdrawn from a Tartan Card after the deposit is made. Money may only be taken off the card upon termination of the card and by filling out a Tartan Closure from at the Bursar's office. The Tartan Closures are processed at the end of each quarter. A check minus $\$ 10$ closing fee will be mailed to the students.

To avoid possible lines, the preferred method to put money on the Tartan Card is via the web site at 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

Discounts apply to currently registered students.

- 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


## Transcripts

For official transcripts of academic work completed at Sinclair, choose from these methods:

- Online - For the quickest way to order transcripts, go to www.sinclair.edu and click on the Registration \& Student Records web page. Transcripts ordered online will be produced and sent in one to two (1-2) business days.
- Mail - Mail the transcript request found on the Sinclair web page to the office of Registration \& Student Records. Include the student I.D. number, birth date, the term last attended at Sinclair, legal signature, day time telephone number, and payment. Cost is $\$ 5.00$ per mailed transcript. Transcripts ordered by mail will be produced and mailed in five business days.


# Financial Aid \& Scholarships 

## www.sinclair.edu Building 11, Room 11346 (937) 512-3000, TDD (937) 512-3096

## Hours

Monday - Thursday, 8:00 a.m. - 7:00 p.m.
Friday, 8:00 a.m. - 5:00 p.m.
Saturday hours are irregular; see quarterly class schedule.

## Services

- Provides financial aid applications and advising
- Awards financial aid packages including federal, state, and institutional grants, loans, and scholarships


## Overview

What is Financial Aid?
Financial aid is money given to students to help pay for college. Financial aid can be one of four types:

- grants
- scholarships
- work-study
- loans

Grants and scholarships are more favorable than loans because they do not have to be repaid-they're free money. In a work-study program, students work for a certain number of hours per week on or off-campus to earn money for college expenses. An ideal financial aid package will contain more grants and scholarships than loans. Students areencouraged to apply for as many different sources of financial aid as possible in order to pay for their college education.

To receive any kind of financial assistance with college expenses, students will need to complete two applications: first the federal application known as the FAFSA, which stands for Free Application for Federal Student Aid; then Sinclair's Financial Aid Application. For state aid, Sinclair's application is required only for the Part Time Ohio Instructional Grant. Sinclair's application is not required for donor funded and high school scholarships.

Students will receive two replies after submitting these applications. From FAFSA, students will receive a Student Aid Report (SAR) through the mail telling them the expected family contribution (EFC) they are to make toward college expenses. Sinclair will send a separate letter to students regarding their application status.

Always apply early. The process will progress from application to verification of information, to notification of financial aid awarded, to crediting the student's aid toward college expenses. It could take as little as four to six weeks from start to finish or as long as ten to twelve, depending upon individual circumstances.

## Financial Need

The majority of financial aid is need-based aid. The cost of college attendance minus the students' expected family contribution determines need; in other words:

## Cost of attendance - Expected Family Contribution = Financial Need

The cost of attendance is more than direct costs of tuition, fees and books. It also includes indirect college expenses such as supplies, transportation, day care and program related expenses and personal expenses.

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

The U.S. Department of Education provides guidelines to the Financial Aid \& Scholarships office in determining eligibility for financial assistance based on the student's financial need.

Financial Aid Sources

## Financial Need is:

## Cost of attendance - Expected Family Contribution = Financial Need

Cost of Attendance or Budget - the average amount a student pays to attend a college or university. This amount includes direct expenses such as tuition, fees and books and indirectexpenses such as supplies, transportation, room and board, and personal expenses. Please keep in mind that students attending Sinclair are only required to pay the direct expenses on their student accounts. The cost of attendance will vary depending on the student's dependency status.

## Dependency Status: Dependent vs. Independent

Independent students can answer yes to one of the following questions:

1. Were you born before January 1,1984 ?
2. Do you have a bachelor's or more advanced degree?
3. Are you married?
4. Do you have children that you support more than $50 \%$ ?
5. Do you live with someone that you support more than 50\%?
6. Are both of your parents deceased?
7. Were you under the custody of the court until you were 18 ?
8. Are you a veteran of the U.S. Armed Forces?
9. Are you currently serving on active duty in the U.S. armed forces for purposes other than training?
Dependent students will answer no to all of these questions.
The cost of attendance will also vary depending on the student's residency status, whether the student is residing in Montgomery County, out of county or out of state.
Expected Family Contribution - the amount a student and family are expected to contribute toward the cost of attendance. This amount is determined through a need analysis calculation that the federal government created. The calculation uses information reported on the FAFSA application.
Here are two examples of budgets at Sinclair Community College (these may change annually):
BUDGET A Dependent In-County 9 months
Tuition, Fees and Lab Fees \$1,621
Books and Supplies 1,038
Transportation 624
Room and Board 2,490
Personal and Other 1,220
TOTAL \$6,993
BUDGET B Independent In-County 9 months
Tuition, Fees and Lab Fees \$1,621
Books and Supplies 1,038
Transportation 624
Room and Board 4,928
Personal and Other 1,220
TOTAL \$9,481

## Communication with Financial Aid \& Scholarships Office <br> The Financial Aid \& Scholarships office at Sinclair helps

 students meet their educational expenses. Sinclair will make every effort to help students meet the difference between college costs and the amount the family is able to pay. All awards are made on a non-discriminatory basis.1. Questions - For information, call, write, or personally visit the office:

- Call (937) 512-3000, Sinclair's Call Center
- E-mail finaid@sinclair.edu or send a letter; address: Financial Aid \& Scholarship office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460.
- Visit the office, Building 11, Room 11346 to speak with a financial aid representative.

2. Results of communication - The Financial Aid office will communicate with students about the status of their application first by letter, but thereafter through their Sinclair e-mail account. When the students' financial aid award package has been determined, an award letter will be sent via e-mail. Students should check their college e-mail account regularly.
To access e-mail:

- Go to wwwsinclair.edu
- Select my.sinclair
- Select Login
- Complete username (first name.lastname) and password fields. Select Don't know or forgot if students do not know their username/password.
- Select student e-mail tab
- Select view mail

Note: No information regarding students' financial aid records will be provided to anyone but the students without the students' written permission. See a financial aid representative in Room 11346 to authorize anyone else.

## Sources \& Types of Financial Aid

The four primary sources of aid for students are the federal government, the state of Ohio, the college, and private organizations. The main provider is the federal government.
There are four general types of aid available.

| Type of <br> Aid | Provider | Basis of <br> Award | Repayment <br> needed? |
| :--- | :--- | :--- | :--- |
| Grants | Federal \& State | Financial need | No |
| Scholarships | State, College, <br> and private <br> organizations | Financial need <br> and/or merit | No |
| Work | Federal \& College | Need | No |
| Loans | Federal \& private | Financial need | Yes |

See specific sections of Federal, State, and Institutional Financial Aid for more details.

## Priority Dates

- Priority dates are critical when applying for financial aid. Apply as early as possible.
- May 1 is the annual priority date established by Sinclair. Apply by May 1 each year for the best chance of receiving a financial aid award for the next academic year.
- Sinclair also has established priority dates. See the quarterly Class Schedule for dates.
- After priority dates, there may be less state and institutional aid available. Students still may submit applications, but they may be required to pay their tuition and books themselves before receiving a reimbursement credit. See a financial aid representative for possible reimbursements.
- Students who have difficulty paying $100 \%$ of tuition and fees at the time payment is due should see the Bursar about the FACTS payment plan. This plan allows students to spread tuition over two or three payments. Students also may apply online at www.facts.sinclair.edu.


## How to Get Started

Talk with a financial aid representative for information and assistance. A financial aid officer is available on a walk-in basis Monday - Thursday, 8:00 a.m. - 7:00 p.m., and Friday, 8:00 a.m. - 5:00 p.m.

## Application Process

There are three critical first steps to qualify for financial aid of any kind:

1. First complete the Free Application for Federal Student Aid (FAFSA) each year. The need for any financial aid will be determined by the information provided in the FAFSA application

- Available beginning in January for the following academic year (summer through spring)
- Available from a high school guidance counselor, from the college Financial Aid office, Building 11, Room 11346, or online at www.fafsa.ed.gov. Students will need a PIN (Personal Identification Number) to complete the application online. To request a PIN, go to www.pin.ed.gov. Parents can also request a PIN for themselves at the same site.
- Be sure to use Sinclair's code 003119 on the application so the college can receive the results.
- Be sure to sign the FAFSA application, certifying that all federal financial aid money will be used only for expenses related to study at Sinclair Community College.
- Submit the application online or mail it in the envelope provided in the application packet. Apply as early as possible; processing can take four to six weeks and perhaps longer if students are selected for verification of their information.
- If students are selected for verification, they will receive a letter asking them to provide verification documents, Sinclair will not be able to award any federal aid until all the requested documentation has been verified.
- See Verification Process section for more details.

2. Complete the Sinclair Financial Aid Application. It is available in the office, Building 11, Room 11346, or it can be printed from the college web site at www.sinclair.edu/ stservices/fas/20062007FinancialAidForms/index.cfm.
3. All loans and scholarships will require additional applications, available online or from the financial aid office. See Additional Information about Federal Loans and also Private / Alternative Loans for more details.

## Results of Financial Aid Application

Notification: If students are eligible for financial aid, they will receive a letter via e-mail from Sinclair's Financial Aid \& Scholarships office. The letter will include:

- Types of financial aid for which the student is eligible
- Amount of award available each quarter

Read the letter carefully. Students receiving federal loans will also receive a Notice of Disclosure from the U.S. Department of Education Direct Loan Servicing Center.

Payment of Aid: Students' financial aid will first be credited toward payment of tuition and fees and then for books. Look for the amount of aid on their fee bill after they have registered for classes each quarter. See Receipt/Payment of Award section for more details.

## Federal Financial Aid: Grants, Work-Study, Loans

General requirements for any federal financial aid:

1. Maintain satisfactory academic progress. See the Standards of Satisfactory Progress section for details.
2. Declare a major in a degree or certificate program.
3. Be a U.S. citizen or eligible non-citizen.
4. Not be in default on a student loan or owe money back to the U.S. Department of Education for an overpayment.
5. Demonstrate financial need as determined by the students' FAFSA application.
6. Comply with current selective service registration regulations (males between the ages of 18 and 25).
7. Have a GED or a high school diploma. Students without a GED or diploma must successfully complete Sinclair's Accuplacer Test of writing, reading and math skills to determine their readiness for college level course work (Ability to Benefit). The Accuplacer can be taken on a walk-in basis in the Assessment Intake Center, Building 10, Fourth Floor. Students must pass all three sections of the test at the same time to meet the requirements of the Ability to Benefit Exam.
8. Be registered and attending classes. Students are not required to attend full time, but aid is prorated for students enrolled in fewer than 12 credit hours per quarter. Those who plan to enroll for fewer than 12 credit hours should contact the Financial Aid \& Scholarships office to determine the effect it will have on a grant or loan.

## Federal Financial Aid Available to Students

Remember to first complete both the FAFSA and Sinclair Financial Aid applications. Applicants must meet all general federal aid eligibility requirements listed above. All federal aid is need based.
$\left.\begin{array}{|l|l|l|l|}\hline & \begin{array}{l}\text { Type } \\ \text { of Aid }\end{array} & \begin{array}{l}\text { College } \\ \text { Expenses } \\ \text { Covered }\end{array} & \begin{array}{l}\text { Special } \\ \text { Requirements }\end{array} \\ \hline \text { Pell Grant } & \text { Grant } & \begin{array}{l}\text { - Tuition, fees, } \\ \text { books, living } \\ \text { expenses }\end{array} & \begin{array}{c}\text { • Not have a } \\ \text { bachelor's } \\ \text { or advanced } \\ \text { degree }\end{array} \\ \text { - Covers } \\ \text { maximum } \\ \text { three college } \\ \text { terms per year }\end{array}\right\}$

## Verification Process for FAFSA

The federal governmentmay askSinclair to verify theaccuracy of the students' FAFSA application. If students are selected for verification, they will receive a letter from the college, asking for documentation to support the information reported on the FAFSA application. Follow these steps:

1. Gather all paperwork or documents that the verification letter requests. It may include:

- Student Federal Tax Return and/or W2
- Parent Federal Tax Return and/or W2
- Verification of untaxed income such as child support or disability
- Proof of the number of family members in the household
- Additional documentation as requested

2. Submit all requested information to the Financial Aid \& Scholarships office, Building 11, Room 11346.
3. Sometimes students will be asked for additional documentation after submitting preliminary documents. Students should submit any additional documents as quickly as possible.
NOTE: Sinclair will not be able to award any federal financial aid until all requested information has been submitted to the college and verified by the Financial Aid office. This also applies to some state aid and institutional scholarships.

## Standards of Satisfactory Progress

Standards of Satisfactory Progress are the minimum requirements the federal government feels that students should be able to meet and still be progressing toward a degree or certificate. The Financial Aid \& Scholarships office is required by the U.S. Department of Education to enforce the Standards of Satisfactory Progress for all students who receive federal financial aid.
Sinclair's Standards of Satisfactory Progress policy includes:

- Credit hour requirement: Successfully complete $75 \%$ or more of hours attempted since first quarter at Sinclair.
- Grade point average requirement: Maintain a $2.0 \mathrm{cu}-$ mulative average.
- Maximum time frame requirement: Complete a program of study within a limited number of credit hours ( 77 crs. hrs. certificate, 153 cr. hrs. degree).
- Students may repeat a course for any reason and still receive financial aid. In all cases, when a course is repeated, credit hours and grades will count each time the course is taken in determining whether or not students are making satisfactory progress while receiving financial aid.
- See a financial aid representative for details of probation and appeal processes if standards are not met.
Students who fail to maintain satisfactory academic progress may appeal the removal of federal financial aid if they feel they have extenuating circumstances. These circumstances mustbe documented and submitted with the appeal which will be reviewed along with academic transcripts by the Financial Aid Appeals committee.
- Regaining eligibility: Students may regain their eligibility and have their federal financial aid reinstated after one of the following:
- Approval of an appeal
or
- Successfully completing the requirements originally requested under the probation status. Students must notify the Financial Aid \& Scholarships office when they believe they have met the requirements necessary for reinstatement of aid.
Note: Sinclair's Fresh Start Policy has no bearing on Standards of Satisfactory Progress.


## Additional Information About Federal Loans

Loan applications are available in the financial aid office and online. These applications are in addition to the FAFSA and the standard Sinclair financial aid application.

- Complete the loan application, available in the Financial Aid \& Scholarships office, Building 11, Room 11346 or print it from the web site: www.sinclair.edu/stservices/ fas/20062007FinancialAidForms/index.cfm
- First time borrowers atSinclair must complete a required online entrance counseling session. The counseling session includes information on the rights and responsibilities of the student borrower, repayment options and terms and conditions of the student loan. The online entrance counseling session can be found at the following web site: www.sinclair.edu/stservices/fas/loancounseling/index.cfm
- If the loan is approved or denied, a notification letter will be e-mailed to the students, usually within 10 to 14 days after the application is received by Financial Aid \& Scholarships.
- After notification of approval, the students must see the Financial Aid \& Scholarships office to complete promissory notes.
- An exit counseling session is a federal requirement of graduating students and of students who stop attending at least six credit hours of classes.

Federal Direct Stafford Loan - available to students to help meet educational expenses

- Fixed interest rate of $6.8 \%$, effective July 1, 2007
- Maximum request of $\$ 2,625$ allowable per year
- Any additional loan amount possibility will be determined in a loan counseling session with a financial aid officer, Building 11, Room 11346.
- A loan may be subsidized or unsubsidized, depending upon financial need.
- Subsidized loan: Federal government pays interest while students attend school.
- Unsubsidized loan: Students pay interest either by adding interest to the loan balance or paying it directly while attending school.
- Repayment of Stafford loans will begin six months after students are no longer enrolled for at least six credit hours, graduates, or completely withdraw from school. A temporary deferment to postpone repayment can be arranged under certain qualifying conditions, including continuing education and economic hardship. Students may contact a financial aid representative for more information; but to apply for deferment, they must contact the Direct Loan Servicing Center directly at 1-800-848-0979.

Federal Direct Parent PLUS Loan - available to parents of dependent students to help meet educational expenses:

- Fixed interest rate of $8.5 \%$, effective July 1, 2007
- Repayment begins at end of loan period
- Parent is required to go through a credit check by the federal government for loan approval.
If the parent fails the credit check and the loan is denied students may have the option of applying for an additional Federal Direct Stafford Loan. Speak with a financial aid officer to discuss the situation and the need for any additional loan amounts.


## Return of Federal Financial Aid

In some cases, students may have to return federal funds to the federal government.

- Dropping all classes: Students who withdraw from all classes after the $100 \%$ refund period and prior to completing $60 \%$ of the quarter will be subject to a return of federal financial aid to the government according to this calculation:

1. Outstanding balances on Federal Direct Loans.
2. Federal Pell Grant awards.
3. Federal SEOG awards.
4. Federal Work Study programs.

- Non-attendance of classes:For students whostop attending all classes without officially withdrawing, return of federal financial aid will be calculated according to the same guidelines. If students fail to attend one or more of their classes, their financial aid may be reduced or removed.
See a financial aid officer for more information.


## State Financial Aid: Grants \& Scholarships

Eligibility requirements for state financial aid differ slightly from those for federal aid.
General requirements for state financial aid :

1. Be residents of Ohio, if independent students.
2. Students and their parents must be residents of Ohio, if students are dependents.
3. Be enrolled in an associate degree program. (Certificate program students are ineligible for state grants.)
4. Not have bachelor's or more advanced degrees.
5. Comply with current selective service registration requirements.
6. Be U.S. citizens or eligible non-citizens.
7. Be registered and attending classes.

## State Financial Aid Available to Students

Remember: First, complete FAFSA and Sinclair Financial Aid application for Part Time OIG. Meet all general state aid eligibility requirements listed above.

|  | Type of <br> Aid | College <br> Expenses <br> Covered | Special <br> Requirements |
| :--- | :--- | :--- | :--- |
| Full-Time <br> Ohio <br> Instructional <br> Grant <br> (FT OIG) | Grant | Tuition <br> only | - Register for at least <br> 12 credit hours <br> If students' schedule <br> changes to fewer <br> than 12 hours, must <br> re-apply for part- <br> time OIG |
| Be a continuing or |  |  |  |
| returning students |  |  |  |
| - October 1 deadline |  |  |  |$|$

## Institutional (College) Financial Aid

Sinclair Community College offers aid which is not need based through scholarships.

## There are three categories of Scholarships

1. Donor Funded Scholarships - Sinclair uses funds donated to the college to offer college scholarships each year to Sinclair students. Each scholarship has its own specific qualifications so it is best for students to review each scholarship posting to see if they qualify.

- See postings on the scholarship bulletin board, Building 11, Room 11346
- Review each scholarship for specific qualifications
- Each posting will explain process
- Complete the application, available in Financial Aid \& Scholarships office
- Return the application to Financial Aid \& Scholarships before the deadline

2. Institutional Scholarships-Sinclair offers many college funded scholarships which are awarded on a first-come, first-served fund available basis, provided the students' financial aid file is complete. Applications are available in Financial \& Scholarships office.
3. High School Scholarships - Sinclair offers a variety of scholarships to new students based on high school academic performance. Sinclair is proud to award a generous amount of scholarships to incoming students each year. Students should see the high school counselor or the Financial Aid \& Scholarships office at Sinclair for details.

## 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 mostscholarships 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.

## Additional Financial Support

## Private/Alternative Loans

Sinclair partners with several lenders to offer loans to students who do not qualify for federal loan programs or who need additional financial assistance to meet educational expenses.

- Review the Sinclair web site, www.sinclair.edu, for a current list of lenders.
- Contact a Financial Aid officer for more information.


## Regular Student Employment

Sinclair offers students regular part-time employment opportunities on campus. Unlike federal College Work Study, students do not have to demonstrate financial need. All regular non-Work-Study employment is handled in the Career Services office, Building 10, Room 10315.

- Look for job postings and get more information about available opportunities at Career Services, Building 10, Room 10315.
- All students who meet the requirements of the position offered may apply.
- Job assignments can be in a variety of areas such as clerical, media services, student activities, tutoring, or community outreach.
- Hours per week vary with each position.
- Student employees earn $\$ 6.85$ per hour.
- Apply in the Career Services office, Building 10 (near Building 11, Third Floor), Room 10315.


## Receipt/Payment of Financial Aid

Students may receive awarded aid in the following ways:

1. Paying fees: First, aid will be credited to the students' account after registration for classes.

- Caution: if the award will not pay the total amount due, the students must pay the balance or registration will be canceled.
- Financial aid will not pay for audited classes.

2. Buying books: After tuition and fees, if students have financial aid money left over for the quarter, a book charge of up to $\$ 500$ will appear on the fee bill.

- Students should take their valid Tartan Card to the Sinclair Tartan Campus Store to charge books and supplies.
- Check the fee bill for the dates during which book charges can be made each quarter. Dates also will be posted on the web.
- If the required book is not in stock during the period that book charges can be made, Tartan Campus Store staff can give students a credit slip so they may charge the book and pick it up later when it is available.

3. Receiving any remaining balance: If there is financial aid money left over after payment of tuition, fees, and books, students will receive a refund check at their home address after the 14th day of the quarter. Be sure to maintain a current address with the Registration \& Student Records office.
Exception for first-time Federal Stafford Loan borrowers:
Any refund will be disbursed after 31 days following the beginning of the loan period. Loans solely for one quarter will come in two disbursements: the first half after the 14th day of classes (except for new borrowers) and the second half midway through the quarter.
4. Students may be eligible to use federal financial aid for a study abroad program. See a financial aid officer for more information.

## Important

- Financial aid cannot be used to pay for audited classes.
- Financial aid can pay for developmental (pre-college level) classes.
- Federal aid will pay only up to 45 credit hours in developmental classes.
- After students have attempted over 32 credit hours in developmental classes, they will receive a letter regarding the limits of their federal aid.
- Adding or dropping a class may affect students' financial aid. Talk with a financial aid representative first.
- For financial aid purposes, repeated courses count every time they are taken for credit. This differs from the college policy regarding repeated courses on transcripts.
- Students are encouraged to contact Project READ at (937) 461-READ (7323) for GED information.


## Summer Quarter

- Federal Pell Grant, Ohio Grants, Institutional Scholarships and Loans can be used for summer quarter expenses. Ohio Grants can be used for tuition and fees. Federal Pell Grant and Institutional scholarships also will pay for books.
- To use a grant for summer term, students must complete a separate summer aid application which is available in the Financial Aid \& Scholarships office, Building 10, Room 10343 or from Sinclair's web site: www.sinclair.edu/stservices/ fas/20072008FinancialAidForms/index.cfm


## Veterans

## Veterans Assistance

## Building 10, (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. Nonattendance 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 whoattended 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 advisor 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 students' responsibility. Students should follow the course outline as contained in the college catalog and see the academic advisor.
*The regulations vary for Chapter 31 veterans.

## Reserve Educational Assistance Program REAP, Chapter 1607

Reservists who were activated for at least 90 days after September 11, 2001.

## www.sinclair.edu my.Sinclair.edu

# Academic \& College Policies 

## Sinclair Community College Policies, Procedures \& 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.

## Important College Dates

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

## Administrative Withdrawal

Students may be administratively withdrawn from a class by their faculty member for nonattendance. Faculty 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 the students' 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.

## Associate Degree

To be degree candidates, the students must:

- Fulfill requirements of the degree program and the institution.
- Complete a minimum of 90 credit hours (accredited programs must meet accreditation association requirements). Additionally, students must earn a minimum of 50 credit hours of their academic program from Sinclair, or must earn the last 30 credit hours of their academic program from Sinclair.
- Maintain a cumulative grade point average of at least 2.0.

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 TransferModule, or approved TAG courses 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/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.

## Student Judicial Affairs \& Disciplinary Policy

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

## Student Judicial Affairs Handbooks are available in the Leadership Development office, or at www.sinclair.edu/stservices/sact/StudentHandbook/conduct/index.cfm

The mission of Sinclair Student Judicial Affairs 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 Leadership Development, 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 Judicial Affairs Handbook may be taken against a person who has been admitted toSinclair, as well as against student organizations and guests to the campus.

Student judicial affairs has been established to provide guidance for enforcing this policy at Sinclair Community College.

Procedures for student judicial affairs/policy are listed in the Judicial Affairs 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 musthave 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 students' 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) <br> \section*{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:

- Studentsmusthave 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 Examinations

To earn credit for certain courses without enrolling in them, students may take a special examination and/or perform special assignments through the appropriate department. Creditby 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.
- Students 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.
- Students 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.
- 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/faculty advisor.
For a complete list of articulation agreements with other colleges see page 48.

In addition to "incoming" and "outgoing" agreements, the college has several One-Plus-One agreements with certain community colleges. These agreements detail how students can begin a program at one institution and complete it at a partner school.

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

## Policies:

- Students must have applied for admission, been accepted, and paid the appropriate fee before any credits earned through articulation agreements can be recorded on their record.
- Pay an administrative fee for each articulation agreement they processed.
- Provide documentation of successful completion of requirements per the agreement. Each department is responsible for determining appropriate documentation.
- Obtain departmental approval before the information will be recorded on their transcript by the office of Registration \& Student Records.
- The course(s) will be recorded on their transcript with a " Y " grade.
- Students can apply no more than 45 credit hours earned through proficiency examinations or articulation agreements toward their degree requirements.
- Credits earned via an articulation agreement do not apply toward the college residency requirements.
Since the development of articulation agreements with Ohio colleges and universities is an ongoing process, students should check with their academic/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 advisor.

## Dean's List \& 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 arealso 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 cumulativegrade pointaverage of 3.900 and above. For further information concerning Honors programs, see page 81.

## SIDTOX JWEODV

## Degree Audit

## How Am I Doing?

Degree audit is a process that indicates the students' progress toward the completion of a degree program. Students request a degree audit from an academic advisor 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 (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, non-standard 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 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.

## Disability Services <br> See page 74.

www.sinclair.edu

## Educational Support Services

Students may be eligible for free educational assistance if enrolled for credit. Contact Tutorial Services in the Library 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 www.sinclair.edu/departments/tutorial. English as a Second Language information and services are available in Room 10421 or call (937) 512-5113.

## Tutorial Services

See page 77.
www.sinclair.edu

## Fresh Start Policy

Fresh Start allows students, who have 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 their 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, students 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 students may have taken placement tests and completed DEV courses prior to their return, re-testing may be appropriate for course placement based on students' current skills. Students should meet with an academic advisor 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 students' record is irrevocable.
3. After students elect Fresh Start and eligibility is verified, a notation will be added to the students' 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 " $\mathrm{D}^{\prime}$, " 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 $\qquad$ -.
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.edu 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.edu portal. Grades can be found by clicking on the "Grades by Term" link within Web Advisor. The "Grades by Term" screen will contain the students' 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.

| Grad | Quality <br> Points |  |  | Grade |  | Quality <br> Points |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Excellent | 4 | 90-100\% |  | Satisfactory | 0 |
| B | Good | 3 | 80-89 |  | Unsatisfactory | 0 |
|  | Average | 2 | 70-79 |  | Incomplete | 0 |
| D | Passing | 1 | 60-69 |  | Withdrawal | 0 |
| F | Failure | 0 | 0-59 |  | Pass | 0 |
| Z $\begin{aligned} & \text { Non- 0 } \\ & \text { Attendance }\end{aligned} 00000$ |  |  |  |  | Progress | 0 |
|  |  |  |  |  | Proficiency Credit | 0 |
|  |  |  |  |  | In Progress | 0 |
|  |  |  |  |  | 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 " $\mathrm{X}^{\prime}$, " 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 | $\underline{1}$ | A | $\underline{4}$ |
| $\quad$ TOTALS | 15 |  | 44 |
| $44 \div 15=2.933$ Grade Point Average |  |  |  |

Students may be given an "I" if their work has been passing buta specific course assignment has notbeen completed. The students must contact their instructor and request an "I" grade. If the instructor agrees, the studentsAND 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 students fail 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 students 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 students attended classes and made satisfactory progress but didn't complete all course requirements.

A " $Z$ " grade indicates the students were registered for class but never attended.

To challenge a grade the students believe is incorrect, they 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 senior 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.

## Guarantee

## 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 graduates.

For details about the guarantee see an academic advisor.

## 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 graduates are lacking in technical job skills identified by the program outcomes for the specific degree program, the college will provide the graduates with up to nine (9) tuition free quarter credit hours of additional training by SinclairCommunity 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 graduates 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. Online/ Distance Learning courses begin at 8:00 a.m. on the first day of the quarter. No Online/Distance Learning courses 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 musthave 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 students' 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. Additionally, children cannot be left unattended on campus at any time.

## 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 Judicial Affairs 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.

The state has recently released detailed directives regarding the recently passed non-smoking law. Sinclair has designated smoking areas as listed below. Outside ashtrays can be found at these locations. Please note: smoking is restricted to the area immediately adjacent (within 10 feet) of the ashtray.

- Building 7, north Terrace area
- Building 7, south entrance east and west corners
- Center plaza
- West side Building 5, between 5 and 8
- Building 8 , main entrance along south side of plaza
- Building 12, west plaza. North side of plaza and also north of Room 12131 outside
- Building 12, southeast corner along perimeter planter
- Building 16, south side near air handler unit
- Building 14, east plaza at east most point
- Building 20, near west art work
- Building 20, east side. Southeast most corner of walk


## Safety \& Security

## Sinclair Police

(937) 512-2534, 512-2700

Students may access the Sinclair Police web site at www. sinclair.edu/departments/police for information on safety, crime reports/statistics, the department's annual report, and other services. For more information, contact the Sinclair 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/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/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 co-workers. 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 Judicial Affairs Handbook available in Student Activities, Room 8025 or online at www.sinclair.edu/stservices/sact/StudentHandbook/index.cfm.

## Student Records

## Student Records Policy

Students have the right to inspectand 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 Sinclair 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).

The Family Educational Rights \& Privacy Act (FERPA) affords a student certain rights with respect to educational records. Copies of educational records or personally identifiable information concerning students will not be released to anyone outside the college, except as required or allowed by law, without their written consent. However, directory information may be released without their written consent. Directory information includes: the students name, address, e-mail address, I.D., photo, telephone number, date and place of birth, major field of study, participation in Sinclair activities and sports, weight and height of members of athletic teams, dates of 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

## Building 10, Fourth Floor, (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.

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

## 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.


## How to Begin

See page 15 for Incoming and Transient students.
www.sinclair.edu

Transfer to and from Sinclair follows a few easy steps. Be sure to check with a Sinclair academic advisor and the transfer institution.

## 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/faculty advisors for the program to have all credits evaluated before registering. Academic/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/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 22.

## 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/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:

- Speak with an academic/faculty advisor early in the academic career. It's the students' 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 advisors from both institutions helps ensure that students receive timely, accurate transfer information.
- Always confirm course choices with the transferinstitution. Because Sinclair is accredited by the Higher Learning Commission of the North Central Association and is a member of the association as well as the Ohio Board of Regents, most credits will transfer to other colleges and universities. University Parallel courses usually transfer more easily than technical courses.


## Transfer

## 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 advisor.

## 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 6142, (937) 512-2800.
- Outgoing agreements with other colleges and universities indicate how Sinclair Community College programs and courses will transfer to those institutions.
The following list represents some of the out-going articulation agreements that are in place. The college to which students want to transfer is in bold with the Sinclair programs (that match that college's agreement with Sinclair) following in regular type.

[^1][^2]Ferris State University
Automotive Technology
Construction Management
Electronics Engineering Technology Heating, Ventilating, Air Conditioning and Refrigeration Technology
Mechanical Engineering Technology Operations Technology
Franklin University
Any Associate Degree
Governors State University
Any Associate Degree
Indiana State University Automotive Technology Indiana University East Any A.A. or A.S. Degree Automotive Technology Business Administration Nursing
Kettering University
Business Administration Engineering Science University Parallel McGregor School
Any Associate Degree
Miami University (Middletown) Architectural Technology
Automation \& Control Technology with Robotics
Civil Engineering Technology Electronics Engineering Technology Mechanical Engineering Technology Nursing
Visual Communication
Miami University (Oxford)
Engineering Science University Parallel Morehead State University Business Administration
Northern Kentucky University
Architectural Technology
Civil Engineering Technology Mechanical Engineering Technology Operations Technology
Ohio Northern University
Civil Engineering Technology
Electrical Engineering Technology
Engineering Science University Parallel Mechanical Engineering Technology Park University
A.A. in Liberal Arts Purdue University (Richmond Campus) Operations Technology
Raymond Walters College
Radiologic Technology
Shawnee State
Environmental Engineering Technology Sullivan University
Hospitality Management
Travel \& Tourism
The Ohio State University
Any A.A. or A.S. Degree

University of Cincinnati (College of Applied Science) Architectural Technology Business Administration Civil Engineering Technology Electronics Engineering Technology Environmental Engineering Technology Fire Science Technology Mechanical Engineering Technology Mental Health Technology
Nursing

## Paralegal

Physical Therapist Assistant
University of Cincinnati Engineering Science University Parallel University of Dayton Aviation Technology Business Administration Communication Arts Dietetics \& Nutritional Management Early Childhood Education Electronics Engineering Technology Engineering Science University Parallel Industrial Engineering Technology Manufacturing Engineering Technology Mechanical Engineering Technology Music
University of Findlay Environmental Engineering Technology Safety Engineering Technology
University of Southern Colorado Automotive Technology
University of Toledo
Any A.A. or A.S. degree
Business Administration
Civil Engineering Technology Electronics Engineering Technology Health Information Management Mechanical Engineering Technology
Urbana University
Any A.A. or A.S. Degree
Wilberforce University
Any A.A. or A.S. Degree
Wittenberg University
Any A.A. or A.S. Degree
Wright State University
American Sign Language
Any A.A. or A.S. Degree
Art Education
Art History
Aviation Technology
Communication Art
Early Childhood Education
Engineering Science University Parallel Fine Art
Music Education
Music Performance
Nursing
Physical Education
Visual Communication
Xavier University
Business Administration
Communication Arts

Remember that students planning to transfer to a fouryear institution after completing the Sinclair program, should consult with an academic advisor for the most up-to-date information on articulation agreements.

In addition to "incoming" and "outgoing" agreements, the college has several One-Plus-One agreements with certain community colleges. These agreements detail how students can begin a program at one institution and complete it at a partner school.

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

## Policies:

- Students must have applied for admission, been accepted, and paid the appropriate fee before any credits earned through articulation agreements can be recorded on their record.
- Payanadministrative 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 advisors/faculty advisors for the most current listing of agreements.

For detailed information about the guarantee of transfer credit see an academic advisor.

## Articulation \& Transfer <br> Institutional Transfer

The Ohio Board of Regents, following the directive of the Ohio General Assembly, developed a statewide policy to facilitate students' ability to transfercredits fromoneOhio 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 collegeoruniversity's generaleducation 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.

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

Since many degree programs require specific courses that may be taken as a part of the general education or Transfer Module program at an institution, students are encouraged to meet with an academic advisor at the institution to which they plan to transfer early in their academic career.

## 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 AppealsReview 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.

## Transfer

## Ohio Transfer Tools

## Transfer Assurance Guides (TAGs)

TAGs are groups of foundational courses that represent a commonly accepted pathway to the bachelor's degree. Courses or course sequences identified as being a part of the TAG may be offered at any public higher education institution in Ohio. TAGs were developed to assist students in approximately 40 different degree pathways and are guided by the following principles:

1. The Ohio Transfer Module (OTM) continues to be the foundation of the articulation and transfer work. The OTM provides students the opportunity to transfer courses as a block or on an individual course basis.
2. Students will also have the opportunity to complete additional courses found within each TAG and be guaranteed that the courses will transfer and apply to degree/program requirements. Each TAG may include recommended courses from within the Ohio Transfer Module as well as a variable number of introductory level major courses. This will provide a very powerful advising tool for students and faculty. Students will be able to plan a viable pathway using all the resources of the public higher education system, beginning at any point along the pathway, from high school through college. For more information of the Transfer Assurance Guides, visit the Ohio Board of Regents web site at http://regents.ohio.gov/transfer.
The following is a list of Sinclair approved TAG courses:

| ALH | 220 | Pathophysiology |
| :---: | :---: | :---: |
| ART | 108 | Design Basics: Color |
| ART | 111 | Art Drawing I |
| ART | 112 | Arts Drawing II |
| ART | 121 | Painting I |
| ART | 131 | Sculpture I |
| ART | 146 | Video Production |
| ART | 161 | Photography I |
| ART | 269 | Printmaking |
| BIO | 171 | Principles of Biology I |
| BIO | 172 | Pri nciples of Biology II |
| BIO | 173 | Principle of Biology III |
| BIS | 105 | Computer Concepts |
| CCT | 245 | Soil Mechanics |
| CHE | 151/157 | General Chemistry I |
| CHE | 152/158 | General Chemisty II |
| CHE | 153/159 | General Chemistry III |
| CHE | 201/207 | Organic Chemistry I |
| CHE | 202/208 | Organic Chemistry II |
| CHE | 203/209 | Organic Chemisty III |
| COM | 201 | Introduction to Mass Communication |
| COM | 206 | Interpersonal Communication |
| COM | 211 | Effective Public Speaking |
| COM | 225 | Small Group Communication |
| DAN | 172 | Ballet I |
| DAN | 173 | Modern Dance I |
| DAN | 241 | Dance Composition I |
| DAN | 242 | Dance Composition II |
| DAN | 272 | Ballet II |
| DAN | 273 | Modern Dance II |
| DIT | 129 | Human Nutrition |
| DIT | 216 | Food Preparation \& Dietary Service |
| DIT | 236 | Dietary Organization \& Management |
| ECO | 216 | Principles of Macroeconomics |
| ECO | 218 | Principles of Microeconomics |
| EDU | 100 | Foundations of Education |
| EDU | 105 | Introduction to Exceptionalities |
| EET | 155 | Electrical Circuits \& Instruments II |
| EET | 205 | Electrical Circuits \& Instruments III |
| ENG | 131 | Business Communications I |
| ENG | 132 | Business Communications II |
| GEO | 101 | Physical Geography |
| GEO | 102 | Human Geography |
| GEO | 201 | World Regional Geography I |
| GEO | 202 | World Regional Geography II |
| GLG | 141/147 | General Geology I |

GLG 142/148
HIM 121
HIM 135
HIM 250
HIM 251
HIM 260
HIM 261
HIM 265
HIS 101
HIS 102
HIS 103
HIS 111
HIS 112
HIS 113
HVA 286
LAW 101
LIT 201
LIT 202
LIT 203
LIT 211
LIT 212
LIT 213
LIT 234
MAT 116
MAT 117
MAT 201
MAT 202
MAT 203
MAT 204
MAT 215
MAT 216
MUS 111
MUS 112
MUS 113
MUS 116
MUS 117
MUS 118
MUS 141
MUS 142
MUS 143
MUS 166
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MUS 189
MUS 190
MUS 192
MUS 211
MUS 212
MUS 213
MUS 241
MUS 242
MUS 243
NSG 120
NSG 121
NSG 122
NSG 123
NSG 220
NSG 222
NSG 223
NSG 224
PHY 201
PHY 202
PHY 203
PLS 101

General Geology II
Basic Medical Terminology
Medicolegal Aspects of Health Care Records
Supervised Professional Practice I
Supervised Professional Practice II
ICD-9-CM Medical Office Coding
CPT Medical Office Coding
Healthcare Data in Reimbursement
United States History (1607-1815)
United States History (1815-1919)
United States History (1919-Present)
Western Civilization (0-1300)
Western Civilization (1300-1815)
Western Civilization (1815-Present)
Fluid Mechanics
Business Law I
Survey of English Literature (to 1660)
Survey of English Literature (1660-1832)
Survey of English Literature (1832-Present)
Survey of American Literature I (Colonial \& Early 19th Century)
Survey of American Literature II (Later 19th Century)
Survey of American Literature III (20th Century)
Literature of Africa, Asia, \& Latin American
College Algebra
Trigonometry
Calculus \& Analytic Geometry I
Calculus \& Analytic Geometry II
Calculus \& Analytic Geometry III
Calculus \& Analytic Geometry IV
Differential Equations
Elements of Linear Algebra
Music Theory I
Music Theory II
Music Theory III
Music Major Piano Class I
Music Major Piano Class II
Music Major Piano Class III
Singing \& Dictation I
Singing \& Dictation II
Singing \& Dictation III
Chorale
Applied Music - Jazz Piano
Applied Music - Organ
Applied Music - Piano
Applied Music - Voice
Applied Music - Percussion
Applied Music - Violin
Applied Music - Viola
Applied Music - Cello
Applied Music - Flute
Applied Music - Clarinet
Applied Music - Saxophone
Applied Music - Oboe
Applied Music - Bassoon
Applied Music - Trumpet
Applied Music - Trombone
Applied Music - French Horn
Applied Music - Baritone Horn
Applied Music - Tuba
Applied Music - Guitar
Applied Music - Electric Bass
Applied Music - Jazz Drumming
Applied Music - Classical Guitar
Applied Music - Harpsichord
Music Theory IV
Music Theory V
Music Theory VI
Singing \& Dictation IV
Singing \& Dictation V
Singing \& Dictation VI
Human Response
Identifying Responses Through Assessment
Promoting Healthy Responses to Physiological Stressors
Promoting Healthy Responses Through Psychomotor Interventions
Promoting Healthy Responses to Specific Stressors I
Promoting Healthy Responses to Specific Stressors II
Promoting Healthy Responses in Women
Promoting Healthy Responses to Specific Stressors III
General Physics I
General Physics II
General Physics II
American Federal Government I

| PLS | 102 | American Federal Government II |
| :--- | :--- | :--- |
| PLS | 103 | State Government |
| PLS | 104 | Urban Government |
| PLS | 200 | Political Life, Systems \& Issues |
| PLS | 201 | International Relations |
| PSY | 119 | General Psychology |
| PSY | 121 | General Psychology I |
| PSY | 122 | General Psychology II |
| PSY | 205 | Child Development |
| PSY | 206 | Adolescent \& Adult Psychology |
| PSY | 208 | Life Span Human Development |
| PSY | 217 | Abnormal Psychology |
| PSY | 220 | Personality Psychology |
| PSY | 225 | Social Psychology |
| SOC | 111 | General Sociology I |
| SOC | 112 | General Sociology II |
| SOC | 114 | Courtship \& Marriage |
| SOC | 115 | Today's Changing Family |
| SOC | 120 | General Sociology |
| SOC | 145 | Comparing Cultures |
| SOC | 205 | Social Problems |
| SOC | 215 | Cultural Diversity |
| THE | 106 | Stagecraft |
| THE | 111 | Acting I |
| THE | 206 | Script Analysis |
| THE | 299 | Theatre Practicum - Performance |

## Transfer Module

The Transfer Module is a subset or the complete set of a college or university's general education requirements. The Transfer Module consists of 54-60 quarter hours or 36 to 40 semester hours of courses in the following areas:

1. English
2. mathematics
3. arts and humanities
4. social and behavioral science
5. natural and physical sciences, and
6. interdisciplinary study.

A Transfer Module completed at one Ohio, public college or university will automatically meet the requirements of the Transfer Module at another Ohio, public college or university once the students are accepted. Students may be required, however, to meet additional general education requirements at the institution to which they transfer that are not included in the Transfer Module.

## 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 advisor to determine the most appropriate courses-depending on theiracademic program and transfer institution - to take to complete the Transfer Module.
NOTE: The Transfer Module is updated twice per year.

## Sinclair's Transfer Module

## English Composition

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

Mathematics

(minimum of 3 quarter hours)

MAT 108 Math \& the Modern World

MAT 116 College Algebra

MAT 122 Statistics I

MAT 132 Technical Mathematics II

MAT 133 Technical Mathematics III

MAT 134 Technical Mathematics IV

MAT 151 Introduction to Mathematical Modeling

MAT 202 Calculus \& Analytic Geometry II

MAT 203 Calculus \& Analytic Geometry III

$\begin{array}{ll}\text { MAT } 204 & \text { Calculus \& Analytic Geometry IV } \\ \text { MAT } 215 & \text { Differential Equations }\end{array}$

$\begin{array}{lll}\text { MAT } 215 & \text { Differential Equations } \\ \text { MAT } 216 & \text { Elements of Linear Algebra }\end{array}$

MAT 218 Calculus for Business \& Economics

MAT 220 Statistics II

Natural \& Physical Sciences
(minimum of 12 quarter hours, 3 courses from one sequence)

AST 101/107 Survey of Astronomy
AST 111/117 Introduction to Astronomy (4)
AST 112/118 The Solar System
AST 113/119 Stars, Galaxies, \& Cosmology (4)
BIO 111/117 General Biology I
BIO $112 / 118$ General Biology II
BIO 113/119 General Biology III (4)

BIO 141/147 Principles of Anatomy \& Physiology I
BIO 142/148 Principles of Anatomy \& Physiology II
BIO 143/149 Principles of Anatomy \& Physiology III
BIO 171/177 Principles of Biology I
$\begin{array}{llll}\text { BIO } & 172 / 178 & \text { Principles of Biology II } \\ \text { BIO } & 173 / 179 & \text { Principles of Biology III }\end{array}$
BIO 205/206 Microbiology
BIO 222 Evolution (4)
BIO 225/226 Ecology (4)
BIO 235/236 Genetics
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
CHE 152/158 General Chemistry II (5)
CHE 153/159 General Chemistry III (5)
CHE 201/207 Organic Chemistry I
CHE 202/208 Organic Chemistry II
CHE 203/209 Organic Chemistry III
GLG 141/147 General Geology I (4)
GLG 142/148 General Geology II
GLG 143/149 General Geology III
GLG 144 Geological Field Trips
PHY 100/110 Introduction to Physics
PHY 104/119 Sound, Light \& Modern Physics (4)
PHY 131 Technical Physics I
PHY 132 Technical Physics II
PHY 133 Technical Physics III
PHY 141 College Physics I
PHY 142 College Physics II
PHY 143 College Physics III
PHY 201 General Physics I
PHY 202 General Physics II
PHY 203 General Physics III

## Social \& Behavioral Sciences

(minimum of 9 quarter hours from at least two areas)
ECO 216 Principles of Macroeconomics
(4)

ECO 218 Principles of Microeconomics (4)
GEO 101 Physical Geography
GEO 102 Human Geography
GEO 201 World Regional Geography I (3)
GEO 202 World Regional Geography II
HIS 219 Survey of the Middle East
PLS 101 American Federal Government I
PLS 102 American Federal Government II
PLS 103 State Government
PLS 104 Urban Government
PLS 200 Political Life, Systems \& Issues
PLS 201 International Relations (4)
PSY 119 General Psychology
PSY 121 General Psychology I
PSY 122 General Psychology II (3)
PSY 205 Child Development
PSY 206 Adolescent \& Adult Psychology
PSY 208 Life Span Human Development

Transfer Module

| PSY | 217 | Abnormal Psychology |
| :--- | :--- | :--- |
| PSY | 220 | Personality Psychology |
| PSY | 225 | Social Psychology |
| PSY | 228 | Psychology in the Work Place |
| PSY | 242 | Educational Psychology |
| SOC | 111 | General Sociology I |
| SOC | 112 | General Sociology II |
| SOC | 120 | General Sociology |
| SOC | 145 | Comparing Cultures |
| SOC | 160 | Social Patterns in Aging |
| SOC | 205 | Social Problems |
| SOC | 208 | Sociology of American Cities |
| SOC | 215 | Cultural Diversity |
| SOC | 226 | Criminology |

PSY 220 Personality Psychology
PSY 225 Social Psychology (4)

228 Psychology in the Work Place (4)
SOC 111 General Sociology I
SOC 112 General Sociology II (3)
SOC 120 General Sociology
SOC 160 Sompar Paterns in Aging
SOC 205 Social Problems (4)
SOC 208 Sociology of American Cities
SOC 215 Cultural Diversity

## Arts \& Humanities

(minimum of 9 quarter hours from at least two areas)
ART 101 Introduction to Art
ART 102 Art Appreciation: Art Media
ART 125 African Art
ART 231 Art of the Ancient World
ART 232 Art of the Medieval \& Renaissance Worlds
$\begin{array}{lll}\text { ART } & 233 & \text { Art of the Modern World } \\ \text { ART } & 235 & \text { History of Photography }\end{array}$
ART 236 History of Women Artists
ART 237 American Art History (3)
DAN 155 Dance History
DAN 157 Dance Appreciation (3)
HIS 101 U.S. History (1607-1815)
HIS 102 U.S. History (1815-1919)
HIS 103 U.S. History (1919-Present) (3)
HIS 105 African-American History
HIS 111 Western Civilization (0-1300)
HIS 112 Western Civilization (1300-1815)
HIS 113 Western Civilization (1815-Present)
HIS 214 History of Southeast Asia
HIS 215 Survey of African History
HIS 216 Survey of Latin American History
HIS 217 Survey of East Asia
HIS 218 History of Ohio
HUM 125 The Human Image
HUM 130 Humanity \& the Challenge of Technology
HUM 131 Search for Utopia
HUM 135 Environmental Ethics
HUM 255 People \& Religion
LIT 201 Survey of English Literature (to 1660)
LIT 202 Survey of English Literature (1660-1832)
LIT 203 Survey of English Literature (1832-Present)
LIT $211 \begin{aligned} & \text { Survey of American Literature I (Colonial \& Early } \\ & \text { 19th Century) }\end{aligned}$
LIT 212 Survey of American Literature II (Later 19th Century) (3)
LIT 213 Survey of American Literature III (20th Century)
LIT 217 Images of Women in Literature
LIT 227 Introduction to Shakespeare
LIT 230 Great Books of the Western World
LIT 234 Literature of Africa, Asia, \& Latin America
LIT 240 Children's Literature (3)
MUS 115 Music Appreciation
MUS 131 Survey of Musical Styles I
MUS 132 Survey of Musical Styles II
MUS 133 Survey of Musical Styles III (3)
PHI 204 Great Books: Philosophy
PHI 205 Introduction to Philosophy
PHI 206 Ethics
REL 111 Eastern Religions (4)
REL 112 Western Religions
REL 135 American Religious Movements (4)
REL 204 Great Books: The Bible \& Western Culture
THE 105 Theatre Appreciation (3)
THE 201 History of Theatre I (3)
THE 202 History of Theatre II
THE 203 History of Theatre III (3)
Other Approved Courses
ENG 250 Personal Essay: Advanced Composition
COM 211 Effective Public Speaking

## Course Applicability System (CAS)

CAS is a free, web-based tool that provides students information about academic programs and course equivalencies in the state of Ohio. CAS can be used by students to plan their transfer to another Ohio college or university. Access CAS at www.transfer.org.
Sections of information in CAS web include the following:

- Course Descriptions show information on courses such as the title, credit hours and terms available.
- Academic Programs allow students to view all of the programs offered at the institution of choice.
- The Course Equivalency guide is to find outhow courses transfer from one institution to another.
- Your Courses allow students to enter their course work from any college or university.
- The Planning Guide will evaluate those courses electronically so it can be determined how they will apply toward a selected program.
- Account Information allows students to store all common personal information entered on admissions applications. This information can then be sent to schools who will accept them electronically.
- Student Services provides links to extra information about an institution such as admission information or financial aid assistance.
- Help allows students to send any questions they have regarding transfer to a college or university.


## Ohio Learning Network - Distance Education

The Ohio Learning Network provides an online course catalog at www.ohiolearns.org to help Ohioans find information regarding online degrees, certificates, and courses offered by accredited Ohio colleges and universities.

## Online \& Alternative Learning



## Why Sinclair Online?

Sinclair Community College

- Get through your program fastersqueeze in extra classes
- Arrange classes around YOUR busy schedule
- If you can get to a computer, you can get to class
- You're surfing anyway-so why not?
- Access to more than 150 courses
- Support services and advising available for online students
- Award winning courses and instructors


## Online \& Distance Learning

## www.sinclair.edu/distance

(937) 512-2990 or 1-888-226-2457, FAX (937) 512-2891

## Building 14, Second Floor, Room 14223

Online/Distance Learning is a good alternative for motivated students who prefer flexible scheduling. Online/ Distance Learning course content is the same as regular, on-campus courses and meets all program and transfer requirements. Online/Distance Learning courses also have the same low tuition rates and high quality instructors as traditional classes.

Online/Distance Learning courses are NOT easier than in-person courses. In addition to reading the text and electures, taking tests and quizzes, students may also be expected to participate in their courses through such activities as weekly bulletin board postings and/or group projects. Plan on spending at least six hours per week study time for each Online/Distance Learning course.

## Articulation Agreements

Capella University
Franklin 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.

## How to Succeed in Online \& Distance Learning

Online/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 Online / 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 Online/Distance Learning courses.

| Traditional Courses <br> Content | Distance Learning |
| :--- | :--- |
| Traditional courses have <br> specific learning objectives that <br> the student must master and <br> synthesize to pass the course. | Courses have the same <br> content as traditional <br> courses. They differ only in <br> the delivery format. |

## Time

Students who succeed in their courses spend at least two additional hours each week in study for each hour of inclass 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.

> Courses are 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. Courses contain deadlines for assignments and testing.

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

Students must have the selfdiscipline to keep up with their work throughout the quarter.
Support
Traditional classes are inherently learning communities in which students can benefit from peer support and in-class discussions. Students also have ready access to their instructors if they have questions.

Online courses have some level of group 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.

## Online \& Distance Learning Course Delivery Formats

The Online/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 Online/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 sometimes take more time than
traditional in-class courses. Online/Distance Learning can work for students who have the desire to succeed and who are able to work independently.

## Description <br> http://www.sinclair.edu/distance

Online/Distance Learning courses encompass a broad range of disciplines across the college's curriculum and are a good alternative for motivated students who prefer flexible scheduling. Course content is the same as regular, on-campus courses and meets all program and transfer requirements. These courses also have the same low tuition rates and high quality instructors as traditional classes.
There are two types of Online/Distance Learning courses:

- Those that students take on their own, using alternative delivery formats
- Those that are taught in a classroom at the off-campus locations at specific times and days.
Students register for Online/Distance Learning courses in the same manner they register for other Sinclair courses. All course work must be completed within the quarter it is taken and as outlined in the course syllabus.


## Online/Distance Learning Registration Policy

Ongoing or returning Sinclair students will need a 2.0 minimum cumulative grade point average to enroll in Online/Distance Learning courses. Students who are new to Sinclair can register for Online/Distance Learning courses for which they meet prerequisites.

## Late Registration

Late registration for all Online/Distance Learning courses ends the Friday before the first day of classes. No Online/ Distance Learning registrations will be accepted once the quarter has started.

## Testing Information

Most online courses have online testing incorporated in the course. Courses that do not offer this option or courses delivered via videotape or other modes require thatstudents living within 60 miles of the Dayton campus take their tests in the college Testing Center. (Information about testing will be included in the course syllabus.) A listing of the method of testing for each Online/Distance Learning course per specific quarter can be found on the Online/Distance Learning web site (www.sinclair.edu, click on "Testing Information").

Students who live beyond 60 miles of Dayton have the option of using a proctor to have their tests administered locally. It is the students' responsibility to obtain suitable proctors and proctors are not reimbursed for their time. More information and the proctor application form may be obtained on the Online/Distance Learning web site (www. sinclair.edu/distance, click on "Testing Information").

## Sinclair Online

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 or CD 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.

## 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.edu) 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
- ANGEL compatible web browser

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

## 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 $6.2 x, 7.0$, and 7.1 (P.C.)
- Internet Explorer (IE) versions 5.0 through 7.0 (P.C.) [except IE 5.5 Service Pack 1 (P.C.)]
- AOL 7.0 and 8.0 (P.C.)

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 Online/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 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.

## 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 Online \& Distance Learning

## Syllabus

Each Distance Learning course has a syllabus that lists course assignments and due dates. Obtain a syllabus for videotape, print, and CD-Rom courses from the Tartan Campus Store before the quarter begins. The syllabus for online courses is contained within the course and is available on the first day of the quarter.

## Registration Deadline

All Distance Learning courses have class size limits, so register early! Distance learning courses begin at 8:00 a.m. on the first day of the term. Distance Learning registrations cannot be accepted after that time.

## Testing

Some Distance Learning testing is online, but many tests are given in the Testing Center. See the Distance Learning web site (www.sinclair.edu/distance) for specific testing information. Students living 60 miles or more beyond Dayton can obtain local proctors for their tests. See the web site for more information and deadlines.
-continued

## Online

## Access to Online Courses

Available in each student's personal Sinclair e-mail account (my.Sinclair.edu). Technical or login assistance is available from the Help Desk at (937) 512-4357 or 1-866-781-4357.

## Orientation

Those who wish to get a "feel" for online courses can visit the online orientation at www.sinclair.edu/distance, click on "Overview of Distance Learning."

## Classes Start

As soon as the term begins. Distance Learning courses are structured like in-class courses and run the entire length of the term. All assignments and tests must be completed within the term the course is taken.

## Classes End

On the last day of the term. After that, access to online courses is unavailable.

## Questions?

Consult the Distance Learning web site www.sinclair. edu/distance or e-mail distance@sinclair.edu or call (937) 512-2990 or toll-free 1-888-226-2457.

## Sinclair Degrees Attainable Through Sinclair Online

## Associate of Arts: Liberal Arts \& Sciences

The Associate of Arts degree program in Liberal Arts \& Sciences is designed for students who are planning to transfer to four-year colleges or universities and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The curriculum 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. Ninety percent of the courses in this degree are available in a distance format.

## Associate of Science: Business Administration

Upon completion of this degree is designed to provide students with junior status as they pursue baccalaureate degrees rather than immediate preparation for jobs. 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 transferable to their institution, and students should contact the schools to which they plan to transfer and check transferability of credits. Individual transfer (articulation) agreements with specific colleges and universities have been developed for the benefit of the students. Ninety percent of the courses in this degree are available in a distance format.

## Sinclair Certificates Attainable Through Distance Learning

## Digital Systems Short Term Certificate

This short term certificate will attest that students have achieved advanced skill ad training in digital systems and will prepare them for further professional growth. The certificate consists of four rigorous courses. (Note that required lab work can be completed on campus or at selected high schools.)

## Fast Track Programmer Analyst

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. One hundred percent of the courses in this certificate are available in a distance format.

## Java Enterprise Development Certificate

The Java Enterprise Development certificate is designed to provide an individual with state-of-the-art Java programming skills. It focuses on designing, writing and deploying enterprise applications using Java-related technologies. It is designed for experienced programmers wishing to broaden their skills. The cornerstone of the certificate is a Java object oriented based approach applied to three-tiered ( N -tiered) enterprise client/server model.

Students are expected to have over five years of programming or systems development experience, or equivalent education and experience. Students not meeting the above admission requirements are encouraged to investigate the Fast Track certificate, which is designed for students wishing a career change into information technology. Fifty percent of the courses in this certificate are available in a distance format.

## Software Applications for the Professional

This short term 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'swork environments. Software applications included are word processing, spreadsheet, database, business presentations, desktop publishing, and Internet browser. One hundred percent of the courses in this certificate are available in a distance format.

## Web Programming

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. One hundred percent of the courses in this certificate are available in a distance format.

The following courses are available through Distance Learning
formats. Note that every course is not offered every quarter. formats. Note that every course is not offered every quarter.

ACC 121
ACC 122
ACC 221
ACC 222
ACC 240
ALH 103
ALH 104
ALH 121
ALH 142
ALH 219 General Pharmacology
ART 101 Introduction to Art
ART 102 Art Appreciation: Art Media
ART 125 African Art
ART 235 History of Photography
ASE 101 The Freshman Experience
AST 101 Survey of Astronomy
AST 111 Introduction to Astronomy
AUT 100 Basic Automotive Systems
BIO 104 HIV/AIDS
BIS 101 Personal Computer Keyboarding
BIS 102 Document Formatting
BIS 105 Computer Concepts
BIS 136 Introduction to Medical Terminology
BIS 137 Intermediate Medical Terminology
BIS 138 Advanced Medical Terminology
BIS 160 Introduction to Word, PowerPoint, \& Excel
BIS 161 Intermediate Word, PowerPoint, \& Excel
BIS 201 Customer Service
BIS 202 Advanced Customer Service Concepts
BIS M25 Desktop Publishing
BIS M35 Microsoft Access
BIS M36 Advanced/Expert Access
BIS M45 Microsoft Excel
BIS M46 Advanced/Expert Excel
BIS M55 Microsoft PowerPoint
BIS M85 Microsoft Word
BIS M86 Advanced/Expert Word
BIS M75 The Internet
CAP 105 Career Selection
CAT 121 Civil Construction Blueprints \& Drafting
CAT 131 Properties of Construction Materials
CCT 120 Introduction to Construction Trades
CAT 138 Architectural Blueprint Reading
CAT 207 Architectural Building Codes
CAT 216 Construction Estimating
CAT 218 Project Management Techniques
CAT 256 Construction Management
CAT 266 Reinforced Concrete Design
CHE 120 Introduction to ChemistrySystem
CIS 233 C++ Programming I
CIS 265 Database Management SystemsCIS 284
COM 206
Interpersonal CommunicationCOM 225 Small Group Communication
DEV 108 Introduction to Algebra
DIT 111 Nutrition for a Healthy Lifestyle
EBE 100ECO 216 Principles of Macroeconomics
Title
Introduction to Operating Systems
Object Oriented Concepts
Introduction to Web DevelopmentIntermediate Web DevelopmentMacromedia FlashIntroduction to XHTML
Introduction to JavaScript
Cold Fusion Markup LanguageVisual Basic Programming I
Computer Systems Analysis
Extensible Markup Language
Web Server Administration \& Security
Client/Server Web Tools
ECO 105 General Economics
Basic Electronic MeasurementsEET 114
Electrical Circuits \& Instruments IEET 155
Electrical Circuits \& Instruments II
Electronics I
Linear Integrated Circuits
Linear Integrated Circuits
EET 231 Digital Logic \& Circuits
EET 251 Digital Systems IENG 111
English Composition I
ENG 112 English Composition II
ENG 113ENG 121 Technical Composition I
ENG 122 Technical Composition II
ENG 132 Business Communications II
Creative Writing: Poetry
Creative Writing: Fiction
Print Reading with GD\&T
ETD 198 Personal Computer Applications in Engineering Technology
ETD 199 Introduction to Computer Aided Drafting Concepts
ETD 213 Statics
Strength of Materials
EVT 110 Environmental Compliance
EXL 105 Study Skills
FIN 245 245 Personal Finance

| Course | Title |  |
| :--- | :--- | :--- |
| HIM | 121 | Basic Medical Terminology |
| HIM | 122 | Specialized Medical Terminology |
| HIM | 135 | Medicolegal Aspects of Health Care |
|  |  | Records |
| HIM | 260 | ICD-9-CM Medical Office Coding |
| HIM | 261 | CPT Medical Office Coding |
| HIM | 262 | Advanced Medical Office Coding |
| HIS | 101 | United States History (1607-1815) |
| HIS | 102 | United States History (1815-1919) |
| HIS | 103 | United States History (1919-present) |
| HIS | 111 | Western Civilization (0-1300) |
| HIS | 112 | Western Civilization (1300-1815) |
| HIS | 113 | Western Civilization (1815-present) |
| HIS | 214 | History of Southeast Asia |
| HUM | 125 | The Human Image |
| HUM | 130 | Humanity \& the Challenge of Technology |
| HUM | 135 | Environmental Ethics |
| INT | 141 | Applied Shop Mathematics I |
| INT | 142 | Applied Shop Mathematics II |
| INT | 143 | Applied Shop Mathematics III |
| LAW | 101 | Business Law I |
| LAW | 102 | Business Law II |
| LAW | 103 | Consumer Law |
| LAW | 144 | Domestic Civil Protection Orders |
| LIT | 205 | Modern Short Story |
| MAN | 105 | Introduction to Business |
| MAN | 205 | Principles of Management |
| MAN | 207 | Total Quality Management |
| MAN | 225 | Human Relations \& Organizational |
| MAN | 251 | Behavior |
| Logistics Management |  |  |
| MAS | 101 | Introduction to Medical Assisting |
| MAS | 103 | Medical Law \& Ethics |
| MAS | 202 | Insurance \& Patient Records |
| MAT | 101 | Elementary Algebra |
| MAT | 102 | Intermediate Algebra |
| MAG | 295 | Drug Update: Drugs for Pain |
| NSG | 296 | Drug Update: Endocrine Drugs |
| MAT | 116 | Cosiness Mathematics |
| MHT | 101 | Introduction to Mental Health Work |
| MSG | 140 | Child \& Adolescent Mental Health |
| NSG | 258 | 291 |

## Course

OPT 201
PAR 115
PAR
PAR
PH
PHY
PHY 104
PLS 101
PLS 102
PSY 119
PSY 121
PSY 122
PSY 126
PSY 135
PSY 141
PSY 205
PSY 206
PSY 208
PSY 217
PSY 225
PUR 201
RAT 199
RAT 219
RAT 243
RAT 244
RAT 250
RET 118
SOC 111
SOC 112
SOC 115
SOC 120
SOC 130
SOC 145
SOC 205
SOC 215
SOC 225
SOC 227

SRM 212
SRM 231

SRM 101 Introduction to Safety Engineering Technology
SRM 211 Applied Industrial Risk Management

THE 105 Theatre Appreciation
THE 201 History of Theatre I
THE 202 History of Theatre II

## Title

Statistical Process Control
Contract Law \& the Uniform Commercial Code
Ohio Protection Orders
Legal Technology Resources
Introduction to Philosophy
Introduction to Physics
Sound, Light \& Modern Physics
American Federal Government I
American Federal Government II
General Psychology
General Psychology I
General Psychology II
Stress Management
Living with Loss, Death, \& Grief
Love \& Personal Growth
Child Development
Adolescent \& Adult Psychology
Life Span Human Development
Abnormal Psychology
Social Psychology
Purchasing Principles
Computers in Medical Imaging (MRI)
Pharmacology for Radiographers
Principles of Magnetic Resonance Imaging
Magnetic Resonance Imaging (MRI)Applications
Quality Management in Radiography
Cardiopulmonary Rehabilitation
General Sociology I
General Sociology II
Today's Changing Family
General Sociology
Family Violence
Comparing Cultures
Social Problems
Cultural Diversity
Juvenile Delinquency
Probation \& Parole

Hazard Control Analytical Methods
OSHA Construction Standards

## 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
Dwight L. Barnes Community and Continuing Education Center
3700 Far Hills Avenue
Kettering
Eaton High School
600 Hillcrest Drive
Eaton
Kettering Fairmont High School
3301 Shroyer Road
Kettering
Miami Valley Career Technical Center
6800 Hoke Road
Clayton
Miami Valley Research Park
1900 Founders Drive
Dayton
Miamisburg High School
1860 Belvo Road
Miamisburg
V.A. Medical Center

4100 West Third Street
Dayton
Wright-Patterson Air Force Base
(All classes are held in areas B and C)
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.

> There are almost as many alternatives to learning as there are offerings from Sinclair.

## See the next few pages to fit your lifestyle.

## Cooperative Education \& Internship

Building 3, Room 3120, (937) 512-2508 or Building 5, Room 5113 co-op@sinclair.edu
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 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 advisors for information.

## 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 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 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.


## High School Connections

## www.sinclair.edu

## Academic Resource Center (ARC) Building 13, Room 13105, (937) 512-3495

An ARC instruction facilitator will assess skill levels and guide students to help improve math, English and reading skills. See page 71 for details.

## www.sinclair.edu

## Post Secondary Enrollment Options

PSEO permits high school students to take college classes while still enrolled in high school. See page 23 for details.

## Out-of-School Youth Fast Forward Center

Job Center, Edwin C. Moses, (937) 512-FAST (3278)
The Fast Forward Center primarily serves youth, ages 15-21, who have previously dropped out of, or are not regularly attending, high school. The goal of the Fast Forward Center is to return the youth to high school, help them achieve proficiency, earn a high school diploma, and have a positive placement upon graduation (employment, military, or post secondary education). The Fast Forward program is one of the few (if not the only) countywide out-of-school youth initiatives in the country that encourages and allows students 15-21 to earn a high school diploma. GED is only recommended if the student is of the age where obtaining a high school diploma is not feasible (Ohio law allows high schools to be reimbursed for a child's education until that child is 22 years of age).

The Fast Forward Center is partners with three alternative charter high schools that specifically serve dropouts, a charter middle school, and other Dayton-based alternative education programs to serve the needs of out-of-school youth. All of these programs are student driven, allowing students to work at their own pace and earn credits in a school geared toward credit recovery. The Fast Forward Center has made the process for any Montgomery County student wishing to return to school easy. The student simply calls 512-FAST. Once a call is received, an appointment is scheduled where the student is assessed in math and reading, and presented with school options. After the student chooses which school they would like to attend, the Fast Forward Center compiles a folder containing assessment results and contact information. The Fast Forward Center then refers the student to the school of their choice.

## Miami Valley Tech Prep

## Building 12, Room 12202, (937) 512-5146

The Miami Valley Tech Prep Consortium nurtures partnerships with educators and employers to create seamless career-technical education programs that begin in the junior year of high school and continue through an associate degree and beyond. Every facet of the College Tech Prep program is designed to address the 21st century work force needs of the Miami Valley region by developing students who are college bound and career ready.

MVTPC is an award winning consortium, recognized nationally for unique programs that help students discover opportunities and make a powerful connection between education and careers.

## Non-Traditional Opportunities

## Academic Credit Assessment Information Center (ACAIC)

Building 6, Room 6142, (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:

- 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 3, Room 3142, (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.

For more information, contact the A.I.S. office.

## Associate of Technical Study (A.T.S.) Building 3, Room 3142, (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.

For more information, contact the A.T.S. office.

## Credit for Lifelong Learning Program (CLLP) Building 6, Room 6142, (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 course, EBE 100, Prior Learning Portfolio Development, in which students identify specific Sinclair courses, demonstrate college level learning, and develop plans to accomplishprofessional and educational goals. Facultymembers 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.

## Developmental Studies Program (DEV)

 Building 6, Room 6222, (937) 512-2701The 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. Students may also receive individual help through the Tutoring \& Learning Center in the Library.

## Service Learning

Building 6, Room 6141, ( 937) 512-2040
Service Learning is a teaching and learning strategy that provides students with community based opportunities to meet course objectives that connect classroom instruction to the real world. Through participation in Service Learning Projects, students meet course objectives, develop and explore academic, personal, social, and career goals while they are meeting community needs. Service Learning is used in various courses as a requirement or as an alternative assignment. Students may also ask their faculty members to include a Service Learning course. Students completing Service Learning projects and activities receive documents to enhance their portfolio. Service Learning agencies and projects are listed on the Sinclair Service Learning web site www.sinclair.edu/about/learning.

## 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 atSinclair 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.

## Sinclair Honors Program

See page 81.
www.sinclair.edu

## College for Seniors

Building 10, Room 10112, (937) 512-5184, 512-2372
College has been called "the hottest destination" for seniors, and Sinclair is no exception. Sinclair's College for Seniors offers several ways for seniors as well as adults of any age to take classes.

Seniors may audit credit classes offered on campus or at the new Learning Centers tuition-free on a space available basis (age 60 or better). For example, Sinclair offers swimming, water aerobics, tennis, and Tai Chi, to name a few. Explore areas such as painting, pottery, piano lessons, personal computers, or a foreign language.

To enroll, go to Registration \& Student Records, Second Floor, Building 10 during the Late Registration period, usually the week before the quarter begins. A special College for Seniors desk is there with representatives to help with class choices and the enrollment process. All of Sinclair's classes are listed in the Sinclair quarterly schedule, available on campus, at the Learning Centers, and at the Montgomery County library branches.

Seniors may audit Sinclair classes held especially for seniors on campus or at one of 24 off-campus sites (age 60 or better). Only seniors are permitted to sign up for these free classes. See the web or schedule for locations around the county. These classes are also listed in the College for Seniors quarterly newsletter.

Seniors may enroll in non-credit "Senior Academy" courses. These classes meet both on campus and at various sites across the community. For example, sign up for Lunch and a Topic, or Dinner and a Concert or Theatre, or Writing About Your Life \& Times, Introduction to Personal Comput-

Your Money, and more. Some classes carry a modest fee to cover instructional costs, while others are free. These classes are listed in the College for Seniors quarterly newsletter.

Other ways for to enrich life through Sinclair include theatre and dance performances, with special pricing by going through the College for Seniors office. Join the Senior Dance Ensemble; attend art exhibits that feature work by seniors. Use the Sinclair facilities, such as the Physical Education department's resources and the Library.

By the time this information is in print, the College for Seniors will have a new name. Participation in some programs is not limited to "seniors," so a name that better reflects opportunities for adults of all ages will be launched.

## Sinclair Ohio Fellows Leadership Program

See page 80.
www.sinclair.edu

## SOCHE

## 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 State 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, Urbana University, Wilberforce University, Wilmington College, Wittenberg University, and Wright State University.

## www.sinclair.edu my.Sinclair.edu

## Sinclair Campus Centers

## Dayton Campus

Next to I-75 on the western edge of downtown Dayton, Sinclair's campus stretches from West Third toFifth and Perry streets and beyond. Wherever students go-on the over 60 acres of cam-pus-they're greeted by beautiful architecture and green spaces. 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 <br> 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.


## Parking

## 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 32).

## 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. No student parking in this lot.
- Lot C serves the David H. Ponitz Sinclair Center (Building 12), but includes parking for the disabled on a space available basis. Entrance from Fourth Street. No student parking in this lot.
- 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 |  |  |
|  | 6:30 a.m.-10:30 p.m | 6:30 a.m | $6 \cdot 30$ - |
| Lot B | 6:00 p |  |  |
| tE | 7:00 a.m.-10:00 | 7:00 a.m. f :00 p.m. |  |
| Lot H | 7:30 a | 7:30 a.m.-6:00 p.m. |  |
|  | 7:00 a.m.-10:00 p.n. | 7:00 a.m.-10:00 p.m. | As needed |
| Lot K | 7:00 a.m.-5:30 | 7:00 a.m.-5:30 | No Student Parkin |
| - M | 6:30 | 6:30 a.m. $4: 00$ | CLOSED <br> No Student |
| Normal hours of operation for summer quarter are: |  |  |  |
|  |  |  |  |
| Lot A | 6:30 a.m. 9 9:30 p.m. | 6:30 a.m.-6:00 p.m. |  |
| Lot B | CLOSED <br> No Student Parking | Opens at 3:00 p.m. (Free Parking) | Opens at 6:30 a (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) if you are a currently registered student.
- $\$ 2.00$ 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.

## Library

Building 7, (937) 512-2855

## library.sinclair.edu

For students who want a computer, a comfortable place to meet friends, a quiet place to study, or a cup of world famous coffee, the Library at Sinclair is the place. It is a state-of-theart facility on the lower level of Buildings 1 through 7 and a complete digital library on the Internet. Renovated in 2006, the new Library offers an exciting mix of student friendly learning and social spaces.

Librarians and I.T. professionals work with faculty to assure student access to the college information resources needed to be successful learners. Librarians help students find information and use course reserves, a virtual extension of the classroom in which students find assigned readings and faculty know which students use assigned materials. I.T. support staff works with students using computers for papers, readings, online testing, and more.

Students will find new computers, laptops, WIFI access, group study rooms, classrooms, Writing Center, Tutorial Services, Tutoring \& Learning Center, individual study spaces, quiet reading room, traditional library collections, online digital information sources, Starbuck's coffee bar, and lounge areas in one convenient location.

State-of-the-art computer resources include general office applications and specialized instructional software. Library and I.T. computer lab staff provides friendly, expert help in using computers, working with software, and finding information.

Library resources includebooks and e-books, magazines and newspapers, online articles, digital videos, other media, Internetsites, and much more. All of these resources are purchased with the sole objective of helping Sinclair students complete assignments and become successful learners.

The Sinclair Tartan Card serves as the library card for borrowing books and I.D. password for all of Sinclair's online news and research databases. Students with Internet access at home or work can connect at any time, 24 hours a day, 7 days a week. In addition, because Sinclair belongs to the OhioLINK consortium, students can use their Tartan Cards as library cards at other Ohio college and university libraries.

## Library hours:

Monday - Thursday, 7:30 a.m. - 9:30 p.m.
Friday, 7:30 a.m. - 5:00 p.m.
Saturday, 9:00 a.m. - 4:00 p.m.
Summer session and interim hours vary.

## Ponnie Kendell

## Student Leadership Development

 Center
## Where to go to relax

Building 8, Room 8025, (937) 512-2509
The Leadership DevelopmentCenter provides lots of opportunities to get involved outside the classroom. The Student Leadership Development office serves as a contact point for faculty, staff, student organizations, and community groups to schedule activities or to use the Leadership Development Center.

Located in the lower level of Building 8, the center includes:

- Stage area
- Game room
- Sports Café
- Conference rooms for student organizations
- Area for dances, programs and service work.

Take part in activities such as:

- Leadership development training programs
- Competitive games
- Tournaments
- Annual cultural events
- Success seminars
- 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.
Leadership Development 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, 9:00 a.m. - 5:00 p.m.
Friday, 9:00 a.m. - 2:00 p.m.
Saturday, Sunday, closed.
Summer hours may vary.

## 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.

Parking for Blair Hall events is available free of charge after 6:00 p.m. and on weekends at public meters on Fourth Street.

Parking Lot B across the street from Building 2 is also free after 6:00 p.m. on Fridays and Saturdays and all day Sunday.

For weekday matinee performances, patrons must use student and public parking as indicated.

## Tartan Campus Store

## Building 7, Room 7110, (937) 512-2665 (BOOK)

 tartanstore.sinclair.edu
## Avoid the lines

Ordering online is the convenient way to get all course materials and Sinclair insignia items. It's the smart way to shop! Simply go to tartanstore.sinclair.edu.

Shop for all your college needs at the Tartan Campus Store, located on the first floor of Building 7 including:

- New and used textbooks
- Course supplies
- Tartan Gift Cards
- Official Sinclair clothing
- Postage stamps
- RTA bus passes
- Greeting cards
- Newspapers

The beginning date for buying course materials and supplies is posted each quarter in the quarterly schedule and online at tartanstore.sinclair.edu.

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 and mini-terms. Return textbooks bought any other time and all other merchandise within 30 days of purchase. Complete return information is provided with the sales receipt and on the Tartan Campus Store's web site. For all returns or exchanges, remember to present the right cash register receipt.

Cash, check, financial aid funding, MasterCard, VISA and the Tartan Card are accepted.

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

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 and on the store's web site.

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.
P

## Food Services

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

## Starbucks in the Library!

Stop by for Lattes, Cappuccino, Frappuccino or freshly brewed coffee.
Campus vending services are available throughout campus. A wide variety of treats include freshly brewed coffee by the cup, health conscious snacks, canned and bottled beverages.

## Tartan Marketplace

Building 7,
Lower Level

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:00 a.m. - 8:00 p.m. |
| Friday | 7:00 a.m. - $2: 30$ p.m. |
| Saturday | 7:30 a.m. - 2:00 p.m. |

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

## Tartan Sports Café

Building 8,
Lower Level

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:30 a.m. - 7:00 p.m. |
| Friday | 7:30 a.m. - 2:00 p.m. |
| Saturday | Closed |

Skyline chili, Ben \& Jerry's ice cream, freshly baked pizza, fruit smoothies, prepared salads and assorted beverages.
Tartan Subshop
Building 3,
Third Floor

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:30 a.m. - 8:00 p.m. |
| Friday | 7:30 a.m. - 2:00 p.m. |
| Saturday | Closed |

The "new" Tartan Subshop serves hot sandwiches daily. Made to order deli sandwiches, fresh soups, hot dogs, salads, and assorted beverages.

## Tartan Pizza Cart

Building 2 \& 10,
Walkway
Third Floor

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:30 a.m. - 8:00 p.m. |
| Friday | 7:30 a.m. - 2:00 p.m. |
| Saturday | Closed |

Freshly baked pizza, hot dogs, prepared salads, snacks, and assorted beverages.

## Snack Bar

Building 13,
Fourth Floor

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:30 a.m. - 8:00 p.m. |
| Friday | 7:30 a.m. - 2:00 p.m. |
| Saturday | Closed |

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

## Espresso Cafe

Building 11,
Third Floor

| Hours* |  |
| :--- | :--- |
| Monday - Thursday | 7:30 a.m. - 6:00 p.m. |
| Friday | 7:30 a.m. - 2:00 p.m. |
| Saturday | Closed |

Speciality coffee blends, cappuccino, lattes, box lunches and breakfast pastries.
*NOTE: Summer hours for these facilities may vary.

## 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:

- Six-lane swimming pool
- Diving well
- Gymnasium
- Aerobics
- Self defense
- T'ai Chi
- Yoga
- Pilates
- Weight room with cardiovascular machines and freeweight area
- 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.

## Wellness \& Performance Lab <br> Building 8, Room 8L13, (937) 512-2860

Through the Wellness \& Performance Lab, the Physical Education department and Dietetics \& Nutritional Management department offer a menu of assessment services, carried out by students under close faculty supervision. Services include body composition analysis (Bod Pod), nutrition analysis and nutrition assessment follow-up sessions. These services are offered at a modest cost to Sinclair faculty, staff and students as well as to members of the community. To learn more about these services, contact the Physical Education department or the Dietetics \& Nutritional Management department.

## 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.

## Digital Information Signage

Sinclair has added a messaging system that provides a new communication avenue for students, faculty and staff on the Dayton campus. Using the existing campus cable TV infrastructure, Sinclair has added viewing locations for information on Corporate \& Community Services, Public Relations, and Marketing events.

Look for events information at the following locations in the Dayton campus:

- Building 14 walkway
- Admissions lobby, Room 10112
- Registration \& Student Records lobby, Second Floor, Building 10
- Building 10 walkway, outside Room 10309
- Library, near Starbucks
- Student Leadership Development Center, hall and game areas.


## Computers on Campus <br> \section*{I.T. Computer Labs}

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.

Sinclair computer labs are managed by the college I.T. division. These labs provide first-class support for all Sinclair students, faculty and staff in the use of Information Technology.

Other equipment available includes plotters, Macintoshes, video editing equipment and a fax machine for local use in the Teleport. 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 Operating System, Microsoft Office, 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 in the Teleport, and the CIL (Building 14).

## Locations and Hours:

I.T. Labs, Building 7, Library, Lower Level , (937) 512-2002

Monday - Thursday 7:30 a.m. - 9:30 p.m.
Friday
Saturday 7:30 a.m. - 5:00 p.m.

Sunday (Closed summer) Closed
I.T. Labs - Teleport, Building 13, Second Floor, Room 13223, (937) 512-5394

Monday - Thursday
Friday
Saturday
Sunday
8:00 a.m. - 9:30 p.m.
8:00 a.m. - 4:00 p.m.
Closed
12:30 p.m. - 6:30 p.m.
(Teleport, closed summer)
I.T. Labs - CIL, Building 14, First Floor, Room 14109, (937) 512-5079

Monday - Thursday
Friday
Saturday
Sunday
8:00 a.m. - 9:30 p.m.
8:00 a.m. - 5:00 p.m. 8:00 a.m. - 4:00 p.m. (Closed summer) 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 www.sinclair.edu/ technology/labs/ITlabs.

## Kiosks

Stand alone information computers are available to check personal information, grades, and locations on campus.

They are located in Building 3, 7, 13, and 20. Two are in Building 10 near Financial Aid and Third Floor walkway.

## GoPrint Services

GoPrint is a pay-for-print system to meet the challenges labs face when dealing with printing issues. The GoPrint system requires students to use their my.Sinclair user names and passwords and funds from their Tartan Cards to print in certain labs on campus. To help offset the printing fees, students receive $\$ 7.50$ a quarter or 150 pages of $81 / 2^{\prime \prime} \times 11^{\prime \prime}$ of free prints each quarter in the GoPrint system.

Printing for computers is available for a fee at various locations on the Dayton campus. GoPrint is in the locations below.

Business Information Systems Room 3241<br>Tutorial Learning Center Room 7L07<br>Early Childhood Education Room 9108<br>Library<br>Room 7L00<br>Radiology<br>Room 3341<br>Room 13223<br>Room 14109 and 14115

## Academic Resource Center (ARC)

Building 13, Room 13105, (937) 512-3495
An ARC instruction facilitator will assess skill levels and guide students to help improve math, English and reading skills.
See page 71 for details.

## www.sinclair.edu

## 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.


## Testing Center

## Testing Center

## Building 10, Room 10445, (937) 512-3076 www.sinclair.edu/stservices/enrl/testing/index.cfm

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.

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.

## Academic Testing Hours of Operation*:

## First Test Last Test

Day(s) Open Given Given Close

Mon. - Thurs. 8:00 a.m. 8:30 a.m. 7:00 p.m. 8:00 p.m. Friday $\quad$ 8:00 a.m. $\quad 8: 30$ a.m. $\quad$ 3:00 p.m. $\quad$ 4:00 p.m. Saturday 8:00 a.m. 8:00 a.m. 11:00 a.m. 12:00 p.m.

* No Saturday hours during quarter breaks and summer quarter.
Several times throughout the year the Testing Center will be closed for a half day staff training session. Contact the Testing Center for these dates.


## Placement Testing Hours of Operation*

Please arrive at least two hours prior to closing for placement testing. Picture I.D. is required.

| Day(s) | Open | Close |
| :--- | :--- | :--- |
| Mon. - Thurs. | 8:00 a.m. | 8:00 p.m. |
| Friday | 8:00 a.m. | 4:00 p.m. |
| Saturday | 8:00 a.m. | 1:00 p.m. |

* No Saturday hours during summer quarter and interim break.


## I.T. Help Desk

(937) 512-4357 (HELP), (866) 781-4357 (HELP)

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 Tickets Online found at http://hdto.sinclair.edu.

The Help Desk analysts are trained to help students with their questions about the supported software listed below. They will not be expected to answer questions about nonsupported 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
- ANGEL
- Web Advisor

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

## Regional Centers

## Sinclair's Expanding Opportunities

Whether you are a full-time student starting college or an adult looking to begin a new career, the Learning Centers provide a pathway of courses to achieve your goals. If you're looking for a career in health care, business, technology, transferring to a four-year school, or career development, we've got a pathway for you.

## Learning Centers

Going to college just got easier for regional residents. Every minute counts, and convenience is key. Sinclair understands, so that's why Sinclair is bringing college to you.

At the Learning Centers, students can start when they are ready. With five-week and 11-week terms, two-week mini sessions, weekend classes, and day and evening sessions, students can arrange a schedule that works with their lives.

## Englewood and Huber Heights Learning Centers

Sinclair is bringing the same high quality classes and services expected from the downtown Dayton campustotwo new learning centers in Englewood and Huber Heights. Located next to the YMCAs ineach community, these learning centers provide Sinclair's award winning academics and services in the convenience of their own neighborhoods. The centers provide degree opportunities and general education and university parallel courses. There are day, evening, and weekend courses, onsite student services such as recruitment, admissions, registration, financial aid, student advising, and computer lab services.

## Englewood Learning Center

Corner of Hoke Road and State Route 40 in Englewood next to the Kleptz YMCA.
Phone (937) 836-8750
Hours:
Monday - Thursday, 8:00 a.m. - 7:00 p.m.
Friday, 8:00 a.m. - 5:00 p.m.
Saturday, 8:00 a.m. - 12:00 noon

## Huber Heights Learning Center

Shull Road next to the Huber Heights YMCA.
Phone (937) 233-5500

## Hours:

Monday - Thursday, 8:00 a.m. - 7:00 p.m.
Friday, 8:00 a.m. - 5:00 p.m.
Saturday, 8:00 a.m. - 12:00 noon

## Learning Centers

## Each Learning Center Includes:

- Approximately 15,300 square feet of space with eight classrooms and one computer classroom
- An "Information Commons" combining library services function and open computer lab
- Small Tartan Campus Store, a cashier for tuition and fee payments, and lounge area
- Offices for private academic and personal counseling

The Learning Centers also provide student services in outreach recruitment, admissions and registration, financial aid information, academic advising and counseling, and computer lab services. Students attending these learning centers will not have to drive to the downtown Dayton campus to fulfill their student needs.

For more information on the Englewood or Huber Heights Learning Centers, visit their web sites at learningcenters.sinclair.edu.

## Courseview Campus Center

## 5380 Courseview Drive, Mason www.sinclair.edu courseview.sinclair.edu (513) 339-1212

Sinclair opens the new Courseview Campus Center, Mason, Ohio, fall 2007! Located off Interstate 71, the one story facility is across from Kings Island and just north of Lindner Family Tennis Center. The leased facility will house 10-12 classrooms and support facilities and have approximately 300 parking spaces.

Although Sinclair has been offering its award winning academics and student services in Warren County for years, the new site will bring a change in serving Warren County citizens. The center will provide degree offerings for general education and university parallel courses. There will be day, evening, and weekend courses, on-site student services such as recruitment, admissions, registration, financial aid, student advising, and computer lab services.

In 2005 the Governor of Ohio signed into law a provision that made Sinclair Community College the official community college of Warren County. Sinclair has been granted the rights and responsibilities to provide direct educational services to both Warren and Montogomery counties.

Revenue to fund the Mason campus comes from Warren County student tuition, fees, and state subsidy. No funds derived from Montgomery County property tax levy may be spent in Warren County.

## Learning Center

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 Online/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 I.T. certification tests, online courses, and database management services.


## Online/Distance Learning Opportunities

## (937) 512-2990, 1-888-226-2457

## Building 14, Room 14223

## www.sinclair.edu/distance

Online/Distance Learning courses encompass a broad range of disciplines across the college's curriculum and are a good alternative for motivated students who prefer flexible scheduling. Course content is the same as regular, on-campus courses and meets all program and transfer requirements. These courses also have the same low tuition rates and high quality instructors as traditional classes.

There are two types of Online/Distance Learning courses:

- Those that students take on their own, using alternative delivery formats
- Those that are taught in a classroom at the off-campus locations at specific times and days.
Students register for Online/Distance Learning courses in the same manner they register for other Sinclair courses. All course work must be completed within the quarter it is taken and as outlined in the course syllabus.


## See Online/Distance Learning chapter, page 53.

# Services for Students 

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

> There are many services available, helping students achieve success while at Sinclair.

## Academic Advising Center

See page 19.

## Academic Resource Center (ARC)

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

Thinking aboutcoming back to college? Mathskills seemalittle 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 13105. An ARC instructor-facilitator will assess skill levels and guide students 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. <br> Friday, 10:00 a.m. - 4:00 p.m. <br> Closed 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's 40,000+ graduates through social and service opportunities, benefits, publications, and special events.

## Alumni Association

Upon graduation, alumni receive a one-year, complimentary membership to the Sinclair Alumni Association. Members receive many benefits, including:

- Access to college facilities (certain limitations apply)
- Eligibility to run for a seat on the 15-member council
- Volunteer opportunities at association sponsored events and activities.
Proceeds from activities support the association's scholarship program. Dues are $\$ 40$ per year, or $\$ 200$ for a lifetime membership.


## Campus Ministry

Building 10, Room 10317, (937) 512-2768
The Campus Ministry Center, staffed by Roman Catholic and Protestant campus ministers, provides such services as:

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


## Sinclair Police

## Sinclair 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 Police department employs 23 sworn police officers, safety officers in Buildings $9,12,13$, 14, 19, 20, Library, plus officers on each level of the garage and perimeter parking lots. Safety officers are also at the Huber Heights and Englewood learning centers and the Courseview Campus Center on a limited basis. 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 Sinclair Police.

Students, faculty, staff and visitors are expected to promptly and accurately report any crime or incident that negatively affects the college to Sinclair 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 Sinclair Police.

Sinclair 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 Sinclair 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 an intercom, press the red button and the intercom will automatically connect to Sinclair Police.

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 press the red button and the system will provide direct contact with Sinclair Police.

Everyone is encouraged to become familiar with each emergency telephone/intercom location on campus.

## Always Use Crosswalks!

Sinclair Police provide a safe and healthy environment for students, faculty and staff. Therefore, there is a zero tolerance policy for jaywalking violations. For all those on campus, please use the designated crosswalk area when the walking signal is lit and stop for the red lights. Help Sinclair prevent the next serious accident by keeping a safe environment.

## Career Services

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

## Career Development Services

Use CareerServices tohelp 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 fairs, on site and online
- Career and employment 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
- Computer simulated mock interview software
- 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 Seekers Training program, a free service open to the community. This intensive workshop meets for $21 / 2$ hours a week, for six 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.


## Counseling Services

Additional Services

- On-Campus Recruitment
- Resume Critiquing
- Employer Research Information
- 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
- Career fairs, on site and online
- Computer simulated mock interview software


## Employment Services

Students who are going to graduate within three quarters, or who are a Sinclair graduate or alumnus, can use the college's specialized employment 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 which is owned and operated by Sinclair. The centers are licensed by the Ohio Department of Human Services and accredited by the National Association for the Education of Young Children.

The philosophy of the learning environment supports developmentally appropriate practices and child centered activities. Early Childhood degreed teachers and practicuin students facilitate children's cognitive activities, social, physical and emotional growth. The children served are three, four and five years of age.

Two centers are available at reasonable rates: The Early Childhood Learning Center, a full-time program, and the Flex-Time Center, a 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 eligible students. Child care tuition payments are made at the Bursar's office (Building 10, Second Floor).

## Child \& Family Education Laboratories

Language Lab/Computer Lab, Building 9, Room 9108, (937) 512-2787<br>Resource Library, Building 9, Room 9223, (937) 512-2787 Computer Classroom, Building 9, Room 9311, (937) 512-8177

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 10424, (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 10424, (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. Counseling Services helps men in the AAMI attain their 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 provided a Counseling Action Plan to guide their progress.

AAMI men may be involved in individual counseling, group activities and mentoring opportunities.

## Eligibility Requirements for AAMI include:

- Willingness to follow an Individual Learning Plan or Counseling Action Plan.
- Willingness to participate in planned quarterly activities
- Make satisfactory academic progress each quarter in DEV classes below 100 level.
- Recommended 2.0 quarterly grade point average or cumulative grade point average upon completion of the first quarter in the program.


## Disability Services

Building 10, Room 10421, (937) 512-5113 or 512-3096 (TTY) Disability Services offers accommodation provisions to enhance academic success and access in accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973.

The department offers reasonable academic accommodations, auxiliary aids, assistive technology, adaptive equipment, and support services to qualified individuals with disabilities. Assistance is available to faculty and staff working with this population. Other services include brief personal and academic counseling, and vocational exploration. The department is proactive in monitoring the campus to assure an accessible environment.

Students request and receive services on a voluntary basis. To qualify for services, individuals must contact Disability Services to schedule an appointment with a counselor. Services are individualized and based upon appropriate documentation and impact of the disabling condition(s).

## Available Services:

- Adaptive equipment/ furniture
- ADA work stations
- Alternative print materials/formats
- Community resource information
- Disability management advising
- Note-taking assistance
- Reader/ writer services
- Sign Language interpreters
- Special testing arrangements
- Tutoring

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.

## English as a Second Language (ESL) <br> 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.

## Pre-College Programs

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

## www.sinclair.edu/enrichment

The Pre-College Programs are learning opportunities for pre-college students. The academic, social and cultural readiness activities of enrichment programs support the academic goals of participating students and give them an early college experience.Students interested in PSEO, Quick Start, Upward Bound, or Young Scholars, should contact their school counselor. Students also may contact the PreCollege Programs at the college for more information, by calling (937) 512-5188.

## Post Secondary Enrollment Options Program (PSEO) - Grades 9-12

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

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, and the school district assumes the costs as long as the students comply with the program guidelines. Those costs include tuition, fees and books.
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 the advantages of the program before they may apply for PSEO.
- Students must 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 following academic year. If this deadline is not met, written permission must be obtained from the district superintendent of the school district.
- Students must submit the completed PSEO application to Sinclair's Pre-College Programs office by June 1 to be eligible for the next academic year.
- Signatures of the student, the parent or guardian, and the high school counselor are required on the application.


## PSEO Class Policy

Sinclair Community College will review the final selection of college classes approved by the high school and may 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.

## Quick Start - Grades 11 and 12

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

This pre-college program offers college courses in technical academic areas tojuniors and seniors enrolled in career-technical education programs at participating high schools. Quick Start gives students an opportunity to experience college life while pursuing their educational goals.

## Upward Bound - Grades 9-12

Building 12, Room 12382, (937) 512-2331
A federally funded pre-college program forlow incomeand/ 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, $\mathrm{ACT} / \mathrm{SAT}$ review, a six-week summer program each year of participation.

## Young Scholars Program - Grades 8-12 <br> Building 12, Room 12331, (937) 512-3730

The Young Scholars Program (YSP) is a five-year pre-college program designed to help 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, four-hour Saturday sessions guided by a five-year curriculum, aligned with Ohio Graduation Test 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 31.
www.sinclair.edu

## Health Insurance

## Counseling Services

## Building 10, Room 10424, (937) 512-2752

While Sinclair does not provide health care insurance, information is available on a health insurance plan that is provided to both full-time ( 12 or more credit hours) and part-time students (at least 9 credit hours) at special rates.

Fl International students must purchase different insurance. Fl insurance information is available Registration \& Student Records, Building 10, 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 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 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.

## Library

See page 64.
library.sinclair.edu

## Ombudsman

## 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 Leadership Development office, Building 8, Room 8025, (937) 512-2509.

## 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 10421

The Ombudsman/Student Advocate provides assistance to 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 66.
www.sinclair.edu

## Registration \& Student Records

See page 27.
www.sinclair.edu

## Sinclair Central

See page 30.
www.sinclair.edu

## Student Leadership Association

See page 79, or go to www.sinclair.edu/stservices/sact/index.cfm. At this site students can access the Student Judicial Affairs Policy and information about SLA.

## 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 <br> 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 chances of academic success for Sinclair＇s first generation and income eligible students．The program also works with the students to promote a comfortable college environment，so they can persist and accomplish their academic and career goals．

At Sinclair，Student Support Services innovates strate－ gies 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

## Tutorial Services

Library，Building 7，Lower Level，（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 scho－ lastic ability and interpersonal skills，are available in open learning laboratories，on a scheduled basis，and in group supplemental instruction sessions．Students interested in receiving free tutoring or applying to become a paid tutor， visit the Tutorial office．
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

See page 38.
www．sinclair．edu

## Student Life

## 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 and developing leadership skills. 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 Leadership Development and Student Leadership Association, Room 8025, Building 8, lower level, to learn more about leadership development activities, honor societies and clubs related to careers, special interests or activities.

There are over 40 active clubs/organizations on campus. To learn more about clubs, leadership development activities, or honor societies stop by Student Leadership Development, Room 8025.

## Bravo for Fine \& Performing Arts

## Theatre Season 2007-2008

Something's Afoot

Book, Music and Lyrics by James McDonald, David Vos and Robert Gerlach
October 12-20, 2007

## Ama and The White Crane

By Maureen A. O'Toole
February 22-March 1, 2008
Spring Dance Performance
April 5, 2008

## An Experiment With An Air Pump

By Shelagh Stephenson
May 9-17, 2008
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 Leadership Association and the Student Leadership 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


## Sports

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

## Intercollegiate Sports

## Sports for All

Sinclair's intercollegiate sports program can give them what they 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 |
| TBA | Men's Tennis |
| Jeff Dillon | Women's Basketball |
| Michael Goldschmidt | Men's Baseball |
| TBA | Women's Tennis |

## Physical Activity Center

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:

- six-lane swimming pool and diving well
- gymnasium
- aerobic, self defense, T'ai Chi, Yoga and Pilates room
- weight room with 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.

## Wellness \& Performance Lab

## Building 8, Room 8L13, (937) 512-2860

Through the Wellness \& Performance Lab, the Physical Education department and Dietetics \& Nutritional Management department offer a menu of assessment services, carried out by students under close faculty supervision. Services include body composition analysis, nutrition analysis and nutrition assessment follow-up sessions. These services are offered at a modest cost to Sinclair faculty, staff and students as well as to members of the community. To learn more about these services, contact the Physical Education department or the Dietetics \& Nutritional Management department.

## Student Leadership Development

## Building 8, Room 8025, (937) 512-2509 <br> www.sinclair.edu/organizations/government/index.cfm

The department of Student Leadership Development is a vital part of life at Sinclair Community College. Students may choose to participate in a number of activities offered through this office. Programs and services include:

- opportunities for students to develop their leadership skills.
- establish or join a student club
- community resource directory that provides information about off-campus housing
- locker rental
- and much more

For more information contact Student Leadership Development, Building 8, Room 8025.

## Student Leadership Association

## Building 8, Room 8025, (937) 512-2509 www.sinclair.edu/organizations/government/index.cfm

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

BecauseSLA 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 Leadership Advisory Board, the SLA sponsors educational and entertainment activities such as dances, concerts, movies and many other events.

The Student Leadership Association executive board members:

- Authorize the chartering of student organizations and clubs.
- Approveconstitutional 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 Leadership Association meetings held monthly during each academic term. No meetings are scheduled during the summer term. Get information about the Student Leadership Association, its constitution and information on developing a club or organization in the Student Leadership Development office, Room 8025.

## The Clarion

## 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 developleadership skills, serviceand 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 that will develop their leadership potential. The goal of Leadership Sinclair CEO is:

- to teach students the needed skills that will enable them to lead more effectively within the college, community and work place
- to encourage Sinclair students to see leadership as one of their fundamental goals in life
- to pursue leadership with intensity and excellence on a daily basis.

Any student 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 interested in this program should contact the Student Leadership Development office for further information.

# Ponnie Kendell Leadership Development Center 

Building 8, Room 8025, (937) 512-2509 www.sinclair.edu/stservices/sact/index.cfm

The Ponnie Kendell Leadership Development Center is the place for students to relax between classes, have a snack, play games, attend special programs and events, meet with club members or relax. A Sports Café, located in the center, offers a variety of choices in food.
Leadership Development Center 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

## 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. Published weekly during the regular academic year and twice during the summer quarter, anyone interested may pick up a new edition every Tuesday during the quarter.
"Dedicated to the Cause of Communication," the Clarion is produced by students for students. Students may become involved in reporting, graphic design, editing, photography, advertising, and marketing. Some areas provide students opportunities to earn college credit for their work and be paid as student assistants. Scholarships are also available.

The Clarion, with the support of the Dayton Daily News, hosts a journalism workshop for area high school students. Participants come from a six-county area and many are interested in journalism as a future career.

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

## Phi Theta Kappa Honor Society Building 8, Room 8025, (937) 512-2517

Sinclair students have the opportunity 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, offers opportunities for campus and community service, leadership development, and scholarships.

Phi Theta Kappa members become part of an international organization, which offers national scholarships and scholastic development.

To be eligible for membership, students must have earned 15 academic credit hours or more at Sinclair, with a cumulative GPA of 3.5 or higher.

After joining, members receive a Phi Theta Kappa notation on the Sinclair transcript. Members also have the right to wear the Phi Theta Kappa gold stole at graduation and will be provided a Phi Theta Kappa gold seal to affix 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 Honors Program <br> Building 10, Room 10339, (937) 512-4331

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 must 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) 512-4331, www. sinclair.edu/departments/honors/.


## Degrees \& Programs

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 advisor or faculty advisor. Find a complete list of advisors and department chairpersons in each division's listing in this catalog. Feel free to contact them for answers to questions.

The programs, certificates, short term certificates follow the division information, and are listed in alphabetical order.

## To be successful, students must:

- Determine the transferability of all courses before taking classes atSinclair. Remember: the transferschool 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 advisor and an advisor at the transfer school.
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, WrightState 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 toencouraging 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

## 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, inhelping to define general education,NCAstates,"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, students acquire breadth of knowledge and gain competence to achieve independent intellectual inquiry. 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 Community College community of students, faculty, and staff, I will uphold the values of citizenship, socialresponsibility, 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 Core Course Requirements

In order to determine what courses fulfill the requirements for general education and are applicable 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 development of the across-the-curriculum competencies listed on the next page.

Sinclair students who are seeking degrees are required to complete a series of courses to fulfill General Education requirements. This series of courses is incorporated into the curriculum plan for every program of study leading to a two-year degree. 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)
Subject
Credit
Code No. Title Hours
ENG 111 English Composition I 3
ENG 112 English Composition II 3
ENG 113 English Composition III 3
ENG 131 Business Communications I 3
ENG 132 Business Communications II 3
ENG 121 Technical Composition I 3
ENG 122 Technical Composition II 3
One course of oral communication (COM courses)
Subject
Credit
Code No. Title Hours
COM 206 Interpersonal Communication
One course of mathematics (MAT 100 level or higher or demonstrated proficiency via examination)

| Subject |  | Credit <br> Code No. |
| :--- | :--- | ---: |
| MAT | Title | Hours |

One course of humanities from any on the specified list Subject
Code No. Title Hours

HUM 130 Humanity \& the Challenge of Technology
HUM 13

The Search for Utopia

HUM/
EGR 132 Connecting Technology \& Our Lives 3
One course of social science (PSY, SOC, PLS, HIS, GEO, ECO, SWK, or HUM 115)
Subject Credit
Code No. Title Hours
PSY 119 General Psychology 5

PSY 121 General Psychology I 3
PSY 122 General Psychology II
PSY 208 Life Span Human Development
SOC 111 General Sociology I
SOC 145 Comparing Cultures
PLS 101 American Federal Government I
HIS 101 United States History (1607-1815)
HIS 111 Western Civilization (0-1300)
HIS 112 Western Civilization (1300-1815)
HIS 113 Western Civilization (1815-present)
GEO 101 Physical Geography
Pry
ECO 216 Principles of Macroeconomics I
SWK 206 Social Work as a Profession
HUM 115 International Environment:
Culture \& Business

## Competencies



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

## Subject

Code No.

## Title

Credit
Hours
Art of the Ancient World
ART 232 Art of the Medieval \& Renaissance Worlds 3
ART 233 Art of the Modern World
LIT 201 Survey of English Literature (to 1660)
LIT 202 Survey of English Literature (1660-1832)
LIT 203 Survey of English Literature (1832-present) 3
LIT 211 Survey of American Literature I
(Colonial \& Early 19th Century)
LIT 212 Middle American Literature II (Later 19th Century)
LIT 227 Introduction to Shakespeare 3

LIT 230 Great Books of the Western World 3
MUS 131 Survey of Musical Styles I
MUS 132 Survey of Musical Styles II
MUS 133 Survey of Musical Styles III
THE 201 History of Theatre I
THE 202 History of Theatre II
THE 203 History of Theatre III
Note: Check with an academic advisor correct general education courses are being selected for the academic program.

## Competencies Across the Curriculum \& 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

- Exhibitbehavior 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

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)



## www.sinclair.edu my.Sinclair.edu

## 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
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Ford Maintenance \＆Light Repair ..... 229
General Industry Safety ..... 230
Help Desk Analyst ..... 230
Human Resource Management ..... 231
Industrial Fire Protection Technician ..... 231
Industrial Maintenance Technician ..... 232
Industrial Robot Technician ..... 232
Infant／Toddler Education ..... 233
Medical Office Coding Specialist ..... 236
Multi－Skilling Health Care ..... 237
Multimedia ..... 238
NCCER HVAC Apprentice ..... 238
NCCER Plumbing Apprentice ..... 239
NCCER Sheetmetal Apprentice ..... 240
Network Engineering Associate ..... 240
Ohio Real Estate Broker ..... 241
Ohio Real Estate Sales Associate ..... 241
Pharmacy Technician ..... 242
Photographic Technology ..... 242
Plumber／Pipefitter Journeyman ..... 243
Professional Communication ..... 243
Security for the Networking Professional ..... 244
Small Office，Home Office Computer Use \＆ Security ..... 244
Social Service ..... 245
Software Applications for the Professional ..... 245
Supply Chain Management ..... 246
Tax Practitioner ..... 246
Tissue Banking Technologist ..... 247
Web Authoring ..... 247
Web Programming－Java Track ..... 248
Web Programming－Visual Basic Track ..... 248
Specialized Courses
Single courses that lead to an industry recognized certificate．
Basics of Activities Programming（ALH 125） ..... 252
Nurse Aide Training（ALH 120） ..... 252
Nurse Aide－Medication Aide（ALH 134） ..... 253
Patient Care Assistant（ALH 131） ..... 254
Pediatric Care Assistant（ALH 133） ..... 254

# University Parallel Programs 



## University Parallel

## www.sinclail.edu my.Sinclair.edu

## Sinclair Transfer Module

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.


## University Parallel

Description
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.

Type of Degree or Certificate Transfer Module

54-60 Total Credit Hours
See Transfer Chapter, page 47.

## University Parallel <br> Transfer Module

## Continued

See Transfer Chapter, page 47.

## Hours

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
ART 236
ART 237
DAN 155
DAN 157 (3)
HIS 101
HIS 102
HIS 103
(3)
(3)
(3)

HIS 105
(4)

HIS 111
HIS 112
HIS 113
(3)
(3)
(3)

HIS 214
(3)

HIS 215
(3)

HIS 216
HIS 217
(3)

HIS 218
(3)
(3)

HUM 125
(3)

HUM 130
(3)

HUM 131
HUM 135
HUM 255
LIT 201
LIT 202
LIT 203
LIT 211
LIT 212
LIT 213
(3)
(3)
(3)
(3)
(3)
(3)
(3)
(3)

LIT 217
(3)

LIT 227
(3)

LIT 230
(3)

LIT 230
(3)

LIT 240
(3)

MUS 115
MUS 131
MUS 132
MUS 133
PHI 204
PHI 205
PHI 206
REL 111
REL 112
REL 135
REL 204
THE 105
THE 201
THE 202
THE 203
(3)
(3)
(3)
(4)
(4)
(4)
(4)
(4)
(4)
(4)
(3)
(3)
(3)
(3)

Other Approved Courses
ENG 250
(3)

COM 211
(3)

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## I. College Foundation (2 hours)

FP 101 Student Success Experience
II. 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
III. Computer (3 hours)

BIS 105 Computer Concepts
or
BIS 160 Introduction to Word, PowerPoint \& Excel
IV. Communication (3 hours)

COM 211
V. Foundation Art \& Design ( 15 hours)

ART 111, 112, 113
ART 108
ART 131

## VI. Fine Art Core (7 hours) <br> ART 161 <br> ART 195, 295 <br> ART 270 (1 hour)

## VII. 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
VIII. Elective (8 hours)

Choose 8 hours of ART courses not used above.

[^3]
## University Parallel <br> Description

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.

## Type of Degree or Certificate

Associate of Arts

## 104 Total Credit Hours

## Career Opportunities

For students who want a career in art, the faculty of working professional artists will advise and assist in developing techniques and a body of work that will transfer well to other colleges and universities. If the goal is to set up a working studio after graduation, students will be given the necessary information by the faculty.

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.

## University Parallel

## Description

The University Parallel or Transfer programs are designed for the student who wants to pursue a baccalaureate degree at a four-year institution in a business discipline. The purpose for the transfer degree program is to provide the basic core of business and general education requirements for the first two years of a four-year program. The primary objective of these programs is to provide for transfer to a four-year institution rather than preparation for a job.

## Type of Degree or Certificate

Associate of Science

## 98 Total Credit Hours

## Career Opportunities

The primary objective of these programs is to provide for transfer to a four-year institution rather than preparation for a job. Provides first two years of a five-year degree.

## Business Administration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

*See page 83.

## Communication Arts

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## 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
II. Computer (3 hours)

BIS 160 (3 hours)
III. Communication (22 hours)

Required:
COM 201, 206, 211, 225, 278*
Choose three courses:
COM 212, 227, 230, 235, 245, 265, 270, 285
COM 286, 287, 290, 297
JOU 101, 102, 203, 270

## IV. Electives ( $\mathbf{1 2}$ hours)

Courses must be approved by an academic advisor.

[^4]
## University Parallel <br> Description

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 students' particular educational and career interests. Enhancing communication skills provides invaluable benefits for all students, regardless of major. See an academic advisor for appropriate course selection.

## Type of Degree or Certificate <br> Associate of Arts

## 91 Total Credit Hours

## Career Opportunities

Associate of Arts degrees in communication fromSinclair can lead to a successful transfer to four-year colleges or universities. This can provide career opportunities in such areas as communication, journalism, broadcast media, education, business, industry, government, law, ministry, social services, public relations, or provide valuable communication skills to enrich any career.

## Transfer to Four Year

Specific articulation agreementshave been developed with Wright State University and University of Dayton.

## University Parallel Description

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.

## Type of Degree or Certificate <br> Associate of Arts

## 96 Total Credit Hours

## Dance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## 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) (DAN 155, DAN 157, MUS 115 plus any 6 hours from the OTM)
II. Computer (3 hours)

BIS 160 Introduction to Word, Powerpoint, \& Excel
III. Communication (3 hours)

COM 206 Interpersonal Communication
IV. Dance Electives (3 hours)

MUS 121 Piano Class or
THE 103 Acting for the Non-Major or
DAN 178 Technical Theatre for Dancers
IV. Dance Concentration (33 hours)

DAN 145 Dance Practicum (3 credits) (1 credit hour for 3 quarters) or
DAN 245 Contemporary Dance of Sinclair Performance (3 credits) (1 credit hour for 3 quarters)
DAN 204, 205, 206 Dance Pedagogy (3 credits)
DAN 241, 242 Dance Composition I and II (6 credits)
DAN 180 Music for Dancers (3 credits)
DAN 272 Ballet II (9 credits) (9 repeatable credits)
DAN 273, 274, 275 Modern, Jazz, and Tap Technique (9 credits)
NOTE:This is a model only.Students should plan their specific program with dance faculty or academic advisor. To complete the Ohio Transfer Module, see an academic advisor.

# Engineering Science 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ETD 128 Print Reading with GD\&T 3
ENG 111 English Composition I 3
MAT 201 Calculus \& Analytic Geometry I
PHY 201 General Physics I
SECOND QUARTER
ENG 112 English Composition II 3
OPT 198 Excel for Engineering Technology 2
MAT 202 Calculus \& Analytic Geometry II 5
PHY 202 General Physics II 6
Social Science Elective*
TOTAL $\quad \frac{3}{19}$3

## THIRD QUARTER

CHE 151 General Chemistry I 5
ENG 113 English Composition III 3
$\begin{array}{llll}\text { MAT } & 203 & \text { Calculus \& Analytic Geometry III } & 5 \\ \text { PHY } & 203 & \text { General Physics III }\end{array}$
PHY 203 General Physics III $\frac{6}{19}$
FOURTH QUARTER
CHE 152 General Chemistry II 5
COM 211 Effective Public Speaking 3
MAT 216 Elements of Linear Algebra 4
ETD 199 Introduction to Computer Aided Drafting Concepts 2
Engineering Technical Elective3

## FIFTH QUARTER

MAT 215 Differential Equations 5
Social Science Elective* 3
Humanities Elective* 3
ETD $\quad \overline{211}$ Engineering Mechanics I
TOTAL $\quad \overline{16}$

## SIXTH QUARTER

ETD 212 Engineering Mechanics II 5
Social Science Elective* 3
Humanities Elective* 6
Engineering Technical Elective
TOTAL

## University Parallel

## Description

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 advisor, before signing up for difference 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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.
Successful placement into declared major (see Engineering Technologies academic advisor).
12 credit hours of college level course work with a grade of " C " or better

## Type of Degree or Certificate

Associate of Applied Science

## 105 Total Credit Hours

## Transfer to Four Year

Note: University of Dayton/Sinclair Dual Admission-Students planning a future in engineering should consider dual admission to Sinclair and the University of Dayton. Students who complete an associate degree in qualifying for the Engineering Science 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, students will have access to some University of Dayton and Sinclair facilities while attending both institutions. Call (937) 512-2282 for details.

## University Parallel

## Liberal Arts \& Sciences

Emphases: African-American Studies
Appalachian 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

## Associate of Arts

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit Hours

I. English (9 hours required) English (ENG)

111 Composition I 3
112 Composition II 3
113 Composition III

## II. Mathematics (3 hours minimum required) Mathematics (MAT)

108 Math \& the Modern World
116 College Algebra 5
117 Trigonometry4

122 Statistics I
151 Introduction to Mathematical Modeling 3
201 Calculus \& Analytic Geometry I 5
202 Calculus \& Analytic Geometry II
203 Calculus \& Analytic Geometry III 5
204 Calculus \& Analytic Geometry IV 5
215 Differential Equations 5
216 Elements of Linear Algebra 4
218 Calculus for Business \& Economics
5
III. Natural \& Physical Sciences

One sequence required with labs; 12 hours minimum required Astronomy (AST)

111 Introduction to Astronomy 4
112 The Solar System 4
113 Stars, Galaxies, \& Cosmology 4
Biology (BIO)
111 General Biology I 4
112 General Biology II 4
113 General Biology III 4
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

University Parallel

## Description

The Associate of Arts degree program in Liberal Arts \& Sciences is designed for students whoare planning to transfertoa four-yearcollege or university and pursue baccalaureate degree programs such as Education, English, Geography, History, Modern Languages, Philosophy, Political Science, Psychology, Social Work, Sociology, etc.

## Type of Degree or Certificate

Associate of Arts

## 94 Total Credit Hours

## Transfer to Four Year

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.

## Associate of Arts

## Continued

## Hours

## Geology (GLG)

141 General Geology I ..... 4
142 General Geology II ..... 4
143 General Geology III ..... 4
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
IV. Social \& Behavioral Sciences15 hours required. A minimum of 9 hours from this list, plus an additional 6hours from either this list or the elective list. Choose courses from at least twoareas listed below.
Economics (ECO)
216 Principles of Macroeconomics ..... 4
218 Principles of Microeconomics ..... 4
Geography (GEO)
101 Introduction to Geography I ..... 4
102 Introduction to Geography II ..... 3
201 World Regional Geography I ..... 3
202 World Regional Geography II ..... 3
Political Science (PLS)
101 American Federal Government I ..... 3
102 American Federal Government II ..... 3
103 State Government ..... 3
104 Urban Government ..... 3
200 Political Life, Systems \& Issues ..... 3
201 International Relations I ..... 3
Psychology (PSY)
119 General Psychology ..... 5
or
121 General Psychology I ..... 3
122 General Psychology II ..... 3
208 Life Span \& Human Development ..... 5
or
205 Child Development ..... 4
and
206 Adolescent \& Adult Psychology ..... 3
214 Drugs \& Behavior ..... 4
217 Abnormal Psychology ..... 4
218 Counseling Psychology ..... 4
220 Personality Psychology ..... 4
225 Social Psychology ..... 4
228 Psychology in the Work Place ..... 4
235 Research Methods for Social Sciences ..... 4
236 Behavioral Science Statistics ..... 4
242 Educational Psychology ..... 4
$120 \underset{\substack{\text { General Sociology } \\ \text { or }}}{ } 5$

111 General Sociology I and
112 General Sociology II
145 Comparing Cultures ..... 3
160 Social Patterns in Aging ..... 3
205 Social Problems ..... 4
208 The Urban Environment ..... 3
215 Cultural Diversity ..... 4
226 Criminology ..... 3
V. Arts \& Humanities15 hours required. A minimum of 9 hours from this list, plus an additional 6hours from either this list or the elective list. Choose courses from at least twoareas listed below.
Art (ART)
101 Introduction to Art ..... 3
102 Art Appreciation: Art Media ..... 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 (Colonial \& Early 19th Century) ..... 3
212
Survey of American Literature II (Later 19th Century) ..... 3
213 Survey of American Literature III(20th Century)3

3

## Credit

## Hours

$\square$
$\square$
University Parallel
Associate of Arts

## Continued

## University Parallel

## Associate of Arts

## Continued

Credit
Hours
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
Philosophy (PHI)
204 Great Books: Philosophy ..... 4
205 Introduction to Philosophy ..... 4
206 Ethics ..... 4
Religion (REL)
111 Eastern Religions ..... 4
112 Western Religions ..... 4
135 American Religious Movements ..... 4
204 Great Books: The Bible \& Western Culture ..... 4
Theatre (THE)
105 Theatre Appreciation ..... 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 Public Speaking ..... 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 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)
LA 101 Student Success Experience ..... 2

## 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.

## Associate of Arts Electives

|  |  |
| :--- | ---: |
|  |  |
| Arts \& |  |
| Humanities |  |
| ART | (any course) |
| DAN | (any course) |
| HIS | (any course) |
| HUM | (any course) |
| LIT | (any course) |
| MUS | (any course) |
| PHI | (any course) |
| REL | (any course) |
| THE | (any course) |

Modern Languages

| AFR | 121 |
| :--- | :--- |
| AFR | 122 |
| FRE | 101 |
| FRE | 102 |
| FRE | 103 |
| FRE | 201 |
| FRE | 202 |
| FRE | 203 |
| GER | 101 |
| GER | 102 |
| GER | 103 |
| SPA | 101 |
| SPA | 102 |
| SPA | 103 |
| SPA | 201 |
| SPA | 202 |
| SPA | 203 |


\section*{Mathematics <br> | MAT | 132 (A.A. only) |
| :--- | :--- |
| MAT | 133 |
| MAT | 134 |
| MAT | 220 |}


| Natural \& Physical Sciences |  |
| :--- | :--- |
| BIO | 104 |
| BIO | 141 |
| BIO | 142 |
| BIO | 143 |
| BIO | 205 |
| BIO | 222 |
| BIO | 227 |
| CHE | 120 |
| CHE | 121 |
| CHE | 122 |
| GLG | 145 |

Social \& Behavioral Sciences

| AFR | 111 |
| :--- | :--- |
| AFR | 112 |

ECO 216
ECO 218
GEO 204
PLS (any course)
PSY 105
PSY 117
PSY 120
PSY 124
PSY 126

| Credit <br> Hours |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: |
|  | PSY | 130 | 3 |
| 3 | PSY | 135 | 3 |
| 3 | PSY | 140 | 3 |
| 3 | PSY | 141 | 3 |
| 3 | PSY | 142 | 3 |
| 3 | PSY | 145 | 3 |
| 3 | PSY | 159 | 3 |
| 3 | PSY | 160 | 3 |
| 3 | PSY | 165 | 4 |
| 3 | PSY | 180 | 3 |
|  | PSY | 207 | 3 |
|  | PSY | 229 | 3 |
| 3 | PSY | 270 | 1-6 |
| 3 | PSY | 295 | 1-4 |
| 4 | PSY | 297 | 1-6 |
| 4 | SOC | 115 |  |
| 4 | SOC | 117 | 3 |
| 4 | SOC | 125 | 3 |
| 4 | SOC | 130 | 3 |
| 4 | SOC | 209 | 3 |
| 4 | SOC | 210 | 3 |
| 4 | SOC | 214 | 3 |
| 4 | SOC | 216 | 3 |
| 4 | SOC | 217 | 3 |
| 4 | SOC | 225 | 3 |
| 4 | SOC | 227 | 3 |
| 4 | SOC | 235 | 3 |
| 4 |  |  |  |
|  | Other |  |  |
|  | ACC | 121 | 5 |
|  | ACC | 122 | 5 |
| 5 | COM | (any course) | 3 |
| 5 | FIN | 215 | 3 |
| 5 | JOU | 101 | 3 |
| 4 | JOU | 102 | 3 |
|  | LAW | 101 |  |
|  | LAW | 102 | 4 |
| 3 | ASL | 111 | 3 |
| 4 | ASL | 112 | 3 |
| 4 | ASL | 113 | 3 |
| 4 | ASL | 228 | 4 |
| 4 | ASL | 229 | 4 |
| 3 | ASL | 230 | 4 |
| 5 | MAN | 105 | 3 |
|  | MAN | 205 | 3 |
| 4 | MRK | 201 |  |
| 4 | MRK | 202 | 3 |
| 4 | Physical Education |  |  |
|  | PED | 200 | 2 |
| 3 | PED | 208 | 1 |
| 3 | PED (any activity course) |  | 1 |
| 4 |  |  |  |
| 4 | Note: A maximum of two hours of PED activity courses may be applied to the A.A. or A.S. degree. |  |  |
| 3 |  |  |  |
| 3 |  |  |  | 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 advisor by permission of the dean of Liberal Arts \& Sciences.

## Continued

## University Parallel

## Description

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
Appalachian 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 advisor 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 advisor for assistance.

## Type of Degree or Certificate

Associate of Arts

# Associate of Arts Emphasis Areas 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## 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 |  |

## Appalachian Studies

| GEO | 206 | Appalachian Environment |
| :---: | :---: | :---: |
| HUM | 140 | Appalachian Folkways |
| HUM | 141 | Appalachia |
| HUM | 204 | Religion in Appalachia |
| LIT | 238 | Appalachian Literature |
| SOC | 118 | Appalachian Families |
| SOC | 119 | Diversity in Appalachia |
| SOC | 270 | Sociology Internship |
| GEO | 102 | Human Geography or |
| SOC | 145 | Comparing Cultures or |
| SOC | 210 | Rural Communities |
| SOC | 215 | Or ${ }_{\text {Oltural }}$ Diversity |

## Creative Writing (English)

ENG 250 Personal Essay: Advanced Composition
ENG $255 \quad$ Creative Writing: Poetry
ENG 256 Creative Writing: Fiction
ENG 257 Freelance
ENG $258 \quad$ Advanced Fiction Writing
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 advisor to plan their program based on the fouryear 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
ECO 216, 218
Political Life; International Relations
Principle of Macroconomics, Principle of Microconomics
SOC 120 or (111 \& 112) General Sociology

History

| HIS | $101,102,103$ | U.S. History |
| :--- | :--- | :--- |
| HIS | $111,112,113$ | Western Civilization |

Choose one of the following:
HIS 105, 106, or 218 History of Black America; Ohio History Choose two among:
HIS $214,215,216, \quad$ Non-Western History
217,219

Modern Languages
SPA 101, 102, 103
SPA 201, 202, 203
Elementary 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: Philosophy |
| :--- | :--- | :--- |
| PHI | 205 | Introduction to Philosophy |
| PHI | 206 | Ethics |
| PHI | 207 | Logic |
| REL | 111 | Eastern Religions |
| REL | 112 | Western Religions |
| REL | 135 | American Religious Movements |
| REL | 204 | Great Books: The Bible \& Western Culture |

## Political Science

PLS 101, 102
PLS 103
PLS 104
PLS 200
PLS 201
Federal Government
State Government
Urban Government
Political Life, Systems, \& Issues
International Relations

## University Parallel

Associate of Arts
Emphasis Areas

## Continued

Psychology

| PSY | 119 or (121 \& 122) General Psychology |  |
| :--- | :--- | :--- |
| PSY | 208 or (205 \& 206) Life Span Development |  |
| PSY | 217 | Abnormal Psychology |
| PSY | 220 | Personality Psychology |
| PSY | 225 | Social Psychology |

Plus one other course at the 200 level in Psychology

## 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
PSY 119 or (121 \& 122) General Psychology
PSY 208 or (205 \& 206)Life Span Development
Abnormal Psychology
PSY 225 Social Psychology

## Sociology

PSY 119 or (121 \& 122) General Psychology
SOC 115 Today's Changing Family
SOC 120 or (111 \& 112) General Sociology
SOC 145 Comparative Cultures
SOC $160 \quad$ Social Patterns in Aging
SOC 205 Social Problems
SOC 215 Cultural Diversity

## University Parallel <br> Description

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.

## Type of Degree or Certificate

Associate of Science

## 94 Total Credit Hours

## Transfer to Four Year

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.

## Associate of Science

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
I. English (9 hours required) English (ENG)

111 English Composition I 3
112 EnglishComposition II 3
113 EnglishComposition 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 advisor 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

## Credit

Hours

## Geology (GLG)

141
General Geology I

142 General Geology II4
143 General Geology III ..... 4
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
IV. Social \& Behavioral Sciences
15 hours required. A minimum of 9 hours from this list, plus an additional 6 hours from either this list or the elective list. Choose courses from at least two areas listed below.
Economics (ECO)
216 Principles of Macroconomics ..... 4
218 Principles of Microconomics ..... 4
Geography (GEO)
101 Physical Geography ..... 4
102 Human Geography ..... 3
201 World Regional Geography I ..... 3
202 World Regional Geography II ..... 3
Political Science (PLS)
101 American Federal Government I ..... 3
102 American Federal Government II ..... 3
103 State Government ..... 3
104 Urban Government ..... 3
200 Political Life, Systems \& Issues ..... 3
201 International Relations I ..... 3
Psychology (PSY)
119 General Psychology ..... 5
or
121 General Psychology I ..... 3 ..... 3
and
General Psychology II
General Psychology II ..... 3 ..... 3 ..... 122Life Span \& Human Development5
or ..... 4
and
206 Adolescent \& Adult Psychology ..... 3
214 Drugs \& Behavior ..... 4
217 Abnormal Psychology ..... 4
218 Counseling Psychology ..... 4
220 Personality Psychology ..... 4
225 Social Psychology ..... 4
228 Psychology in the Work Place ..... 4
235 Research Methods for Social Sciences ..... 4
236 Behavioral Science Statistics ..... 4
242 Educational Psychology ..... 4

## University Parallel

## Associate of Science

## Continued

Credit
Hours
Sociology (SOC)
120 General Sociology ..... 5
or
111 General Sociology I ..... 3and
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
V. Arts \& Humanities15 hours required. A minimum of 9 hours from this list, plus an additional6 hours from either this list or the elective list.Choose courses from at least two areas listed below.
Art (ART)
101 Introduction to Art ..... 3
102 Art Appreciation: Art Media ..... 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 I
(Colonial \& Early 19th Century) ..... 3
212 Survey of American Literature II (Later 19th Century) ..... 3
213 Survey of American Literature III (20th Century) ..... 3
217 Images of Women in Literature3
227 Introduction to Shakespeare ..... 3
230 Great Books of the Western World ..... 3
234 Literature of Africa, Asia, \& Latin America ..... 3
240 Childrens 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
Philosophy (PHI)
204 Great Books: Philosophy ..... 3
205 Introduction to Philosophy ..... 3
206 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 Theatre Appreciation ..... 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 Public Speaking ..... 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 220 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)
LA 101 Student Success Experience ..... 2

## 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

## University Parallel

Associate of Science
Continued

## Associate of Science Electives

|  | Credit <br> Hours |  |  | PSY |
| :--- | :---: | :---: | :---: | :---: | | Credit |
| :---: |
| Hours |


| Mathematics |  |  |
| :--- | :--- | :---: |
| MAT | 133 |  |
| MAT | 134 |  |
| MAT | 151 |  |
| MAT | 220 |  |
| Natural \& Physical Sciences |  |  |
| BIO | 104 |  |
| BIO | 141 |  |
| BIO | 142 |  |
| BIO | 143 |  |
| BIO | 205 |  |
| BIO | 222 |  |
| BIO | 227 |  |
| CHE | 120 |  |
| CHE | 121 |  |
| CHE | 122 |  |
| GLG | 145 |  |

Social \& Behavioral Sciences

| AFR | 111 |
| :--- | :--- |
| AFR | 112 |
| ECO | 216 |
| ECO | 218 |
| GEO | 204 |
| PLS | (any course) |
| PSY | 105 |
| PSY | 117 |
| PSY | 120 |

## Other

| ACC | 121 | 5 |
| :--- | :--- | :--- |
| ACC | 122 | 5 |
| FIN | 215 | 3 |
| COM | (any) | 3 |
| JOU | 101 | 3 |
| JOU | 102 | 3 |
| LAW | 101 | 4 |
| LAS | 102 | 4 |
| ASL | 111 | 3 |
| ASL | 112 | 3 |
| ASL | 113 | 3 |
| ASL | 228 | 4 |
| ASL | 229 | 4 |
| ASL | 230 | 3 |
| MAN | 105 | 3 |
| MAN | 205 | 3 |
| MRK | 201 | 3 |
| MRK | 202 |  |

Physical Education
PED 200

PED 208

PED (any activity course)
Substitutions to the electives listed above may only be made by the academic advisor by permission of the dean of Liberal Arts \& Sciences.

## Associate of Science Emphasis Areas

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Biology

| BIO | $171,172,173$ |
| :--- | :--- |
| CHE | $151,152,153$ |
| CHE | $201,202,203$ |
| MAT | $201,202,203$ |

Principles of Biology I, II, III
CHE 151,152, 153
CHE 201,202, 203
Organic Chemistry I, II, III
Calculus I, II, III

## Chemistry

| CHE | $151,152,153$ |
| :--- | :--- |
| CHE | $201,202,203$ |
| PHY | $201,202,203$ |
| MAT | $201,202,203,204$ |

General Chemistry I, II, III
Organic Chemistry I, II, III
General Physics I, II, III
MAT 201, 202, 203, 204

## 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 advisor to plan their program based on the four-year institution to which they plan to transfer.

## Environmental Science

BIO 171,172, 173
BIO 205, 225
CHE 151, 152, 153
CHE 201, 202, 203
GLG 141,142,143
MAT 201
PHY 201, 202, 203
Geology
GLG 141, 142
GLG 143 or 144
CHE 151,152, 153
PHY 201, 202, 203
MAT 201, 202, 203, 204
Principles of Biology I, II, III
Microbiology, Ecology
General Chemistry I, II, III
Organic Chemistry I, II, III
General Geology I, II, III
Calculus I
General Physics I, II, III

General Geology I, II and
General Geology III or Field Trip
General Chemistry I, II, III
General Physics I, II, III
Calculus I, II, III, IV
Mathematics
MAT 117
MAT 201, 202, 203, 204
MAT 215
MAT 216
Trigonometry
Calculus I, II, III, IV
Differential Equations
Linear Algebra
Physics

| PHY | $201,202,203$ |
| :--- | :--- |
| PHY | 220 |
| MAT | $201,202,203,204$ |
| CHE | $151,152,153$ |

General Physics I, II, III
Introduction to Computational Physics Calculus I, II, III, IV
General Chemistry I, II, III

## University Parallel

## Description

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:

```
Biology
Chemistry
Education
Environmental Science
Geology
Mathematics
Physics
Psychology
```

Students interested in pursuing the first two years of a program leading to a professional degree (Pre-Chiropractic,PreDentistry, Pre-Medicine, Pre-Mortuary Science, Pre-Optometry, Pre-Pharmacy, Pre-Veterinary) should meet with a Liberal Arts \& Sciences academic advisor 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 advisor for assistance.

## Type of Degree or Certificate

Associate of Science

## University Parallel <br> Description

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. Students are advised to work with an academic advisor for appropriate course selection. A 20-minute solo recital is required before graduation.

## Type of Degree or Certificate

Associate of Arts

## 103-109 Total Credit Hours

## Transfer to Four Year

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. This program satisfies specific articulation agreements with WrightState University and the University of Dayton.

## Music Education**

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
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
Communication Arts 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)

* See academic advisor.
** Sinclair's Music program is accredited by the National Association of Schools of Music (NASM).


## Music <br> Performance**

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
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)

* See academic advisor.
** Sinclair's Music program is accredited by the National Association of Schools of Music (NASM).


## University Parallel

## Description

One of the strengths of theSinclair program is theemphasis on public performancewith 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. Students are advised to work with an academic advisor for appropriate course selection. A 30-minute solo recital is required before graduation.

## Type of Degree or Certificate

Associate of Arts

## 106 Total Credit Hours

## Transfer to Four Year

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. This program satisfies specific articulation agreements with WrightState University and the University of Dayton.

## University Parallel <br> Description

This program is designed for students seeking Physical Education, Exercise Science or Sport and Recreation Management careers and will fulfill the freshman and sophomore educational requirements at most four-year colleges or universities. The track in Physical Education prepares the students for a career in Sports Pedagogy, the teaching of Physical Education pre-K thru 12. Students complete the two-year degree and transfer, continuing with the requirements needed to obtain their teaching license. An associate's degree with a track in Exercise Science is offered as a continuation of the Exercise Specialist certificate. (See Short Term certificates section) 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. Students who complete the Exercise Science track are also eligible to sit for the ACSM (American College of Sports Medicine) Health/Fitness Instructor. The track in Sport and Recreation management provides two years of a solid foundation in sport related business. Course work includes facility management, sport marketing, Coaching \& Leadership along with many other respective components of the industry. Students are prepared to enter the profession or transfer for completion of a baccalaureate degree.

## Type of Degree or Certificate <br> Associate of Arts

## 94-98 Total Credit Hours

## Transfer to Four Year

This program is designed for students seeking Physical Education, Exercise Science or Sport and Recreation Management careers and will fulfill the freshman and sophomore educational requirements at most four-year colleges or universities.

## Career Opportunities

The Physical Education program at Sinclair is designed for students who wish to transfer to four-year institutions to acquire a bachelor degree. Employment opportunities are available in teaching at elementary, intermediate or high schools, and in private and corporate fitness centers.

## Physical Education

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| FIRST QUARTER |  |  |  |
| PED | 235 | Introduction to Physical Education | 3 |
|  |  | or |  |
|  | 250 | Introduction to Exercise Science |  |
|  | 260 | Introduction to Sport Management |  |
| ENG | 111 | English Composition I | 3 |
| PSY | 121 | General Psychology I | 3 |
| PED | 200 | First Aid \& Safety | 2 |
| BIO | 107 | Human Biology | 4-5 |
|  |  | or |  |
|  | 111 | General Biology I |  |
|  | 141 | Principles of Anatomy \& Physiology I |  |
|  |  | TOTAL | 15-16 |
| SECOND QUARTER |  |  |  |
| ENG | 112 | English Composition II | 3 |
| PED | 234 | Concepts of Total Fitness | 3 |
| PSY | 122 | General Psychology II | 3 |
| BIO | 112 | General Biology II | 4 |
|  |  | or. |  |
|  | 142 | Principles of Anatomy \& Physiology II |  |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel TOTAL | $\underline{3}$ |
| THIRD QUARTER |  |  |  |
| ENG | 113 | English Composition III | 3 |
| PED | 239 | Athletic Injuries | 3 |
| BIO | 113 | General Biology III or | 4 |
|  | 143 | Principles of Anatomy \& Physiology III |  |
| PED | 236 | Personal \& Community Health or | 3 |
|  | 261 | Athletic Facility Planning \& Management |  |
| PED | 272 | Methods of Teaching Strength Training or | 2-3 |
|  | 263 | History of Sport \& Physical Education |  |
| PED/A |  | Physical Education Elective | 3 |

TOTAL 18-19

## Physical Education (continued)

## FOURTH QUARTER

| COM | 206 | Interpersonal Communication |
| :--- | :--- | :--- |
| HIS | 101 | United States History (1607-1815) |
|  | 111 | or |
|  | Western Civilization (0-1300) |  |

111 Western Civilization (0-1300) Humanities Elective*3
PED $\overline{237}$ Organization \& Administration of Recreation, Fitness \& Sports Programming ..... 3
PED 193 Physical Fitness Evaluation ..... 3
or249 Principles of Coaching \& Leadershipor
268 Motor Development
TOTAL ..... 15
FIFTH QUARTER
MAT 108 Math \& the Modern World ..... 3-5
or
116 College Algebraor
122 Statistics I
HIS 102 United States History (1815-1919) ..... 3
or
112 Western Civilization (1300-1815)
Humanities Elective* ..... 3
COM $\quad \overline{211}$ Effective Public Speaking ..... 3
PED ..... 251
Principles \& Methods of Training I ..... 3
or
269 Motor Learning \& Performanceor
MRK 208 Sports MarketingTOTAL15-17
SIXTH QUARTER
PED 270 Physical Education Internship ..... 3
HIS 103 United States History (1919-Present) ..... 3
113 Western Civilization (1815-present)
Sociology / Behavioral Science Elective ..... 3
FIN ..... 208 Sports Finance ..... 3
or
DIT 111 Nutrition for a Healthy Lifestyle
PED ..... - Physical Education Electiveor
252 Principles \& Methods of Training IIor238 Physical Education for the Elementary SchoolTOTAL15

## University Parallel

## Description

Physical Education Track
DIT 111, PED 235, PED 236, PED 238,
PED 263, PED 268, PED 269

## Exercise Science Track

ALH 130, DIT 111, PED 193, PED 236, PED 250, PED 251, PED 252, PED 272

Sport and Recreation Management FIN 208, MRK 208, PED 249, PED 260, 플
를
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를 PED 261, PED 263

## University Parallel <br> Description

This comprehensive and intense degree is focused on student development and performance training. Classroom theory is applied in a multiple performance theatre season.

## Type of Degree or Certificate

Associate of Arts

## 96 Total Credit Hours

## Transfer to Four Year

This degree is designed as a university parallel program for students to transfer to four-year institutions.

## Theatre Performance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
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 (9 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)
V. Performance Concentration (27 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)
THE 213 Auditions (3 hours)
DAN elective Ballet, Jazz or Tap (3 hours)
THE electives (courses not used above-maximum of 2 credits for performance practicum-6 hours)

## Theatre Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## University Parallel

## Description

This comprehensive and intense degree is focused on the application of rigorous classroom theory and laboratory experience in theatrical productions.

## Type of Degree or Certificate

Associate of Arts

## 96 Total Credit Hours

## Transfer to Four Year

This degree is designed as a university parallel program for students to transfer to four-year institutions.

## University Parallel

## www.sinclail.edu my.Sinclair.edu

120 Academic Advising Center, Building 6, (937) 512-3700

## Career Programs

## www.sinclair.edu my.Sinclair.edu

122 Academic Advising Center, Building 6, (937) 512-3700

## Accounting

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Credit |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I | 3 |
|  |  | or |  |
|  | 131 | Business Communications I |  |
| ACC | 121 | Principles of Financial Accounting | 5 |
| MAT | 116 | College Algebra or | 5 |
|  | 121 | Mathematics for Business Analysis |  |
| MAN | 105 | Introduction to Business | 3 |
|  |  | TOTAL | 16 |
| SECOND QUARTER |  |  |  |
| ENG | 112 | English Composition II | 3 |
|  |  | ${ }^{\text {Or }}$ Business Communications II |  |
|  | 132 | Business Communications II |  |
| MAT | 122 | Statistics I | 4 |
| ACC | 122 | Principles of Managerial Accounting | 5 |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel | 3 |
|  |  | Humanities Elective* | 3 |
|  |  | TOTAL | 18 |
| THIRD QUARTER |  |  |  |
| ACC | 125 | Personal Computer Applications in Accounting | 3 |
| FIN | 215 | Corporation Finance | 3 |
|  |  | Business Elective | 3 |
| ECO | 216 | Principles of Macroeconomics | 4 |
| LAW | 101 | Business Law I | 4 |
|  |  | TOTAL | 17 |

## FOURTH QUARTER

ACC 201 Intermediate Accounting I 3
ACC 211 Cost Accounting I 3
ACC 240 Microcomputer Accounting Systems 3
ECO 218 Principles of Microeconomics 4
LAW 102 Business Law II $\quad \frac{4}{17}$

## FIFTH QUARTER

ACC 202 Intermediate Accounting II 3
ACC 212 Cost Accounting II 3
ACC 270 Accounting Internship 3
$\begin{array}{llll}\text { ACC } & \overline{221} & \begin{array}{l}\text { Business Elective } \\ \text { Federal Taxes I }\end{array} & 3\end{array}$
MAN 205 Principles of Management 3
MRK 201 Marketing I $-\frac{3}{18}$

## SIXTH QUARTER

ACC 203 Intermediate Accounting III 3
ACC 235 Auditing Theory \& Practice 3
ACC 222 Federal Taxes II 3
MAN 255 Management Information Systems I
ACC 270 Accounting Internship
or
Business Elective
COM $\overline{211}$ Effective Public Speaking
225 Small Group Communication

## Career Program

## Description

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 CPAexam 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.

## Type of Degree or Certificate

Associate of Applied Science

## 104 Total Credit Hours

## Career Opportunities

Graduates will be prepared to fill various entry level accounting positions in public accounting, industry, and governmental organizations. These positions may be in general accounting, auditing, payroll, accounts receivable, accounts payable, finance, product costing, or taxes.

## Internship Option

Accounting majors have a choice to complete two Business electives or earn six credit hours of Accounting internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing accounting work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. Accounting majors are encouraged to apply to the Business internship program upon completion of prerequisite course work (see ACC 270 course description).
*See page 83.
**See right column.

## Career Program

## Description

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 AmericanSign 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.

## Type of Degree or Certificate

Associate of Applied Science

## 108 Total Credit Hours

## Transfer to Four Year

A transfer articulation is available to students planning on completing a four-year degree inSign Language Interpreting from Wright State University.

## Career Opportunities

Employmentopportunities are available in areas such as educational, medical, legal, theatrical, governmental and religious interpreting.

## American Sign Language Interpreting for the Deaf

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
ASL 101 Orientation to Deafness ..... 3
ASL 228 Intermediate American Sign Language I ..... 4
ENG 111 English Composition I ..... 3
PSY 121 General Psychology I ..... 3
COM 211 Effective Public Speaking
TOTAL ..... 16
SECOND QUARTER
ASL 102 Interpreting For Deaf I ..... 3
ASL 116 Community Resources for the Deaf ..... 3
ASL 229 Intermediate American Sign Language II ..... 4
ENG 112 English Composition II ..... 3
PSY 122 General Psychology II ..... 3
THIRD QUARTER
ASL 103 Interpreting for Deaf II ..... 3
ASL 230 Intermediate American Sign Language III ..... 4
ASL 201 Interpreting I ..... 4
ASL 207 Role of Interpreter ..... 3
ENG 116 Advanced Vocabulary Building ..... 17TOTALCredit
FOURTH QUARTER
American Sign Language Elective ..... 3
Mathematics Elective ..... 4
DIS $\quad \overline{206}$ Computer Literacy \& Assistive Technology ..... 1

- Humanities Elective* ..... 3
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
TOTAL ..... $\stackrel{3}{18}$
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 IITOTAL19
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 page 83.** All students must receive a grade of "C" or better.


# Architectural Technology 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

CAT 101 Architectural Drafting 3
CAT 105 Residential Construction Methods \& Materials 4
CAT 110 Introduction to Civil \& Architectural Technology 3
ETD 198 Personal Computer Applications for Engineering Technology
MAT 131 Technical Mathematics I

## SECOND QUARTER

CAT 102 Architectural Detail Drafting 3
CAT 121 Civil Construction Blueprints \& Drafting 2
CAT 131 Properties of Construction Materials 3
COM 206 Interpersonal Communication 3
ETD 199 Introduction to Computer-Aided Drafting Concepts
MAT 132 Technical Mathematics II2

THIRD QUARTER
CAT 106 Commercial Construction Methods \& Materials 3
CAT 199 Architectural 2-D Drafting 3
CAT 216 Construction Estimating 4
ENG 111 English Composition I 3
PHY 131 Technical Physics I TOTAL $\frac{4}{17}$

## FOURTH QUARTER

CAT 218 Project Management Techniques 3
CAT 207 Architectural Building Codes 3
CAT 240 Residential Design with CAD 4
ENG 112 English Composition II 3
ETD 213 Statics
TOTAL $\quad \overline{17}$

## FIFTH QUARTER

CAT 241 Commercial Design with CAD 4
CAT 245 Soil Mechanics 4
CAT 256 Construction Management 3
ETD 222 Strength of Materials 4
Social Science Elective* $\quad 3$
TOTAL 18

## SIXTH QUARTER

CAT 270 Civil Architectural Internship 3
CAT 260 Architectural Energy Analysis 3
CAT 266 Reinforced Concrete Design 4
CAT 278 Civil Architectural Capstone
Humanities Elective*
TOTAL
$\frac{3}{17}$
*See page 83.

## Career Program

## Description

Architectural Technology is designed to develop student skills for efficient application of the art and science 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. Green construction, energy efficient buildings, and alternative energy sources are becoming a major part of the program.

## Program Prerequisites

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 104 Total Credit Hours

## Transfer to Four Year

The Architectural Technology program can be a good starting point to transfer to an architectural engineering four-year program. The educational sequence can lead to becoming a registered architect.

## Career Opportunities

Graduates are employed as drafters for architectural firms, inspectors, and project managers in the construction industry.

## Career Program

## Description

The Automation \& Control Technology with Robotics 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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 107 Total Credit Hours

## Career Opportunities

Computer and office machine repair technician, control system technician and designer, electrical and electronic systems engineering technician, industrial equipment sales, purchasing, installation, and service, industrialmaintenance technician, maintenance/troubleshooting, manufacturing technician, plant maintenance technician, non-HVAC, prototyping and research, retrofitting/upgrading, robotic and non-robotic system integration engineering technician.

## * *Approved Technical Electives

EGR 215 Control Systems
3
EGR 250 Robot Mechanical Unit Repair 3
EGR 251 Robot Controller Diagnostics 3
EGR 256 Automated Data Acquisition Systems
EGR 261 Engineering Problem Solving Using "C"
EGR 262 Advanced C++ Programming Engineering Applications 4
EGR 290 Engineer Internship 1-12
OPT 112 Ergonomic 3
OPT 206 Value Analysis 3
EET 259 Programming for Electronics Technology 3

# Automation \& Control Technology with Robotics 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

|  |  |  |  | Credit |
| :---: | :---: | :---: | :---: | :---: |
| Course \& Title |  |  |  | Hours |
| FIRST QUARTER |  |  |  |  |
| EGR | 100 | Fundamental Mechanical Skills |  | 3 |
| EGR | 161 | Pbasic \& Stamp |  | 3 |
| ETD | 101 | Introduction to Engineering Design |  | 3 |
| MAT | 131 | Technical Mathematics I |  | 5 |
| EET | 119 | Basic Electrical Circuits \& Controls |  | 4 |
|  |  |  | TOTAL | 18 |
| SECOND QUARTER |  |  |  |  |
| MAT | 132 | Technical Mathematics II |  | 5 |
| EGR | 128 | Robotics in CIM Systems |  | 4 |
| ENG | 111 | English Composition I |  | 3 |
| EET | 198 | Digital Technology |  | 3 |
| PHI | 207 | Logic |  | 3 |
|  |  | or Humanities Elective* |  |  |

THIRD QUARTER
EET 139 Electrical Machinery ..... 4
EGR 144 Sensors ..... 3
EGR 252 Teach Pendant Robot Programming ..... 3
EGR 231 Introduction to Troubleshooting of Automated Systems ..... 3
ETD 128 Print Reading with GD\&T ..... 3
EET 281 Programmable Logic Controllers ..... 3TOTAL
FOURTH QUARTER
EET 166 Industrial Machine Wiring \& Standards ..... 3
EGR 217 Fluid Power \& Control ..... 4
EGR 220 Machine Vision ..... 3
EGR 210 Human-Machine Interfaces (HMIs) ..... 3
SRM 211 Applied Industrial Risk Management ..... 3
EET 282 Advanced Programmable Logic Controllers ..... 3
TOTAL ..... 19
FIFTH QUARTER
EGR 255 Industrial Networking ..... 3
EGR 232 Advanced Troubleshooting of Automated Systems ..... 3
EGR 244 Automation \& Control Devices ..... 3
COM $\overline{206}$ Interpersonal Communication ..... 3
or
211 Effective Speaking I
ENG 112 English Composition II
TOTAL ..... $\stackrel{3}{18}$
SIXTH QUARTER
EGR 278 Automated Manufacturing Project ..... 3
OPT $\overline{130}$ Lean Operations
PHY 131 Technical Physics ..... 4
Engineering Technical Elective**
Engineering Technical Elective**
TOTAL ..... 16
*See page 83.

# Automotive Technology 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

AUT 124 Electrical/Electronic Systems Level I 5
AUT 165 Automotive Brake System 5
INT 141 Applied Shop Mathematics I 3
ETD 198 Personal Computer Applications for Engineering Technology

## SECOND QUARTER

AUT 125 Electrical/Electronic Systems II 7
AUT 108 Engine Systems 5
COM 206 Interpersonal Communication 3
General Education Elective $\quad \underline{3}$

## THIRD QUARTER

AUT 115 Engine Performance I $\quad 7$
AUT 146 Automotive Heating \& Air Conditioning 5
ENG 111 English Composition I 3
Engineering Technical Elective $\quad \frac{3}{18}$

## FOURTH QUARTER

AUT 241 Automatic Transmissions 7
AUT 142 Manual Transmissions \& Drive Line 5
SRM 211 Applied Industrial Risk Management 3
INT 109 Fundamentals of Tool \& Manufacturing Processes $\quad 4$ TOTAL19

## FIFTH QUARTER

AUT 245 Engine Performance II 7
AUT 210 Steering, Suspension \& Alignment 5
ENG 112 English Composition II TOTAL $\frac{3}{15}$

## SIXTH QUARTER

AUT 215 Automotive Service Operations 10
AUT $\overline{111}$ Automotive Management $\quad 3$
TOTAL 16

The Automotive Technology program also supports the General Motors ASEP (Automotive Service Education Program), the Chrysler CAP (Chrysler Dealer Apprenticeship Program) \& the American Honda programs. These programs are two-year associate degree programs in which students alternate between college training \& a paid dealership work experience. For further information about these programs, contact the department chairperson.

[^5]
## Career Program

## Description

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 excellentemploymentopportunities 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.

## Type of Degree or Certificate

Associate of Applied Science

## 101 Total Credit Hours

## Career Opportunities

Entry level positions for automotive service technicians are available in dealerships, independent garages, service stations, and automotive machine shops. In addition, graduates are also employed as sales representatives for parts manufacturers and distributors, as claims adjusters for insurance companies, and as automotive service instructors. Graduates with practical experience, education, a willingness to work, and a high degree of professionalism may expect to move into management positions.

## Career Program

## Description

This is the primary degree in the Aviation Technology program which leads to an Associate of Applied Science in Aviation Technology．The student，having com－ pleted 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．

## Program Prerequisites：

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 90－95 Total Credit Hours

## Transfer to Four Year

Transfer to four year degree in Aviation Science（or related field）

## Career Opportunities

Conservative estimates predict there will be 70，000 aviation technician and pilot openings over the next 10 years．A grow－ ing demand for worldwide air travel， explosive growth of fractional owner－ ship corporations，an increase in aircraft production，and the fact that over half of the current professional technician work force will retire in the next 10 years means thousands of high paying jobs for people with the right training．

## AVT Track Technical Electives：

Track I Flight
AVT 110 Ground School 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

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores and／or equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．

| Course \＆Title |  |  |  | Credit <br> Hours |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| FIRST QUARTER |  |  |  |  |
| ENG | 111 | English Composition I |  | 3 |
| AVT | 105 | Orientation to Aviation |  | 3 |
| AVT | 125 | Developments in Aviation |  | 3 |
| MAT | 116 | College Algebra |  | 5 |
|  |  | or |  |  |
|  | 131 | Technical Mathematics I |  |  |
| ETD | 198 | Personal Computer Applications for Engineering |  | 2 |
|  |  |  | TOTAL | 16 |
| SECOND QUARTER |  |  |  |  |
| MAT | 117 | Trigonometry |  | 4 |
|  |  | or |  |  |
|  | 132 | Technical Mathematics II |  | 5 |
|  |  | Humanities Elective＊ |  | 3 |
| AVT | 245 | Aviation Law |  | 3 |
| AVT | 111 | Navigation Science I |  | 3 |

THIRD QUARTER

PHY 131 Technical Physics I

## 141 College Physics I

 TOTAL 13－14ENG 112 English Composition II 3
AVT 119 Aviation Meteorology 3
AVT 270 Aviation Internship 3
AVT Track Elective＿3

## FOURTH QUARTER

AVT Track Elective 3－4
Engineering Technical Elective 3
Engineering Technical Elective 3
Engineering Technical Elective 3
AVT $\overline{211}$ Navigation Science II $-\frac{3}{3}$
TOTAL 15－16

## FIFTH QUARTER

AVT $\overline{242} \quad$ AVT Track Elective $\quad 3-4$
AVT 240 Human Factors in Aviation 3
AVT 206 Aerodynamics 3
－Social Science Elective＊ 3

## SIXTH QUARTER

COM 206 Interpersonal Communication 3
AVT 247 Flight Controls 3
AVT 205 Aviation Management 3
AVT Track Elective 3－4
AVT Track Elective 3－4
TOTAL 15－17
＊See page 83.

## Aviation Technology Maintenance Option

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| AVT | 115 | Ground Operations \& Servicing | 3 |
| :--- | :--- | :--- | ---: |
| AVT | 112 | Performance Calculations | 2 |
| ENG | 111 | English Composition I | 3 |
| MAT | 116 | College Algebra | 5 |
|  | 131 | or <br> Technical Mathematics I |  |
| ETD | 198 | Personal Computer Applications for Engineering <br>  | Technology |

## SECOND QUARTER

AVT 105 Orientation to Aviation 3
AVT 111 Navigation Science I 3
AVT $\overline{117}$ Fluid Lines \& Fittings 3
AVT 245 Aviation Law 3
MAT 117 Trigonometry 4
132 Technical Mathematics II $\quad 5$
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
141 College Physics I
TOTAL $\overline{19-20}$

141 or

## 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 $\frac{3}{15}$
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 III 3
Social Science Elective*
AVT $\overline{219}$ Turbine Engines $\quad$ TOTAL $\frac{4}{19}$3

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
TOTAL
19

## Career Program

## Description

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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 103-104 Total Credit Hours

## Career Opportunities

With retirements and technicians going to other fields the Department of Labor estimates a short fall of about 155,000 mechanics by the year 2006.

Airlines and other operators are retiring the oldest jet transports, but the newer aircraft must still be maintained. Maintenance Repair Organizations (M.R.O.'s) are contracting for the work that airlines used to do in house. Many of the M.R.O.'s are in need of maintenance technicians.
*See page 83.
This program provides FAA licensed Aviation \& Powerplant Mechanics with additional knowledge \& training to obtain an Associate's Degree in Aviation Technology.

## Career Program

## Description

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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 104-105 Total Credit Hours

## Transfer to Four Year

This program contains the aviation knowledge \& 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.

## Aviation Technology Professional Pilot \& Airway Science Option

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

|  |  |  |  | redit |
| :---: | :---: | :---: | :---: | :---: |
| Course \& Title |  |  |  | Hours |
| FIRST QUARTER |  |  |  |  |
| ETD | 198 | Personal Computer Applications for Engineering Technology |  | 2 |
| AVT | 110 | Ground School/Private Pilot |  | 4 |
| AVT | 111 | Navigation Science I |  | 3 |
| AVT | 124 | Private Pilot Flight |  | 4 |
| MAT | 116 | College Algebra or |  | 5 |
|  | 131 | Technical Mathematics I |  |  |
| SECOND QUARTER |  |  |  |  |
| ENG | 111 | English Composition I |  | 3 |
| AVT | 105 | Orientation to Aviation |  | 3 |
| AVT | 150 | Crew Resource Management |  | 2 |
| AVT | 160 | Instrument Ground School |  | 4 |
| AVT | 220 | Instrument Flight |  | 2 |
| AVT | 224 | Instrument Pilot Flight | TOTAL | 4 |
| THIRD QUARTER |  |  |  |  |
| ENG | 112 | English Composition II |  |  | 3 |
| AVT | 119 | Aviation Meteorology |  | 3 |
| AVT | 125 | Developments in Aviation |  | 3 |
| AVT | 211 | Navigation Science II |  | 3 |
| MAT | 132 | Technical Mathematics II |  | 4-5 |
|  | 117 | $\stackrel{\text { or }}{\text { Trigonometry }}$ |  |  |

## FOURTH QUARTER

AVT 242 Aircraft Accident Investigation 3
AVT 250 Commercial Pilot Ground School 4
AVT 263 Commercial Pilot Flight 4

- Humanities Elective* 3

PHY $\overline{131}$ Technical Physics I 4
141 College Physics I $\quad \overline{18}$
FIFTH QUARTER
AVT 206 Aerodynamics 3
AVT 240 Human Factors in Aviation 3
AVT $\overline{255}$ Social Science Elective 3
AVT $\overline{255} \quad$ Multi-Engine Pilot Ground School 4
AVT 266 Multi-Engine Pilot Flight $\quad \frac{4}{17}$
SIXTH QUARTER
COM 206 Interpersonal Communication 3
AVT 247 Flight Controls 3
AVT 258 Flight Instructor Ground School 4
AVT 269 Flight Instructor Flight Course 4
AVT 270 Aviation Internship $\quad 3$
TOTAL 17
*See page 83.

## Biotechnology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| CHE | 120 | Introduction to Chemistry | 4 |  |
| :--- | :--- | :--- | ---: | ---: |
|  | 131 | or |  |  |
| Technical Chemistry I |  |  |  |  |
| BTN | 110 | Biotechnology \& Bioethics | 3 |  |
| BTN | 120 | Laboratory Safety \& Regulatory Compliance | 3 |  |
| MAT | 106 | Allied Health Mathematics | $4-5$ |  |
|  | 116 | or | College Algebra |  |
|  |  | TOTAL | $1 \overline{4-15}$ |  |


| SECOND QUARTER |  |
| :--- | :--- | :--- |
| BIO $111 \quad$ General Biology I |  |


| BIO | 111 | General Biology I | 4 |
| :--- | :--- | :--- | :--- |
| BTN | 115 | Careers in Biotechnology | 1 |

ENG 111 English Composition I 3
BTN 130 Biological Reagents Preparation 4
General Education Elective* - 3
THIRD QUARTER TOTAL 15
BIO 112 General Biology II 4
BTN 140 Cell Culture 3
$\begin{array}{lll}\text { CHE } & 122 & \text { Introduction to Biochemistry } \\ \text { ENG } & 112 & 4 \\ \text { English Composition II }\end{array}$
ENG 112 English Composition II TOTAL $\frac{3}{14}$
FOURTH QUARTER
COM 206 Interpersonal Communication 3
211 Effective Speaking I
or
225 Small Group Communication ART Elective
or
Humanities Elective*

| BIS | $\overline{160}$ | Introduction to Word, PowerPoint, \& Excel <br> or | $2-3$ |
| :--- | :--- | :--- | :--- |

161 Intermediate Word, PowerPoint, \& Excel or
162 Advanced Word, PowerPoint, \& Excel or
172 Integrated Solutions

| FIFTH QUARTER TOTAL 8-9 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| BIO | 107 | Human Biology |  | 5 |
| BTN | 210 | Protein Purification \& Analysis |  | 6 |
| BIO | 113 | General Biology III |  | 4 |

SIXTH QUARTER
BTN 220 Microbiology \& Fermentation Methods 4
BTN 230 Molecular Biology Techniques 6
BTN 295 Biotechnology Seminar 2
ART Elective 3
or
Humanities Elective*
TOTAL $\quad \overline{15}$

## SEVENTH QUARTER

BTN 240 Bioinformatics

- Multicultural Elective
_ Social/Behavioral Science Elective
- General Education Elective*
*See page 83.
Students entering the biotechnology program must see a Liberal Arts \& Sciences Counselor.


## Career Program

## Description

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.

## Type of Degree or Certificate

Career Degree

## 93-95 Total Credit Hours

## Career Program

## Description

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.

## Type of Degree or Certificate <br> Associate of Applied Science

## 96-97 Total Credit Hours

## Career Opportunities

Employment opportunities are available in many types of businesses, including banks, insurance offices, advertising agencies, manufacturing companies, small business, and educational institutions, to name a few.

## Internship Requirement

BIS majors are required to complete an internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing BIS work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. BIS majors may apply to the Business internship program upon completion of Intermediate Microsoft Office application course work. However, internship credit may not be earned until completion of additional prerequisites (see BIS 270 course description).

## Business Information Systems

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER

| ENG | 111 | English Composition I | 3 |
| :--- | :--- | :--- | :--- |
|  | 131 | or | Business Communications I |

BIS M85 Microsoft Word 2
MAN 205 Principles of Management 3
COM 206 Interpersonal Communication 3
285 Business \& Professional Communication
BIS 105
BU 101 Student Success Experience
TOTAL
3
BU TOTAL $\frac{2}{16}$
SECOND QUARTER
ENG 112 English Composition II 3
132 Business Communications II
LAW 101 Business Law I 4
BIS M45 Microsoft Excel 2
BIS M55 Microsoft PowerPoint 2
BIS M75 The Internet 2
BIS 102 Document Formatting TOTAL $\frac{2}{15}$
THIRD QUARTER
ACC 121 Principles of Financial Accounting 5
ENG 199 Text Editing 3
MAT 105 Business Mathematics 4
BIS M25 Desktop Publishing 2
ECO 105 General Economics 3-4
216 Principles of Macroeconomics
TOTAL $\quad \overline{17-18}$
FOURTH QUARTER
BIS M35 Microsoft Access 2
BIS M86 Advanced/Expert Word 2
BIS 103 Advanced Document Formatting/Skillbuilding 4
BIS 201 Customer Service 3
CIS 130 Introduction to Web Development 3
Humanities Elective* ${ }^{*} \quad$ TOTAL $\frac{3}{17}$
FIFTH QUARTER
BIS M36 Advanced/Expert Access 3
BIS M46 Advanced/Expert Excel 2
BIS 215 Office Applications Practicum/Seminar 4
BIS 207 Telecommunications 2

- Computer Information Systems Elective 3

Business Elective 3
TOTAL $\quad 17$
SIXTH QUARTER
BIS 172 Integrated Solutions 2
BIS 202 Advanced Customer Service Concepts 3
BIS 114 Records Management \& Electronic Files 3
BIS 270 Business Information Systems Internship** 3
General Education Elective*
TOTAL
$\begin{array}{r}14 \\ \hline\end{array}$
*See page 83.
**See left column.

# Business <br> Information Systems Accounting Office Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| BU | 101 | Student Success Experience | 2 |
| :--- | :--- | :--- | :--- |
| ENG | 111 | English Composition I <br> or | 3 |
|  | 131 | Business Communications I |  |
| BIS | M85 | Microsoft Word | 2 |

MAN 205 Principles of Management
COM 206 Interpersonal Communication ..... 3285 Business \& Professional CommunicationMAT 105 Business Mathematics4
TOTAL ..... 17
SECOND QUARTER
ENG 112 English Composition II ..... 3132 Business Communications II
ACC 121 Principles of Financial Accounting ..... 5
BIS M45 Microsoft Excel ..... 2
BIS 102 Document Formatting ..... 2
ECO ..... 105
General Economics ..... 3-4 ..... -4
216 Principles of Macroeconomics
THIRD QUARTER
TOTAL ..... 15-16
ENG 199 Text Editing ..... 3
ACC 122 Principles of Managerial Accounting ..... 5
BIS M55 Microsoft PowerPoint ..... 2
BIS M86 Advanced/Expert Word ..... 2
LAW 101 Business Law I ..... 4
TOTAL ..... 16
FOURTH QUARTER
or3
BIS $\quad \overline{103}$ Advanced Document Formatting/Skillbuilding ..... 4
BIS 114 Records Management \& Electronic Files ..... 3
BIS M35 Microsoft Access ..... 2

- Humanities Elective*
TOTAL ..... 15
FIFTH QUARTER
ACC 125 Personal Computer Applications in Accounting ..... 3
BIS M75 The Internet ..... 2
BIS 215 Office Applications Practicum/Seminar ..... 4
BIS M46 Advanced/Expert Excel ..... 2
BIS 201 Customer Service
Business Elective
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 Elective316


## Career Program

## Description

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.

## Type of Degree or Certificate

Associate of Applied Science

## 96-97 Total Credit Hours

## Career Opportunities

Employment opportunities include account secretaries in accounting departments in private businesses and industries, educational institutions, and other governmental agencies.

## Internship Requirement

BIS majors are required to complete an internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing BIS work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. BIS majors may apply to the Business internship program upon completion of Intermediate Microsoft Office application course work. However, internship credit may not be earned until completion of additional prerequisites (see BIS 270 course description).

## Career Program

## Description

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 serviceagents, 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.

## Type of Degree or Certificate

Associate of Applied Science

## 97-98 Total Credit Hours

## Career Opportunities

Employment opportunities include legal secretaries, executive secretaries, and legal clerks in law firms, legal offices, and legal departments within corporations.

## Internship Requirement

BIS majors are required to complete an internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing BIS work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. BIS majors may apply to the Business internship program upon completion of Intermediate Microsoft Office application course work. However, internship credit may not be earned until completion of additional prerequisites (see BIS 270 course description).

# Business Information Systems Legal Office Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Credit |
| :---: | :---: | :---: | :---: |
|  |  |  | Hours |
| FIRST QUARTER |  |  |  |
| BIS | M45 | Microsoft Excel | 2 |
| BIS | M85 | Microsoft Word | 2 |
| ENG | 111 | English Composition I | 3 |
|  | 131 | or <br> Business Communications I |  |
| BU | 101 | Student Success Experience | 2 |
| COM | 206 | Interpersonal Communication | 3 |
|  |  | or |  |
|  | 285 | Business \& Professional Communication |  |
| MAT | 105 | Business Mathematics | 4 |
|  |  | TOTAL | 16 |
| SECOND QUARTER |  |  |  |
| ACC | 121 | Principles of Financial Accounting | 5 |
| BIS | M86 | Advanced/Expert Word | 2 |
| BIS | M75 | The Internet | 2 |
| ENG | 112 | English Composition II | 3 |
|  | 132 | or Business Communications |  |
| BIS | 102 | Document Formatting | 2 |
| MAN | 205 | Principles of Management | 3 |
|  |  | TOTAL | 17 |
| THIRD QUARTER |  |  |  |
| BIS | M35 | Microsoft Access | 2 |
| PAR | 105 | Paralegal Principles | 4 |
| PAR | 106 | Paralegal Principles - Technology | 2 |
| BIS | 201 | Customer Service | 3 |
| ECO | 105 | General Economics | 3-4 |
|  |  | or |  |
|  | 216 | Principles of Macroeconomics |  |
| ENG | 199 | Text Editing | 3 |
|  |  | TOTAL | 17-18 |
| FOURTH QUARTER |  |  |  |
| BIS | 114 | Records Management \& Electronic Files | 3 |
| BIS | M55 | Microsoft PowerPoint | 2 |
| PAR | 220 | Legal Ethics | 3 |
| LAW | 101 | Business Law I | 4 |
|  |  | Humanities Elective* | 3 |
|  |  | TOTAL | 15 |
| FIFTH QUARTER |  |  |  |
| BIS | M36 | Advanced/Expert Access | 3 |
| BIS | 143 | Introduction to Transcription \& Legal Terms | 4 |
| BIS | M46 | Advanced/Expert Excel | 2 |
| BIS | 215 | Office Applications Practicum/Seminar | 4 |
|  |  | LAW Elective | 3 |
| 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 |
|  |  | General Education Elective* | 3 |
|  |  | TOTAL | 16 |

*See page 83.
**See left column.

# Business <br> Information Systems Medical Office Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| ENG | 111 | English Composition I <br> or |
| :--- | :--- | :--- |
|  | 131 | Business Communications I |


| BIS | M85 | Microsoft Word |
| :--- | :--- | :--- |
| MAN | 205 | Principles of Management |

MAN 205 Principles of Management 3
COM 206 Interpersonal Communication or
285 Business \& Professional Communication
BIS 136 Introduction to Medical Terminology
BIS M55 Microsoft PowerPoint
BIS MS5 Mirosoft Row
SECOND QUARTER
$\begin{array}{llll}\text { ENG } & 112 & \text { English Composition II } & 3 \\ & 132 & \text { or } & \text { Business Communications II }\end{array}$
MAT 105 Business Mathematics 4
BIS 137 Intermediate Medical Terminology 4
BIS 102 Document Formatting 2
BIS M45 Microsoft Excel 2
BU 101 Student Success Experience
TOTAL
THIRD QUARTER
$\begin{array}{llll}\text { ACC } & 121 & \text { Principles of Financial Accounting } & 5 \\ \text { ENG } & 199 & \text { Text Editing }\end{array}$
ENG 199 Text Editing 3
BIS M35 Microsoft Access 2
BIS 114 Records Management \& Electronic Files 3
BIS 138 Advanced Medical Terminology
TOTAL

## FOURTH QUARTER

| BIS | 201 | Customer Service | 3 |
| :--- | :--- | :--- | ---: |
| BIS | M86 | Advanced/Expert Word | 2 |
| BIS | 251 | Medical Transcription I | 4 |
| HIM | 260 | ICD-9-CM Medical Office Coding | 3 |
| HIM | 261 | CPT Medical Office Coding | 3 |
|  |  | Humanities Elective ${ }^{*}$ | 3 |

## FIFTH QUARTER

BIS 215 Office Applications Practicum/Seminar 4
BIS 252 Medical Transcription II 4
BIS 220 Computer Applications for the Medical Office 4
BIS M75 The Internet 2
ECO 105 General Economics 3-4
216 Principles of Macroeconomics

## SIXTH QUARTER

BIS 202 Advanced Customer Service Concepts 3
BIS 270 Business Information Systems Internship** 3
BIS $\overline{207}$ General Education Elective 3
LAW 101 Business Law I $\quad \frac{4}{15}$
TOTAL
15

## Career Program

## Description

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 positionsin information technology, online customer service, and personal computer software application troubleshooting.

## Type of Degree or Certificate

Associate of Applied Science

## 96-97 Total Credit Hours

## Career Opportunities

Employment opportunities include paraprofessional positions in information technology, online customer service, and personal computer software application troubleshooting.

## Internship Requirement

BIS majors are required to complete an internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing BIS work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. BIS majors may apply to the Business internship program upon completion of Intermediate Microsoft Office application course work. However, internship credit may not be earned until completion of additional prerequisites (see BIS 270 course description).

# Business Information Systems Personal Computer Applications 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

## Credit

## Hours

$\begin{array}{llll}\text { BIS } & \text { M75 } & \text { The Internet } & 2 \\ \text { BIS } & \text { M85 } & \text { Microsoft Word } & 2\end{array}$
$\begin{array}{llll}\text { BIS } & \text { M85 } & \text { Microsoft Word } & 2 \\ \text { ENG } & 111 & \text { English Composition I } & 3\end{array}$
131 Business Communications I
COM 206 Interpersonal Communication
285 Business \& Professional Communication
MAT 105
BU 101
Student Success Experience
4
SECOND QUARTER
$\begin{array}{llll}\text { BIS } & \text { M45 } & \text { Microsoft Excel } & 2 \\ \text { BIS } & 102 & \text { Document Formatting } & 2\end{array}$
ENG 112 English Composition II 3
Business Communications II
LAW 101 Business Law I 4
BIS 105 Computer Concepts 3
ECO 105 General Economics 3-4
216 Principles of Macroeconomics
THIRD QUARTER TOTAL 17-18
$\begin{array}{llll}\text { ACC } & 121 & \text { Principles of Financial Accounting } & 5\end{array}$
BIS M25 Desktop Publishing 2
BIS M86 Advanced/Expert Word 2
CIS 107 Introduction to Operating Systems 3

- Humanities Elective* ${ }^{*}$ TOTAL $\frac{3}{15}$

FOURTH QUARTER
CIS 130 Introduction to Web Development 3
BIS M35 Microsoft Access 2
BIS M55 Microsoft PowerPoint 2
BIS M81 Intermediate Microsoft Project 1
BIS M82 Intermediate Microsoft Project 1
ACC 125 Personal Computer Applications in Accounting 3
MAN 205 Principles of Management
TOTAL
$\frac{3}{15}$
FIFTH QUARTER
BIS $\quad \overline{\text { M46 }} \quad \begin{aligned} & \text { Computer Information Systems Elective } \\ & \text { Advanced/Expert Excel }\end{aligned}$
BIS 201 Customer Service 3
BIS 114 Records Management \& Electronic Files 3
BIS 207 Telecommunications 2
General Education Elective $\quad \frac{3}{16}$
TOTAL 16
$\begin{array}{ll}\text { SIXTH QUARTER } \\ \text { CIS } \\ \text { 265 } & \text { Database Management Systems }\end{array}$
BIS M36 Advanced/Expert Access 3
BIS 172 Integrated Solutions 2
BIS 202 Advanced Customer Service Concepts 3
BIS $270 \quad$ Business Information Systems Internship** 3
CIS 162 Microsoft Office Troubleshooting \& Problem
Solving
TOTAL
*See page 83.
**See left column.

## Business Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

MAN 201 Introduction to Supervision 3
MAN 105 Introduction to Business 3
ENG 111 English Composition I 3

131 Business Communications I
MAT 116 College Algebra5

121 Mathematics for Business Analysis General Education Elective

SECOND QUARTER
BIS 160 Introduction to Word, PowerPoint, \& Excel 3

132 Business Communications II
MAN 205 Principles of Management3
MAT 122 Statistics I ..... 4
ACC 121 Principles of Financial Accounting ..... 5
THIRD QUARTER
COM 211 Effective Public Speaking ..... 3
MAN 225 Human Relations \& Organizational Behavior ..... 3
MRK 201 Marketing I ..... 3
ECO 216 Principles of Macroeconomics ..... 4
ACC 122 Principles of Managerial Accounting ..... 5
18
TOTALFOURTH QUARTER
COM 206 Interpersonal Communication ..... 3
MAN 216 Managing Operations ..... 3
MRK 202 Marketing II ..... 3
ECO 218 Principles of Microeconomics ..... 4
MAN 255 Management Information Systems I ..... 3
FIFTH QUARTER
MAN 110 Introduction to International Business ..... 3
LAW 101 Business Law I ..... 4
MAN 295 Management Seminar ..... 3
MAN 241 Introduction to Supply Chain Management MAN 241 Inoduction to Supply Chain Mang TOTAL ..... 33
SIXTH QUARTERMAN 270 Management Internship**or
MAN 278 Management Capstone
Business Elective ..... 3
Humanities Elective* ..... 3
General Education Elective* ..... 3
TOTAL ..... 18

## Credit

 Hours3333

TOTAL17

ENG 112 English Composition IIor3
TOTAL ..... 18

## Career Program

## Description

This area of concentration within the Management program prepares existing or potential entrepreneurs in wide variety of small business functions. In addition to general education courses and traditional management courses, the following key areas are emphasized for entrepreneurs: opportunity analysis, steps to becoming an entrepreneur, organizational structure, marketing plan development, financial plan development, and the complete business plan development.

## Type of Degree or Certificate <br> Associate of Applied Science

## 101 Total Credit Hours

## Career Opportunities

Opportunities for entrepreneurs are not limited to just self-employment, as many small "entrepreneurial" firms hire likeminded employees that understand and thrive in the higher risk environment of small enterprise.

## Internship Option

BIS internship is a Business elective in the Entrepreneurship degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing entrepreneurial work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. ENTR majors are encouraged to apply to the Business internship program upon completion of prerequisite course work (see ENTR 270 course description).

## Business

Management

# Entrepreneurship Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  |
| :--- | :--- | :--- | :--- |
| FIRST QUARTER | Credit <br> Hours |  |  |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel | 3 |
| ENG | 111 | English Composition I <br> or | 3 |
|  | 131 | Business Communications I |  |
| ENT | 105 | Introduction to Entrepreneurship |  |
| MAT | 116 | College Algebra <br> or | 3 |
|  | 121 | Mathematics for Business Analysis |  |
| SOC | 111 | General Sociology I | 5 |
|  |  | TOTAL | $\frac{3}{17}$ |

SECOND QUARTER
BIS 161 Intermediate Word, PowerPoint, \& Excel 3
ENG 112 English Composition II 3
132 Business Communications II
ENT 210 Small Business Management 3
MAT 122 Statistics I 4
MRK 201 Marketing I $\frac{3}{16}$
THIRD QUARTER
ACC 121 Principles of Financial Accounting 5
COM 211 Effective Public Speaking 3
ENT 220 Small Business Marketing 3
LAW 101 Business Law I 4
MAN 205 Principles of Management $\frac{3}{18}$
TOTAL $\quad 18$

## FOURTH QUARTER

$\begin{array}{llll}\text { ACC } & 122 & \text { Principles of Managerial Accounting } & 5\end{array}$
BIS M35 Microsoft Access 2
MAN 110 Introduction to International Business 3
MAN 201 Introduction to Supervision 3
Business Elective
FIFTH QUARTER
COM 206 Interpersonal Communication 3
ECO 216 Principles of Macroeconomics 4
ENT 240 Small Business Finance 3
MAN 216 Managing Operations 3
SOC 214 Applied Population Demography $\frac{3}{16}$

## SIXTH QUARTER

ECO 218 Principles of Microeconomics 4
ENT 260 Business Plan Development 4
ENT 278 Entrepreneurship Capstone 1
MRK 236 Consumer Behavior 3
Business Elective 3
Humanities Elective* _ 3
TOTAL $\quad \overline{18}$
*See page 83.

## Business Management Supply Chain Management Concentration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |
| :--- | :---: | :--- |
| FIRST QUARTER |  |  |

SECOND QUARTER

| MAN | 205 | Principles of Management |  |
| :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Financial Accounting | 3 |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel | 5 |
| ENG | 112 | English Composition II | 3 |
|  | 132 | or | 3 |
| Business Communications I |  |  |  |
|  | 122 | Statistics I | Total |

MAN 225 Human Relations \& Organizational Behavior 3
MAN 241 Introduction to Supply Chain Management ..... 3
ACC $122 \quad$ Principles of Managerial AccountingECO 216 Principles of MacroeconomicsMRK 201 Marketing I
Credit
COM 201 lrion ..... 3335121 Mathematics for Business Analysis
Total18
TotalFOURTH QUARTER
MAN 216 Managing Operations4
MAN 242 Advanced Supply Chain Management ..... 3MAN 255 Management Information Systems I
MAN 243 Materials Management ..... 3
3
ECO 218 Principles of Microeconomics
MRK 202 Marketing II
Total ..... $\begin{array}{r}4 \\ 3 \\ \hline 19\end{array}$
FIFTH QUARTER
MAN 110 Introduction to International Business ..... 3
MAN 244 Negotiation Techniques ..... 3
MAN 210 Introduction to Project ManagementMAN 295 Management Seminar
Business Law I LAW ..... 1013$\begin{array}{r}4 \\ \hline 16\end{array}$
SIXTH QUARTERMAN 251 Logistics Management3
248 DoD Acquisition Fundamentalsor
or
260 Management Science I
MAN 278 Management Capstone ..... 3
COM 211 Effective Public Speaking ..... 3
Humanities Elective* ..... 3

- Management Elective ..... 3
or
MAN ..... 270
Management Internship


## Career Program

## Description

The AAS Business Management - Supply Chain Management (SCM) concentration provides the same broad-based study of organizational strategic plans, resources, roles, responsibilities, and functions, while also focusing on management of Supply Chain activities. This study involves consideration and application of processes to develop coordinated supplier-to-consumersystems, including: identifying needs for raw materials, supplies, and components; developing specifications; computing quantity requirements; selecting sources and negotiating agreements; acquiring, transporting, and storing inventory; managing and maintaining operations; and logistics management. SCM specialists have opportunities for management positions at all levels in virtually every type of business, throughout small and medium-sized businesses, corporations, industries, non-profit organizations, and government agencies.

## Type of Degree or Certificate

Associate of Applied Science
103 Total Credit Hours

## Career Program

## Description

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. Technology Accreditation Commission of the Accreditation Board for Engineering and Technology 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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 104 Total Credit Hours

## Transfer to Four Year

The curriculum is designed to maximize articulation to four year programs emphasizing Civil Engineering Technology and Construction Engineering Technology.

## Career Opportunities

Graduates of Sinclair's Civil Engineering Technology program find jobs as designers, managers, contractors, drafters, surveyors, and estimators for government agencies, consulting firms, building and design organizations, and contractors. In addition, careers are available with firms specializing in testing services.

## Civil Engineering Technology**

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
CAT 101 Architectural Drafting ..... 3
CAT 105 Residential Construction Methods \& Materials ..... 4
CAT 110 Introduction to Civil \& Architectural Technology ..... 3
ETD 198 Personal Computer Applications for EngineeringTechnologyMAT 131 Technical Mathematics I2SECOND OUARTER
CAT 106 Commercial Construction Methods \& Materials ..... 3
CAT 121 Civil Construction Blueprints \& Drafting ..... 2
CAT 131 Properties of Construction Materials ..... 3
COM 206 Interpersonal Communication ..... 3
ETD 199 Introduction to Computer-Aided Drafting Concepts ..... 2
MAT 132 Technical Mathematics IITOTAL18
THIRD QUARTER
CAT 123 Basic Construction Surveying ..... 4
CAT 199 Architectural 2-D Drafting ..... 3
CAT 216 Construction Estimating ..... 4
ENG 111 English Composition I ..... 3
PHY 131 Technical Physics I ..... 18
FOURTH QUARTER
CAT 218 Project Management Techniques ..... 3
CAT 221 Highway Surveying \& Design ..... 4
ENG 112 English Composition II ..... 3
ETD 213 Statics ..... 4
OPT 201 Statistical Process Control
TOTAL17
FIFTH QUARTER
CAT 223 Subdivision Design ..... 4
CAT 245 Soil Mechanics ..... 4
CAT 256 Construction Management ..... 3
ETD 222 Strength of Materials ..... 4
Social Science Elective* ..... 3
TOTAL ..... 18
SIXTH QUARTER
CAT 227 Introduction to GIS \& GPS ..... 3
CAT 229 Advanced Construction Surveying ..... 3
CAT 278 Civil Architectural Capstone ..... 4
CAT 270 Civil Architectural Internship ..... 3
Humanities Elective*
TOTAL ..... 16

[^6]
# Computer Aided Manufacturing CNC Technology Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| ETD | 128 | Print Reading with GD\&T | 3 |
| :--- | :--- | :--- | ---: |
| ENG | 121 | Technical Composition I | 3 |
| INT | 131 | Basic Moldmaking | 3 |
| INT | 109 | Fundamentals of Tool \& Manufacturing Processes | 4 |
| ETD | 198 | Personal Computer Applications for Engineering |  |
|  |  | Technology |  |
|  |  |  | TOTAL |

## SECOND QUARTER

| OPT | 125 | Introduction to World-Class Operations | 3 |
| :--- | :--- | :--- | ---: |
| ETD | 199 | Introduction to Computer-Aided Drafting Concepts | 2 |
| ENG | 122 | Technical Composition II | 3 |
| INT | 132 | Advanced Moldmaking | 3 |
| INT | 116 | CNC Operations | 3 |
| OPT | 101 | Introduction to Operations |  |
|  |  | TOTAL | $\frac{3}{17}$ |

## THIRD QUARTER

ETD 280 Advanced Computer Aided Drafting 3
INT 165 Advanced Machine Operations Laboratory 4
MAT 131 Technical Mathematics I 5
INT 113 Fundamentals of CNC 3
OPT 126 Supervision \& Team Leadership $\quad 3$
FOURTH QUARTER
OPT 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
OPT 100 Tooling \& Machining Metrology TOTAL $\frac{2}{17}$

## FIFTH QUARTER

COM 211 Effective Public Speaking 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 $\quad \frac{3}{18}$

## SIXTH QUARTER

OPT 113 Coordinate Measurement 3
INT 213 Computer Numerical Control Applications 3
INT 209 Computer Numerical Control Wire Electrical Discharge Machining Programming 3
OPT 216 Facilities Planning 3
General Education Elective* 3
Social Science Elective $\quad 3$
TOTAL $\quad 18$
*See page 83.

## Career Program

## Description

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.
Program Prerequisites:
First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 103 Total Credit Hours

## Career Opportunities

Employment is available for foremen, planners, methods specialists, technicians, and computer numerical control programmers. Career opportunities have been plentiful for graduates, with over $90 \%$ working within their career fields.

## Career Program

## Description

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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

Type of Degree or Certificate
Associate of Applied Science
103-104 Total Credit Hours

# Computer Aided Manufacturing Precision Machining Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit

Course \& Title Hours
FIRST QUARTER

| ETD | 128 | Print Reading with GD\&T |  | 3 |
| :--- | :--- | :--- | :--- | ---: |
| INT | 109 | Fundamentals of Tool \& Manufacturing Processes | 4 |  |
| INT | 141 | Applied Shop Mathematics I |  |  |
| INT | 161 | Machine Operations Laboratory I |  | 8 |
| OPT | 100 | Tooling \& Machining Metrology |  | TOTAL |
|  |  |  | 2 |  |

## SECOND QUARTER

INT 113 Fundamentals of CNC 3
INT 142 Applied Shop Mathematics II 3
INT 162 Machine Operations Laboratory II $\quad 8$
ETD 230 Introduction to Geometric Dimensioning \& Tolerancing $\frac{3}{17}$
THIRD QUARTER
INT $\overline{143}$ Applied Shop Mathematics III 3
INT 163 Machine Operations Laboratory III 8
ETD 199 Introduction to Computer-Aided Drafting Concepts $\quad \frac{2}{617}$
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
ETD 198 Personal Computer Applications for Engineering Technology2

TOTAL $\quad \overline{15}$
FIFTH QUARTER
OPT 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 TOTAL $\frac{3}{17}$
SIXTH QUARTER
COM 211 Effective Public Speaking 3
OPT - Humanities Elective* 3
INT 213 Computer Numerical Control Applications 3
$\begin{array}{ll}\text { Computial Science Elective* } & 3 \\ \text { Social }\end{array}$
INT Technical Elective 3
or
Industrial Technology Internship
TOTAL
18
*See page 83.

# Computer Information Systems Microsoft Security Specialist Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit

Hours

## Course \& Title

FIRST QUARTER

| BU | 101 | Student Success Experience | 2 |
| :--- | :--- | :--- | :--- |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel <br> or | 3 |
|  | 161 | Intermediate Word, PowerPoint, \& Excel | 3 |
| ENG | 131 | Business Communications I <br> or |  |
|  | 111 | English Composition I <br> MAT | 121 | | Mathematics for Business Analysis |
| :--- |
|  |
|  |
| or | | College Algebra |
| :--- |

SECOND QUARTER

| CIS | 100 | CIS Student Orientation for Success | 2 |
| :--- | :--- | :--- | ---: |
| CIS | 111 | Introduction to Problem Solving \& Computer Programming | 4 |
| MAT | 122 | Statistics I | 4 |
| ENG | 132 | Business Communications II <br>  <br>  <br> or | 3 |
| CIS | 112 | English Composition II |  |
|  | 230 | Computer Networks |  |

## THIRD QUARTER

COM 225 Small Group Communication 3
CIS 272 Microsoft Windows Server Operating System*** 4

CIS 271 Administering a Microsoft Windows Client Operating System***4

CIS 266

265 Database Management Systems
COM 206 Interpersonal Communication
TOTAL

## 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 |
| FIFTH QUARTER TOTAL $\quad 18$ |  |  |  |
|  |  |  |  |
| ACC | 121 | Principles of Financial Accounting | 5 |
| ECO | 216 | Principles of Macroeconomics | 4 |
| CIS | 253 | Securing a Windows Network Environment*** | 4 |
| CIS | 206 | Network Security I ${ }^{* * *}$ | 3 |
|  |  | R TOTAL | 16 |
| SIXTH QUARTER |  |  |  |
| CIS | 207 |  | Network Security II*** | 3 |
| MRK | 201 | Marketing I | 3 |
|  |  | Humanities Elective* | 3 |
| CIS | 259 | Designing Security for Windows Networks** or | 4 |
|  | 257 | Microsoft Internet Security \& Acceleration (ISA) Server** |  |
| CIS | 278 | CIS Capstone | 4 |
|  |  | TOTAL | 17 |

## Career Program

## Description

The Microsoft Security Specialist area of concentration prepares students to work in the area of computer and network security in a Microsoft Windows environment. Microsoft specific content in network protocols, encryption, wired and wireless security techniques and other topics are included. Vendor independent concepts are also included. Students will learn both day-to-day administrative skills and design concepts to achieve a more secure network setting.

## Type of Degree or Certificate

Associate of Applied Science

## 100-101 Total Credit Hours

## Career Opportunities

Employment opportunities in this expanding field include entry level positions such ing field include entry level positions such technicians, information center specialists, network administrators, data base analysts, and help desk specialists.

Concentration Electives**

| CIS | 206 | Network Security I | 3 |
| :--- | :--- | :--- | :--- |
| CIS | 207 | Network Security II | 3 |
| CIS | 253 | Securing a Windows <br> Network Environment | 4 |
| CIS | 257 <br> Acceleration (ISA) Server | 4 |  |
| CIS | 259 | Designing Security for <br> Windows Networks | 4 |
| CIS | 271Administering a Microsoft <br> Windows Client | 4 |  |
| CIS | 272Microsoft Windows Server <br> Operating System | 4 |  |
| CIS | 273Managing a Windows <br> Network Infrastructure | 4 |  |
| CIS | 274Windows Directory Services <br> Administration | 4 |  |

[^7]
## Career Program

## Description

The rapid spread of computers and com-puter-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.

Program Prerequisites:
BIS 105 Computer Concepts and
MAT 101 Elementary Algebra

## Type of Degree or Certificate

Associate of Applied Science

## 98-99 Total Credit Hours

## Career Opportunities

Employmentopportunities in this expanding field include entry level positions such as programmers, web developers, help desk analysts, network administrators, user support specialists, and network engineers.

## Concentration Electives***

Network Engineer
Required Course:
CIS 241 Cisco Networking
Fundamentals
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
CIS 247 Multilayer Switching for
CIS 248 CCNP $\begin{aligned} & \text { Cupport \& Troubleshooting }\end{aligned}$ for CCNP

# Computer Information Systems Network Engineer Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
BIS $160 \quad$ Introduction to Word, PowerPoint, \& Excel 3
or
161 Intermediate Word, PowerPoint, \& Excel
CIS 107 Introduction to Operating Systems
or
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
Mathematics for Business Analysis
BU 101 Student Success Experience $\quad 2$
SECOND QUARTER
$\begin{array}{lll}\text { CIS } & 100 & \text { CIS Student Orientation for Success }\end{array}$
COM 206 Interpersonal Communication 3
ENG 112 English Composition II 3
or
or
Business Communications II
$\begin{array}{llll}\text { MAT } & 122 & \text { Statistics I }\end{array}$
CIS 111 Introduction to Problem Solving \& Computer Programming
THIRD QUARTER
$\begin{array}{llll}\text { CIS } & 265 & \text { Database Management Systems } & \text { 3-4 }\end{array}$
or
266 Client/Server Database
CIS 241 Cisco Networking Fundamentals*** 7
COM 225 Small Group Communication 3
Humanities Elective*
TOTAL $\quad \overline{16-17}$

FOURTH QUARTER
$\begin{array}{lll}\text { MAN } & 205 & \text { Principles of Management }\end{array}$
CIS 242 Cisco Router Fundamentals 7
CIS 210 Computer Systems Analysis 3
LAW 101 Business Law I TOTAL $\frac{4}{17}$

| FIFTH QUARTER |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| ACC | 121 | Principles of Financial Accounting |  | 5 |
| ECO | 216 | Principles of Macroeconomics |  | 4 |
| CIS | 243 | Cisco Routing in LANs |  | $\frac{7}{16}$ |

SIXTH QUARTER
CIS 270 CIS Internship 3
or
$\begin{array}{lll} \\ \text { CIS } & \begin{array}{l}\text { Business Elective } \\ \text { CIS Capstone }\end{array} & 4\end{array}$
MRK 201
CIS 244 Cisco Routing in WANs
TOTAL

* See page 83.
** Internet elective see page 151.
***Or other concentration elective


# Computer Information Systems Network Manager Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| BIS | 160 | Introduction to Word, PowerPoint, \& Excel <br> or <br> Intermediate Word, PowerPoint, \& Excel | 3 |
| :--- | :--- | :--- | :--- |
|  | 161 | English Composition I <br> or | 3 |
| ENG | 111 | 131 | Business Communications I <br> College Algebra <br> and |
| MAT | 116 | Mathematics for Business Analysis | 5 |
| CIS | 121 | 107 | Introduction to Operating Systems <br> BU |
|  | 101 | Student Success Experience | TOTAL |

SECOND QUARTER

CIS 111 | Introduction to Problem Solving \& Computer |
| :---: |
| Programming | 4

CIS 230 Computer Networks 3
ENG 112 English Composition II 3
MAT $\quad 132 \quad$ Business Communications II

CIS 100 CIS Student Orientation for Success $\quad 2$
THIRD QUARTER

| CIS | 265 | Database Management Systems <br> or | $3-4$ |
| :--- | :--- | :--- | :--- |

CIS 271 | Administering a Microsoft Windows Client |
| :---: |
| Operating System*** | 4

CIS $272 \quad$ Microsoft Windows Server Operating System ${ }^{* * *} 4$

COM 206 Interpersonal Communication 3
CIS 210 Computer Systems Analysis $-\frac{3}{17}$

## FOURTH QUARTER

CIS $273 \quad$ Managing a Windows Network Infrastructure*** 4
CIS 274 Windows Directory Services Administration*** LAW 101 Business Law I
COM 225 Small Group Communication
TOTAL $\quad \frac{3}{15}$

## FIFTH QUARTER

$\left.\begin{array}{llllr} & & \text { CIS Concentration** } & & 4 \\ \text { ECO } & 216 & \begin{array}{l}\text { Principles of Macroeconomics } \\ \text { ACC }\end{array} & 121 & \begin{array}{l}\text { Principles of Financial Accounting } \\ \text { MAN }\end{array} \\ \text { Mrinciples of Management }\end{array}\right)$

[^8]
## Career Program

## Description

The rapid spread of computers and com-puter-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.
Program Prerequisites:
BIS 105 Computer Concepts and
MAT 101 Elementary Algebra

## Type of Degree or Certificate

Associate of Applied Science

## 97-98 Total Credit Hours

## Career Opportunities

Employmentopportunities in this expanding field include entry level positions such as programmers, web developers, help desk analysts, network administrators, user support specialists, and network engineers.

## Concentration Electives***

Network Manager

## Choose two:

CIS $253 \begin{gathered}\text { Securing a Windows } \\ \text { Network Environment }\end{gathered} 4$

CIS 257 |  |
| :---: |
| Acceleration (ISA) Server |

CIS 259 Designing Security of Windows Network

CIS 271 Administering a Microsoft
CIS 272 Microsoft Windows Server Operating System
CIS 273 Managing a Windows Network Infrastructure
CIS 274 Windows Directory Services Administration
CIS 275 MCSE 2000 Designing Directory Services
CIS 277 Planning a Windows Network Infrastructure
CIS 279 Microsoft SQL Server Administration

## Career Program

## Description

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 InformationSystems 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++. Studentslearn to use commercially availablenetwork 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, networkadministrators, usersupport specialists, and network engineers.
Program Prerequisites:
BIS 105 Computer Concepts
MAT 101 Elementary Algebra

## Type of Degree or Certificate

Associate of Applied Science

## 97-98 Total Credit Hours

## Career Opportunities

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.

## Concentration Electives***

## Software Development

| BIS | M81 | Microsoft Project |
| :--- | :--- | :--- |
| CIS | 112 | Object Oriented Concepts <br> or |
| CIS | 113 | Object Oriented Design |

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 the same 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. Students planning to transfer to Wright State should take the entire C++ course sequence (233-234-236) and the Java sequence (280-281).
(Object-Oriented) Visual Basic Thread
CIS 147 Visual Basic Programming I
3
CIS 148 Advanced Visual Basic
(Object-Oriented) Java Thread
CIS 280 Java I
4
CIS 281 Java II
4
(Object-Oriented) C++ Thread
CIS 233 C++ Programming I
CIS $234 \quad$ C++ Programming II
CIS 236 C++ Programming III
Cobol Thread
CIS 221 Cobol I
CIS 222 Cobol II
Web Programming Thread
CIS 223 Extensible Markup Language or
144 Perl/CGI
or
251 php Web Programming
CIS 284 Client/Server Web Tools
285 Web Application
Development with Java 4

## Computer Information Systems Software Development Concentration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Tit |  |
| :--- | :---: |
| FIRST QUAR |  |
| MAT | 116 |
|  | 121 |
| BIS | 160 |
|  | 161 |
| ENG | 111 |
|  | 131 |
| BU | 101 |
| CIS | 107 |

Credit
Hours

College Algebra
or
Mathematics for Business Analysis Introduction to Word, PowerPoint, \& Excel or
Intermediate Word, PowerPoint, \& Excel English Composition I
or
131 Business Communications I
CIS 107
Student Success Experience
Introduction to Operating Systems
TOTAL
2

SECOND QUARTER
CIS $100 \quad$ CIS Student Orientation for Success 2
CIS $111 \quad \begin{gathered}\text { Introduction to Problem Solving \& Computer } \\ \text { Programming }\end{gathered} 4$
COM 225 Small Group Communication 3
MAT 122 Statistics I 4
ENG 112 English Composition II 3
132 Business Communications II
THIRD QUARTER
CIS 230 Computer Networks 3
$\begin{array}{lll}\text { COM } & 206 & \text { Interpersonal Communication }\end{array}$
CIS Humanities Elective* $\quad 3$
$\begin{array}{llll}\text { CIS } & \overline{265} \quad \text { Database Management Systems } & \text { 3-4 }\end{array}$
266 Client/Server Database
FOURTH QUARTER
CIS 210 Computer Systems Analysis 3

- CIS Concentration*** 3

LAW CIS Concentration*** 4
MAN 205 Principles of Management
TOTAL $\quad 17$
FIFTH QUARTER
CIS Concentration*** 4

- CIS Concentration*** 3

ACC $\overline{121} \quad$ Principles of Financial Accounting 5
ECO 216 Principles of Macroeconomics TOTAL $\frac{4}{16}$
SIXTH QUARTER
CIS 278 CIS Capstone 4
CIS Concentration*** 3
CIS Concentration*** 3
Marketing I 3
CIS Internship 3
or
Business Elective
TOTAL

* See page 83.
** Internet elective see page 151.
*** Or other concentration elective


# Computer Information Systems User Support Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

TOTAL

## Course \& Title

FIRST QUARTER
BIS 160 Introduction to Word, PowerPoint, \& Exce or
161 Intermediate Word, PowerPoint, \& Excel
CIS 107 Introduction to Operating Systems
108 Introduction to Windows OS for The Network Manager
ENG 11
131 Business Communications
MAT 116
12
BU 10
Mathematics for Business Analysis
Student Success Experience
SECOND QUARTER

| CIS | 100 | CIS Student Orientation for Success | 2 |
| :---: | :---: | :---: | :---: |
| 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 TOTAL | $\underline{4}$ |
| THIRD QUARTER |  |  |  |
| ACC | 121 | Principles of Financial Accounting | 5 |
| CIS | 265 | Database Management Systems | 3-4 |
|  |  | or ${ }^{\text {or }}$ |  |
|  | 266 | Client/Server Database |  |
| BIS | 201 | Customer Service*** | 3 |
| CIS | 230 | Computer Networks | 3 |
| COM | 225 | Small Group Communication | 3 |

## 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**
MAN 205 Principles of Management
TOTAL
FIFTH QUARTER
CIS 264 A+ Certification ${ }^{* * *} 3$

ECO 216 Principles of Macroeconomics 4
PSY 126 Stress Management 3
CIS 166 User Support Tools \& Techniques** 3

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 |

Humanities Elective* $\quad \frac{3}{16}$

TOTALIXTH QUARTEREffective Listenin3

MRK 201
CIS Internship

[^9]
## Career Program

## Description

The rapid spread of computers and com-puter-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.
Program Prerequisites:
BIS 105 Computer Concepts and
MAT 101 Elementary Algebra

## Type of Degree or Certificate

Associate of Applied Science

## 100-101 Total Credit Hours

## Career Opportunities

Employmentopportunities in this expanding field include entry level positions such as programmers, web developers, help desk analysts, network administrators, user support specialists, and network engineers.

Concentration Electives***
User Support
Required Courses:
BIS 201 Customer Service 3
CIS $164 \begin{gathered}\text { Introduction to User } \\ \text { Support }\end{gathered} 3$
CIS $166 \begin{gathered}\text { User Support Tools \& } \\ \text { Techniques }\end{gathered}$
CIS $238 \begin{gathered}\text { P.C. Installation } \\ \text { Management }\end{gathered}$
COM 287 Effective Listening 3
CIS 162 Microsoft Office Troubleshooting \& Problem Solving
CIS 264 A+Certification 3
PSY 126 Stress Management 3

## Career Program

## Description

The rapid spread of computers and com-puter-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.
Program Prerequisites:
BIS 105 Computer Concepts and
MAT 101 Elementary Algebra

## Type of Degree or Certificate

Associate of Applied Science

## 98-99 Total Credit Hours

## Career Opportunities

Employmentopportunities in this expanding field include entry level positions such as programmers, web developers, help desk analysts, network administrators, user support specialists, and network engineers.

## Concentration Electives**

Web Development
Required Courses:
CIS $130 \begin{gathered}\text { Introduction to Web } \\ \text { Development }\end{gathered}$
CIS 131 Intermediate Web Development
CIS 136 Introduction to XHTML 3
CIS 137 Introduction to JavaScript 3
Choose 12 credit hours:
CIS 134 Macromedia Flash
CIS 138 Advanced Macromedia Flash
Flash 3
CIS 141 Active Server Pages 3

CIS 143 Cold Fusion 3
CIS 144 PERL/CGI 3
CIS 223 Extensible Markup Language
CIS 224 Web Server Administration \& Security
CIS 251 PHP Web Programming 4

CIS 284 Web Client/Server Tools 3

## Computer Information Systems Web Development Concentration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
$\begin{array}{lll}\text { BU } & 101 & \text { Student Success Experience }\end{array}$
MAT $116 \quad$ College Algebra
or
121 Mathematics for Business Analysis
ENG 111 English Composition I
or
131 Business Communications I
$\begin{array}{llll}\text { CIS } & 107 & \text { Introduction to Operating Systems }\end{array}$
108 Introduction to Windows OS for the Network Manager
BIS $160 \quad$ Introduction to Word, PowerPoint, \& Excel 3
161 Intermediate Word, PowerPoint, \& Excel
TOTAL
16
SECOND QUARTER
$\begin{array}{llll}\text { CIS } & 100 & \text { CIS Student Orientation for Success } & 2\end{array}$
CIS $111 \begin{gathered}\text { Introduction to Problem Solving \& Computer } \\ \text { Programming }\end{gathered} 4$
COM 206 Interpersonal Communication 3
MAT 122 Statistics I 4
ENG 112 English Composition II
or
Business Communications II
TOTAL
16
THIRD QUARTER
$\begin{array}{llll}\text { CIS } & 265 & \text { Database Management Systems } & \text { 3-4 }\end{array}$
266 Client/Server Database
CIS 230 Computer Networks 3
CIS 130 Introduction to Web Development 3
CIS 136 Introduction to XHTML 3
COM 225 Small Group Communication TOTAL $\frac{3}{16-17}$
FOURTH QUARTER
$\begin{array}{lll}\text { MAN } 205 & \text { Principles of Management } & 3\end{array}$
CIS 137 Introduction to JavaScript 3
CIS 210 Computer Systems Analysis 3
LAW 101 Business Law I A
Business Law I
CIS Concentration**

## TOTAL $\quad \frac{3}{16}$

FIFTH QUARTER

| ECO | $\overline{216}$ |
| :--- | :--- |
| CIS | 131 |
| ACC | 121 |

CIS Concentration**
3
Principles of Macroeconomics 4
3
Principles of Financial Accounting
Humanities Elective*
TOTAL
SIXTH QUARTER
CIS 270 CIS Internship
or
Business Elective
CIS Concentration** 6
CIS Capstone 4

MRK 201 Marketing I
TOTAL

* See page 83.
** Internet elective see page 151.
${ }^{* * *}$ Or other concentration elective


## CIS Concentrative Electives

## Internet Electives＊＊

## Choose 3 credit hours：

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 CIS 257 Cybe ..... 1
CIS 259 Designing Security of Windows Network ..... 4
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

## Career Program

## Description

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. The curriculum includes hands-on trade skill classes that are part of a short-term certificate. These skills will open the door for students to begin their career as a craftsperson in the construction industry.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 104 Total Credit Hours

## Transfer to Four Year

Graduates can transfer to bachelor completion degrees in programs that emphasize management and leadership.

## Career Opportunities

Craftsperson, surveyor, estimator, inspector, management trainee for construction firms (commercial and residential) as well as governmental agencies.

# Construction Management Technology 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

## Credit

Hours
FIRST QUARTER
CAT 101 Architectural Drafting 3
CAT 105 Residential Construction Methods \& Materials 4
CAT 110 Introduction to Civil \& Architectural Technology 3
CAT 153 Introduction to Structural Framing 4
ETD 198 Personal Computer Applications for Engineering Technology
SRM 154 Introduction to OSHA Construction Standards $\quad \frac{1}{17}$
SECOND QUARTER
CAT 106 Commercial Construction Methods \& Materials 3
CAT 121 Civil Construction Blueprints \& Drafting 2
CAT 131 Properties of Construction Materials 3
CAT 154 Structural Framing Systems II 4
COM 206 Interpersonal Communication 3
ETD 199 Introduction to Computer-Aided Drafting Concepts $\frac{2}{17}$
TOTAL
THIRD QUARTER
CAT 123 Basic Construction Surveying 4
CAT 155 Structural Framing Systems III 5
CAT 199 Architectural 2-D Drafting 3
CAT 216 Construction Estimating 4
ENG 111 English Composition I $-\frac{3}{19}$
TOTAL 19
FOURTH QUARTER
CAT 139 Mechanical Systems Blueprint Reading 2
CAT 207 Architectural Building Codes 3
CAT 218 Project Management Techniques 3
ENG 112 English Composition II 3
MAT 131 Technical Mathematics I $\quad \frac{5}{16}$
FIFTH QUARTER
CAT 252 Construction Law \& Specifications 3
CAT 256 Construction Management 3
MAT 132 Technical Mathematics II 5

- Social Science Elective 3

SRM $\overline{231}$ OSHA Construction Standards $\frac{3}{17}$
SIXTH QUARTER
CAT 229 Advanced Construction Surveying 3
CAT 270 Civil Architectural Internship 3
CAT 278 Civil Architectural Capstone 4
PHY $\overline{131}$ Technical Physics I
Technical Physics I $\quad 4$
TOTAL
17
*See page 83.

# Criminal Justice Science <br> <br> Corrections Option 

 <br> <br> Corrections Option}

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| EL | 101 | Student Success Experience |  |
| :--- | :--- | :--- | :--- |
| CJS | 101 | Introduction to Criminal Justice Science | 2 |
| ENG | 111 | English Composition I | 3 |
| PED | 234 | Concepts of Total Fitness | 3 |
| BIS | 160 | Introduction to Word, PowerPoint, \& Excel |  |
|  | - | Humanities Elective* | 3 |
|  |  |  | TOTAL |

## SECOND QUARTER

| ENG | 112 | English Composition II |
| :--- | :--- | :--- |

$\begin{array}{lll}\text { CJS } 102 \text { Constitutional Law } & 3\end{array}$
CJS $140 \quad$ Human Relations \& Cultural Diversity 3
SOC 111 General Sociology I
MAT 101 Elementary Algebra

105 Business Mathematics
TOTAL
THIRD QUARTER
$\begin{array}{lll}\text { COM } & 206 & \text { Interpersonal Communication } \\ & 211 & \text { Effective Public Speaking }\end{array}$
CJS $111 \quad$ Criminal Justice Ethics \& Professionalism
$\begin{array}{lll}\text { CJS } & 105 & \text { Criminal Law } \\ \text { CJS } & 165 & \text { Corrections Administration \& Operations }\end{array}$ 3
SOC 112 General Sociology II
TOTAL
FOURTH QUARTER

| CJS | 110 | Criminal Justice Science Oral \& Written Communications | 3 |
| :---: | :---: | :---: | :---: |
| CJS | 200 | Mediation \& Conflict Resolution | 3 |
| CJS | 210 | Youthful Offenders \& The Law | 3 |
| MHT | 126 | Introduction to Substance Related Disorders | 3 |
| PSY | 121 | General Psychology I | 3 |
| TOTAL |  |  | 15 |
| FIFTH QUARTER |  |  |  |
| PSY | 122 | General Psychology II | 3 |
| CJS | 265 | Criminal Justice Research | 3 |
| CJS |  | Criminal Justice Science Quarter Five Elective Correctional Case Management | 3 |
| CJS | 145 |  | 3 |
| BIO | 104 | Correctional Case Management <br> HIV / AIDS | 3-5 |
|  |  | or |  |
|  | 107 | Human Biology |  |
| CHE | 120 | Introduction to Chemistry |  |
|  |  | or |  |
| PHY | 100 | Introduction to Physics |  |

PHY Introduction to Physics
TOTAL
SIXTH QUARTER

CJS 226 | Contemporary Issues \& Best Practices in |
| :---: |
| Corrections |

CJS 295 Criminal Justice Science Seminar 3

SPA 161 Conversational Spanish for Criminal Justice
SOC 226 Criminology
CJS _ Criminal Justice Science Quarter Six Elective
TOTAL

CJS $110 \quad$ Criminal Justice Science Oral \& Written Communications

CJS $210 \quad$ Youthful Offenders \& The Law
MHT 126 Introduction to Substance Related Disorders
PSY 121 General Psychology I
TOTAL
15

CJS Criminal Justice Research 265
$\begin{array}{llll}\text { CJS } & & \text { Criminal Justice Science Quarter Five Elective } & 3 \\ \text { CJS } & 145 & \text { Correctional Case Management } & 3\end{array}$
BIO 104
HIV/AIDS
107 Human Biology
or
CHE 120 Introduction to Chemistry or

* See page 83.


## Career Program

## Description

This program is designed to combine the criminal justice concepts, theories, and laws with practical application techniques and modern technology skills to prepare the criminaljustice science student for productive employment in corrections. The corrections track maintains cutting edge curriculum that enhances critical thinking, written and oral communications, teamwork, leadership, and assessment. The curriculum includes general education requirements, theory and practice courses and educational requirements in ethics, law, and the current best practices in the field of criminal justice.

## Type of Degree or Certificate

Associate of Applied Science

## 93-95 Total Credit Hours

## Quarter Five Electives:

| CJS | 104 | Criminal Evidence, \& Procedures | 3 |
| :--- | :--- | :--- | :--- |
| CJS | 130 | Homeland Security |  |
|  |  | Administration | 3 |
| CJS | 155 | Homeland Security Issues | 3 |
| CJS | 170 | Community-Based Policing | 3 |
| CJS | 205 | Criminal Investigation | 3 |
| CJS | 20 | Computer Crime | 3 |
| CJS | 215 | Introduction to Forensic Science | 3 |
| CJS | 270 | Criminal Justice Science |  |
|  | Internship I |  |  |

## Quarter Six Electives:

| CJS | 104 | Criminal Evidence, \& Procedures | 3 |
| :--- | :--- | :--- | :--- |
| CJS | 125 | Police Organization, <br> Administration, \& Leadership | 3 |
|  |  |  |  |
| CJS | 130 | Homeland Security <br> Administration | 3 |
| CJS | 155 | Homeland Security Issues | 3 |
| CJS | 170 | Community-Based Policing | 3 |
| CJS | 205 | Criminal Investigation | 3 |
| CJS | 209 | Computer Crime | 3 |
| CJS | 215 | Introduction to Forensic Science | 3 |
| CJS | 271 | Criminal Justice Science |  |
|  |  | Internship II | 3 |

## Career Program

## Description

This program prepares students for careers as law enforcement officers. It is designed for students who are new to law enforcement, as well as for those who are already employed as law enforcement officers and want to add to their knowledge and perform well on civil service exams for promotions.

## Type of Degree or Certificate

Associate of Applied Science

## 95-97 Total Credit Hours

## Quarter Five Electives:

| CJS | 145 | Correctional Case Management | 3 |
| :--- | :--- | :--- | :--- |
| CJS | 130 | Homeland Security <br> Administration | 3 |
| CJS | 165 |  <br> Coperations |  |
| CJS | 155 | Homeland Security Issues | 3 |
| CJS | 270 | Criminal Justice Science | 3 |
| CJS | 210 | Internship I <br> Youthful Offenders \& The <br> Law | 3 |
| CJS | 226 | Contemporary Practices in <br> Corrections | 3 |

# Criminal Justice Science <br> Law Enforcement Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

EL 101 Student Success Experience 2
PED 234 Concepts of Total Fitness 3
SOC 111 General Sociology I 3
ENG 111 English Composition I 3
CJS 101 Introduction to Criminal Justice Science $\quad 3$
SECOND QUARTER
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
ENG 112 English Composition II 3
SOC 112 General Sociology II 3
CJS 102 Constitutional Law 3
MAT 101 Elementary Algebra 4
or
Business Mathematics
TOTAL
16
THIRD QUARTER
CJS 140 Human Relations \& Cultural Diversity 3
CJS 105 Criminal Law 3
CJS 209 Computer Crime 3
CJS 111 Criminal Justice Ethics 3
PSY 121 General Psychology I 3
COM 211 Effective Public Speaking 3
206 Interpersonal Communication TOTAL $\quad 18$
FOURTH QUARTER
$\begin{array}{lll}\text { CJS } & 104 \begin{array}{c}\text { Criminal Evidence, Procedures \& Courtroom } \\ \text { Testimony }\end{array} & 3\end{array}$
CJS 205 Criminal Investigation 3
CJS 110 Interrogation, Documentation \& Testimony 3
CJS 215 Introduction to Forensic Science 3
PSY 122 General Psychology II $\quad 3$
FIFTH QUARTER
CJS 200 Mediation \& Conflict Resolution 3
CJS 265 Criminal Justice Research 3
CJS 170 Community-Based Policing 3
BIO 104 HIV/AIDS 3-5
107 Human Biology
or
CHE 120 Introduction to Chemistry
Criminal Justice Science Quarter Five Elective 3
TOTAL $\quad 15-17$
SIXTH QUARTER
CJS 125 Police Organization \& Administration 3
CJS 295 Criminal Justice Science Seminar 3
SPA 161 Conversational Spanish for Criminal Justice 3
SOC 226 Criminology 3
Humanities Elective* $\quad \frac{3}{15}$
TOTAL 15

* See page 83.


## Dental Hygiene

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

| DEH | 103 | Head \& Neck Anatomy | 3 |
| :--- | :--- | :--- | ---: |
| BIO | 143 | Principles of Anatomy \& Physiology III | 4 |
| DEH | 101 | Dental Anatomy | 2 |
| CHE | 122 | Introduction to Biochemistry | 4 |
| ENG | 111 | English Composition I | 3 |
| DEH | 105 | Introduction to Dental Hygiene |  |
|  |  |  | 2 |
| 18 |  |  |  |

## SECOND QUARTER

DEH 111 Preclinical Dental Hygiene I 4
DEH 155 Oral Pathology \& Embryology ..... 3
DEH 157 Research Methodology ..... 2
BIO 205 Microbiology
ENG 112 English Composition II4THIRD QUARTER
DEH 112 Preclinical Dental Hygiene II ..... 4
DEH 106 Nutrition \& Oral Health ..... 2
DEH 135 Dental Radiology ..... 4
DEH 156 Dental Hygiene Research Project ..... 1
DEH 220 Medical Emergencies in the Dental OfficeALH 220 Pathophysiology
TOTAL ..... 17
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
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
SIXTH QUARTER
DEH 212 Clinical Dental Hygiene III ..... 6
DEH 253 Pain Control in Dentistry ..... 2
DEH 250 Periodontics II ..... 2
COM 211 Effective Public Speaking ..... 3
SOC 111 General Sociology I ..... 3
SEVENTH QUARTER
DEH 213 Clinical Dental Hygiene IV ..... 6
DEH 236 Community Dental Health II ..... 2
DEH 255 Dental Hygiene Practice Humanities Elective* ..... 2
TOTAL ..... 1334243
TOTAL ..... 18
*See page 83.
Technical Electives
DEH 247 Expanded Function for Dental Auxiliaries I ..... 6
DEH 248 Expanded Function for Dental Auxiliaries II ..... 6
Expanded Function for Dental Auxiliaries II

## Career Program

## Description

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.

## Type of Degree or Certificate

Associate of Applied Science

## 110 Total Credit Hours

## Career Opportunities

Graduates of Sinclair's Dietary Managers program can find employment in dietary departments in hospitals, long term care facilities, day carecenters, school food service systems, correctional institutions and other non-commercial food service settings.

Dietary managers may work as food service directors, assistant food service directors, supervisors, clinical care professionals, multi-department managers, high level administrators in large service organizations, consultants, or entrepreneurs.

## Dietetics \& Nutritional Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title 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 $\frac{4}{15}$
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
HMT 101 Dining/Kitchen Orientation $\frac{2}{16}$
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 TOTAL $\frac{5}{15}$

## FOURTH QUARTER

COM 206 Interpersonal Communication 3
ENG 112 English Composition II 3
SOC 111 General Sociology I 3
DIT Dietetics Elective 2

- Humanities Elective* 3

PSY $\overline{121}$ General Psychology I TOTAL $\frac{3}{17}$
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 $-\frac{1}{17}$
SIXTH QUARTER
DIT 227 Dietetics Directed Practice II 4
DIT 219 Laboratory for DIT $216 \quad 1$
DIT 216 Food Preparation \& Dietary Service 4
DIT 218 Directed Practice for DIT 216
DIT 222 Medical Nutrition Therapy II TOTAL $\frac{3}{15}$

## SEVENTH QUARTER

DIT 255 Dietetics Seminar 2
DIT 236 Dietary Organization \& Management 4
DIT 237 Directed Practice for DIT 236
DIT 228 Dietetics Directed Practice III 3
DIT 223 Medical Nutrition Therapy III $-\frac{3}{15}$
*See page 83.

## Early Childhood Education

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ECE 106 Childhood Nutrition, Health, \& Safety 3
ECE 150 The Young Child 4
ENG 111 English Composition I 3
SOC 111 General Sociology I 3
BIS - Business Information Systems Elective 2

ECE 101 Introduction to Early Childhood Education
TOTAL
SECOND QUARTER
ECE 120 Observing Young Children 3
ECE 145 Guidance \& Discipline 3
ENG 112 English Composition II 3
SOC 215 Cultural Diversity 4
PSY 121 General Psychology I $\quad 3$
TOTAL $\quad \overline{16}$

## THIRD QUARTER

ECE 117 Language Experiences in Early Childhood 4
ECE 146 The Challenging Child 3
COM 211 Effective Speaking I 3
ENG 113 English Composition III 3
PSY 122 General Psychology II 3
TOTAL 16
FOURTH QUARTER
ECE 119 Art \& Music Experiences in Early Childhood 4
ECE 229 Principles \& Practices of Interaction 3
ECE 118 Math \& Science Experiences in Early Childhood 4
118 Early Chiddhe Ex Edution Elective Childhood
Early Childhood Education Elective
Humanities Elective*
TOTAL $\quad 16$

## FIFTH QUARTER

DIS 205 Inclusion: Principles \& Practices 4
ECE 160 Teaching Techniques in ECE 3
SOC 115 Today's Changing Family 4
General Education Elective* $\quad 3$

## SIXTH QUARTER

ECE 215 Building Family \& Community Relationships 3
ECE 280 Student Teaching I 6
Early Childhood Education Elective 3
General Education Elective*
TOTAL 15
SEVENTH QUARTER

| ECE | 281 | ECE Student Teaching II | 7 |
| :--- | :--- | :--- | :--- |
|  | - | Mathematics Elective | 4 |

*See page 83.

## Career Program

## Description

This program provides the knowledge, skills, and competencies 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.
NOTE: Students interested in completing this degree program must have a full criminal background investigation completed before enrolling in second quarter courses.

## Type of Degree or Certificate

Associate of Applied Science

## 106 Total Credit Hours

## Career Opportunities

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.

Students interested in applying for Ohio Department of Education Pre-Kindergarten Licensure must comply with the following criteria:

- complete an interview prior to graduation with the CFE Department Chairperson
- "C" or better in all ECE courses
- complete a criminal background check


## Career Program

## Description

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 sys－ tems，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 labora－ tories and highly qualified faculty．Those who wish to further their studies are well prepared for entry into the best four－year BSEET programs．

## Program Prerequisites：

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 107 Total Credit Hours

## Transfer to Four Year

Several articulation agreements exist between Sinclair＇s EET program and four－ year colleges and universities．

## Career Opportunities

Employment opportunities for electron－ ics technicians are available as electronics service and maintenance technicians，or as computer field service technicians．

This program also transfers to four－year BSEET programs．

| ＊＊＊Approved EET Electives： |  |  |  |
| :--- | ---: | :--- | ---: |
| EET | 156 | Alternative Energy Sources | 3 |
| EET | 256 | Introduction to Fuel Cells | 3 |
| EET | 264 | P．C．Troubleshooting \＆ |  |
|  | Repair I |  |  |
| EET | 265 | P．C．Troubleshooting \＆ |  |
|  | Repair II |  |  |
| EET | 270 | EET Internship | 3 |
| EET | 281 | Programmable Logic | 3 |
|  | Controllers |  |  |
| EET | 282 | Advanced Programmable | 3 |
| EET | 283 | Lntroduction to Lasers | 3 |
| EET | 284 | Optoelectronics | 3 |

# Electronics Engineering Technology＊＊ 

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores andlor equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．

| Course \＆Title |  |  |  | Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| EET | 114 | Basic Electronic Measurements |  | 3 |
| EET | 121 | Electronics Workshop |  | 3 |
| MAT | 131 | Technical Mathematics I |  | 5 |
| ENG | 111 | English Composition I |  | 3 |
| ETD | 198 | Personal Computer Applications for Engineering Technology |  | 2 |
|  |  |  | 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 | $\overline{112}$ | 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 ${ }^{* * *}$ |  |  |
|  |  |  |  |  |
| 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 ${ }^{* * *}$ |  |  |
|  |  |  |  |  |
|  |  | 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 \＆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 83.
＊＊Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \＆Technology（TAC－ABET）， 111 Market Place Suite 1050，Balti－ more，Maryland 21202，phone：（410）347－7700．
${ }^{* * *}$ Concentration Elective

# Environmental Engineering Technology** 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> 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 $\quad 5$
TOTAL 19
SECOND QUARTER
EVT 200 Environmental Waste Management 4
ENG 112 English Composition II 3
MAT 132 Technical Mathematics II 5
ETD 198 Personal Computer Applications for Engineering Technology
CHE 151 General Chemistry I $\quad \frac{5}{19}$

## THIRD QUARTER

CHE 152 General Chemistry II 5
CHE 121 Introduction to Organic Chemistry 4
EVT 210 Environmental Site Assessment4

MAT 133 Technical Mathematics III $\quad 5$

## FOURTH QUARTER

MAT 122 Statistics I 4
SRM 151 OSHA 1910.120 Hazardous Waste Operations 5
PHY 141 College Physics I
EVT _ EVT 4th QuarterTrack Elective
TOTAL $\quad 16$

## FIFTH QUARTER

EVT 106 Air Pollution Control 3
EVT 107 Water Management Technology 3
EVT 260 Treatment, Storage, \& Disposal of Hazardous Materials3

HUM 135 Environmental Ethics ..... 3
COM 211 Effective Public Speaking ..... 3
EVT EVT 5th Quarter Track Elective ..... $\stackrel{3}{18}$

## 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 6th Quarter Track Elective
TOTAL
**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.

## Career Program

## Description

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. The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology (TAC-ABET).

## Type of Degree or Certificate

Associate of Applied Science

## 106 Total Credit Hours

## Transfer to Four Year

The programpreparesstudentstoworkasenvironmental engineering technicians or continue their education and obtain a bachelor's degree in Environmental Engineering.

## Career Opportunities

This is an excellent career field for both men and women who are looking for non-traditional and challenging hands-on occupations. Graduates from this program can find employment opportunities around the world.

## Track Electives:

Industrial Hygiene
Fourth Quarter
SRM 215 Industrial Hygiene
Fifth Quarter
SRM 217 Industrial Toxicology
Sixth Quarter
SRM 219 Industrial Hygiene Instrumentation

## Track Electives:

Hazardous Material Management
Fourth Quarter
EVT 215 Asbestos Management
Fifth Quarter
EVT 216 Lead Management
Sixth Quarter
EVT $217 \quad \begin{gathered}\text { Confined Space } \\ \text { Management }\end{gathered}$
SRM 152 OSHA 1910.120 Hazardous Waste Operations \& Emergency Response Refresher

## Career Program

## Description

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 presentday 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 includebanks, savings and loans, credit unions and other financial institutions.

## Type of Degree or Certificate

Associate of Applied Science

## 101 Total Credit Hours

## Career Opportunities

Thegreat variety of financial services, offered by these institutions provides a wide choice of entry level careeropportunitiesinlending, operationsaccounting, trustservices, branch services, and many other areas for a variety of institutions:banks, creditunions, financial service, providers, savings associations, and mortgage banks.

Employment opportunities for tellers, credit analysts, branch managers and other supervisory positions.

## Financial Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& TitleFIRST QUARTER
ENG 111 English Composition Ior131 Business Communications I
BIS M85 Microsoft Word ..... 2
BIS M45 Microsoft Excel ..... 2
BIS 201 Customer Service ..... 3
FIN 105 Introduction to Financial Institutions ..... 3
FIN 245 Personal Finance
TOTAL ..... 16
SECOND QUARTER
ENG 112 English Composition II132 Business Communications II
MAT 116 College Algebra ..... 5
BIS M35 Microsoft Access ..... 2
MAN 205 Principles of Management ..... 3
FIN 246 Principles of InvestmentTOTAL16
THIRD QUARTER
LAW 101 Business Law I ..... 4
FIN 200 Consumer Credit ..... 3
PSY 121 General Psychology I ..... 3
MAT 122 Statistics I ..... 4
Business Elective ..... 3
FOURTH QUARTER
ACC 121 Principles of Financial Accounting ..... 5
FIN 205
FIN 205 Commercial Credit Commercial Credit ..... 3 ..... 3
LAW 102 Business Law II ..... 4
MRK 201 Marketing I ..... 3
SOC 145 Comparing Cultures
TOTAL ..... 18
FIFTH QUARTER
ACC 122 Principles of Managerial Accounting ..... 5
COM 211 Effective Speaking I ..... 3
225 Small Group Communication
LAW 103 Consumer Law ..... 3
FIN Financial Management Elective ..... 3
ECO $\overline{216}$ Principles of MacroeconomicsTOTAL18
SIXTH QUARTER
FIN 255 Money \& Capital Markets ..... 3
3FIN $\quad \overline{295}$ Financial Management Seminar
FIN 215 Corporation Finance ..... 3
ECO 218 Principles of Microeconomics ..... 4
TOTAL ..... 16

## Fire Science Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

FST 101 Introduction to Fire Science 4
FST 102 Fire Protection \& Organization 4
ENG 111 English Composition I 3
MAT 116 College Algebra $\quad 5$
SECOND QUARTER
FST 116 Fire Protections Systems I 3
FST 125 Fire Investigation Procedure 4
FST 202 Building Construction 4
ETD 198 Personal Computer Applications for Engineering Technology2
MAT 117 Trigonometry

TOTAL $\overline{17}$

## THIRD QUARTER

FST 103 Fire Prevention Fundamentals, Codes, \& Ordinances 4
CHE 151 General Chemistry I 5
PHY 141 College Physics I 4
CAT 207 Architectural Building Codes 3
ETD 128 Print Reading with GD\&T
TOTAL $\quad \frac{3}{19}$

## FOURTH QUARTER

FST 201 Fire Hydraulics 5
SRM 221 Safety \& Health Program Management 3
ENG 112 English Composition II 3
PHY College Physics II 142
FIFTH QUARTER
TOTAL 15
FST 204 Water Suppression Systems 4
SRM 230 Occupational Safety \& Health 3
COM 211 Effective Speaking I 3
PLS 101 American Federal Government I 3
Humanities Elective* $\quad \frac{3}{16}$

## SIXTH QUARTER

FST 218 Plans Review for Fire Safety ..... 3
FST 220 Fire Protection Systems Design ..... 4
FST 270 Fire Science Technology Internship ..... 3
FST 278 Fire Administration Capstone ..... 4
SRM 151 OSHA 1910.120 Hazardous Waste Operations ..... 5
TOTAL ..... 19

## Career Program

## Description

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 design, fire investigation, fire codes, safety management, building construction, hazardous materials, and administrative issues. Real-world experience is gained through internship with a fire department, fire inspection services or arson investigation companies. Graduates are prepared to enter the work force as fire engineering technicians and work as fire/ safety officers in general industry or construction firms; design firms specializing in sprinkler systems or fire protection design; arson investigators, fire inspectors.

## Type of Degree or Certificate

Associate of Applied Science

## 102 Total Credit Hours

## Transfer to Four Year

Graduates are prepared to continue their education and obtain a bachelor's degree in Fire Engineering.

## Career Opportunities

Employment is available in municipal fire protection, industrial safety, and fire and safety organizations. In many firefighting occupations, certification may be necessary, depending on local policies, state laws, and the particular organization.

## Career Program

## Description

This program provides a full range of courses which address fire administration and safety issues. The program prepares students for careers as fire officers, fire investigators, fire instructors and fire administrators. Courses include Firefighter II, Fire Officer I-IV, management, economics, state/local government, accounting and administrative issues. Students may also receivecertification in Fire Administration. Graduates are prepared to enter the work force as firefighters, fire officers, investigators, instructors and fire administrators or continue their education and obtain a degree in Fire Engineering or business management.

## Type of Degree or Certificate

Associate of Applied Science

## 106 Total Credit Hours

## Transfer to Four Year

The program prepares students for careers as fire officers, fire investigators, fire instructors and fire administrators.

## Career Opportunities

Graduates are prepared to enter the work force as firefighters, fire officers, investigators, instructors and fire administrators or continue their education and obtain a degree in Fire Engineering or business management.

## Fire Science Technology Electives**

| FST | 102 | Fire Protection \& Organization | 4 |
| :---: | :---: | :---: | :---: |
| FST | 115 | Fire Apparatus \& |  |
|  |  | Equipment | 3 |
| FST | 116 | Fire Protection Systems I | 3 |
| FST | 120 | Fire Safety Inspector | 6 |
| FST | 201 | Fire Hydraulics | 5 |
| FST | 202 | Building Construction | 4 |
| FST | 204 | Water Suppression Systems | 4 |
| FST | 209 | Fire Service Instructor | 6 |

FST $115 \begin{aligned} & \text { Fire Apparatus \& } \\ & \\ & \text { Equipment }\end{aligned}$
FST 116 Fire Protection Systems I 3
FST 120 Fire Safety Inspector 6
FST 201 Fire Hydraulics 5
FST 202 Building Construction 4
FST 204 Water Suppression Systems 4
FST 209 Fire Service Instructor 6

## Fire Science Technology <br> <br> Fire Administration Option

 <br> <br> Fire Administration Option}Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
Credit
FIRST QUARTER
FST 193 Firefighter II Transition ..... 8
MAT 101 Elementary Algebra ..... 4
ENG 111 English Composition I ..... 3
ACC 121 Principles of Financial Accounting
TOTAL20
SECOND QUARTER
FST 251 Fire Officer Level I ..... 8
CHE 151 General Chemistry I ..... 5
ENG 112 English Composition II ..... 3
ETD 198 Personal Computer Applications for Engineering Technology ..... $\frac{2}{18}$
THIRD QUARTER
FST 252 Fire Officer Level II ..... 4
MAN 205 Principles of Management ..... 3
COM 211 Effective Public Speaking ..... 3
MAT 102 Intermediate Algebra ..... 5
FST __ Fire Science Technology Elective**
TOTAL ..... $\stackrel{4}{19}$
FOURTH QUARTER
FST 253 Fire Officer Level III ..... 4
PLS 103 State Government ..... 3
FST _ Fire Science Technology Elective** ..... 3
ECO $\overline{105}$ General Economics ..... 3
OPT 101 Introduction to Operations
TOTAL ..... 16
FIFTH QUARTER
FST 254 Fire Officer Level IV ..... 4
FST 202 Building Construction ..... 4
PLS 104 Urban Government ..... 3
FST __ Fire Science Technology Elective** ..... 4
SIXTH QUARTER
SRM 151 OSHA 1910.120 Hazardous Waste Operations ..... 5
Social Science Elective* ..... 3
Humanities Elective* ..... 3
FST Fire Science Technology Elective**
TOTAL ..... 18

# Health Information Management 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |
| :--- | :--- | :--- |
| FIRST QUARTER |  |  |



TOTAL $\quad \frac{2}{15}$
SIXTH QUARTER

| HIM | 246 | Healthcare Information Systems <br> HIM <br> Clinical Abstracting |
| :--- | :--- | :--- |
| HIM | 228 | Heal |
| Health Care Statitics |  |  |
| HIM | 251 | Supervised Professional Practice II |
| BIS | M55 | Microsoft PowerPoint |
| PSY | 121 | General Psychology I |
| SOC | 111 | or <br> General Sociology I |

## Career Program

## Description

Health Information Technicians are experts in the field of managing and protecting patient health information and medical records, administering computer information systems, and coding the diagnoses and procedures for healthcare services provided to patients. HIM professionals work in a variety of settings including but not limited to hospitals, physician offices, long-term care facilities, home health agencies, insurance companies, and government agencies. The program is offered during the daytime only and is designed to be completed in seven (7) fulltime consecutive quarters. Some students elect to attend on a part-time basis, extending the length of study to three academic years. The curriculum includes three professional practice experiences at area healthcare facilities for which students are expected to provide their own transportation. A complete physical exam and specific immunizations are required at the student's expense prior to enrolling in the first professional practice experience course.

Allied Health application packets are available 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 Health Information Management Program is fully accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
Program Prerequisites:
ALH 104 Allied Health Informatics
2 cr . hrs.
and
BIO 121 Human Anatomy \& Physiology I 5 cr . hrs. and
HIM 121 Basic Medical Terminology 3 cr . hrs. and
GPA of 2.0 or higher

## Type of Degree or Certificate

Associate of Applied Science

## 107 Total Credit Hours

## Career Opportunities

Employment prospects for health information management specialists are excellent throughout the nation. Positions are possible in workplace settings involved with acquisition and maintenance of patient medical information. Many HIM graduates work in hospitals and clinics. Job opportunities include: ambulatory care centers, nursing homes and long-term care centers, mental health care and psychiatric facilities, home health care agencies, hospice facilities, physician offices, insurance companies, law firms, colleges and universities, state and federal agencies, consulting firms, medical research institutions, companies that market health information products and services.
*See page 83.

## Career Program

## Description

This degree is designed for entry-level students pursuing careers in the HVACR 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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 100 Total Credit Hours

## Transfer to Four Year

Accreditation by the Technology Accreditation Commission or the Accreditation Board for Engineering Technology allows graduates to pursue a bachelor's degree.

## Career Opportunities

The HVACR industry includes sales and design engineers, project managers, service and installation technicians, service and installation managers, consulting engineers, estimators, lab technicians/ technologists, designers for architectural and engineering firms, mechanical contractors, engineering development and many, many more career paths.

Students interested in working for a mechanical design firm are encouraged to take CAT 240, Architectural Design Studio II, \& CAT 260, Architectural Energy Analysis as additional preparation for their chosen profession.

Students interested in working for a service company are encouraged to take EET 139, Electrical Machinery, \& HVA 190, HVAC Mechanical Troubleshooting.

## Heating, Ventilating, Air Conditioning \& Refrigeration Engineering Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.


## FIFTH QUARTER

ENG 199 Text Editing 3
HVA 276 Current Topics in Heating, Ventilating \& Air Conditioning
HVA 243 Controls for Building HVAC Systems 3
HVA 272 Mechanical Cost Estimating 3
HVA 254 Advanced HVAC Applications II $\frac{3}{15}$

## SIXTH QUARTER

EGR 132 Connecting Technology \& Our Lives 3
PHY 131 Technical Physics I 4
HVA 177 Testing, Adjusting \& Balancing in HVAC Systems 3
HVA 278 HVACR Applications Capstone Project
TOTAL

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER <br> HMT 110 Menu Planning <br> HMT 107 Sanitation \& Safety <br> MAT 105 Business Mathematics <br> BU 101 Student Success Experience

HMT 101 Dining/Kitchen Orientation 2
HMT 105 Survey of the Food Industry 3

## Credit

Hours2
3

SECOND QUARTER
BIS 160 Introduction to Word, PowerPoint, \& Excel
ENG 111 English Composition I
131 Business Communications I
HMT 112 Basic Food Preparation5

## HMT 113 Lab for HMT 112

General Education Elective* 3
COM $\overline{206}$ Interpersonal Communication
TOTAL $\quad \frac{3}{17}$

## THIRD QUARTER

ENG 112 English Composition II
132 Business Communications II
MAN 205 Principles of Management3

HMT 114 Advanced Food Preparation 5
HMT 115 Lab for HMT 114
ACC 121 Principles of Financial Accounting5

## FOURTH QUARTER

| HMT | 125 | Bar Operations Management |  |
| :--- | :--- | :--- | ---: |
| HMT | 201 | Food Service Equipment Design \& Maintenance | 3 |
| HMT | 291 | Food Service Internship I ${ }^{* *}$ | 3 |
| LAW | 101 | Business Law I | 4 |
| MRK | 201 | Marketing I |  |
|  |  |  | TOTAL |

## FIFTH QUARTER

HMT $215 \quad$ Food \& Labor Cost Controls 3
HMT 225 Organization \& Administration of Hospitality Industry

HMT 292 Food Service Internship II ..... 3
HMT 227 Marketing in the Hospitality Industry ..... 3
ECO 105 General Economics ..... 3-4
216 Principles of Macroeconomics

## SIXTH QUARTER

HMT 226 Purchasing for the Hospitality Industry ..... 3
HMT 293 Food Service Internship III ..... 3
HMT 295 Food Service Management Seminar ..... 3
Humanities Elective* ..... 3
PSY $\overline{121}$ General Psychology I ..... $\frac{3}{15}$
*See page 83.
**See right column

## Career Program

## Description

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.

## Type of Degree or Certificate <br> Associate of Applied Science

## 95-96 Total Credit Hours

## Career Opportunities

The hospitality/tourism industry is the number one employer among service industries, and is fast becoming the largest single employment category of ALL industries world wide. In the United States, hospitality accounts for a larger and ever growing portion of the country's Gross National Product.

Right now, over half a million jobs in the hospitality industry go unfilled each year, and that number is likely to continue to grow as the food service industry grows. Top ranked hospitality professionals have almost unlimited possibilities for career satisfaction.

## Internship Requirements

HMT majors are required to complete three internships as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already working in the hospitality industry may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. HMT majors may apply to the Business internship program upon completion of prerequisite course work (see HMT 291 course description). For more information, visit www.sinclair. edu/academics/bus/intern or the Business internship office, Room 10311.

## Career Program

## Description

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. The program is accredited by the American Culinary Federation Accrediting Commission.

## Type of Degree or Certificate <br> Associate of Applied Science

## 103-104 Total Credit Hours

## Career Opportunities

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.

## Internship Requirements

Culinary Arts majors are required to complete three internships as part of the certificate program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already working in the culinary field may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. CAO students may apply to the Business internship program upon completion of prerequisite course work. (see HMT 291 course description).

# Hospitality Management <br> <br> Culinary Arts Option 

 <br> <br> Culinary Arts Option}

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title

## Credit

## Hours

FIRST QUARTER

| HMT | 101 | Dining/Kitchen Orientation |  |
| :--- | :--- | :--- | :--- |
| HMT | 105 | Survey of the Food Industry | 2 |
| HMT | 107 | Sanitation \& Safety | 3 |
| HMT | 110 | Menu Planning | 3 |
| MAT | 105 | Business Mathematics | 2 |
| BU | 101 | Student Success Experience |  |
|  |  |  |  |

$\begin{array}{lll}\text { SECOND QUARTER } & & \\ \text { HMT } & 112 & \text { Basic Food Preparation }\end{array}$
$\begin{array}{llll}\text { HMT } & 113 & \text { Lab for HMT 112 } & \\ \text { DIT } & 108 & \text { Introduction to Food \& Nutrition } & 3\end{array}$
$\begin{array}{llll}\text { DIT } & 108 & \text { Introduction to Food \& Nutrition } & 3 \\ \text { HMT } & 125 & \text { Bar Operations Management } & 3\end{array}$
ENG $111 \quad 3$
131 Business Communications I
COM 206 Interpersonal Communication TOTAL $\frac{3}{17}$
THIRD QUARTER
HMT 114 Advanced Food Preparation 5
HMT 201 Food Service Equipment Design \& Maintenance 3
HMT 226 Purchasing for the Hospitality Industry 3
ENG 112 English Composition II 3
132 Business Communications II

| FOURTH QUARTER | TOTAL | 14 |  |
| :--- | :--- | ---: | ---: |
| HMT | 207 | Butchery \& Fish Management |  |
| HMT | 237 |  | 3 |

HMT $237 \quad$ Lab for HMT 207
PSY 105 Survey of Psychology 3
$\begin{array}{lll} & 121 & \begin{array}{l}\text { General Psychology I } \\ \text { Food Service Internship I }\end{array} \\ & 291 & \text { HMT }\end{array}$

- Humanities Elective ${ }^{*}$ TOTAL -

FIFTH QUARTER
HMT 206 Garde Manger 5
$\begin{array}{lll}\text { HMT } & 236 & \text { Lab for HMT 206 } \\ \text { HMT } & 292 & \text { Food Service Internship II** }\end{array}$
ACC 121 Principles of Financial Accounting 5
MAN 205 Principles of Management TOTAL $\quad \frac{3}{16}$
$\begin{array}{lll}\text { SIXTH QUARTER } & & \\ \text { HMT } & 208 & \text { Pastry \& Confectionery }\end{array}$
HMT 238 Lab for HMT 208
HMT 293 Food Service Internship III** 3
HMT 225 Organization \& Administration of Hospitality Industry
BIS 160 Introduction to Word, Powerpoint \& Excel $\quad$ TOTAL $\quad \frac{3}{14}$
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
TOTAL $\quad \frac{3}{4-15}$
*See page 83.
**See left column.

## Interior Design＊

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores and／or equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．

## Course \＆Title <br> 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
CAT 101 Architectural Drafting $\quad \frac{3}{15}$

## SECOND QUARTER

VIS 107 Design Basics：3－D 3
IND 132 Interior Design II 3
ENG 112 English Composition II 3
CAT 102 Architectural Detail Draftingt $\frac{3}{12}$

## THIRD QUARTER

VIS 109 Design Drawing 3
IND 133 Interior Design III 3
ENG 113 English Composition III 3
ART 101 Introduction to Art 3
ETD 199 Introduction to Computer－Aided Drafting Concepts2
TOTAL ..... 14
FOURTH QUARTER
MAN 105 Introduction to Business ..... 3
ART 102 Art Appreciation－Art Media ..... 3
PSY 121 General Psychology I ..... 3
MAT Mathematics Elective
TOTAL ..... 13
FIFTH QUARTER
IND 231 Advanced Interior Design I ..... 4
PSY 122 General Psychology II ..... 3
IND 240 History of Furniture ..... 3
CAT 199 Architectural 2－D Drafting ..... 3
Business Elective
TOTAL ..... 16
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 ..... 3SEVENTH QUARTER
IND 233 Advanced Interior Design III ..... 4
VIS 276 Visual Communications Portfolio Development ..... 3
COM 206 Interpersonal Communication ..... 3
IND＿Interior Design Elective ..... 13

[^10]
## Career Program

## Description

The goal of this program is to provide state－ of－the－art instruction aimed at helping develop real－world job skills．Advanced design and drafting skills，business prac－ tices and portfolio development are also part of the curriculum．

## Type of Degree or Certificate <br> Associate of Applied Science

## 99 Total Credit Hours

## Career Opportunities

Interior design graduates typically pursue careers as designers or consultants in de－ sign and decorating studios，architectural firms or commercial retailers．Design work is creative，fast paced and detail oriented． Developing floor plans，selecting and coordinating floor and wall coverings， furniture and accessories，and preparing drawings，costestimates，and contracts are common activities for interior designers．

## Career Program

## Description

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.

## Type of Degree or Certificate

Associate of Applied Science

## 96 Total Credit Hours

## Career Opportunities

Employment opportunities include sales representatives, marketing research technicians, industrial marketing managers, and representatives in advertising agencies, media organizations, retailers, and service or industrial corporations. Marketing Management graduates are prepared to work in the private, public or governmental sectors.

## Internship Option

Marketing Management majors have a choice to complete three Business electives or earn nine credit hours of Marketing internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already performing marketing work may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. Marketing majors are encouraged to apply to the Business internship program upon completion of prerequisite course work (see MRK 270 course description).

## Marketing Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
ENG 111 English Composition I 3
$\begin{array}{llll} & 131 & \text { Business Communications I } & \\ \text { MAN } & 105 & \text { Introduction to Business } & 3\end{array}$
MAT 116 College Algebra 5
or
121 Mathematics for Business Analysis
ACC 121 Principles of Financial Accounting

## SECOND QUARTER

ENG 112 English Composition II 3
$\begin{array}{lll} & 132 & \text { Business Communications II } \\ \text { MRK } & 201 & \text { Marketing I }\end{array}$
MAT 122 Statistics I 4
MAN 205 Principles of Management 3
ACC 122 Principles of Managerial Accounting 5
THIRD QUARTER
$\begin{array}{ll}\text { MRK } 202 & \text { Marketing II } \\ \text { MRK }\end{array}$
MRK 225 Sales Fundamentals 3
COM PSY/SOC Elective* $\quad 3$
COM 211 Effective Public Speaking 3
BIS 160 Introduction to Word, PowerPoint, \& Excel
TOTAL $\quad 15$
FOURTH QUARTER
MRK 215 Advertising 3
MRK 245 Principles of Retailing 3
MRK Marketing Elective 3
ECO $\overline{216} \quad$ Principles of Macroeconomics 4
ENT 105 Introduction to Entrepreneurship $\quad 3$
FIFTH QUARTER
MRK 235 Marketing Research 3

- PSY/SOC Elective

218 Principles of Microeconomics 4
MRK _ Marketing Elective 3
MRK - Marketing Elective 3
SIXTH QUARTER
MRK 270 Marketing Internship** 6
or
Business Elective
MRK - Marketing Elective 3
MRK 295 Marketing Seminar 3
Humanities Elective*
TOTAL $\quad 15$
*See page 83.
**See left column.

# Mechanical Engineering Technology** CAD Design Concentration 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  | Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| ETD | 101 | Introduction to Engineering De |  | 3 |
| ETD | 118 | Introduction to the Product Reali | Process | 1 |
| MAT | 131 | Technical Mathematics I |  | 5 |
| COM | 211 | Effective Public Speaking |  | 3 |
| ETD | 128 | Print Reading with GD\&T |  | 3 |
| OPT | 100 | Tooling \& Machining Metrology |  | 2 |
| SECOND QUARTER |  |  |  |  |
| EET | 198 | Digital Technology |  | 3 |
| EGR | 128 | Robotics in CIM Systems |  | 3 |
| ENG | 111 | English Composition I |  | 3 |
| MAT | 132 | Technical Mathematics II |  | 5 |
| ETD | 102 | Principles of Engineering |  | 3 |

## THIRD QUARTER

ENG 112 English Composition II 3
ETD 110 Engineering Design \& Development ..... 3
ETD 284 Solidworks Basics ..... 5
OPT 132 Metallurgy ..... 2
PHY 131 Technical Physics I ..... $\stackrel{4}{17}$
FOURTH QUARTER
OPT 201 Statistical Process Control ..... 3
ETD 213 Statics ..... 4
CAT 218 Project Management Techniques ..... 3
OPT 133 Non-Metallic Materials ..... 2
ETD 228 Emerging Technology Tools ..... 1
ETD 291 Unigraphics BasicsTOTAL18
FIFTH QUARTER
ETD 121 Ethics for Engineering Technology Professionals ..... 2
ETD 222 Strength of Materials ..... 4
ETD 238 Product Development \& Testing ..... 2
HVA 286 Fluid Mechanics ..... 3
Humanities Elective* ..... 3
Social Science Elective*TOTAL17
SIXTH QUARTER
ETD 214 Dynamics with Kinematic Analysis ..... 4
ETD 278 Engineering Technology Design Capstone ..... 4
ETD 245 Machine Design ..... 5
ETD ..... 270
Mechanical Engineering Technology InternshipTOTAL16
*See page 83.**Accredited by the Technology Accreditation Commission of the AccreditationBoard for Engineering \& Technology (TAC-ABET), 111 Market Place Suite 1050,Baltimore, Maryland 21202, phone: (410) 347-7700.

## Career Program

## Description

The Mechanical Engineering Technology program (CAD Design Concentration) 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 course work that is relevant and practical, taught by faculty that are enthusiastic and current in their field. Emphasis is on design theory and techniques with instruction in three CAD softwares. For the first two quarters, this curriculum is the same as the University Transfer concentration so that students can state the program and delay making a decision until they have had exposure to the college experience.

The degree is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, which assures quality and nationally recognized excellence.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 102 Total Credit Hours

## Transfer to Four Year

Graduates can transfer to a number of four year engineering technology schools, but students who complete the University Transfer concentration of Mechanical Engineering Technology maximize course transfer.

## Career Opportunities

Design technicians, project managers, sales, engineers, consultants, and lab technicians within many disciplines of engineering technology.

## Career Program

## Description

The Mechanical Engineering Technology program (University Transfer concentration) provides the courses needed to begin a rewarding career 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. 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.

## Program Prerequisites:

First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 101 Total Credit Hours

## Transfer to Four Year

This specific concentration is designed to transfer to four year schools in a variety of engineering technology disciplines. For thosestudents who may notbe sure of their long term goals when starting, selecting this option will startstudents on the correct path wherein decisions will not have to be made until the third quarter.

## Career Opportunities

The two year associate degree opens the door to opportunities as design technicians, management trainees, sales engineers, consultants, and lab technicians within many disciplines of engineering technology. Proceeding on to a four year degree opens up many additional opportunities.

## Mechanical Engineering Technology** <br> University Transfer Concentration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

*See page 83.
**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.

## Medical Assistant

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

MAS 103 Medical Law \& Ethics 2
HIM 121 Basic Medical Terminology 3
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
BIO 107 Human Biology5

ENG 131 Business Communications I
TOTAL
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
TOTAL
THIRD QUARTER
MAS 104 Basic Clinical Assisting Procedures 3
MAS 105 Medical Office Management 3
PSY 121 General Psychology I 3
ALH 201 Survey of Drug Therapy 2
COM 206 Interpersonal Communication
TOTAL 14
FOURTH QUARTER
MAT 106 Allied Health Mathematics 4
PSY 122 General Psychology II 3
ALH 140 Basic Life Support Training 1
General Education Elective* 3
TOTAL 11

## FIFTH QUARTER

MAS 106 Medical Office Emergency Procedures 3
MAS 201 Family Practice Clinical Assisting Procedures 3
MAS 202 Insurance \& Patient Records 3
MAS 203 Medical Assisting Directed Practice I 2
HIM 260 ICD-9-CM Medical Office Coding 3
HIM 261 CPT Medical Office Coding _3
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 Healthcare Provider 1
ALH _ Portfolio Elective
SEVENTH QUARTER
MAS 205 Medical Assisting Directed Practice III 5
MAS 208 Medical Assisting Seminar 2
$\begin{array}{lll}\text { BIS } 220 & \begin{array}{l}\text { Computer Applications for the Medical Office } \\ \\ \\ \\ \text { Humanities Elective* }\end{array} & 4 \\ 3\end{array}$
3
TOTAL 14
*See page 83.

## Career Program

## Description

Medical assistants are multi-skilled professionals who assist physicians with the administrative and clinical aspects of patient care. The Sinclair Community College Medical Assistant Program is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) on recommendation of the curriculum review board of the American Association of Medical Assistant's Endowment (AAMAE). To enroll in medical assisting classes, an individual must be accepted into the Medical Assistant Technology program. A grade of " C " is required in all medical assisting courses and the required general education courses. An overall grade point average of at least 2.0 is required to continue in the program. A cumulative grade point average of at least " $C$ " (2.0) is required for graduation. The student will be required to complete 360 hours of non-paid directed practice during their second year of the program. The graduate is eligible to take the National Certification Examination to becomea Certified Medical Assistant (C MA).
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 students' 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 cr . hrs. and
MAS 101 Introduction to Medical
Assisting 2 cr. hrs.

## Type of Degree or Certificate

Associate of Applied Science

## 102 Total Credit Hours

## Career Opportunities

Currently Medical Assistant Technology is one of the fastest growing occupations in the United States. Options for individuals seeking medical services and treatment: urgent care, surgicare and ambulatory care centers, as well as health maintenance organizations (HMO's), multi-physician group practices and medical specialty clinics have opened new career opportunities.

## Career Program

## Description

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 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.

## Type of Degree or Certificate

Associate of Applied Science

## 104-105 Total Credit Hours

## Career Opportunities

Entry level positions in a wide variety of mental health, addictions treatment, and human service agencies, clinics, and hospitals, include inpatient and outpatient services; day treatment, case management, and transitional housing programs for the mentally ill, substance abuse programs, services to the homeless and survivors of battering and abuse; programs associated with the criminal justice system; and services for children and the elderly.

## Mental Health Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

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 |  | TOTAL |

## SECOND QUARTER <br> ALH 103 Introduction to Health Care Delivery 3 <br> ENG 112 English Composition II 3

MAT 105 Business Mathematics 4
PSY 122 General Psychology II 3
MHT 126 Introduction to Substance Related Disorders $\quad \frac{3}{16}$
THIRD QUARTER

| PSY | 217 | Abnormal Psychology |  |  |
| :--- | :--- | :--- | :--- | ---: |
| MHT | 115 | Social Casework | 4 |  |
| BIO | 107 | Human Biology | 3 |  |
| MHT | 201 | Interviewing \& Assessment | 5 |  |
|  | - | Humanities Elective* | 4 |  |
|  |  |  | TOTAL | $\frac{3}{19}$ |

FOURTH QUARTER
COM 206 Interpersonal Communication 3
PSY 160 African American Psychology 3
PSY 208 Life Span Human Development TOTAL $\frac{5}{11}$
FIFTH QUARTER
MHT 205 Psychosocial Interventions 3
MHT 202 Practicum in Mental Health I 5
MHT 211 Group Dynamics I 3
MHT _ Mental Health Elective 3
130 Treatment Techniques: Addiction
TOTAL $\quad \overline{14}$
SIXTH QUARTER
MHT 212 Group Dynamics II 3
MHT 203 Practicum in Mental Health II 5
MHT 245 Mental Health \& the Family 4
128 Family Dynamics of Addiction
MHT Mental Health Elective 3
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
PSY 214 Drugs \& Behavior
MHT 132 Assessment of Chemical Dependency
or
138 Dual Diagnosis: Substance Abuse \& Mental Illness or
Case Management
TOTAL
$\overline{15-16}$
*See page 83 .

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  |
| :--- | :--- | :--- | :--- |
| FIRST | QUARTER | Hours |  |
| BIO | 141 | Principles of Anatomy \& Physiology I |  |
| BIO | 147 | Lab for BIO 141 | 4 |
| COM | 206 | Interpersonal Communication |  |
| PSY | 119 | General Psychology |  |
| ENG | 111 | English Composition I |  |
| ALH | 103 | Introduction to Health Care Delivery |  |
|  |  | TOTAL | $\frac{3}{18}$ |

## 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 |  |
|  |  |  | TOTAL |

## THIRD QUARTER

NSG 122 Promoting Healthy Responses to Physiological
NSG 123 Promoting Healthy Responses Through
BIO $143 \quad \begin{gathered}\text { Psychomotor Interventions } \\ \text { Principles of Anatomy \& Physiology III }\end{gathered}$8

## BIO 149 Lab for BIO 143

FOURTH QUARTER
NSG 220 Promoting Healthy Responses to Specific Stressors I 8
PSY 208 Life Span Human Development 5
ALH 219 General Pharmacology TOTAL $\frac{3}{16}$
FIFTH QUARTER
NSG 221 Promoting Healthy Responses to Psychosocial Stressors
NSG 222 Promoting Healthy Responses to Specific Stressors II
ALH 104 Allied Health Informatics
TOTAL
SIXTH QUARTER
ENG 112 English Composition II
NSG 223 Promoting Healthy Responses in Women 4
NSG 224 Promoting Healthy Responses to Specific Stressors III
TOTAL
SEVENTH QUARTER
NSG 225 Promoting Healthy Responses in the Child \& Family
NSG 226 Promoting Healthy Responses to Interrelated
ALH Pathophysiological Stressors
Portfolio Elective
TOTAL

## EIGHTH QUARTER

- Humanities Elective*


TOTAL
*See page 83 .

## Continuing Education Courses

Continuing Education Nursing specialty courses are available to registered nurses \& nursing students who have completed NSG 220. Continuing Education courses reinforce previous learning, increase knowledge \& 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, \& 143 \& may receive advanced placement credit for NSG 120, 121, 122, \& 123 upon successful completion of NSG 132 \& NSG 133. For more information, contact the Nursing office at (937) 512-2848.

## Career Program

## Description

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, butNursing courses mustbe 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 graduates are 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 mustsubmit 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


## Type of Degree or Certificate

Associate of Applied Science

## 108 Total Credit Hours

## Career Opportunities

Registered nurses have a variety of employment opportunities. Work settings may include hospitals, extended care and longterm care facilities, rehabilitation programs, physicians' offices, home health agencies, and various types of clinics.

## Career Program

## Description

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 12 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 phonenumber 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 in Occupational Therapy (NBCOT). After successful completion of this examination, the individuals 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 104 Allied Health Informatics
2 cr . hrs.
BIO 107 Human Biology 5 cr. hrs.
OTA 101 Introduction to Occupational Therapy Assistant 3 cr . hrs.

## Type of Degree or Certificate

Associate of Applied Science

## 110 Total Credit Hours

## Career Opportunities

Occupational therapy is a health care field in which the demand for personnel continues to increase. There are not enough qualified personnel to fill the demand. The national average starting salary for a COTA is $\$ 28,000$. COTA's work in hospitals, clinics, schools, nursing facilities, group homes, and rehabilitation centers.

## Occupational Therapy Assistant

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

|  | Credit |
| :--- | :--- |
| Course \& Title | Hours |
| FIRST QUARTER |  |

FIRST QUARTER
ALH 103 Introduction to Health Care Delivery 3
ALH 142 Fundamentals of Disease Processes 4
OTA 131 Therapeutic Self 9
OTA 160 Learning Communities for OTA TOTAL $\frac{1}{17}$
SECOND QUARTER
ENG 111 English Composition I 3
HIM 121 Basic Medical Terminology 3
OTA 104 Functional Muscles 1
OTA 132 The Nature of Being Human $\quad 9$
THIRD QUARTER
COM 206 Interpersonal Communication 3
PSY 121 General Psychology I 3
OTA 105 Functional Nervous System 1
OTA 133 The Dysfunctional Human $\quad 9$
FOURTH QUARTER
BIS Business Information Systems Elective $\quad 2$
ENG $\overline{112}$ English Composition II 3
PSY 122 General Psychology II 3
SOC 111 General Sociology I $\frac{3}{11}$
FIFTH QUARTER
SOC 215 Cultural Diversity 4
OTA Program Elective $\quad 3$
OTA $\overline{231}$ Treatment Issues I $\quad \underline{9}$
SIXTH QUARTER
Humanities Elective* 3
MAT $\overline{106}$ Allied Health Mathematics 4
OTA 232 Treatment Issues II $\frac{9}{16}$
SEVENTH QUARTER
OTA 220 Clinical Affiliation I 3
OTA 233 Clinical Issues I $\quad 1$
EIGHTH QUARTER
OTA 221 Clinical Affiliation II 3
OTA 234 Clinical Issues II
TOTAL
$\frac{1}{4}$

## Operations Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ENG 111 English Composition I 3
MAT 131 Technical Mathematics I 5
OPT 101 Introduction to Operations 3
OPT 125 Introduction to World-Class Operations 3
OPT 128 Operations Logistics 3
SRM 155 Introduction to OSHA General Industry Standards $\frac{1}{18}$
SECOND QUARTER
ENG 112 English Composition II 3
ETD 128 Print Reading with GD\&T 3
OPT 126 Supervision \& Team Leadership 3
OPT 130 Lean Operations 3
OPT 198 Excel for Engineering Technology 2
OPT 204 Operations Processes TOTAL $\frac{3}{17}$
THIRD QUARTER
CHE 120 Introduction to Chemistry 4
ENG 113 English Composition III 3
ETD 199 Introduction to Computer-Aided Drafting Concepts
OPT 110 Operations Work Measurement 2
OPT $112 \quad$ Ergonomics $\quad 3$
OPT _ Operations Technology Elective
TOTAL $\quad \overline{17}$
FOURTH QUARTER
COM 206 Interpersonal Communication 3
or
211 Effective Public Speaking
OPT 201 Statistical Process Control 3
OPT 205 Manufacturing Processes 3
OPT 207 Operations Systems Analysis 3
OPT 209 Operations Cost Analysis 3
OPT _ Operations Technology Elective $\frac{3}{18}$

## FIFTH QUARTER

|  | OPT | Humanities Elective* | 3 |
| :--- | :--- | :--- | :--- |
| Engineering Technology Economics | 3 |  |  |

OPT 212 Operations Project Management 3
OPT 221 Quality Assurance 4
OPT 240 Six Sigma - Green Belt $\frac{3}{16}$

## SIXTH QUARTER

General Education Elective* 3
OPT 206 Value Analysis 3
OPT 216 Facilities Planning 3
OPT 223 ISO 9000/16949 Quality Systems \& Auditing 3
OPT 266 Quality Technician Certification Review 3
OPT 278 Operations Technology Capstone
TOTAL 18
*See page 83.

## Career Program

## Description

The Operations Technology program prepares individuals for leadership roles in the operations of business, industry and service organizations by providing them with the modern tools of today's high technology workplace. Students learn analysis, continuous improvement, quality assurance and problem solving techniques that can be applied toward financial, health care, manufacturing and service / retail fields. In addition to their associate degree, graduates earn a Six Sigma Green Belt certification, are acknowledged as an ASQ Certified Quality Improvement Associate, become an ISO internal auditor, and are awarded an OSHA 10-hour card. Students take partin lecture-labstructured courses and hands-on demonstrations of course principles assuring student will gain practical knowledge as well as the fundamentals. Those who wish to further their studies may transfer to the best fouryear colleges and universities.
Program Prerequisites:
First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 104 Total Credit Hours

IET/QET/PLA are being merged into Operations Technology. Call Operations Technology at (937) 512-2242 for further assistance.

## Career Program

## Description

The Industrial Engineering Technology （IET）option of the Operations Technology program prepares individuals for leader－ ship roles in the operations of business， industry and service organizations with a special emphasis on IET skills．Students learn analysis，continuous improvement， quality assurance and problem solving techniques that can be applied toward financial，health care，manufacturing and service／retail fields．In addition to their associate degree，graduates earn a Six Sigma Green Belt certification，become an ISO internal auditor，and are awarded an OSHA 10－hour card．Students take part in lecture－lab structured courses and hands－on demonstrations of course prin－ ciples assuring student will gain practical knowledge as well as the fundamentals． Those who wish to further their studies may transfer to the best four－year colleges and universities．
Program Prerequisites：
First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science

## 107 Total Credit Hours

Accredited by the Technology Accredita－ tion Commission of the Accreditation Board for Engineering Technology （TAC／ABET）， 111 Market PlaceSuite 1050， Baltimore，Maryland 21202，phone： （410）347－7700．

IET／QET／PLA are being merged into Operations Technology． Call Operations Technology at （937） 512 －2242 for further assistance．

## Operations Technology

## Industrial Engineering Technology Option

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores and／or equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．


THIRD QUARTER
ENG 113 English Composition III 3
ETD 199 Introduction to Computer－Aided Drafting Concepts
MAT 133 Technical Mathematics III 5
OPT 110 Operations Work Measurement 2
OPT Ergonomics 112
PHY $131 \quad$ Technical Physics I $\quad 4$
TOTAL 19
FOURTH QUARTER
COM 206 Interpersonal Communication 3
OPT $201 \quad$ Statistical Process Control 3
OPT 205 Manufacturing Processes 3
OPT 207 Operations Systems Analysis 3
OPT 209 Operations Cost Analysis 3
PHY 132 Technical Physics II $\quad-4$
TOTAL $\quad 19$
FIFTH QUARTER
Humanities Elective＊ 3
OPT $\overline{111} \quad 2$
OPT 208 Engineering Technology Economics 3
OPT 212 Operations Project Management 3
OPT 240 Six Sigma－Green Belt 3
OPT－Operations Technology Elective $\quad \frac{3}{17}$

## SIXTH QUARTER

|  |  | General Education Elective＊ | 3 |
| :--- | :--- | :--- | :--- |
| OPT | 206 | Value Analysis | 3 |
| OPT | 216 | Facilities Planning | 3 |
| OPT | 223 | ISO 9000／16949 Quality Systems \＆Auditing | 3 |
| OPT | 278 | Operations Technology Capstone | $\frac{3}{15}$ |

＊See page 83.

## Operations Technology Manufacturing Option

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Hours |
| :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |
| ENG | 111 | English Composition I | 3 |
| MAT | 131 | Technical Mathematics I | 5 |
| OPT | 101 | Introduction to Operations | 3 |
| OPT | 125 | Introduction to World-Class Operations | 3 |
| OPT | 128 | Operations Logistics | 3 |
| SRM | 155 | Introduction to OSHA General Industry Standards | 1 |
|  |  | TOTAL | 18 |
| SECOND QUARTER |  |  |  |
| ENG | 112 | English Composition II | 3 |
| ETD | 128 | Print Reading with GD\&T | 3 |
| OPT | 100 | Tooling \& Machining Metrology | 2 |
| OPT | 126 | Supervision \& Team Leadership | 3 |
| OPT | 130 | Lean Operations | 3 |
| OPT | 198 | Excel for Engineering Technology | 2 |
| OPT | 225 | Design \& Process Failure Modes \& Effects Analyses | 2 |
|  |  | TOTAL | 18 |
| THIRD QUARTER |  |  |  |
| CHE | 120 | Introduction to Chemistry | 4 |
| ENG | 113 | English Composition III | 3 |
| ETD | 199 | Introduction to Computer-Aided Drafting Concepts | 2 |
| OPT | 110 | Operations Work Measurement | 2 |
| OPT | 112 | Ergonomics | 3 |
| OPT | 113 | Coordinate Measurement | 3 |
|  |  | TOTAL | 17 |
| FOURTH QUARTER |  |  |  |
| COM | 206 | Interpersonal Communication | 3 |
|  |  | or |  |
|  | 211 | Effective Public Speaking |  |
| OPT | 201 | Statistical Process Control | 3 |
| OPT | 205 | Manufacturing Processes | 3 |
| OPT | 207 | Operations Systems Analysis | 3 |
| OPT | 209 | Operations Cost Analysis | 3 |
| OPT |  | Operations Technology Elective | 3 |
|  |  | TOTAL | 18 |
| FIFTH QUARTER |  |  |  |
|  |  | Humanities Elective* | 3 |
| OPT | 132 | Metallurgy | 2 |
| OPT | 208 | Engineering Technology Economics | 3 |
| OPT | 212 | Operations Project Management | 3 |
| OPT | 240 | Six Sigma - Green Belt | 3 |
| OPT |  | Operations Technology Elective | 3 |
|  |  | TOTAL | 17 |
| SIXTH QUARTER |  |  |  |
|  |  | General Education Elective* | 3 |
| OPT | 133 | Non-Metallic Materials | 2 |
| OPT | 206 | Value Analysis | 3 |
| OPT | 216 | Facilities Planning | 3 |
| OPT | 223 | ISO 9000/16949 Quality Systems \& Auditing | 3 |
| OPT | 278 | Operations Technology Capstone | 3 |
|  |  | TOTAL | 17 |

[^11]
## Career Program

## Description

The Manufacturing Option of the Operations Technology program prepares individuals for leadership roles in the operations of business, industry and service organizations with a special emphasis on manufacturing skills. Students learn analysis, continuous improvement, quality assurance and problem solving techniques that can be applied toward financial, health care, manufacturing and service/retail fields. In addition to their associate degree, graduates earn a Six Sigma Green Belt certification, become an ISO internal auditor, and are awarded an OSHA 10-hour card. 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. Those who wish to further their studies may transfer to the best fouryear colleges and universities.
Program Prerequisites:
First time college students are encouraged to take EN 101.

## Type of Degree or Certificate

Associate of Applied Science
105 Total Credit Hours
IET/QET/PLA are being merged into Operations Technology. Call Operations Technology at (937) 512 -2242 for further assistance.

## Career Program

## Description

Sinclair's Paralegal Program has produced hundreds of graduates now working in the legal profession. Established in 1978, it was the first paralegal program in the area and the first in the area to be approved by the American Bar Association.

The American Bar Association defines a paralegal, or legal assistant, as "a person, qualified by education, training or work experience who is employed or retained by a lawyer, law office, corporation, governmental agency or other entity and who performs specifically delegated substantive legal work for which a lawyer is responsible."

The Paralegal Program provides a practical and interactive learning environment that prepares ethical, competent paralegals with analytical, communication, and technical skills necessary to excel in a diverse legal community. Students who successfully complete the program will be able to:

1. Competently analyze substantive and procedural issues which arise in the law to prepare and interpret documents.
2. Exemplify a high standard of ethical and professional behavior as a member of a legal team.
3. Competently conduct factual and legal research and communicate the results clearly and concisely.
4. Demonstrate fluency in information technology.

## Curriculum

The Paralegal program includes theory and practical assignments that incorporate ethical legal practices, and extensive training in technology used in the legal field. All Paralegal students are required to complete two quarters of internships which give them hands-on experience using paralegal skills.

## Eligibility

Students must be accepted into the Paralegal program before beginning Paralegal courses. Applicants who are able to perform at the college level in math, English, and reading are eligible for the program. Successful completion of Paralegal Principles (PAR 105) and corequirement Paralegal Principles Technology (PAR 106) are required before students may enroll in other paralegal courses. Students must earn a " $C$ " or better in all Paralegal courses to pass.
Program Prerequisite:
PAR 105 Paralegal Principles 4 cr .hrs. PAR 106 Paralegal Principles - Technology 2 cr. hrs.

## Type of Degree or Certificate

Associate of Applied Science

## 99-103 Total Credit Hours

## Career Opportunities

The paralegal profession is one of the fastest growing careers, locally and nationally. Graduates of the program work in large and small law firms, courts, government agencies, corporate legal departments, financial institutions, insurance agencies, and real estate offices.

Completion of the Paralegal program does not authorize a graduate to practice law as an attorney or give legal advice.

## Paralegal

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Credit |
| :---: | :---: | :---: | :---: |
|  |  |  | Hours |
| FIRST QUARTER |  |  |  |
| 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 |
|  |  | TOTAL | 15 |

SECOND QUARTER
PLS 101 American Federal Government I 3
PAR Litigation I 3
PAR 111 Legal Research \& Writing 4
ENG 112 English Composition II 3
ACC $121 \quad$ Principles of Financial Accounting $\quad \frac{5}{18}$

## 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 $\frac{3}{16}$
FOURTH QUARTER
PAR 201 Business Organization I 3
MAT 105 Business Mathematics
4-5
116 College Algebra
Humanities Elective* 3
PAR $\overline{220}$ Legal Ethics 3
PAR 211 Probate Law I 3
FIFTH QUARTER
PAR 215 Family Law 3
PAR 291 Paralegal Internship I 2
PAR Paralegal Elective 6
PAR 131 Real Estate Transactions I 3
ECO 105 General Economics 3-4
or
216 Principles of Macroeconomics
TOTAL $\quad 17-18$
SIXTH QUARTER
PAR Paralegal Elective 6
PAR $\overline{292}$ Paralegal Internship II 2
PSY 121 General Psychology I 3
SOC 111 General Sociology I
PAR

- Paralegal Career Elective 3-5
PAR $\quad \overline{205}$ Criminal Law \& Procedure 3
*See page 83.


## Physical Therapist Assistant

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ALH $220 \quad \begin{aligned} & \text { Pathophysiology } \\ & \text { or }\end{aligned}$
BIO 143 Principles of Anatomy \& Physiology III
ALH 104 Allied Health Informatics
ALH 103 Introduction to Health Care Delivery
PTA 107 Fundamentals of PTA Practice I3PTA 116 Movement Science I3
SECOND QUARTER
PTA 118 Movement Science II ..... 5
PTA 120 Pathology \& Clinical Practice ..... 5
MAT 101 Elementary Algebra ..... 4
PTA 110 Fundamentals of PTA Practice II ..... 2
THIRD QUARTER
PTA 134 Tests \& Measures ..... 3
PTA 130 Therapeutic Exercise I ..... 4
PTA 124 Clinical Procedures I ..... 5
PHY 100 Introduction to Physics ..... 4
142 College Physics II
TOTAL ..... 16
FOURTH QUARTER
PTA 223 Therapeutic Exercise II ..... 4
ENG 111 English Composition I ..... 3PSY 119 General PsychologyFIFTH QUARTER
PTA 230 Neuroscience for the Physical Therapist Assistant ..... 1
PTA 221 Clinical Procedures III ..... 3
ENG 112 English Composition II ..... 3
PTA 211 Clinical Practicum I ..... 3
PTA 226 Clinical Procedures II ..... $-12$
SIXTH QUARTER
PTA 235 Practice Management ..... 3
COM 206 Interpersonal Communication ..... 3
PTA $\overline{233}$ Rehabilitation Skills3SEVENTH QUARTER
PTA 213 Clinical Practicum III ..... 3
PSY 208 Life Span Human Development ..... 5
PTA 212 Clinical Practicum II ..... $\frac{3}{11}$
*See page 83.

## Career Program

## Description

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, exceptsummer. 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 Principles of Anatomy \& Physiology I $\quad 4 \mathrm{cr}$. hrs. and
BIO 142 Principles of Anatomy \& Physiology II 4 cr . hrs. and
PTA 106 Introduction to Physical Therapy 1 cr . hr. or
BIO 121 Human Anatomy \& Physiology I 5 cr . hrs. and
BIO 122 Human Anatomy \& Physiology II 5 cr . hrs. and
PTA 106 Introduction to Physical Therapy $\quad 1 \mathrm{cr}$. hr.
All DEV courses must be completed if placement requires and 2.5 GPA

## Type of Degree or Certificate

Associate of Applied Science

## 99 Total Credit Hours

## Career Opportunities

Because of advanced technology, consumer awareness, and greater utilization of professional services, physical therapy is in demand. Employment may include: rehabilitation centers, public and private schools, community health centers, extended care facilities, college and universities, private industry, hospitals, and sports facilities.

## Career Program

## Description

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:

PHY 100 Introduction to Physics (or high school physics within the past five years)
Recommended Program Prerequisite:
BIO 107 Human Biology

## Type of Degree or Certificate

Associate of Applied Science

## 110 Total Credit Hours

## Career Opportunities

Opportunities persist due to technological advances, and the need for proper patient diagnosis. Opportunities exist for technologists in all sections of the U.S., in hospitals, ambulatory imaging centers, private offices, education, equipment manufacturers and suppliers, and in research centers.

## Radiologic Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
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 AlgebraTOTAL15
SECOND QUARTER
ALH 104 Allied Health Informatics ..... 2
ENG 112 English Composition II ..... 3
BIO 121 Human Anatomy \& Physiology I ..... 5
RAT 121 Introduction to Radiography \& Positioning ..... 4RAT 131 Patient Care in RadiographyTHIRD QUARTER
BIO 122 Human Anatomy \& Physiology II ..... 5
RAT 111 Clinical Competency Development I ..... 4
RAT 122 Radiographic Positioning ..... 4RAT 132 Ethics \& Law in Medical Imaging
TOTALFOURTH QUARTER
PHY 106 Physics for Radiologic Technology ..... 5
RAT 112 Clinical Competency Development II ..... 4
RAT 123 Fluoroscopy in Radiography
TOTAL ..... 14
FIFTH QUARTER
COM 206 Interpersonal Communication ..... 3
RAT $\overline{215}$ Pathology for Radiographers3
SOC 111 General Sociology I
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
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

## Real Estate/Property Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

RES 121 Real Estate Abstracting I 3
RES 201 Real Estate Principles \& Practices 4
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
ENG 111 English Composition I 3
131 Business Communications I
ENT 105 Introduction to Entrepreneurship $\frac{3}{16}$
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 $\underline{16}$
THIRD QUARTER
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
RES 204 Real Estate Appraisal for Realtors $\quad 2$

## FOURTH QUARTER

ACC 121 Principles of Financial Accounting 5
BIS M35 Microsoft Access 2
MRK 201 Marketing I 3
BIS 201 Customer Service 3
RES 215 Real Estate Investing
FIFTH QUARTER
ACC 122 Principles of Managerial Accounting 5
ECO 216 Principles of Macroeconomics 4
RES 210 Real Estate Practice Seminar 3
PSY 121 General Psychology I 3
RES 221 Property Management $\quad \frac{3}{18}$

## SIXTH QUARTER

| ECO | 218 | Principles of Microeconomics |  | 4 |
| :--- | :--- | :--- | :--- | ---: |
| RES | 278 | Real Estate Capstone | 1 |  |
| SOC | 145 | Comparing Cultures | 3 |  |
|  |  | Humanities Elective | 3 |  |
| FIN | $\overline{215}$ | Corporation Finance |  | 3 |
| COM | 211 | Effective Public Speaking |  | TOTAL |
|  |  |  | $\frac{3}{17}$ |  |

*See page 83.

## Career Program

## Description

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.

## Type of Degree or Certificate

Associate of Applied Science

## 98 Total Credit Hours

## Career Opportunities

Opportunities are available for building consultants, residential leasing agents, sales representatives, salespersons, brokers, appraisers, and apartment managers with real estate firms, developers, and property management companies.

## Career Program

## Description

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.

## Program Prerequisites:

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

## Type of Degree or Certificate

Associate of Applied Science

## 108 Total Credit Hours

## Career Opportunities

Respiratory care practitioners work various shifts in full-time, part-time, or pool positions. Job opportunities and salaries vary from region to region. Salaries are competitive with other allied health professions. Advancement is favorable for individuals with technical skill, motivation, and leadership abilities.

## Respiratory Care

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
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
SECOND QUARTER
RET 110 Respiratory Therapeutics I ..... 5
BIO 125 Cardiopulmonary Anatomy \& Physiology ..... 5
ENG 111 English Composition I ..... 13TOTAL
THIRD QUARTER
RET 120 Respiratory Therapeutics II ..... 4
ENG 112 English Composition II ..... 3
RET
RET 224 Cardiopulmonary Pharmacology ..... 3
Humanities Elective*
TOTAL ..... 13
FOURTH QUARTER
RET 130 Cardiopulmonary Disease Processes ..... 4
RET 140 Adjuncts to Respiratory Care ..... 11
ALH 130 Electrocardiography for the Healthcare Provider TOTAL ..... 16
FIFTH QUARTER
COM - Communication Arts Elective ..... 3
PSY Psychology Elective ..... 3
ALH $\overline{104}$ Allied Health Informatics
TOTAL ..... 8
SIXTH QUARTER
RET 230 Respiratory Critical Care I ..... 10
ALH 220 Pathophysiology ..... 4
SEVENTH QUARTER
RET 240 Respiratory Critical Care II ..... 10
RET 250 Pediatrics \& Neonatology ..... $\frac{3}{13}$
EIGHTH QUARTER
RET 260 Assessment of Pulmonary Function ..... 3
RET 280 Correlations in Respiratory Care ..... 6
ALH 141 Emergency Cardiac Care (ACLS)
Portfolio Elective ..... 2
TOTAL ..... 14

## Safety Engineering Technology**

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  | Credit <br> FIRST |
| :--- | :--- | :--- | :--- |
| Hours |  |  |  |

## THIRD QUARTER

SRM 221 Safety \& Health Program Management 3
COM 211 Effective Public Speaking 3
CHE 152 General Chemistry II 5
SRM 120 Safety Lab 2
FST 103 Fire Prevention Fundamentals, Codes, \& Ordinances _ 4 TOTAL $\quad 17$

## 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 |  |
|  |  |  | TOTAL |
|  |  | $18-19$ |  |

## FIFTH QUARTER

MAT 122 Statistics I 4

EVT 200 Environmental Waste Management 4
EVT $260 \begin{gathered}\text { Treatment, Storage, \& Disposal of Hazardous } \\ \text { Materials }\end{gathered} \quad 3$
EGR 206 Engineering Technology Economics 3
_ Technical Elective 3-5
SIXTH QUARTER17

| 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 83.
**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.

## Career Program

## Description

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. The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering \& Technology (TAC-ABET).

## Type of Degree or Certificate

Associate of Applied Science

## 104-108 Total Credit Hours

## Transfer to Four Year

Graduates may continue their education and obtain a bachelor's degree in Safety Engineering.

## Career Opportunities

This is an excellent career field for those looking for non-traditional roles in challenging hands-on occupations. Graduates can find employment opportunities in both private and public sectors. The largest employers of safety professionals are manufacturing, service industries, construction, insurance, consulting firms and the government.

## Technical Electives

| FST | 116 | Fire Protections Systems I | 3 |
| :--- | :--- | :--- | :--- |
| FST | 201 | Fire Hydraulics | 5 |
| FST | 204 | Water Suppression Systems | 4 |
| PHY | 142 | College Physics II | 4 |
| SRM | 153 | Introduction to Transportation Safety | 1 |
| SRM | 211 | Applied Industrial Risk Management | 3 |
| SRM | 222 | Product Safety Management | 3 |
| SRM | 230 | Occupational Safety \& Health | 3 |
| SRM | 231 | OSHA Construction Standards | 3 |
| SRM | 232 | Construction Work Site Safety | 3 |
| SRM | 270 | Safety Engineering Technology <br> Internship | 3 |

## Career Program

## Description

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 mustbeaccepted into the program. The curriculum may be taken on a parttime basis, but Surgical Technology classes must be taken in sequence. A grade of " C " (2.0) mustbe 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 graduates are eligible to take the National Certification Examination for Surgical Technologists. Professional CPR certification is required prior to SUT 111 and must remain current throughout the program.

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

Admission requirement:

- High school chemistry
or
- CHE 120, or an equivalent course, with a grade of " C " or better within the last five years
or
- BIO 107 grade of " C " or better


## Type of Degree or Certificate

Associate of Applied Science

## 108 Total Credit Hours

## Career Opportunities

The surgical technologist may find employment in hospital operating rooms, delivery rooms, endoscopy units, emergency departments, renal dialysis units, outpatient surgery facilities, surgical clinics, cardiac catheterization laboratories, central processing departments, physician offices, and other settings where invasive therapeutic or diagnostic surgical procedures are performed.

## Surgical Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  | Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| BIO | 121 | Human 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 |
| SECOND QUARTER |  |  |  |  |
| BIO | 122 | Human Anatomy \& Physiology II |  | 5 |
| PSY | 119 | General Psychology |  | 5 |
| SUT | 111 | Surgical Technology Fundamentals |  | 6 |

## THIRD QUARTER

BIO 205 Microbiology 4
ALH 104 Allied Health Informatics 2
SUT 112 Surgical Process $\frac{10}{16}$

## FOURTH QUARTER

ALH 201 Survey of Drug Therapy 2
MAT 106 Allied Health Mathematics 4
SUT 211 Surgical Procedures I TOTAL $\frac{10}{16}$

## FIFTH QUARTER

ALH 142 Fundamentals of Disease Processes 4
ENG 112 English Composition II 3
SUT 212 Surgical Procedures II TOTAL $\frac{10}{17}$

## SIXTH QUARTER

SUT 213 Surgical Procedures III 11
ALH $\quad$ Portfolio Elective $\quad \frac{2}{13}$

## SEVENTH QUARTER

|  |  |  |  | 3 |
| :--- | :--- | :--- | :--- | ---: |
| SUT |  | Surgical Technology Role Transition |  | 3 |
|  |  | TOTAL | $\underline{10} 13$ |  |

*See page 83.

## Travel \& Tourism

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> 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, \& Excel3

## 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

## 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 TOTAL $\frac{3}{17}$

## 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 33

205 Principles of Management
$-\quad$ Foreign Language Elective
3
PSY $\overline{105} \quad$ Survey of Psychology 3
121 General Psychology I
TOTAL $\quad 17$
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 $\overline{270}$ Travel \& Tourism Internship*** 3
Foreign Language Elective $\underline{3}$
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* $\quad 3$
TOTAL 15
*See page 83.
**Career Elective: TNT 297, HMT 105, HMT 210, BUO 105, BUO 120, COM 211 or HIS 218
***See right column.

## Career Program

## Description

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.

## Type of Degree or Certificate

Associate of Applied Science

## 100 Total Credit Hours

## Career Opportunities

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.

## Internship Requirement

TNT majors are required to complete an internship as part of the degree program. Interns perform entry level tasks related to the skills and competencies developed in the classroom; the experience exposes them to the basic elements of the career field. Students already working in the travel industry may apply to use the current work site with approval of both the work site supervisor and internship coordinator; new duties or projects will be required. TNT majors may apply to the Business internship program upon completion of prerequisite course work (see TNT 270 course description).

## Career Program

## Description

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. 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.

## Type of Degree or Certificate

Associate of Applied Science

## 103 Total Credit Hours

## Career Opportunities

Visual Communications graduates typically pursue careers as graphic designers (also called commercial artists) in corporations and private design studios, advertising agencies, newspapers, magazine and book publishers and multimedia and web page production houses. Design work is creative and fast paced. Whether it's stationery, brochures, magazines, advertising, packaging, signage, television graphics, animation or multimedia, designers usually have a hand in it.

# Visual Communications* 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  | Credit <br> Hours |  |
| :--- | :--- | :--- | :--- |
| FIRST QUARTER |  | 3 |  |
| ENG | 111 | English Composition I |  |
| VIS | 104 | Computer Basics |  |
| VIS | 114 | Interactive Digital Theory |  |
| VIS | 106 | Design Basics: 2-D | 3 |
| VIS | 100 | Design Survey |  |
|  |  | or |  |
| VIS | 101 | VIS Tech Prep Seminar | Printing Basics |

SECOND QUARTER

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| VIS | 107 | Design Basics: 3-D |  | 3 |
| VIS | 108 | Typography |  | 3 |
| VIS | 146 | Digital Illustration |  | 3 |
| ENG | 112 | English Composition II |  | 3 |
|  | 131 | Business Communications I |  |  |
| VIS | 147 | Digital Imaging |  | 3 |
| ART | 111 | Art Drawing 1 |  | 18 |


| THIRD QUARTER |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| VIS | 109 | Design Drawing |  | 3 |
| VIS | 148 | Digital Page Layout |  | 3 |
| VIS | 117 | Web Page Design |  | 3 |
| ENG | 113 | English Composition III or |  | 3 |
| VIS | 132 | Business Communications II |  |  |
|  | 115 | Digital Video or |  | 3 |
|  | 150 | Screen Printing |  |  |

$\begin{array}{lll}\text { FOURTH QUARTER } & & 4 \\ \text { VIS } & 206 & \text { Design Principles I }\end{array}$
$\begin{array}{lll}\text { VIS } & 236 & \text { Design Applications I }\end{array}$
$\begin{array}{llll}\text { MAT } 101 & \text { Elementary Algebra } & 4\end{array}$
$\begin{array}{lll}\text { VIS } & 105 & \begin{array}{l}\text { Business Mathematics } \\ \text { Web Page Design II } \\ \text { or }\end{array} \\ & 118 & \text { Oft }\end{array}$
VIS $\quad 151 \quad$ Offset Printing
TOTAL $\quad 18$
$\begin{array}{lll}\text { COM } & 206 & \text { Interpersonal Communication }\end{array}$
VIS 207 Design Principles II 4
$\begin{array}{lll}\text { VIS } & 237 & \text { Design Applications II }\end{array}$
ART 101 Introduction to Art 3
ART 101
3
Digital Animation
or
Digital PrePress II

TOTAL 17
SIXTH QUARTER
$\begin{array}{lll}\text { PSY } & 121 & \text { General Psychology I }\end{array}$
ART 161 Photography I 4
VIS 276 Visual Communications Portfolio Development
VIS 278 Visual Communications Capstone
4
VIS 265
Digital Authoring
or
Visual Communications Internship
or
Marketing I
ART __ $\quad \stackrel{\text { or }}{\text { ART Elective }}$
VIS
OI
Visual Communications Elective
TOTAL
17

* Sinclair's Visual Communications program is accredited by the National Association of Schools of Art and Design (NASAD).


# Certificate Programs 

## www.sinclair.edu my.Sinclair.edu

186 Academic Advising Center, Building 6, (937) 512-3700

## Airframe Aviation Maintenance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

AVT 136 Sheet Metal I 4
AVT 227 Fabric \& Wood Structures 3
AVT 229 Aircraft Finishes
TOTAL 10

## SECOND QUARTER

AVT 236 Sheet Metal II 4
AVT 121 Assembly \& Rigging 5
AVT 108 Ice \& Rain/Fire Protection
TOTAL $\quad \frac{2}{11}$
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
FOURTH QUARTER
AVT 232 Electrical Systems II 4
AVT 218 Landing Gear 4
AVT 106 Position \& Warning Systems $\quad 2$

## FIFTH QUARTER

AVT 137 Aircraft Structural Welding 4
AVT 217 Hydraulics \& Pneumatics Systems 3
AVT 237 Airframe Inspections $-\frac{2}{9}$

## Certificate

## Description

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.

Type of Degree or Certificate
Certificate
54 Total Credit Hours

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

## 58 Total Credit Hours

# Business Information Systems Information Processing Option 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ENG 111 English Composition I
or
131 Business Communications I
MAT 105 Business Mathematics4
BIS 101 Personal Computer Keyboarding ..... 2
BIS 105 Computer Concepts ..... 3
BIS M75 The Internet ..... 2
BIS M85 Microsoft Word
TOTAL 16
SECOND QUARTER
ENG 112 English Composition II ..... 3
or132 Business Communications II
BIS 102 Document Formatting ..... 2
COM 206 Interpersonal Communication ..... 3
BIS 114 Records Management \& Electronic Files ..... 3
BIS 201 Customer Service ..... 3
BIS M55 Microsoft PowerPoint ..... 2
BIS M86 Advanced/Expert Word
TOTAL ..... 18
THIRD QUARTER
ENG 199 Text Editing ..... 3
BIS 103 Advanced Document Formatting/Skillbuilding ..... 4
BIS M45 Microsoft Excel ..... 2
BIS 202 Advanced Customer Service Concepts ..... 3
BIS M25 Desktop Publishing ..... 2
BIS M35 Microsoft Access16

## Certificate

## Description

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.

Type of Degree or Certificate
Certificate
50 Total Credit Hours

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

55 Total Credit Hours

## Business Information Systems Medical Office Specialist

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
Hours
FIRST QUARTER
ENG 131 Business Communications I ..... 3
MAT 105 Business Mathematics ..... 4
BIS 136 Introduction to Medical Terminology ..... 4
BIS M85 Microsoft Word
TOTAL ..... $\frac{2}{13}$
SECOND QUARTER
BIS 102 Document Formatting ..... 2
ENG 132 Business Communications II ..... 3
BIS 137 Intermediate Medical Terminology ..... 4
ENG 199 Text Editing ..... 3
BIS M45 Microsoft Excel ..... $\frac{2}{14}$
THIRD QUARTER
BIS 138 Advanced Medical Terminology ..... 4
MAN 205 Principles of Management ..... 3
HIM 260 ICD-9-CM Medical Office Coding ..... 3
BIS 251 Medical Transcription I
TOTAL ..... $\stackrel{4}{4}$
FOURTH QUARTER
HIM 261 CPT Medical Office Coding ..... 3
BIS 201 Customer Service ..... 3
BIS 220 Computer Applications for the Medical Office ..... 4
BIS 252 Medical Transcription II ..... 4
14
Credit

# Business Information Systems Personal Computers in Business 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

BIS 105 Computer Concepts 3
BIS M75 The Internet 2
MAN 105 Introduction to Business 3
BIS M85 Microsoft Word 2
$\begin{array}{llll}\text { ACC } & 121 & \text { Principles of Financial Accounting } & 5 \\ \text { ENG } & 111 & \text { English Composition I } & 3\end{array}$
$\begin{array}{llll}\text { ACC } & 121 & \text { Principles of Financial Accounting } & 5 \\ \text { ENG } & 111 & \text { English Composition I } & 3\end{array}$
or
131 Business Communications I
TOTAL 18

## SECOND QUARTER

CIS 107 Introduction to Operating Systems 3
BIS M35 Microsoft Access 2
BIS M45 Microsoft Excel 2
BIS M55 Microsoft PowerPoint 2
BIS 207 Telecommunications 2
BIS M86 Advanced/Expert Word 2
_ Communication Arts Elective _ 3

## THIRD QUARTER

BIS M36 Advanced/Expert Access 3
BIS M46 Advanced/Expert Excel 2
BIS 172 Integrated Solutions 2
CIS 130 Introduction to Web Development 3
CIS 162 Microsoft Office Troubleshooting \& Problem Solving 3
Computer Information Systems Elective
3
TOTAL 16

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

50 Total Credit Hours

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

50 Total Credit Hours

## Business Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit

Course \& Title
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 $\overline{16}$
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 3
ECO 216 Principles of Macroeconomics 4
ENG 112 English Composition II 3

THIRD QUARTER
or
132 Business Communications II
TOTAL $\overline{19}$
MRK 201 Marketing I 3
MAN 110 Introduction to International Business 3
MAN 226 Human Relations Issues 3
MAN 295 Management Seminar 3
TOTAL $\quad \frac{3}{15}$

## Or

19Business Elective3

## Church Music

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## I. Music Theory

MUS 111
Music Theory I
MUS 112
Music Theory II 3
MUS 113
Music Theory III 3
II. Sight Singing \& Dictation
$\begin{array}{lll}\text { MUS 141 } & \text { Singing \& Dictation I } & 1 \\ \text { MUS 142 } & \text { Singing \& Dictation II } & 1 \\ \text { MUS 143 } & \text { Singing \& Dictation III } & 1\end{array}$
MUS $143 \quad$ Singing \& Dictation III 1
III. History of Church Music

MUS $148 \quad$ History of Music in Worship I 3
MUS 149 History of Music in Worship II 3
MUS $150 \quad$ History of Music in Worship III 3
IV. Choral Conducting

MUS 136 Choral Conducting
2
V. Church Service Playing

MUS $245 \quad$ Church Service Playing I
2
MUS $246 \quad$ Church Service Playing II
2
VI. Applied Music Practicum (organ instruction)

MUS 299 Applied Music Practicum 12
(Repeatable for three quarters)
VII. Church Music Practicum

MUS 275
Church Music Practicum 2
VIII. Music Electives

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

45 Total Credit Hours

## Certificate

## Description

A nine-month intensive training program offered by Sinclair Community College in cooperation with the Dayton Tooling \& Machining Association, Inc. To enroll for the three quarters of training beginning in September and finishing in June, students must formally apply for admittance to the program through the Engineering \& Industrial Technologies division. Students who are 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.

## Type of Degree or Certificate

Certificate

## 53-54 Total Credit Hours

## Career Opportunities

The Tooling \& Machining certificate completion prepares graduates for employment in the tool \& die industry as well as career advancement.

# Computer Aided Manufacturing <br> Project Step II 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Credit
FIRST QUARTER
ETD 128 Print Reading with GD\&T ..... 3
INT 109 Fundamentals of Tool \& Manufacturing Processes ..... 4
INT 141 Applied Shop Mathematics I ..... 3
INT 161 Machine Operations Laboratory I ..... 8

8
OPT 100 Tooling \& Machining Metrology
TOTAL ..... 20
SECOND QUARTER
INT 113 Fundamentals of CNC ..... 3
INT 142 Applied Shop Mathematics II ..... 3
INT 162 Machine Operations Laboratory II ..... 8
ETD 230 Introduction to Geometric Dimensioning \& Tolerancing ..... $\frac{3}{17}$
THIRD QUARTER
INT 143 Applied Shop Mathematics III ..... 3
INT 163 Machine Operations Laboratory III ..... 8
INT Elective ..... 3-4
ETD $\overline{199}$ Introduction to Computer-Aided Drafting Concepts ..... $\frac{2}{16-17}$

- TOTAL


## Hours <br> Hours



# Computer Aided Manufacturing Tool \& Die Technology 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ETD 128 Print Reading with GD\&T 3
OPT 125 Introduction to World-Class Manufacturing 3
INT 111 Tool \& Manufacturing Processes I 3
INT 141 Applied Shop Mathematics I 3
OPT 100 Tooling \& Machining Metrology 2
ETD 198 Personal Computer Applications for Engineering

## Credit

 Hours
## Technology

TOTAL $\quad \frac{2}{16}$

## SECOND QUARTER

EET 119 Basic Electrical Circuits \& Controls 4
INT 112 Tool \& Manufacturing Processes II 3
INT 142 Applied Shop Mathematics II 3
INT 151 Principles of Welding 3
ETD 199 Introduction to Computer-Aided Drafting Concepts 2
INT 145 Shop Floor Programming TOTAL $\frac{3}{18}$
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
ETD 280 Advanced Computer Aided Drafting $\quad$ TOTAL $\quad \frac{3}{19}$

## Certificate

## Description

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.

## Type of Degree or Certificate <br> Certificate

53 Total Credit Hours

## Certificate

## Description

Students completing this certificate will obtain valuable and practical skill in American Sign Language. Completion of this certificate can lead to a variety of rewarding career opportunitites communicating with the Deaf and hard-of-hearing. Placement test results may indicate need for developmental mathematics, reading, and/or English, prior to certificate course work.

## Type of Degree or Certificate Certificate

## Deaf Studies

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title HoursFIRST QUARTER
ASL 101 Orientation to Deafness ..... 3
ASL 228 Intermediate American Sign Language I ..... 4 ..... 3
PSY 117 American Sign Language Elective
PSY 117 American Sign Language Elective PSY 117 Psychology of Deafness ..... 3
ENG 111 English Composition I
TOTAL
Credit
SECOND QUARTER
PSY 121 General Psychology I ..... 3
ENG 112 English Composition II ..... 3
ASL 116 Community Resources for the Deaf ..... 3
ASL 229 Intermediate American Sign Language II ..... 4
THIRD QUARTER
ASL 230 Intermediate American Sign Language III ..... 4
ASL 201 Interpreting I ..... 4 ..... 4
DIS - 206 American Sign Language Elective
DIS - 206 American Sign Language Elective DIS $\quad \overline{206}$ Computer Literacy \& Assistive Technology ..... 1
PSY 122 General Psychology II
TOTAL ..... 16

## Early Childhood Studies

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> 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 TOTAL $\frac{3}{13}$

## SECOND QUARTER

ECE 145 Guidance \& Discipline ..... 3
ECE 120 Observing Young Children ..... 3
3SOC $\overline{111}$ General Sociology I
COM 211 Effective Public SpeakingTOTAL 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
Early Childhood Education Elective ..... 3
DIS ..... 205 Inclusion: Principles \& Practices ..... $\stackrel{4}{17}$

## Certificate

## Description

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.

Type of Degree or Certificate Certificate

45 Total Credit Hours

## Certificate

## Description

This program prepares existing or potential entrepreneurs in wide variety of small business functions. In addition to traditional management courses, the following key areas are emphasized for entrepreneurs: entrepreneurial management, small business marketing, small business finance, and business plan development.

## Type of Degree or Certificate Certificate

## 53 Total Credit Hours

## Career Opportunities

Employment opportunities include account secretaries in accounting departments in private businesses and industries, educational institutions, and other governmental agencies.

## Entrepreneurship

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title FIRST QUARTER

BIS 160 Introduction to Word, PowerPoint, \& Excel ..... 3
COM 211 Effective Public Speaking ..... 3
ENG 111 English Composition I ..... 3
or
131 Business Communications I
ENT 105 Introduction to Entrepreneurship ..... 3
MAN 110 Introduction to International Business ..... 3
SOC 111 General Sociology I
TOTAL ..... 18
SECOND QUARTER
BIS M35 Microsoft Access ..... 2
ENG 112 English Composition II ..... 3
ENT 210 Small Business Management ..... 3
ENT 220 Small Business Marketing ..... 3
LAW 101 Business Law I ..... 4
SOC 214 Applied Population Demography ..... 3
THIRD QUARTER
ECO 218 Principles of Microeconomics ..... 4
ENT 240 Small Business Finance ..... 3
ENT 260 Business Plan Development ..... 4
MAN 205 Principles of Management ..... 3
MRK 236 Consumer Behavior ..... 3

## Food Service Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

BU 101 Student Success Experience 2
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
HMT 101 Dining/Kitchen Orientation
Credit Hours2

## SECOND QUARTER

| ACC | 121 | Principles of Financial Accounting | 5 |
| :--- | :--- | :--- | ---: |
| HMT | 112 | Basic Food Preparation | 5 |
| HMT | 113 | Lab for HMT 112 |  |
| HMT | 110 | Menu Planning | 2 |
| MAN | 205 | Principles of Management | 3 |
|  |  | Hospitality Management Elective | $\underline{3-5}$ |

## 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 Industry3

HMT 226 Purchasing for the Hospitality Industry $\quad 3$3

## Certificate

## Description

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.

## Type of Degree or Certificate <br> Certificate

## 51-53 Total Credit Hours

## Career Opportunities

This certificate provides experience for food preparation and service for restaurants and lodging industry.

## Certificate

## Description

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.

## Type of Degree or Certificate

 Certificate46 Total Credit Hours

## General Aviation Maintenance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
Credit
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
14
SECOND QUARTER
AVT 116 Regulations \& Documentation ..... 4
AVT 117 Fluid Lines \& Fittings ..... 3
AVT 213 Corrosion Control ..... 4
AVT 110 Ground School/Private Pilot
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

## Plastics \& Composites Engineering Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
OPT 136 Plastics \& Composites 3
MAT 131 Technical Mathematics I 5
OPT 101 Introduction to Operations 3
ETD 128 Print Reading with GD\&T 3
ETD 198 Personal Computer Applications for Engineering Technology

## SECOND QUARTER

ENG 111 English Composition I 3
ETD 199 Introduction to Computer-Aided Drafting Concepts
OPT 137 Packaging Concepts \& Materials 3
OPT 198 Excel for Engineering Technology 2
OPT 201 Statistical Process Control 3
CHE 120 Introduction to Chemistry $\quad \frac{4}{17}$

## THIRD QUARTER

OPT 112 Ergonomics 3
OPT 133 Non-Metallic Materials2
OPT 205 Manufacturing Processes ..... 3
OPT 221 Quality Assurance ..... 4
OPT ..... 22
ISO 9000/16949 Quality Systems \& Auditing ..... 3
15

TOTAL $\quad 16$

## Credit

 Hours332333TOTAL $\quad 17$

## Certificate

## Description

With the 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.

## Type of Degree or Certificate

Certificate

## 48 Total Credit Hours

## Career Opportunities

Career opportunities include: injection molding technician, mold design technician, composite manufacturing technician, manufacturing technologist, material technologist, methods specialist, industrial engineering technician, shop foreman, and plastics processing technician.

## Certificate

## Description

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.

## Type of Degree or Certificate Certificate

53 Total Credit Hours

## Powerplant Aviation Maintenance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
Hours
AVT 126 Reciprocating Engines I ..... 5
AVT 128 Instruments \& Fire Protection ..... 3
AVT 139 Induction/Exhaust/Cooling
TOTAL ..... $\xrightarrow{4}$ ..... 12
SECOND QUARTER
AVT 226 Reciprocating Engines II ..... 5
AVT 231 Engine Electrical
TOTAL ..... $\frac{4}{9}$ ..... 9
THIRD QUARTER
AVT 234 Reciprocating Engines III ..... 3
AVT 122 Engine Ignition \& Starting I ..... 4
AVT 239 Powerplant Inspections ..... $\frac{2}{9}$
TOTAL
FOURTH QUARTER
AVT 222 Engine Ignition \& Starting II ..... 4
AVT 219 Turbine Engines
AVT 219 Turbine Engines ..... 4
AVT 129 Propellers ..... 13
FIFTH QUARTER
AVT 127 Lubrication ..... 5
AVT 138 Engine Fuel \& Fuel Metering ..... $\frac{5}{10}$ ..... 10
Credit

## Quality Control Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

OPT 100 Tooling \& Machining Metrology 2
OPT 107 Engineering Disasters 1
OPT 120 Process Metrology 3
MAT 131 Technical Mathematics I 5
ETD 128 Print Reading with GD\&T 3
ETD 198 Personal Computer Applications for Engineering Technology

## Credit

 Hours215$$
\text { TOTAL } \quad \frac{2}{16}
$$

SECOND QUARTER
INT 109 Fundamentals of Tool \& Manufacturing Processes ..... 4
OPT 101 Introduction to Operations ..... 3
OPT 113 Coordinate Measurement ..... 3
OPT 123 Non-Destructive Inspection \& Testing ..... 3
OPT 223 ISO 9000/16949 Quality Systems \& Auditing ..... 3
THIRD QUARTER
OPT 137 Packaging Concepts \& Materials ..... 3
OPT 201 Statistical Process Control ..... 3
OPT 240 Six Sigma - Green Belt ..... 3
ENG 111 English Composition I ..... 3
COM 206 Interpersonal Communication ..... 3or211 Effective Public SpeakingTOTAL 15

## Certificate

## Description

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.

## Type of Degree or Certificate <br> Certificate

## 47 Total Credit Hours

## Career Opportunities

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.

## Certificate

## Description

With this certificate program, students gain a basic understanding of Supply Chain Management (SCM) processes to prepare them for an SCM position/ or to update the skills of those currently employed in an SCM role. This study involves consideration and application of processes to develop coordinated supplier-to-consumer systems, including: identifying needs for raw materials, supplies, and components; developing specifications; computing quantity requirements; selecting sources and negotiating agreements; acquiring, transporting, and storing inventory; managing and maintaining operations; and logistics management.

## Type of Degree or Certificate

Certificate

## 47 Total Credit Hours

## Supply Chain Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

MAN 241 Introduction to Supply Chain Management 3
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
COM 206 Interpersonal Communication 3
or
211 Effective Public Speaking
ENG 111 English Composition I
3
or
Business Communications I
LAW 101 Business Law I
4
TOTAL $\quad 16$
SECOND QUARTER
MAN 110 Introduction to International Business 3
MAN 205 Principles of Management 3
MAN 242 Advanced Supply Chain Management 3
ENG 112 English Composition II 3
or
132 Business Communications II
MAT 122 Statistics I $\quad \frac{4}{16}$
THIRD QUARTER
MAN 216 Managing Operations 3
MAN 243 Materials Management 3
or
247 DoD Systems Acquisition Management
MAN 244 Negotiation Techniques 3
MAN 255 Management Information Systems I 3
MAN 248 DoD Acquisition Logistics Fundamentals 3
or
251 Logistics Management
or
260 Management Science I

TOTAL
15

## Surveying

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
CAT 101 Architectural Drafting 3
CAT 123 Basic Construction Surveying 4
COM 206 Interpersonal Communication
ETD 198 Personal Computer Applications for Engineering Technology

## Credit

## Hours

343

TOTAL
TOTA$\frac{2}{12}$

## SECOND QUARTER

CAT 110 Introduction to Civil \& Architectural Technology 3
CAT 121 Civil Construction Blueprints \& Drafting 2
ETD 199 Introduction to Computer-Aided Drafting Concepts
MAT 131 Technical Mathematics I
TOTAL $\quad \frac{5}{12}$

## THIRD QUARTER

CAT 199 Architectural 2-D Drafting 3
MAT 132 Technical Mathematics II 5
SRM $\overline{154}$ Introduction to OSHA Construction Standards 1

## FOURTH QUARTER

CAT 221 Highway Surveying \& Design 4
CAT 235 Legal Principles for Surveyors 4
SRM $\overline{231}$ OSHA Construction Standards 3
*See page 82.

## Certificate

## Description

This four-quarter certificate concentrates on developing the skills needed to become employed as technicians for surveying or civil engineering firms.

## Type of Degree or Certificate

 Certificate
## 50 Total Credit Hours

## Career Opportunities

Individuals with skills in the use of surveying equipment and surveying software programs are always in demand to work with surveying professionals.

## www.sinclair.edu my.Sinclair.edu

## Short Term Technical Certificate Programs

Academic Advising Center, Building 6, (937) 512-3700

## www.sinclair.edu my.Sinclair.edu

## Activity Programming

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Credit

FIRST QUARTER
$\begin{array}{lllll}\text { ALH } & 125 & \text { Basics of Activities Programming } & & \\ & & 3 \\ 3\end{array}$
SECOND QUARTER
ALH 135 Administration of Activities Programming
TOTAL 3
THIRD QUARTER
ALH 155 Issues in Activity Programming
TOTAL
$\frac{3}{3}$

## Advanced Networking Engineer

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.


## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 13 Total Credit Hours

## Short Term

## Description

The Aircraft Dispatcher certificate provides students with the theory and operating knowledge of aircraft dispatching necessary for understanding the policies, procedures, and means of compliance with the applicable Federal Aviation Regulations leading to certification. The program develops the knowledge and skills required to serve as an aircraft dispatcher and enter a career in the aviation industry. To that end, students explore aircraft performance, flight physiology, meteorology, crew resource management, air traffic control, instrument flight rules navigation, airline operations, and written and oral test preparation.

## Type of Degree or Certificate

Short Term Certificate

## 29 Total Credit Hours

## Career Opportunities

The program develops the knowledge and skills required to serve as an aircraft dispatcher and enter a career in the aviation industry.

# Allied Health Management 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
ALH 121 Allied Health Management 3
ALH 230 Quality Management in Health Care 1
ALH 278 Supervisory Applications in Health Care 3
MAN 225 Human Relations \& Organizational Behavior 3
MAN 237 Human Resource Management $\quad \frac{3}{13}$
TOTAL $\quad 13$

## Aircraft Dispatcher

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title

## Credit

Hours
FIRST QUARTER
AVT 119 Aviation Meteorology 3
AVT 146 Introduction to Airline Operations 4
AVT 150 Crew Resource Management 2
AVT 246 Air Traffic Control Communications 3
AVT 167 IFR Navigation \& Planning 3
AVT 165 Flight Physiology $\frac{1}{16}$

## SECOND QUARTER

AVT 161 Beechcraft 1900 Aircraft Performance 2
AVT 162 DC-9 Aircraft Performance 2
AVT 163
AVT 164
Boeing 727 Aircraft Performance
2

AVT 166 Practical Dispatch Applications 3
AVT 168 Aircraft Dispatcher Oral Preparation $\quad 2$
TOTAL $\quad \overline{13}$

# Automotive High Performance 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Credit
Course \& Title
AUT 221 High Performance Engine Blocks \& Rotating Assemblies
Hours
FIRST QUARTER
TOTAL$\frac{7}{7}$
SECOND QUARTER
AUT ..... 222
High Performance Cylinder Heads \& Valve TrainTOTAL$\frac{7}{7}$
THIRD QUARTER
AUT 223 High Performance Engine Assembly \&Dynamometer TestingTOTALFOURTH QUARTERAUT 224 High Performance Induction SystemsTOTAL$\frac{7}{7}$

## Short Term

## Description

This program provides in-depth, handson 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.

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.

Program Prerequisites:
AUT 108 Engine Systems or
AUT 115 Engine Performance I or chairperson's signature

## Type of Degree or Certificate

Short Term Certificate

## 28 Total Credit Hours

## Career Opportunities

Students completing the certificate may be employed in a high performance engine shop, general engine machine shop, or work on a race team.

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 13 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 18-19 Total Credit Hours

## Career Opportunities

The skills apply equally well to an entry level help desk support position.

## Business Operations System Support I

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Hours
FIRST QUARTER
ENG 111 English Composition I 3

121 Technical Composition I
CIS 107 Introduction to Operating Systems 3

108 Introduction to Windows OS for the Network Manager

TOTAL
6

## SECOND QUARTER

CIS 230 Computer Networks 3
COM 206 Interpersonal Communication TOTAL $\frac{3}{6}$
THIRD QUARTER
CIS 231 Fundamentals of the Linux Operating System 3-4
271 Administering a Microsoft Windows Client Operating System
CIS 225 Operating Systems Troubleshooting
3 or
Microsoft Office Troubleshooting \& Problem Solving
TOTAL


## Business Operations System Support II

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title | Credit |
| :--- | :--- |
| FIRST QUARTER | Hours |

FIRST QUARTER
CIS 111 Introduction to Problem Solving \& Computer Programming
MAN 210 Introduction to Project Management
TOTAL

## SECOND QUARTER

CIS 206 Network Security I 3
MAN 205 Principles of Management -3
THIRD QUARTER
CIS 207 Network Security II 3
BIS 201 Customer Service -3
FOURTH QUARTER
COM 225 Small Group Communication 3
CIS $272 \quad$ Microsoft Windows Server Operating System $\quad \frac{4}{7}$

## Call Center

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
$\begin{array}{llll}\text { BIS } & 101 & \text { Personal Computer Keyboarding } & 2\end{array}$
BIS 104 Introduction to PC Usage 2
BIS 201 Customer Service 3
MRK 201 Marketing I 3
ENG 131 Business Communications I 3
TOTAL 13

## 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 $\frac{3}{13}$
TOTAL 13

## Chemical Dependency Counseling

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
MHT 126 Introduction to Substance Related Disorders 3
MHT 130 Treatment Techniques in Chemical Dependency 4
MHT 132 Assessment \& Diagnosis of Chemical Dependency 4
MHT 136 Ethical Issues in Behavioral Healthcare 3
MHT 128 Family Dynamics of Chemical Dependency 4

## SECOND QUARTER

PSY 214 Drugs \& Behavior 4
MHT 138 Dual Diagnosis: Substance Abuse \& Mental Illness 3
MHT 139 Substance Abuse Prevention 3
MHT 210 Professional Licensing \& Credentialing Processes 3
MHT 209 Treatment Planning
TOTAL $\quad \overline{15}$

## Short Term

## Description

This certificate is designed for those seeking employment withina call centerenvironment or thoseinterested inimproving their customerserviceskills and telephonetechniques. 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.

## Type of Degree or Certificate

Short Term Certificate

## 26 Total Credit Hours

## Career Opportunities

Employmentopportunities include account secretaries in accounting departments in private businesses and industries, educational institutions, and other governmental agencies.

## Short Term

## Description

This series of courses meets the 270 clock hour chemical dependency specific education required by the Ohio Professional Chemical Dependency Board for individuals who have earned a degree in behavioral science.

## Type of Degree or Certificate

Short Term Certificate
33 Total Credit Hours

## Short Term

## Description

These courses are 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 nonpaid clinicals during the course. Clinicals for this course are held during the day. Classes held in the evenings. Students who complete this course will receive a certificate of completion.

## Type of Degree or Certificate <br> Short Term Certificate

## 3 Total Credit Hours

## Short Term

## Description

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 CNCMilling and Advanced CNC Mill Programming. Students are expected to have substantial industrial experience prior to entering this certificate program.

## Type of Degree or Certificate <br> Short Term Certificate

## 15 Total Credit Hours

## Clinical Phlebotomy

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

 HoursFIRST QUARTER
ALH 111 Clinical Phlebotomy 3
ALH 112 Lab for ALH 111
TOTAL
3

## Computer Aided Manufacturing Top Gun Machining Academy

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

|  |  |  | Credit |
| :--- | :--- | :--- | ---: |
| Course \& Title |  | Hours |  |
| FIRST QUARTER |  |  |  |
| ETD | 231 | Advanced Design Interpretation |  |
| INT | 226 | Advanced Job Processing | 3 |
| INT | 227 | Advanced CNC Mill Programming |  |
| INT | 228 | Advanced CNC Milling | 3 |
| OPT | 117 | Advanced Quality \& Inspection |  |
|  |  |  | TOTAL |

## Construction Safety

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores andlor equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．

## Course \＆Title <br> FIRST QUARTER

SRM 130 Trainer Course for Occupational Safety \＆Health for the Construction Industry
EVT 217 Confined Space Management ..... 2
SRM 144 Fall Arrest Systems ..... 3
SRM 146 OSHA Recordkeeping ..... 1
SRM 231 OSHA Construction StandardsTOTAL
SECOND QUARTER
SRM 232 Construction Worksite 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
TOTAL ..... 17

## Short Term

## Description

Designed for people in the construction industry，this program addresses effective management，implementation of work place safety，and health programs for in－

Upon completing this program，crafts people will be qualified to move into management positions in the construction industry．312 dividuals in the construction industry．It also includes benefits of a well managed safety program，an understanding of hazardous materials，ergonomics，OSHA standards，recordkeeping，industrial hy－ giene，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．

## Type of Degree or Certificate

Short Term Certificate

## 29 Total Credit Hours

## Career Opportunities

Upon completion of this program，individ－ uals will be qualified to move into safety management positions in the construction industry．

## Short Term

## Description

This program is designed for experienced crafts people of the construction industry to improve their supervisory and leader－ ship 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．

## Type of Degree or Certificate

## 41 Total Credit Hours

## Career Opportunities

 23$\frac{2}{13}$$\square$4 Credit Hours

## Short Term Certificate

Sinclair recognizes the important connection between student success and academic preparedness．Depending on placement scores and／or equivalent college course work，students may be required to complete developmental courses before enrolling in the college level courses of this program．

CAT 123 Basic Construction Surveying ..... 4
CAT 218 Project Management Techniques ..... 3
SRM 231 OSHA Construction Standards ..... 4
OPT 101 Introduction to Operations ..... 3

Introduction to Operations
TOTAL ..... 14THIRD QUARTER，

## Course \＆Title

FIRST QUARTER
CAT 138 Architectural Blueprint Reading 3
CAT 139 Mechanical Systems Blueprint Reading
CAT 131 Properties of Construction Materials

COM 206

Interpersonal Communication ..... 3

ETD 198 Personal Computer Applications for Engineering Technology

TOTAL $\quad 13$

## SECOND QUARTER

CAT 207 Architectural Building Codes 3
CAT 216 Construction Estimating 4
CAT 252 Construction Law \＆Specifications 4
CAT 256 Construction Management 33

TOTAL 14

## Short Term

## Description

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 and residential electrical systems.

## Type of Degree or Certificate <br> Short Term Certificate

## 33 Total Credit Hours

## Career Opportunities

This program is designed to make students employable as an entry level craftsperson in construction. The demand for these jobs is exploding as the older work force is retiring and the next generation is needed.

## Construction Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
CAT 151 Portland Cement Concrete 4
CAT 153 Introduction to Structural Framing 4
SRM 154 Introduction to OSHA Construction Standards $\quad 1$
SECOND QUARTER
CAT 154 Structural Framing Systems II 4
CAT 157 Residential Electrical Systems $-\frac{4}{8}$
THIRD QUARTER
CAT 155 Structural Framing Systems III 5
CAT 156 Commercial Interiors 4
CAT 159 Excavation Equipment \& Operations 4
CAT 270 Civil Architectural Internship $\quad \frac{3}{16}$

TOTAL

## Credit

Hours

TOTAL 16

## Continuous Process Improvement

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ETD 198 Personal Computer Applications for Engineering Technology
MAT 101 Elementary Algebra

## SECOND QUARTER

$\begin{array}{lll}\text { OPT } & 101 & \text { Introduction to Operations } \\ \text { MAT } & 131 & \text { Technical Mathematics I }\end{array}$

## THIRD QUARTER

ENG 111 English Composition I 3
OPT 201 Statistical Process Control 3
OPT 130 Lean Operations
TOTAL $\quad 9$
FOURTH QUARTER

| OPT | 202 | Advanced Statistical Process Control |  | 4 |
| :--- | :--- | :--- | :--- | :--- |
| OPT | 221 | Quality Assurance | TOTAL | $\frac{4}{8}$ |

FIFTH QUARTER

| OPT | 261 | Continuous Process Improvement |  |
| :--- | :--- | :--- | :--- |
| ENG | 112 | English Composition II | 3 |

ENG 112 English Composition II TOTAL $\frac{3}{6}$

## SIXTH QUARTER

$\begin{array}{lll}\text { OPT } & 240 & \begin{array}{l}\text { Six Sigma - Green Belt } \\ \text { or }\end{array}\end{array}$
297 Special Topics in Operations Technology
TOTAL 3

## Short Term

## Description

This certificate promotes (1) technical communicationskills and teamwork, (2) project managementskills, (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. A recent web search verified nearly 4,000 position openings at a national employment service with the key words "process improvement."

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 Operations Technology degree.

## Type of Degree or Certificate

Short Term Certificate
40 Total Credit Hours

## Short Term

## Description

This certificate is designed to provide the student with the basics necessary for entry level employment in a correctional environment. These courses can be applied to the associate degree in Corrections if desired.

## Type of Degree or Certificate

Short Term Certificate

## 39 Total Credit Hours

## Corrections

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit

## Course \& Title Hours <br> FIRST QUARTER

CJS 101 Introduction to Criminal Justice Science 3
CJS 102 Constitutional Law 3
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
PED 234 Concepts of Total Fitness TOTAL $\frac{3}{12}$
SECOND QUARTER
CJS 165 Corrections Administration \& Operations 3
CJS 111 Criminal Justice Ethics 3
CJS 110 Interrogation, Documentation \& Testimony 3
MHT 126 Introduction to Substance Related Disorders _ 3
TOTAL 12
THIRD QUARTER
CJS 140 Human Relations \& Cultural Diversity 3
CJS 226 Contemporary Practices in Corrections 3
CJS 105 Criminal Law 3
PED 200 First Aid \& Safety 2
SPA 161 Conversational Spanish for Criminal Justice 3
PED 164 Cardio Sculpt 1
or
Aerobic Conditioning
or
Physical Fitness

## Dance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& TitleFIRST QUARTER
DAN 145 Dance Practicum (2x) DANor
245 Contemporary Dance of Sinclair Performance (2x)
DAN 155 Dance History
Hours23
157
Dance Appreciation DAN ..... 3
178
DAN Tech Theatre for Dancers ..... 3
DAN ..... 180
Music for Dancers ..... 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 ..... 6
DAN 273 Modern Dance II ..... 3
DAN ..... 274
Jazz II ..... 3
DAN
275
275
Tap Dance II ..... 3
BIS ..... 160
ENT ..... 105 ..... 3
Introduction to EntrepreneurshipTOTAL44
Credit

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 44 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 18 Total Credit Hours

## Short Term

## Description

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 postregistration 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.
Program Prerequisites:
DEV 065 Developmental 4 cr. hrs. Reading and
DEV 084 Basic Mathematics I 4 cr. hrs.

## Type of Degree or Certificate

Short Term Certificate

## 26 Total Credit Hours

## Short Term

## Description

The digital printing certificate 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.

## Type of Degree or Certificate

Short Term Certificate

## 30 Total Credit Hours

## Career Opportunities

The course work is designed to accommodate the needs of the novice and business professionals whose jobs require these skills.

## Dietary Manager

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Hours
FIRST QUARTER
DIT 200 Dining Assistant 1
DIT 203 Medical Nutrition Therapy for Dietary Managers 4
DIT 204 Practicum for DIT 203 -3
TOTAL $\quad 8$

## SECOND QUARTER <br> DIT 137 Food Sanitation \& Safety 3

DIT 216 Food Preparation \& Dietary Service 4
DIT 218 Directed Practice for DIT 216
DIT 219 Laboratory for DIT $216 \quad-\frac{1}{11}$
TOTAL 11
THIRD QUARTER
DIT 236 Dietary Organization \& Management 4
$\begin{array}{lllll}\text { DIT } 237 & \text { Directed Practice for DIT } 236 & & 3 \\ & \text { TOTAL }\end{array}$

## Digital Printing

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
$\begin{array}{lll}\text { VIS } & 104 & \text { Computer Basics } \\ \text { VIS } & 108\end{array}$
VIS 108 Typography 3
VIS 105 Printing Basics TOTAL $\frac{3}{9}$
SECOND QUARTER
$\begin{array}{llll}\text { VIS } & 146 & \text { Digital Illustration } & 3\end{array}$
VIS 147 Digital Imaging TOTAL $-\frac{3}{6}$
THIRD QUARTER
VIS 148 Digital Page Layout 3
VIS 150 Screen Printing TOTAL $-\frac{3}{6}$

## FOURTH QUARTER <br> VIS 201 Digital PrePress I 3

VIS 151 Offset Printing
TOTAL
$\frac{3}{6}$
FIFTH QUARTER
VIS 202 Digital PrePress II3

TOTAL $\quad 3$

## Digital Systems

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

EET 114 Basic Electronic Measurements
SECOND QUARTER
EET 231 Digital Logic \& Circuits

## Credit

 Hours
## THIRD QUARTER

EET 251 Digital Systems I
EET 252 Digital Systems II
TOTAL$\frac{3}{3}$

TOTAL $\quad 3$

TOTAL

## Drafting \& Design

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
COM 206 Interpersonal Communication 3
ETD 128 Print Reading with GD\&T 3
ETD 198 Personal Computer Applications for Engineering Technology2

ETD 199 Introduction to Computer-Aided Drafting Concepts2

TOTAL $\quad \overline{10}$
SECOND QUARTER
ENG 111 English Composition I 3
ETD 230 Introduction to Geometric Design \& Tolerancing
ETD 280 Advanced Computer Aided Drafting
TOTAL

## Credit

## THIRD QUARTER

ETD 284 Solidworks Basics 5
ETD 291 Unigraphics Basics 5
MAT 131 Technical Mathematics I $\quad \frac{5}{15}$

## Short Term

## Description

This short term certificate offers knowledge and basic skills to work in electronics industry as an entry level support technician for digital systems. Courses provide knowledge about basic electrical measurement techniques, prototype assembly of electrical circuits, digital logic, Boolean algebra, and basic digital systems. Theoretical aspects are supported and supplemented by hands-on lab work to gain an in-depth knowledge and lab skills. The courses in this certificate lead into an associate degree in Electronics Engineering Technology at Sinclair.

Students entering this program need the following background to be successful: (1) Completion of senior level high school algebra; (2) basic computer literacy; (3) Sinclair placement test results beyond DEV 064, Fundamentals of Reading, and MAT 101, Elementary Algebra; and (4) at least a 2.0cumulativegrade point average (ongoing students taking the online courses).
Program Prerequisites:
DEV 108 Introduction to Algebra
or
approval of division counselor or
equivalent

## Type of Degree or Certificate

Short Term Certificate
15 Total Credit Hours

## Short Term

## Description

Introduction to the industrial design process and computer aided drafting and design. The latest version of AutoCAD software is used in training students.

## Type of Degree or Certificate <br> Short Term Certificate

34 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 16 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 3 Total Credit Hours

# EMT-Basic Certification 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title<br>FIRST QUARTER<br>EMS 115 EMT-Basic Theory \& Practice I and<br>116 EMT-Basic Theory \& Practic II or<br>EMT 117 EMT-Basic Theory \& Practice I \& II and 118 Lab for EMS 117

## EMT-Paramedic Certification

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

EMS 135
EMT-Paramedic I: Introduction to ALS Care
Credit Hours

EMS 136
EMS 137
EMS 138
EMS 139

EMT-Paramedic II: Cardiovascular Emergencies
EMT-Paramedic III: Pediatric \& Trauma Emergencies 8

EMT-Paramedic IV: The Medical Patient 8
EMT-Paramedic V: Integration8

TOTAL 39

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 8 Total Credit Hours

## Career Opportunities

EMT-Basics find employment with fire departments, emergency medical services, private ambulance companies, hospitals, and within industry.

EMT-Paramedics are typically employed in the same types of locations. Many EMT's hold other full-time jobs and work with volunteer fire departments and emergency medical services.

## Short Term

## Description

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 earnat leasta 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

## Type of Degree or Certificate

Short Term Certificate

## Short Term

## Description

Sinclair's Exercise Specialist certificate is designed to provide necessary knowledge and skills for employment in the fitness and exercise industry. Students acquire knowledge and skills in exercise science with the goal of being able to administer basic fitness assessments and health risk appraisals. Additionally, students acquire current information on exercise, nutrition and wellness and prepare to sit for and successfully pass a national certification exam.

## Program Prerequisites:

DEV 064 Fundamentals of Reading DEV 075 Fundamentals of English

## Type of Degree or Certificate <br> Short Term Certificate

## 44 Total Credit Hours

## Career Opportunities

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 Specialist

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title

FIRST QUARTER

BIO 107 Human Biology 5
ENG 111 English Composition I 3
PED 106 Weight Training 1
PED 154 Aerobic Conditioning 1
PED 200 First Aid \& Safety 2
PED 250 Introduction to Exercise Science - 3
TOTAL 15
SECOND QUARTER
ENG 112 English Composition II 3
PED 193 Physical Fitness Evaluation 3
PED 234 Concepts of Total Fitness 3
PED 236 Personal \& Community Health 3
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
TOTAL $\quad \overline{15}$

## THIRD QUARTER

COM 211 Effective Public Speaking 3
DIT 111 Nutrition for a Healthy Lifestyle 3
PED 239 Athletic Injuries 3
PED 271 Certification Exam Preparatory Course 3
PED 272 Methods of Teaching Strength Training 2
or
Methods of Teaching group Fitness

## Expanded Functions for Dental Auxiliaries

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

DEH 104 Dental Anatomy for Dental Auxiliaries
DEH 247 Expanded Functions for Dental Auxiliary I
DEH 248 Expanded Functions for Dental Auxiliary II

## Short Term

## Description

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 licensure/ 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.

## Type of Degree or Certificate <br> Short Term Certificate

## 20 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 44 Total Credit Hours

## Career Opportunities

Possible employers include schools, hospitals, manufacturing plants, and government offices.

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
23-24 Total Credit Hours

# Facilities Management 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
COM 206 Interpersonal Communication 3

ETD 198 Personal Computer Applications for Engineering Technology2
FST 116 Fire Protections Systems I ..... 3
MAN 205 Principles of Management ..... 3
Facilities Management Program Elective* ..... 3
TOTAL ..... 14
SECOND QUARTER
HVA 144 Introduction to HVAC Systems ..... 3
MAN 210 Introduction to Project Management ..... 3
OPT 206 Value Analysis ..... 3
RES 221 Property Management ..... 3
Facilities Management Program Elective* ..... 3
TOTAL ..... 15
THIRD QUARTER
CAT 207 Architectural Building Codes ..... 3
LEP 107 Security Administration ..... 3 ..... 3
MAN 225 Human Relations \& Organizational Behavior ..... 3
SRM 221 Safety \& Health Program Management ..... 3
Facilities Management Program Elective* ..... 3
TOTAL ..... 15
*See an academic advisor to determine program electives.

## 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| $l l$ | Course \& Title | Hours |  |
| :--- | :--- | :--- | ---: |
| FIRST QUARTER |  |  |  |
| SOC | 111 | General Sociology I | 3 |
| BIS | 101 | Personal Computer Keyboarding | $2-3$ |
|  | 160 | or |  |
|  | Introduction to Word, PowerPoint, \& Excel |  |  |
|  |  |  |  |

## SECOND QUARTER

SOC 112 General Sociology II 3
SWK 206 Social Work as a Profession TOTAL $\frac{4}{7}$

## THIRD QUARTER

| SWK | 211 | Basic Practice Theory I |  |  |
| :--- | :--- | :--- | :--- | :--- |
| SOC | 115 | Today's Changing Family |  | 3 |
| FOURTH QUARTER | TOTAL | $\frac{4}{7}$ |  |  |
| SWK | 212 | Basic Practice Theory II |  |  |
|  |  | TOTAL | $\frac{4}{4}$ |  |

## Fast Track Entrepreneur

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
BIS M35 Microsoft Access 2
ENT 105 Introduction to Entrepreneurship
TOTAL 8
SECOND QUARTER
ENT 210 Small Business Management 3
ENT 220 Small Business Marketing 3
MAN 110 Introduction to International Business
TOTAL

## THIRD QUARTER

ENT 240 Small Business Finance 3
ENT 260 Business Plan Development 4
MRK 236 Consumer Behavior
TOTAL

# Fast Track Programmer Analyst Enterprise Specialization 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

CIS 210 Computer Systems Analysis 3
CIS 112 Object Oriented Concepts 3
CIS 233 C++ Programming I TOTAL
SECOND QUARTER
CIS 265 Database Management Systems 3
CIS 234 C++ Programming II 4
CIS 280 Java Programming I
TOTAL $\quad 11$
THIRD QUARTER
CIS 285 Web Application Development with Java 4
CIS 236 C++ Programming III
COM 225 Small Group Communication

## Short Term

## Description

This three-quarter program allows individuals to gain critical knowledge in the areas of small business management: planning, evaluating, operating, financing, and marketing the business concept. Emphasis is on developing a complete business plan that addresses all functional areas of the business operation. Potential investors and creditors rely heavily on the well prepared business plan as well as the knowledge of the entrepreneur, and this Fast Track certificate is meant to meet that requirement.

## Type of Degree or Certificate <br> Short Term Certificate

## 27 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
32 Total Credit Hours

## Short Term

## Description

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, objectoriented concepts and team building. Students have the option to concentrate on enterprise development or web development technologies.

## Type of Degree or Certificate

Short Term Certificate

## 28 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 24 Total Credit Hours

## Career Opportunities

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.

## Fast Track Programmer Analyst Web Development Specialization

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title | Hours |
| :--- | :--- |
| FIRST QUARTER |  |

FIRST QUARTER
CIS 210 Computer Systems Analysis 3
CIS 233 C++ Programming I 4
CIS 112 Object Oriented Concepts $\frac{3}{10}$
SECOND QUARTER
CIS $234 \quad$ C++ Programming II 4
CIS 265 Database Management Systems 3
CIS 280 Java Programming I TOT $\frac{4}{11}$
THIRD QUARTER
CIS 130 Introduction to Web Development 3
CIS 284 Client/Server Web Tools 3
$\begin{array}{llll}\text { COM } 225 \text { Small Group Communication } \quad \text { TOTAL } & \frac{3}{9}\end{array}$

## Financial Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title Hours

FIRST QUARTER
FIN 105 Introduction to Financial Institutions 3
FIN 245 Personal Finance 3
BIS 201 Customer Service 3
TOTAL $\quad 9$
SECOND QUARTER
FIN 200 Consumer Credit 3
MRK 201 Marketing I 3
BIS M85 Microsoft Word $\quad 2$
TOTAL $\quad 8$
THIRD QUARTER
FIN 205 Commercial Credit 3
BIS M45 Microsoft Excel 2
BIS M35 Microsoft Access TOTAL $\frac{2}{7}$

## Firefighter Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title<br>FIRST QUARTER<br>FST 181 Firefighter I

SECOND QUARTER
FST 193 Firefighter II Transition
TOTAL

|  | $\frac{8}{8}$ |
| :--- | ---: |
| TOTAL |  |
| TOTAL | $\frac{8}{8}$ |

## Ford Maintenance \& Light Repair

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

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
TOTAL

Credit
Hours755$\frac{5}{22}$

## Short Term

## Description

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.

Program Prerequisites:
Approval of chairperson

## Type of Degree or Certificate

Short Term Certificate
16 Total Credit Hours

## Short Term

## Description

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.

Program Prerequisites:
Approval of chairperson

## Type of Degree or Certificate

Short Term Certificate

## 22 Total Credit Hours

## Short Term

## Description

Designed for the general industry trades, this program focuses on effective management and implementation of work place safety and health programs. It includes an understanding of the benefits of a well managed safety program as well as an understanding of hazardous materials, ergonomics, OSHA standards, recordkeeping, industrial hygiene, confined space and other safety related fields. Upon completion of this program, individuals will be qualified to move into safety management positions in the general industry trades.

## Type of Degree or Certificate

Short Term Certificate

## 32 Total Credit Hours

## Career Opportunities

Upon completion of this program, individuals will be qualified to move into safety management positions in the general industry trades.

## Short Term

## Description

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

## Type of Degree or Certificate

Short Term Certificate

## 44 Total Credit Hours

## Career Opportunities

Common job titles include User Support Specialist, Customer Support Representative, Software Trainer, P.C. Technician and Help Desk Technician/Analyst.

# General Industry Safety 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Hours
FIRST QUARTER
SRM 131 Trainer Course for Occupational Safety \& Health for the General Industry 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 15
SECOND QUARTER
SRM 230 Occupational Safety \& Health 3
SRM 133 OSHA General Industry Trainer Update 2
SRM 139 Respiratory Protection 3
EVT 260 Treatment, Storage, \& Disposal of Hazardous Materials3

EER 142 Safety in Electric Distribution 3
SRM 215
Industrial Hygiene
TOTAL
3
17

## Help Desk Analyst

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

 FIRST QUARTERCIS 107 Introduction to Operating Systems 3
BIS 160 Introduction to Word, PowerPoint, \& Excel 3
161 Intermediate Word, PowerPoint, \& Excel
COM 206 Interpersonal Communication3

BIS 201 Customer Service 3
CIS 111 Introduction to Problem Solving \& Computer Programming4

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 $\quad 3$

| THIRD QUARTER |  | 1 |  |
| :--- | :--- | ---: | ---: |
| BIS | M70 | Introduction to the Internet | 1 |

BIS M71 Intermediate Internet 1
CIS 264 A+ Certification 3
CIS 230 Computer Networks 3
CIS 238 PC Installation Management 3
CIS 166 User Support Tools \& Techniques TOTAL $\frac{3}{14}$

## Human Resource Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
MAN 205 Principles of Management 3
MAN 237 Human Resource Management 3
MAN 238 Human Resource Management Applications 3
MAN 225 Human Relations \& Organizational Behavior 3
FIN 260 Employee Benefits 3
COM 235 Principles of Interviewing $\quad 3$
TOTAL $\quad \frac{3}{18}$

## Industrial Fire Protection Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

FST 116 Fire Protections Systems I 3
FST 194 Fire Brigade Training 3
FST 204 Water Suppression Systems 4
SRM 151 OSHA 1910.120 Hazardous Waste Operations
SRM 230 Occupational Safety \& Health
TOTAL
Credit
Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 18 Total Credit Hours

## Short Term

## Description

This certificate provides the knowledge and skills required for the design, installation, operation and maintenance of automated sprinkler, fire detection, alarm and suppression systems. It also provides instruction and hands-on experience in extinguishing fires in their incipient stage, functioning as a member of an industrial fire brigade and working in a hazardous waste site. This certificate includes the issuance of an OSHA 30-hour card for General Industry Safety and a 40-hour card for Hazardous Waste Operations.

## Type of Degree or Certificate

Short Term Certificate

## 18 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

## 41 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 38 Total Credit Hours

## Career Opportunities

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.

## Industrial Maintenance Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
EGR 128 Robotics in CIM Systems 3
INT 141 Applied Shop Mathematics 3
EGR 100 Fundamental Mechanical Skills 3
ETD 165 Industrial Hydraulics I 3
EET 119 Basic Electrical Circuits \& Controls $\quad 4$
TOTAL $\quad \overline{16}$

## SECOND QUARTER

EET 166 Industrial Machine Wiring \& Standards 3
ETD 166 Industrial Hydraulics II 3
ETD 128 Print Reading with GD \& T 3
EET 139 Electrical Machinery $\frac{4}{13}$
THIRD QUARTER
EGR 144 Sensors 3
EET 281 Programmable Logic Controllers 3
EGR 244 Automation \& Control Devices 3
EGR 231 Introduction to Troubleshooting of Automated Systems
TOTAL

## Industrial Robot Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
INT 141 Applied Shop Mathematics I ..... 3
EET 119 Basic Electrical Circuits \& Controls ..... 4
EGR 100 Fundamental Mechanical Skills ..... 3
EGR 128 Robotics in CIM SystemsTOTAL13
SECOND QUARTER
EGR 144 Sensors ..... 3
EET 166 Industrial Machine Wiring \& Standards ..... 3
EGR 252 Teach Pendant Robot Programming ..... 3
EGR 250 Robot Mechanical Unit Repair ..... 3
THIRD QUARTER
EGR 217 Fluid Power \& Control ..... 4EGR 251 Robot Controller DiagnosticsEGR 231 Introduction to Troubleshooting of AutomatedSystems3
EGR ..... 220
Machine Vision
TOTAL ..... 13

## Infant/Toddler Education

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

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 |  |
|  |  |  | TOTAL |

## SECOND QUARTER <br> SECOND OUARTER

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 $\quad 3$

## THIRD QUARTER

ECE $\qquad$ Early Childhood Education Elective
TOTAL

Prenatal Life \& Birth
ECE 120 Observing Young Children3
ECE17
TOTAL
TOTAL ..... 12Early Childhood Education ElectiveTOTAL$\begin{array}{r}9 \\ \hline 9\end{array}$

NOTE: Internship is a working experience involving infants and toddlers in a group setting. It must be approved as a valid learning experience by the instructor. Department criteria regarding internships must be met.

## Java Enterprise Development

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

CIS $112 \quad$ Object Oriented Concepts $\quad 3-4$
113 Object Oriented Design
265 Database Management Systems 3-4
266 Client/Server Database
Credit Hours

TOTAL $\overline{6-8}$
SECOND QUARTER
CIS 283 Advanced Java 4-8
or
280 Java Programming I
and
281 Java Programming II
285 Web Application Development with Java
TOTAL

## THIRD QUARTER

$\begin{array}{lll}\text { CIS } & 286 & \text { Enterprise Java } \\ \text { CIS } & 288 & \text { Java Enterprise Development Project Seminar }\end{array}$
TOTAL

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Certificate

## 38 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
23-29 Total Credit Hours

## Short Term

## Description

This short term certificate prepares students with the foundations of knowledge and prepares the learner for future training and education in the field of law enforcement. The certificate enhances the law enforcement professional skills and knowledge. It may assist the student in performing well in future civil service examinations for employment or promotion.

## Type of Degree or Certificate <br> Short Term Certificate

## 40 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
44 Total Credit Hours

## Law Enforcement

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Credit

Course \& Title Hours
FIRST QUARTER
CJS 101 Introduction to Criminal Justice Science 3
CJS 102 Constitutional Law 3
PED 234 Concepts of Total Fitness 3
BIS 160 Introduction to Word, PowerPoint, \& Excel $\quad$ TOTAL $\frac{3}{12}$
SECOND QUARTER
CJS 105 Criminal Law 3
CJS 170 Community-Based Policing 3
CJS 111 Criminal Justice Ethics 3
CJS 110 Interrogation, Documentation \& Testimony 3
CJS 215 Introduction to Forensic Science $\quad \frac{3}{15}$
THIRD QUARTER
CJS 104 Criminal Evidence \& Procedures 3
CJS 125 Police Organization \& Administration 3
CJS 140 Human Relations \& Cultural Diversity 3
SPA 161 Conversational Spanish for Criminal Justice 3
PED 105 Physical Fitness 1
164 Cardio Sculpt
or
154 Aerobic Conditioning
TOTAL
13

## Light Commercial HVAC Service

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title
FIRST QUARTER
Hours
INT 141 Applied Shop Mathematics I ..... 3
EET 119 Basic Electrical Circuits \& Controls
4HVA 162 HVAC Loads \& Distribution for Small Buildings4
HVA 144 Introduction to HVAC Systems ..... 3
HVA 140 HVAC Installation Techniques
TOTAL
SECOND QUARTER
COM 206 Interpersonal Communication ..... 3
HVA 160 Basics of Heating \& Heating Systems ..... 3
HVA 180 Boilers in HVAC Systems ..... 3
Basics of Cooling \& Cooling Systems HVA 184
TOTAL ..... 12
THIRD QUARTER
HVA 141 HVAC Installation Practices ..... 2
EET 139 Electrical Machinery ..... 4
HVA 177 Testing, Adjusting \& Balancing in HVAC Systems ..... 3
HVA 190 HVAC Mechanical Troubleshooting ..... 3
HVA 194 HVAC Electrical Troubleshooting
TOTAL ..... 15

## Manufacturing Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER

| OPT | 101 | Introduction to Operations | 3 |
| :--- | :--- | :--- | :--- |
| OPT | 128 | Operations Logistics | 3 |
| OPT | 125 | Introduction to World-Class Operations | 3 |
| OPT | 126 | Supervision \& Team Leadership | 3 |
| OPT | 198 | Excel for Engineering Technology | 2 |
| OPT | 209 | Operations Cost Analysis | 3 |
| MAN | 105 | Introduction to Business | 3 |
| PSY | 229 | Work Group Dynamics |  |
|  |  |  | TOTAL |

Students may select one of the following courses to use as a substitution for a course in the Manufacturing Management certificate
COM 211 Effective Speaking I ..... 3
ENG 121 Technical Communications I ..... 3
MAN 210 Introduction to Project Management ..... 3
OPT 223 ISO/QS 9000 Quality Systems ..... 3
SRM 211 Industrial Safety I ..... 3

## Measurement \& Calibration

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

OPT 100 Tooling \& Machining Metrology 2
MAT 101 Elementary Algebra 4
ETD 198 Personal Computer Applications for Engineering Technology
ETD 128 Print Reading with GD\&T
SECOND QUARTER
OPT 101 Introduction to Operations 3
OPT 120 Process Metrology 3
MAT 131 Technical Mathematics I $\quad 5$

## THIRD QUARTER

OPT 113 Coordinate Measurement
OPT 201 Statistical Process Control
TOTAL 11

OPT 201 Statistical Process Control 3

TOTAL

FOURTH QUARTER
OPT 217 Measurement \& Calibration 3
OPT 266 Quality Technician Certification Review
TOTAL

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 23 Total Credit Hours

## Career Opportunities

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.

## Short Term

## Description

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 apply directly to the Operations Technology Degree.

## Type of Degree or Certificate

Short Term Certificate

## 34 Total Credit Hours

## Short Term

## Description

This program is intended for mechanical maintenance personnel who desire to improve their troubleshooting skills. This is a hands-on approach that examines how machines operate, with special concentration on power hydraulics/ hydraulic circuits, and control of hydraulic circuits. The program emphasizes the proper techniques for troubleshooting/ maintenance and rebuild.

## Type of Degree or Certificate <br> Short Term Certificate

## 15 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 29 Total Credit Hours

## Career Opportunities

Prospects are excellent in the Miami Valley and throughout the nation. Job opportunities include: physician offices, ambulatory care centers, urgent care centers, medical billing companies, long term care centers, home health care agencies, and insurance and managed care companies.

## Mechanical Maintenance

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Hours
FIRST QUARTER
ETD 160 Mechanics for Skilled Trades 3
ETD 161 Advanced Mechanics for Skilled Trades 3
ETD 165 Industrial Hydraulics I 3
ETD 166 Industrial Hydraulics II 3
ETD 167 Industrial Hydraulics III $\frac{3}{15}$
TOTAL $\quad 15$

## Medical Office Coding Specialist

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title | Credit |
| :--- | :--- |
| FIRST QUARTER | Hours |

FIRST QUARTER

| ALH | 103 | Introduction to Health Care Delivery |  | 3 |
| :--- | :--- | :--- | :--- | :--- |
| BIO | 107 | Human Biology | TOTAL | $\frac{5}{8}$ |

## SECOND QUARTER

ALH 104 Allied Health Informatics 2
HIM 121 Basic Medical Terminology
TOTAL

## THIRD QUARTER

HIM 122 Specialized Medical Terminology 3
HIM 260 ICD-9-CM Medical Office Coding 3
HIM 261 CPT Medical Office Coding 3
MAS 202 Insurance \& Patient Records - $\quad 3$
TOTAL 12

## FOURTH QUARTER

HIM 262 Advanced Medical Office Coding$\frac{4}{4}$

## Multi-Skilling Health Care

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
ALH 103 Introduction to Health Care Delivery 3
BIO 107 Human Biology 5
ALH _ Allied Health Cluster

## SECOND QUARTER

ALH 104 Allied Health Informatics
ALH 140 Basic Life Support Training
HIM 121 Basic Medical Terminology
ALH Allied Health Cluster

## Credit

 Hours3
## THIRD QUARTER

ENG 111 English Composition I
or
131 Business Communications I
COM 206 Interpersonal Communication
ALH $\quad$ Allied Health Cluster

## CLUSTERS

Diagnostic Procedures
$\begin{array}{lll}\text { ALH } & 111 & \text { Clinical Phlebotomy }\end{array}$
ALH 107 Principles of EKG 3
RAT 104 Radiological Principles for GMO 4

Patient Care
ALH 120
Nurse Aide Training6

ALH 131 Patient Care Assistant or
133 Pediatric Patient Care Assistant6
Health Unit Coordinator

MAS

120

Health Unit Coordinator I ..... 4
MAS Health Unit Coordinator II ..... 3
HIM ..... 122
Specialized Medical Terminology ..... 3
BIS

101
Personal Computer Keyboarding ..... 2

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
23-44 Total Credit Hours

## Short Term

## Description

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, 2-D and 3-D animations, and multimedia authoring.

## Type of Degree or Certificate

Short Term Certificate

## 33 Total Credit Hours

## Short Term

## Description

This National Center for Construction Education and Research (NCCER) HVAC apprenticeship curriculum is completed by students under sponsorship of the Associated Builders and Contractors (ABC). This program presents students with an increasingly technical base of knowledge in heating, ventilation and air conditioning as practiced by at the trade level. The program consists of eight classes taken over a four-year period.

## Prerequisite

Approval of Chairperson

## Type of Degree or Certificate

Short Term Certificate

## 28 Total Credit Hours

## Multimedia

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title HoursCredit
FIRST QUARTER
VIS 104 Computer Basics ..... 3
VIS 106 Design Basics: 2-D ..... 3
VIS 108 Typography ..... 3
VIS 114 Interactive Digital Theory ..... $\frac{3}{12}$
SECOND QUARTER
VIS 147 Digital Imaging ..... 3
VIS 146 Digital Illustration ..... 3
VIS 115 Digital Video
TOTAL ..... $\frac{3}{9}$
THIRD QUARTER
VIS 117 Web Page Design ..... 3
VIS 116 Digital Animation ..... $\frac{3}{6}$
FOURTH QUARTER
VIS 118 Web Page Design II ..... 3
VIS 265 Digital Authoring
TOTAL ..... $\frac{3}{6}$
NCCER HVAC Apprentice

Sinclair recognizes the important connection between student success and academic preparedness. Depending on
placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title ..... Hours
FIRST QUARTER
HVA 101 ABC Level 1-A Core Curriculum
TOTAL ..... $\frac{3.5}{3.5}$
SECOND QUARTER
HVA 102 HVAC Level 1-B ABC
TOTAL ..... $\frac{3.5}{3.5}$THIRD QUARTER
HVA 103 HVAC Level 2-A ABC ..... $\frac{3.5}{3.5}$
FOURTH QUARTER
HVA 104 HVAC Level 2-B ABC ..... 3.5
FIFTH QUARTER
HVA 201 HVAC Level 3-A ABCTOTAL$\frac{3.5}{3.5}$
SIXTH QUARTER
HVA 202 HVAC Level 3-B ABC$\frac{3.5}{3.5}$
SEVENTH QUARTER
HVA 203 HVAC Level 4-A ABC ..... $\frac{3.5}{3.5}$
TOTAL
EIGHTH QUARTER
HVA 204 HVAC Level 4-B ABC$\frac{3.5}{3.5}$

|  | Credit <br> Hours |
| :---: | :---: |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |
| TOTAL | $\frac{3.5}{3.5}$ |

## NCCER Plumbing Apprentice

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& TitleHVA 101 ABC Level 1-A Core Curriculum
Hours
FIRST QUARTER
SECOND QUARTER
HVA 122 Plumbing Level 1-B ABCTOTAL$\frac{3.5}{3.5}$
THIRD QUARTER
HVA 123 Plumbing Level 2-A ABCTOTAL $\quad 3.5$
FOURTH QUARTER
HVA 124 Plumbing Level 2-B ABCTOTAL$\frac{3.5}{3.5}$
TOTALHVA 221 Plumbing Level 3-A ABC3.5
FIFTH QUARTERTOTAL $\quad \frac{3.5}{3.5}$
SIXTH QUARTER
HVA 222 Plumbing Level 3-B ABCTOTAL $\quad \frac{3.5}{3.5}$
SEVENTH QUARTER
HVA 223 Plumbing Level 4-A ABC3.5
EIGHTH QUARTER
HVA 224 Plumbing Level 4-B ABCTOTAL $\quad 3.5$
TOTAL ..... $\frac{3.5}{3.5}$
Credit

## Short Term

## Description

The National Center for Construction Education and Research (NCCER) plumbing apprenticeship curriculum is completed by students under sponsorship of the Associated Builders and Contractors (ABC). This program presents students with an increasingly technical base of knowledge in plumbing as practiced at the trade level. The program consists of eight classes taken over a four-year period.

## Prerequisite

Approval of Chairperson
Type of Degree or Certificate Short Term Certificate

28 Total Credit Hours

## Short Term

## Description

The National Center for Construction Education and Research (NCCER) sheetmetal apprenticeship curriculum is completed by students under sponsorship of the Associated Builders and Contractors (ABC). This program presents students with an increasingly technical base of knowledge in sheet metal technology as practiced by sheetmetal workers at the trade level. The program consists of eight classes taken over a four-year period.

## Prerequisite

Approval of Chairperson

## Type of Degree or Certificate

Short Term Certificate

## 28 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## NCCER Sheetmetal Apprentice

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  | Hours |
| :---: | :---: | :---: | :---: | :---: |
| FIRST QUARTER |  |  |  |  |
| HVA | 101 | ABC Level 1-A Core Curriculum |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| SECOND QUARTER |  |  |  |  |
| HVA | 112 | Sheetmetal Level 1-B ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| THIRD QUARTER |  |  |  |  |
| HVA | 113 | Sheetmetal Level 2-A ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| FOURTH QUARTER |  |  |  |  |
| HVA | 114 | Sheetmetal Level 2-B ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| FIFTH QUARTER |  |  |  |  |
| HVA | 211 | Sheetmetal Level 3-A ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| SIXTH QUARTER |  |  |  |  |
| HVA | 212 | Sheetmetal Level 3-B ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| SEVENTH QUARTER |  |  |  |  |
| HVA | 213 | Sheetmetal Level 4-A ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |
| EIGHTH QUARTER |  |  |  |  |
| HVA | 214 | Sheetmetal Level 4-B ABC |  | 3.5 |
|  |  |  | TOTAL | 3.5 |

EIGHTH QUARTER
HVA 214 Sheetmetal Level 4-B ABC
TOTAL

## Network Engineering Associate

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  | 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 |

## 28 Total Credit Hours

# Ohio Real Estate Broker 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> 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 $\quad 3$
TOTAL $\quad 15$

## 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
TOTAL

# Ohio Real Estate Sales Associate 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

RES 201 Real Estate Principles \& Practices 4
RES 202 Real Estate Law 4
RES 203 Real Estate Finance 2
$\begin{array}{lll}\text { RES } & 203 & \text { Real Estate Finance } \\ \text { RES } & 204 & \text { Real Estate Appraisal for Realtors }\end{array}$
TOTAL
12

## Short Term

## Description

This certificate is designed for the person who already has the equivalent of a twoyear 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 216) corporation finance (FIN 215), human resources management (MAN 225 or 237), and business law (LAW 101) to become licensed as a broker.

## Type of Degree or Certificate

Short Term Certificate

## 29 Total Credit Hours

## Short Term

## Description

This certificate is designed for the person who is interested in a career in real estate sales. The course work meets the educational requirement of 120 seat-hours for persons to be licensed to sell real estate in Ohio. Forty hours of Real Estate Principles \& Practices (RES 201), forty hours of Real Estate Law (RES 202), twenty hours of Real Estate Finance (RES 203) and twenty hours of Real Estate Appraisal (RES 204) are the requirements of the Ohio Division of Real Estate.

## Type of Degree or Certificate

Short Term Certificate
12 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 43 Total Credit Hours

## Career Opportunities

Employment prospects for the pharmacy technicians are excellent in the Miami Valley and throughout the nation. Job opportunities are available in the following areas: retail and mail order settings, hospital pharmacies, nursing homes and home health care settings.

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 43 Total Credit Hours

## Career Opportunities

This certificate is designed for the serious photographers or students who desire to find a job in the photo studio/photo processing industry.

## Pharmacy Technician

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

| Course \& Title |  |  |  | Credit <br> 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 |
|  | THIRD QUARTER |  |  |  |  |
|  |  |  |  |  |  |  |
| ALH | 124 | Pharmacy Technician III |  | 5 |
| ALH | 113 | Venipuncture for Healthcare Providers |  | 1 |
| ALH | 104 | Allied Health Informatics |  | 2 |
| ALH | 140 | Basic Life Support Training |  | 1 |
| ENG | 131 | Business Communications I |  | 3 |
|  |  |  | TOTAL | 12 |

TOTAL

## Photographic Technology

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.Course \& Title
Credit
FIRST QUARTER
ART 233 Art of the Modern World ..... 3HoursMAT 105 Business Mathematics
4ART 161 Photography I
ART 162 Photography II4
ART 163 Photography III ..... 44
ART 170 Non-Silver Photography
ART ..... 171
Studio Photography ..... 4
175
ART ..... 3
194
ART
265
ART Color Photography I ..... 3
ART ..... 266
Photography Portfolio I
Color Photography II ..... 4
ART 294 Photography Portfolio Development II ..... 1
CHE 141 College Chemistry I
TOTAL ..... 43

## Plumber/Pipefitter Journeyman

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

HVA 231 Stationary Engineering

## Credit

 HoursTOTAL $\quad \frac{4}{4}$

## SECOND QUARTER

HVA 232 Electricity \& Refrigerants

## THIRD QUARTER

HVA 233 Compressors
TOTAL
TOTAL $\quad \frac{4}{4}$

## FOURTH QUARTER

HVA 234 Chillers
FIFTH QUARTER
HVA 235 Testing, Adjusting \& Balancing P/P

## SIXTH QUARTER

HVA 236 Heating \& Cooling Controls

## Professional Communication

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Credit
Course \& TitleFIRST QUARTER
COM 201 Introduction to Mass Communication3
COM 206 Interpersonal Communication ..... 3
COM 211 Effective Public Speaking
COM 211 Effective Public Speaking ..... 3 ..... 3
COM 212 Advanced Public Speaking
COM 212 Advanced Public Speaking ..... 3 ..... 3
COM 220 Introduction to Communication Theory ..... 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 265 Communication \& Conflict ..... 3
COM 285 Organizational 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

## Hours

 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.

## Type of Degree or Certificate

Short Term Certificate
27 Total Credit Hours

## Short Term

## Description

Three-year program of course work for HVAC technicians in the plumber/pipefitter union to meet requirements for their journeyman rating. Courses are taught at the union hall and are only open to members of the plumber/pipefitter union.

## Prerequisite

Approval of Chairperson
Type of Degree or Certificate
Short Term Certificate

## 24 Total Credit Hours

## Short Term

## Description

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

[^12]
## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 14 Total Credit Hours

## Short Term

## Description

This certificate provides the home or small business computer user with state-of-theart 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.

## Type of Degree or Certificate

Short Term Certificate
10 Total Credit Hours

## Security for the Networking Professional

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title Hours
FIRST QUARTER
CIS 206 Network Security I 3
CIS $253 \quad$ Securing a Windows Network Environment $\quad \frac{4}{7}$
SECOND QUARTER
CIS 207 Network Security II 3
CIS $255 \quad$ Securing a Unix/Linux Operating System $\quad \frac{4}{7}$

## Small Office, Home Office Computer Use \& Security

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

|  |  |  | Credit |
| :--- | :--- | :--- | :--- |
| Course \& Title |  | Hours |  |
| FIRST QUARTER |  | 3 |  |
| BIS | 105 | Computer Concepts |  |
| BIS | M75 | The Internet |  |
|  |  | TOTAL | -2 |
| SECOND QUARTER |  | 5 |  |
| CIS | 101 | Computer Networks \& Security |  |
| CIS | M72 | Cyber Security Tools |  |
| CIS | M73 | Cyber Ethics |  |
|  |  |  | TOTAL |

## Social Service

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

FIRST QUARTER
COM 211 Effective Public Speaking 3
SOC 111 General Sociology I -3

## SECOND QUARTER

COM 286 Public Relations Principles 3
SOC 205 Social Problems 4
SOC 215 Cultural Diversity $\quad \frac{4}{11}$
THIRD QUARTER
SOC 130 Family Violence 3
SWK 206 Social Work as a Profession 4
MHT 140 Child \& Adolescent Mental Health
TOTAL $\quad 10$
FOURTH QUARTER
SOC 297 Special Topics in Sociology
TOTAL
3

## Software Application for the Professional

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
FIRST QUARTER
$\begin{array}{lll}\text { BIS } & 105 & \text { Computer Concepts } \\ \text { BIS } & \text { M35 } & 3\end{array}$
BIS M35 Microsoft Access 2
BIS M45 Microsoft Excel 2
BIS M55 Microsoft PowerPoint 2
BIS M75 The Internet 2
BIS M85 Microsoft Word $\quad 2$
SECOND QUARTER
BIS M25 Desktop Publishing 2
BIS M36 Advanced/Expert Access 3
BIS M46 Advanced/Expert Excel 2
BIS M86 Advanced/Expert Word 2
BIS 172 Integrated Solutions $\quad \frac{2}{11}$
TOTAL $\quad 11$

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
30 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate

## 24 Total Credit Hours

## Short Term

## Description

This short term certificate provides the opportunity to develop and refine specialized Supply Chain Management (SCM) knowledge and skills. This study involves consideration and application of processes to develop coordinated supplier-to-consumer systems, including: identifying needs for raw materials, supplies, and components; developing specifications; computing quantity requirements; selecting sources and negotiating agreements; acquiring, transporting, and storing inventory; managing and maintaining operations; and logistics management.

## Type of Degree or Certificate

Short Term Certificate

## 18 Total Credit Hours

## Short Term

## Description

The Tax Practitioner certificate prepares students for work in the tax preparation field. As federal tax law changes and grows more complex, more people seek professional tax preparation assistance. 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 interested students for the Enrolled Agents' Exam of the Internal Revenue Service.

## Type of Degree or Certificate

Short Term Certificate

## 28 Total Credit Hours

## Career Opportunities

Tax preparers may work for companies or work as entrepreneurs in their own businesses.

## Supply Chain Management

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title

FIRST QUARTER

MAN 241 Introduction to Supply Chain Management 3
MAN 205 Principles of Management 3
TOTAL

## SECOND QUARTER <br> MAN 242 Advanced Supply Chain Management 3

MAN 243 Materials Management 3
247 DoD Systems Acquisition Management
TOTAL
6

## THIRD QUARTER

MAN 244 Negotiation Techniques 3
MAN 248 DoD Acquisition Logistics Fundamentals 3
251 Logistics Management
260 Management Science I
TOTAL

## Tax Practitioner

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.
Course \& Title

Hours

## Credit

FIRST QUARTER
ACC 121 Principles of Financial Accounting 5
ACC 221 Federal Taxes I 3
BIS 160 Introduction to Word, PowerPoint, \& Excel $\quad \frac{3}{11}$
TOTAL
11
SECOND QUARTER
ACC 122 Principles of Managerial Accounting 5
ACC 222 Federal Taxes II 3
ACC 225 Professional Tax Preparation $\frac{3}{11}$
THIRD QUARTER
ACC 115 Personal Computer Applications in Accounting 3
ACC 223 Advanced Taxation
TOTAL
3

## Tissue Banking Technologist

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

 CreditHIM 121 Basic Medical Terminology 3

SUT 100 Introduction to Tissue Banking
TOTAL $\quad 8$
SECOND QUARTER
MAT 106 Allied Health Mathematics 4
ENG 131 Business Communications I 3
SUT 101 Tissue Banking I $\quad \frac{5}{12}$

## THIRD QUARTER

SUT 201 Tissue Banking II 8
SUT 202 Tissue Bank Certification Review 4
TOTAL 12

## Web Authoring

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores andlor equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title <br> FIRST QUARTER

ENG 111 English Composition I 3
BIS M70 Introduction to the Internet 1
BIS M71 Intermediate Internet 1
VIS 117 Web Page Design 3
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 $\frac{3}{12}$

## THIRD QUARTER

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

## Short Term

## Description

Completion of this three-quarter certificate program prepares individuals to attain the skills necessary to become a certified tissue banking technologist. Tissue banking technologists are integral in the recovery, processing, storage, and distribution of human tissue. Students will gain basic knowledge of human anatomy, medical terminology, sterile technique, surgical recovery and processing techniques, ethics, and regulatory standards. Students will also be eligible to take the national CTBS (certified tissue banking specialist) exam upon program completion.

## Program Prerequisite:

BIO 107 Human Biology

## Type of Degree or Certificate

Short Term Certificate
32 Total Credit Hours

## Short Term

## Description

This certificate uses web wizards and authoring tools such as FrontPage and Composer to develop web sites for individuals and small businesses with nonprogramming skills. Certificate focuses on authoring software such as FrontPage, Hypertext Markup Language, JavaScript, Vector Graphics, and Multimedia Scripting Languages.

## Type of Degree or Certificate

Short Term Certificate

## 36 Total Credit Hours

## Short Term

## Description

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.

## Type of Degree or Certificate <br> Short Term Certificate

36-37 Total Credit Hours

## Web Programming Java Track

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title 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
266 Client/Server Database
TOTAL $\quad 12-13$
SECOND QUARTER
CIS 131 Intermediate Web Development 3
CIS 280 Java Programming I 4
CIS 285 Web Application Development with Java $\quad \frac{4}{11}$
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 $\quad \frac{3}{13}$

## Short Term

## Description

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.

## Type of Degree or Certificate

Short Term Certificate
34-35 Total Credit Hours

## Web Programming Visual Basic Track

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title

## Credit

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
266 Client/Server Database
TOTAL $12-13$
SECOND QUARTER
CIS 131 Intermediate Web Development 3
CIS 147 Visual Basic Programming I 4
CIS 284 Client/Server Web Tools 3
TOTAL $\quad \overline{10}$
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 $-\frac{3}{13}$
TOTAL 13

## Individualized Programs

## 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, Dr. Linda Pastore, (937) 512-2347.

## Interdisciplinary Component

A minimum of 45 quarter hours from two 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 |

## Experience Based Education

| EBE 130 | Degree Planning Seminar | 1 hour |
| :--- | :--- | :--- |
| EBE 278 | A.T.S./A.I.S. Capstone | 3 hours |
| LA 101 | Student Success Experience | 2 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 <br> (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, Dr. Linda Pastore, (937) 512-2347.

## Technical Education

A minimum of 45 quarter hours incorporating articulated credit or combining no more than two distinct areas of study.

## General Education

English
First of sequence
3 hours
English
Communication
Mathematics
Social Science
Computer Literacy
Second of sequence Elective
100 level or above 3 hours 3 hours
3 hours
3 hours
2-3 hours
Humanities
Elective
Elective
3 hours

## Experience Based Education

EBE 130 Degree Planning Seminar 1 hour
EBE 278 A.T.S./A.I.S. Capstone 3 hours
LA 101 Student Success Experience 2 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.

## Specialized Courses

## Specialized Courses

## Description

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

## Type of Degree or Certificate Specialized Course

## 3 Total Credit Hours

## Specialized Courses

## Description

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.

## Prerequisites:

| DEV | 065 | Developmental Reading |
| :--- | :--- | :--- |
| DEV | 075 | Fundamentals of English |
| DEV | 085 | Basic Mathematics II or <br> equivalent |

## Type of Degree or Certificate

Specialized Course
6 Total Credit Hours

## Basics of Activities Programming

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
ALH 125 Basics of Activities Programming

## Nurse Aide Training

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

## Course \& Title

# Nurse Aide Medication Aide 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
ALH 134
Nurse Aide - Medication Aide

## Specialized Courses

## Description

The Nurse Aide - Medication Aide course, approved by OBN, allows for administration of approved prescription medications in a nursing home or residential care facility by an individual holding a valid Ohio medication aide certificate. Participation requires proof of current status on the Ohio NA registry or proof of employment of at least one year of direct patient care experience in a residential care facility. Participants must provide documentation on any present or former employer letterhead specifying specific employment history totaling a minimum of one year work experience, including exact hours worked; beginning/ending dates; part-time/fulltime status. Bring required documentation on the first day of class. 5 lecture, 3 lab, and 5 directed practice hours per week.

## Prerequisites:

| DEV | 065 | Developmental Reading |
| :--- | :--- | :--- |
| DEV | 075 | Fundamentals of English |
| DEV | 085 | Basic Mathematics II or <br> equivalent |

High school diploma or GED
State Tested Nurse Aide Ohio or 1 year residential care facility experience in direct patient care
18 years or older
Criminal background check
Type of Degree or Certificate
Specialized Course
7 Total Credit Hours

## Specialized Courses

## Description

Seventy clock hours of patient care assistant training, evaluation and clinical experience. Includes the role, job description, legal/ethical issues, personal care and treatments performed by the patient care assistant in an acute or sub-acute health care facility. Three lecture, two lab, six clinical hours per week.

Prerequisite:
ALH 120 Nurse Aid Training or
State tested nurse aid certificate

## Type of Degree or Certificate Specialized Courses

## 6 Total Credit Hours

## Specialized Courses

## Description

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 Nurse Aid Training or
State tested nurse aid certificate and
DEV 065 Developmental Reading
DEV 075 Fundamentals of English
DEV 085 Basic Mathematics II or equivalent

## Type of Degree or Certificate <br> Specialized Course

## 6 Total Credit Hours

# Patient Care Assistant 

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title

## Pediatric Patient Care Assistant

Sinclair recognizes the important connection between student success and academic preparedness. Depending on placement scores and/or equivalent college course work, students may be required to complete developmental courses before enrolling in the college level courses of this program.

Course \& Title
ALH 133
Pediatric Patient Care Assistant

## Course Descriptions

Courses are listed alphabetically by course and then by course number followed by the credit hours each course offers.

There is a brief description of each course followed by any prerequisite requirements. If there are no prerequisites listed, there are none required for the course.

Lab information is usually noted. An " $R$ " following the course title indicates the course may be repeated for additional credit.

Accounting (ACC)
African-American Studies (AFR)
Allied Health (ALH)
American Sign Language (ASL)
Art (ART)
Arts \& Sciences Education (ASE)
Astronomy (AST)
Automotive Technology (AUT)
Aviation Technology (AVT)
Biology (BIO)
Biotechnology (BTN)
Business Information Systems (BIS)
Career Planning (CAP)
Chemistry (CHE)
Chinese (CHN)
Communication Arts (COM)
Computer Information Systems (CIS)
Dance (DAN)
Dental Hygiene (DEH)
Developmental Studies (DEV)
Dietetics Technology (DIT)
Early Childhood Education (ECE)
Economics \& Finance (ECO)
Education (EDU)
Electronics Engineering Technology (EET)
Emergency Medical Services (EMS)
Engineering Technology (EGR)
Engineering Technology Design (ETD)
English (ENG)
Entrepreneurship (ENT)
Environmental Technology (EVT)
Experience Based Education (EBE)
Extended Learning (EXL)
Financial Management (FIN)
Fire Science Technology (FST)
French (FRE)
Geography (GEO)
Geology (GLG)
German (GER)
Health Information Management (HIM)
Heating, Ventilating, Air Conditioning \& Refrigeration (HVA)
History (HIS)
Hospitality Management (HMT)
Humanities (HUM)
Tooling \& Manufacturing Technology (INT)
Interior Design (IND)

Japanese (JPN)
Journalism (JOU)
Law (LAW)
Literature (LIT)
Management (MAN)
Management of Volunteer Programs (VOL)
Marketing (MRK)
Mathematics (MAT)
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)
Political Science (PLS)
Psychology (PSY)
Purchasing (PUR)
Radiologic Technology (RAT)
Real Estate (RES)
Religious Studies (REL)
Respiratory Care (RET)
Russian (RUS)
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)

## 121 Principles of Financial Accounting <br> 5 Cr . Hrs.

Fundamentals of financial accounting and their application to journals, ledgers, and financial statements.
Prerequisite(s): DEV 065 and DEV 084

## 122 Principles of Managerial Accounting

5 Cr . Hrs.
Application of managerial accounting concepts and techniques to problems in manufacturing accounting and service firms.
Prerequisite(s): ACC 121 or ACC 111 and ACC 112

## 125 Personal Computer Applications in Accounting <br> 3 Cr. Hrs.

Fundamentals of personal computer applications in accounting utilizing spreadsheet software.
Prerequisite(s): ACC 122 or ACC 113 and BIS 160

## 201 Intermediate Accounting I

3 Cr . Hrs.
Accounting theory and practice relating to financial statement preparation and select asset accounts such as cash.
Prerequisite(s): ACC113 or ACC122 and ACC 115 or ACC 125

## 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(s): ACC 201

## 203 Intermediate Accounting III

3 Cr. Hrs.
Accounting theory and practice relating to owner'sequity, income determination and reporting, and financial reporting.
Prerequisite(s): 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(s): ACC 202

## 211 Cost Accounting I <br> 3 Cr. Hrs.

Accounting principles for job order and process cost accounting systems.
Prerequisite(s): ACC113or ACC122 and ACC 115 or ACC 125

## 212 Cost Accounting II 3 Cr. Hrs.

Managerial cost control through budgets, distribution costs, direct costs, and breakeven analysis.
Prerequisite(s): ACC 211

## 216 Payroll Accounting: Theory \& Practice <br> 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(s): ACC 111
221 Federal Taxes I
3 Cr. Hrs.
Beginning course in federal income taxation.

## 222 Federal Taxes II <br> 3 Cr. Hrs.

Continuation of ACC 221 with emphasis on corporate income taxation.
Prerequisite(s): ACC 221

## 223 Advanced Taxation <br> 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.
Prerequisite(s): 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 (VI.T.A) program.
Prerequisite(s): 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(s): ACC 201

## 240 Microcomputer Accounting Systems <br> 3 Cr. Hrs.

Hands-on microcomputer experience with an integrated software program.
Prerequisite(s): 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(s): ACC 201

297 Special Topics in ACC 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 AfricanAmerican Studies, including African and African-American historical background, black male and female relationships, Afrocentricity and multiculturalism.

## 112 African-American Studies II

3 Cr. Hrs.
Practical exercises and simulated problems on recent advancements and expansions of African-American studies, including Black psychology, creative production, Afrocentricity, Black women studies, Blacks in science, and multicultural studies.
Prerequisite(s): 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 <br> 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(s): 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 Technology (AH) 

101 Student Success Experience

2 Cr. Hrs.

Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## Allied Health (ALH)

## 103 Introduction to Health Care Delivery <br> 3 Cr. Hrs.

Orientation to the health care delivery system including history, economics, medical/legal issues, professionalism, ethics, and wellness concepts. The development of health care team skills including critical thinking and problem solving strategies, customer relations and multicultural health care perspectives will be presented.

## 104 Allied Health Informatics 2 Cr. Hrs.

Orientation to the use of technology in the health care delivery system including: hardware, software, user interfaces, telecommunications and networks, and health management information systems (HMIS). One lecture, two lab hours per week

## 105 Introduction to Allied Health 2-3 Cr. Hrs.

Orientation to the health care delivery system including history, definition, medical cost, publichealth, nutritional health, community dental, mental and environmental health, medical-legal, and patient rights. Also includes a brief description of Sinclair health programs. The optional credit hour will cover basic computer terminology, and its applications in health care.

## 106 Introduction to Basic Health Care Practice $\quad 2$ 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

 Electrocardiography3 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 ALH 107
Laboratory must be taken with ALH 107.

111 Clinical Phlebotomy 3 Cr. Hrs. Introduction to the fundamental and clinical methods and practices of phlebotomy, including basic hematology, venipuncture and microcollection techniques, along with routine processing and special testing procedures. Two lecture, two lab hours per week.

## 112 Lab for ALH 111

Laboratory must be taken with ALH 111.

## 113 Venipuncture for Health Care Providers <br> 1 Cr . Hr .

Introduction to the fundamental clinical methods and practices of phlebotomy, including basic hematology, venipuncture techniques, routine processing, and special testing procedures. Two lab hours per week.
Prerequisite(s): BIO 107 or BIO 131 or BIO 141
114 Specialized Phlebotomy 1 Cr . Hr. Clinical methods and practices of phlebotomy, including peripheralIV therapy,microcollection techniques, and special testing procedures. Two lab hours per week.
Prerequisite(s): 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. Five lecture, one lab, 2.5 clinical hours per week.
Prerequisite(s): DEV 065 and DEV 075 and DEV 085 and approval of division counselor

## 121 Allied Health Management

3 Cr. Hrs.
The basic concepts of supervision encountered in hospitals and other health care agencies for those aspiring toward firstline 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.
Prerequisite(s): DEV 085 or equivalent
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(s): 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(s): ALH 123, approval of division counselor

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 <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

Principles of electrocardiography including equipment operation, recording and troubleshooting. Two lab hours per week.

## Prerequisite(s): 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.Prerequisite(s): ALH 120 or State Tested Nurse Aide Certificate

## 132 Home Health Aide 3 Cr. Hrs.

Forty clock hours of home health aide training to prepare the student to provide client care in a home setting. Theory content will include the role, job description, legal/ethical issues, community resources, growth and development, personal care and treatments performed by the nurse aide in a home setting. Assessment techniques will emphasize the environment, family and client. Practicum experience includes home visits and environmental assessments. Two lecture, three clinical hours per week.
Prerequisite(s): ALH120 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.
Prerequisite(s): ALH 120 or State Tested Nurse Aide Certificate and DEV 065, DEV 075, DEV 085

## 134 Nurse Aide: Medication Aide

## 7 Cr. Hrs.

The Nurse Aide - Medication Aide course, approved by OBN, allows for administration of approved prescription medications in a nursing home or residential care facility by an individual holding a valid Ohio medication aide certificate. Participation requires proof of current status on the Ohio NA registry or proof of employment of at least one year of direct patient care experience in a residential care facility. Participants must provide documentation on any present or former employer letterhead specifying specific employment history totaling a minimum of one year work experience, including exact hours worked; beginning/ending dates; part time/full time status. Bring required documentation on the first day of class. Five lecture, three lab, and five directed practice hours per week.
Prerequisite(s): DEV 065 and DEV 075 and DEV 085 and high school diploma or GED and State Tested Nurse Aide in Ohio or one year residential care facility experience in direct patient care and 18 years old or older and criminal background check

## 135 Administration of Activities

## Programming

3 Cr. Hrs.
Skills and knowledge required for directing activity programs in long-term care facilities: licensure regulations, managing difficult clients, quality assurance issues, volunteer management, community resources.
Prerequisite(s): ALH 125

## 140 Basic Life Support Training 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.
## 141 Emergency Cardiac Care (ACLS)

2 Cr. Hrs.
Management of cardiovascular emergencies, including the American Heart Association's curriculum in Advanced Cardiac LifeSupport. One lecture and four lab hours per week for seven weeks.
Prerequisite(s): Open only to ALH students in their final quarter of training, or licensed health care professions and completion of ALH 140 or current BLS certification at health care provider level, approval of chairperson

## 142 Fundamentals of Disease Processes <br> 4 Cr. Hrs.

Pathological changes associated with the mostcommonly occurring diseases of each body system. Correlates changes with patient's response, diagnostic studies, and treatment modalities. Three lecture, two lab hours per week.
Prerequisite(s): BIO 107, BIO 162, BIO 143, or BIO 122

144 American Heart Association Heartsaver FACTS R $0.5-1 \mathbf{C r}$. 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 <br> 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 <br> 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-malfeasance, 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.
Prerequisite(s): ALH 125 and ALH 135

## 160 Learning Communities for Health Care Professionals $1 \mathrm{Cr} . \mathrm{Hr}$.

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.
Prerequisite(s): BIO 107 or 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 <br> 2 Cr . Hrs.

Developing health behaviors and behavioral change using a holistic, multi-disciplinary approach.
Prerequisite(s): Signature of IMT coordinator

## 210 Introduction to Community Health Advocacy <br> 4 Cr . Hrs.

Concepts, information, and skills related to the role and responsibilities of a Community Health Advocate. Emphasis on elements of working in community based settings; characteristics of health models and plans; impact of culture and socioeconomic status on individual's health, communication; barriers to health care services; health care needs across the life span; and community resources.

## 219 General Pharmacology 3 Cr. Hrs.

 General principles of drug absorption, distribution, metabolism, actions and effects presented according to conventional drug classification with emphasis on the prototype of each class; primarily intended for students in health professions, but may be of interest to those majoring in biological sciences.Prerequisite(s): 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.
Prerequisite(s): BIO 122 or BIO 143 or BIO 211, BIO 107

## 230 Quality Management in Health

 Care1 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 <br> 3 Cr. Hrs.

Assessment of achievement by Allied Health Management certificate students in attaining program outcomes by completing a project demonstrating principles and practices of supervisory management.
Prerequisite(s): MAN 237 and MAN 225 and ALH 121 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 $1 \mathbf{C r}$. Hr.

 Multi-skilling module designed to provide theexperiencedhealth care providerwith the knowledge and skills to competently insert anintravenous (I.V.) line, maintainit, administer fluids and medications, and discontinue the line. Identifying and troubleshooting common complications of I.V. therapy will bediscussed.Aclinicalexperience isincorporated within the module requirements.Prerequisite(s): RET 224
Corequisite(s): 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. Corequisite(s): ALH M25 and restricted to RET majors

## 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 Appreciation: Art Media

3 Cr. Hrs.
Exploration of art through specific media includingpainting, sculpture, and architecture. Analysis and evaluation through class discussion and written assignments.
106 Fine Art 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(s): 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.
Prerequisite(s): 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(s): 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(s): 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(s): ART 122
125 African Art
3 Cr. Hrs.
Introduction to symbolic and aesthetic elements of African art and its influence on modern art styles.

## 131 Sculpture I

3 Cr. Hrs.
First of a three-course sequence; introducing methods of sculpture with clay, paper, and other materials for constructing threedimensional art work. Twolecture,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(s): 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(s): 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; hand building 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(s): 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 week.
Prerequisite(s): 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 <br> 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 <br> 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(s): 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 ( 35 mm or 120), film and print paper. Two lecture, four lab hours per week.

## 162 Photography II <br> 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 ( 35 mm or 120 ), film and print paper, retouching supplies, and photo mounting supplies. Two lecture, four lab hours per week.
Prerequisite(s): 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 ( 35 mm or 120 or $4 \times 5$ ), film and print paper, retouching supplies, and dry mounting agents. Two lecture, four lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): 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. Twolecture, four lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): 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(s): 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(s): ART 175
194 Photography Portfolio I R $1 \mathbf{C r}$. 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. Prerequisite(s): 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.
Prerequisite(s): 45 total hours earned, 21 of which must be in ART

## 211 Advanced Drawing I 3 Cr. Hrs.

Personal expression developed through a variety of 2-D media, cubistic techniques, gestural and figure studies.
Prerequisite(s): 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(s): 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(s): 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(s): 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. Two lecture, four lab hours per week.
Prerequisite(s): 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(s): 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(s): 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(s): ART 221

## 223 Advanced Painting III <br> 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(s): 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 <br> 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. Ahistory of women artists from the Middle Ages to the present day, with emphasis on the history of style, and on women's historical roles.
237 American Art History 3 Cr. Hrs.
An overview of the history of art in the United States, placed within the larger historical context.
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(s): 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(s): 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(s): ART 242

## 251 Advanced Sculpture <br> 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.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

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(s): 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 ( 35 mm or 120), films and paper, polarizing filter and specified conversion filters.
Prerequisite(s): ARV 161 or ART 161
266 Color Photography II 4 Cr. Hrs. An intermediate course in color photography. Various camera and darkroom techniques will be employed to enhance the print. Student to supply ownadjustable camera ( 35 mm or 120 ), film and paper. Two lecture, four lab hours per week.
Prerequisite(s): 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 ( 35 mm or 120 ), film and paper. Two lecture, four lab hours per week.
Prerequisite(s): ART 265

## 269 Printmaking 4 Cr. Hrs.

Examines the philosophy, history, and techniques of multiple image preparation as well as woodcut and intaglio processes. Two lecture, four lab hours per week. Prerequisite(s): 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 slid 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. Prerequisite(s): Restricted to Arts Administration certificate majors; 20 hours of certificate complete

## 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.

## 190 American Sign Language <br> Workshop R 0.5-6 Cr. Hrs.

An overview of current topics in the field of American Sign Language Interpreting for the Deaf.

## 201 Interpreting I <br> 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.
Prerequisite(s): MAC 132 or ASL 229

## 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. Prerequisite(s): 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. Prerequisite(s): 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.
Prerequisite(s): ASL 203 or MAC 203

## 207 Role of Interpreter

3 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.
Prerequisite(s):ASL102 or MAC 102 and ASL 229 or MAC 132

## 211 Medical/Technical/Legal Interpreting

4 Cr. Hrs.
A study of interpreting in medical, mental health,educational,employment and legal settings and terminology/signs unique to each. Practice and performance of the vocabulary used in these settings.
Prerequisite(s): ASL103 or MAC 103 and ASL 231 or MAC 231
212 Specialized Interpreting 4 Cr . Hrs. Introduction to American Sign Language vocabulary related to sexual behavior/sexual abuse and drug use/abuse. Designed to increase student's comfortand skill level for interpreting medical, substance abuse treatment, counseling, and legal settings. Prerequisite(s): 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.
Prerequisite(s): ASL 113 or MAC 113

## 229 Intermediate American Sign Language II <br> 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.
Prerequisite(s): ASL 228 or MAC 131 and ENG 111

## 230 Intermediate American Sign Language III <br> 4 Cr . Hrs.

The third intermediate course in American Sign Language (ASL) with further mastery of upper level grammatical features and functions. Continued developmentofboth receptive and expressive abilities. Development of basic interpreting skills through classroom activities.Additional discussion regarding Deaf culture characteristics.
Prerequisite(s): 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. Prerequisite(s): ASL 230 or MAC 133

## 232 Advanced American Sign

 Language II4 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.
Prerequisite(s): 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.
Prerequisite(s): ASL 232 or MAC 232

## 236 Transliterating $\quad 4$ Cr. Hrs.

A preparatory course for the Registry for the Interpreters for the Deaf Certificate of Transliteration exam. The Signing Exact EnglishSystem of manually coded English is introduced, and conceptual accuracy is stressed for educational interpreting.
Prerequisite(s): ASL 230 or MAC 133

## 261 ASL Practicum I <br> 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.
Prerequisite(s): 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 practicalexperience.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. Prerequisite(s): ASL261 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.
Prerequisite(s): 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 (AST 107) per week.
Prerequisite(s): DEV 108 or equivalent score on Mathematics Skills Assessment
Corequisite(s): Lab AST 107

## 107 Lab for AST 101

Laboratory must be taken with AST 101.

## 111 Introduction to Astronomy

3 Cr. Hrs.
Patterns and movements of heavenly bodies; history of astronomy; gravity, light, and matter; various types of telescopes. Students may not receive credit for both AST 111 and AST 101 (previously 114). Optional laboratory AST 117.
Prerequisite(s): DEV 108

## 112 The Solar System <br> 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(s): 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(s): AST 111

## 117 Introduction to Astronomy Lab 1 Cr . Hr .

Lab and field activities to supplement AST 111. Three lab hours per week.

Corequisite(s): AST 111
118 Solar System Lab
1 Cr. Hr.
Lab and field activities to supplement AST
112. Three lab hours per week.

Corequisite(s): AST 112
119 Stars, Galaxies, \& Cosmology Lab 1 Cr . Hr .
Lab and field activities to supplement AST 113. Three lab hours per week.

Corequisite(s): 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 R0.1-3 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 protections required.
108 Engine Systems R 0.1-5 Cr. Hrs. Engineoperation, 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(s): 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 <br> 5 Cr. Hrs.

Basicelectricity, Ohm's Law, voltagedrops, digital meter usage, schematics, batteries, starting and charging system operation, diagnosis of wire repair procedures and service. Three lecture, four lab hours per week.
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(s): AUT 124

## 142 Manual Transmissions \& Drive Line $R \quad$ 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

$$
0.1-5 \mathrm{Cr} . \mathrm{Hrs} .
$$

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 <br> 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 manualsand records, customer relations, safety, communications, supervision and delegation of work. Automotive service facility and operation consideration. Basic hand tools required. Five lecture, 15 lab hours per week.
Prerequisite(s): Approval of chairperson

## 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, eight lab hours per week.
Prerequisite(s): AUT 108 or approval of instructor

## 222 High Performance Cylinder Heads at Valve Train <br> 7 Cr. Hrs.

Measurement and tolerance, disassembly and machining of cylinder heads. Head flow development and race preparation. Valve train theory and designforhigh performance use. Complete cylinder head blueprinting. Three lecture, eight lab hours per week.
Prerequisite(s): AUT 108 or approval of instructor

## 223 High Performance Engine Assembly at Dynamometer Testing

7 Cr. Hrs.
Precision engine assembly using blueprinting techniques. Set-up and testing on superflow engine dyno for performance and durability. Familiarization with dyno procedures and software. Three lecture, eight lab hours per week.
Prerequisite(s): AUT 108 or approval of instructor

## 224 High Performance Induction Systems <br> 7 Cr. Hrs.

Performance rebuilding and tuning of carburetors. Operation and performance applications of electronic fuel injection, nitrous oxide injection, ignition systems, intake manifolds, and super chargers. Evaluation, testing and tuning using a flow bench, engine dynamometer and or chassis dynamometer. Three lecture, eight lab hours per week.
Prerequisite(s): AUT 115 or approval of chairperson

## 226 Introduction to High Performance Fabrication <br> 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 <br> 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(s): AUT 115

## 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(s): 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.Prerequisite(s): 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 differentindicating 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)(113); e.g., airplane systems, aerodynamics, regulations, meteorology, navigation, communications and the flight environment.
Prerequisite(s): 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), VariableOmni 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.Knowledgeand skill developmentinusing 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 $\quad 2$ 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(s): AVT 135

## 118 Weight \& Balance <br> 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.
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 Flight 4 Cr. Hrs.

Provideshands-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.
Corequisite(s): 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(s): 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 <br> 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, flightmanagement 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 non-destructive 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.

## 146 Introduction to Airline Operations 4 Cr. Hrs.

Introduction to the basic structure of an airline, including the functions of the operational control center, airline marketing, maintenance control, fleet planning and scheduling, dispatch flight release, airline operating certificates and specifications, weight and balance forms, passenger seating arrangements and load manifests. Overview of the Federal Aviation Regulations and the Federal Aviation Administration (FAA), including the structure, background, and operation of the current FAA regulations.
147 Pre-Solo Flight Lab 3 Cr. Hrs. Introduction to the basic flight fundamentals and operation of a single engine aircraft up to solo flight, providing the student with hands-on flight training, including pre-flight procedures, flying skills, and post-flight evaluation. Two lecture, seven practicum hours per week.

## 148 Airline Crew Emergency Management <br> 3 Cr. Hrs.

Federal Aviation Regulations Part 121.417 Emergency Training and Emergency Situations, including use of certain items of emergency equipment, such as fire extinguishers, life vests, oxygen bottles, and first aid equipment. Focuses on flight crew member duties and responsibilities, crew coordination, aircraft fires, first aid equipment, basic first aid, ground evacuation, ditching, aircraft decompression, crew member incapacitation and basic survival tactics.

## 149 Special Material Handling 1 Cr. Hr.

Duties and responsibilities for the handling and carriage of dangerous articles and materials in air carrier operations. Hazardous materials table, shipping papers, packaging, marking and labeling, placarding, air carrier requirements regarding loading, storage and handling characteristics as required by Title 49 Code of Federal Regulations (CFR).

## 150 Crew Resource Management

2 Cr. Hrs.
Awareness of human factors issues as they affect normal and abnormal flight operations, with emphasis on teamwork training, behavior identification, communications processes and decision behaviors, conflict resolution, skills inventory, workload management and situational awareness.

151 Crew Survival \& Rescue Techniques 2 Cr. Hrs.
Overview of the psychology of survival, post-crash survival techniques, prioritization and necessities, survival physiology in the emergency environment, clothing protection and improvised shelter, signaling, air and ground search and rescue, survival kits and emergency equipment and survival skills. Includes winter, desert, jungle, water, hostile territories and extended in-plane hostage survival.
152 Flight Attendant Security 4 Cr. Hrs. International and domestic airline techniques for ensuring aircraft security and anti-hijacking. Topics include common strategies, hostage situations and victimology, hostile aircraft takeovers, weapons and explosive devices, security requirements, aircraft ground security, flight crew member role, preventative security, explosive devices, Security Identification Display Area (SIDA), air marshal interactions, the Transportation Security Administration (TSA) and the Department of Homeland Security.

## 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.

## 161 Beechcraft 1900 Aircraft Performance

2 Cr. Hrs.
Beechcraft 1900 basic aircraft operating performance data, weight and balance, center of gravity computations, weight shifts, takeoff, enroute and landing performance, terrain clearance / driftdown performance, operational applications of Notices to Airmen (NOTAMs), communications, regulatory requirements and abnormal aircraft operating procedures.

## 162 DC-9 Aircraft Performance

## 2 Cr . Hrs.

DC-9 basic aircraft operating performance data, weightand balance computations, center of gravity computations, weight shifts, takeoff, enroute and landing performance, terrain clearance / driftdown performance, operational applications regarding Notices to Airmen (NOTAMs), communications, regulatory requirements and abnormal and emergency operating procedures.

163 Boeing 727 Aircraft Performance 2 Cr. Hrs.
Boeing 727 basic aircraft operating performance data, weight and balance, center of gravity computations, takeoff, enroute and landing performance, terrain clearance / driftdown performance, operational applications regarding Notices to Airmen (NOTAMs), communications, regulatory requirements and abnormal aircraft emergency operating procedures.

## 164 Boeing 737 Aircraft Performance

 2 Cr . Hrs.Boeing 737 basic aircraft performance data, weight and balance, aircraft limitations, takeoff, enroute and landing performance, terrain clearance/driftdown performance, flight planning, operational applications regarding Notices to Airmen (NOTAMs), communications, regulatory requirements and abnormal aircraft emergency operating procedures.

## 165 Flight Physiology <br> 1 Cr . Hr.

In-depth aeromedical information on the causes, symptoms, prevention and treatment of flight environment disorders. Fatigue, circadian rhythm, diet, hypoxia, carbon monoxide poisoning, hyperventilation, altitude effects, spatial disorientation, visual illusions and psychological factors are included as they relate to pilot performance and survival effectiveness.

## 166 Practical Dispatch Applications

3 Cr. Hrs.
In-depth coverage of joint Aircraft Dispatcher/Pilotresponsibilities and dispatch functions including communications, operational control, fuel planning, abnormal and emergency situations, weather, NOTAMs (Notices to Airmen), and airport facilities as they relate to flight planning. Prerequisite(s): Approval of chairperson. Students must have taken the FAA Aircraft Dispatcher Knowledge Test and received a passing score of at least $70 \%$ prior to enrolling in this course.

## 167 IFR Navigation \& Planning

## 3 Cr. Hrs.

Provides students with an in-depth understanding of the study of the earth, time reference and location, chart reading, National Airspace Plan, navigation systems, airbornenavigationinstruments, instrument approach procedures, aeronautical publications including NOTAMS, and special navigation operations including North Atlantic, Pacific and global differences.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 168 Aircraft Dispatcher Oral Preparation

2 Cr. Hrs.
Preparation for the Federal Aviation Administration (FAA) Aircraft Dispatcher certificate through an in-depth understanding of regulations, meteorology, navigation, aircraft systems, communications, air traffic control, emergency and abnormal procedures and practical dispatch applications. At the completion of the course, students will be prepared for the Federal Aviation Administration Aircraft Dispatcher oral examination.
Prerequisite(s): Approval of department. Students must have taken the FAA Aircraft Dispatcher knowledge test and received a passing score of at least 70\% prior to enrolling in this course.

## 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(s): 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 liftcoefficient, drag, stall, icing, turbulence, flaps, spoilers, center of lift, chord, span, and aspect ratios. Two lecture, two lab hours per week.
Prerequisite(s): 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(s): AVT 111

## 213 Corrosion Control <br> 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 labhours per week.

## 217 Hydraulics \& Pneumatics Systems

3 Cr. Hrs.
Aviation maintenance hydraulic systems operation, trouble shooting, fluid identification and safety precautions, seals, filters, and valves. Pneumatics systems operation, high pressure compressed air use and safety; valves, lines, electrical servos, identification marks for seals, lines, and fittings. One lecture, four hours lab per week.
218 Landing Gear
4 Cr. Hrs.
Inspection, system checkout, removal, overhaul of the landing gear and retraction systems, oleo shock struts, steering systems, wheels, brakes, tires and tubes. Two lecture, four hours lab per week.

## 219 Turbine Engines

4 Cr. Hrs.
Physics of gas turbine engines, air and non-air breathing engine types, production of thrust, engine sections, types of accessories, engine operations, maintenance requirements, inspections, repair of electrical connections, troubleshooting electrical and pneumatic systems, and testing and trimming of engines. Three lecture, two lab hours per week.

## 220 Instrument Flight <br> 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 Instrument rating by use of flight simulators.

## 222 Engine Ignition \& Starting II <br> 4 Cr. Hrs.

Pneumaticstarters 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(s): AVT 122
224 Instrument Pilot Flight 4 Cr. Hrs. 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(s): 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.

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.
Prerequisite(s): 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.
Prerequisite(s): 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(s): 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.

## 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.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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(s): AVT 206

## 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 P.C.ATD Lab

2 Cr. Hrs.
Provides pilots with access to Sinclair's Personal Computer Aviation Training Device (P.C.ATD) flight simulator lab. Course emphasizes maintaining flightproficiency 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.
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(s): 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.

## 257 Flight Laboratory <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

 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.Prerequisite(s): 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.

## 263 Commercial Pilot Flight 4 Cr . Hrs.

 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 Flight 4 Cr. Hrs. 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.

## 269 Flight Instructor Flight Course <br> 4 Cr . Hrs.

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.
Prerequisite(s): Department chairperson's signature

## 275 Instrument Instructor Ground School <br> 2 Cr. Hrs.

Ground training in instructional methods for Certified FlightInstructors (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.

## 277 Instrument Flight Instructor Flight

 4 Cr. Hrs.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 <br> 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 multiengine flight.

## 286 Multi-Engine Instructor Flight

## 4 Cr. Hrs.

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 multiengine flight.

## 297 Special Topics in Aviation 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.Prerequisite(s): Permission of department chairperson

## 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.

## 107 Human Biology

5 Cr. Hrs.
Survey of structure and function of the human body. Four lecture, two lab hours (BIO 108) per week.
Prerequisite(s): DEV 065 and DEV 075 and DEV 085 or equivalent

## 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.
Prerequisite(s): DEV 065
112 General Biology II $\quad 4$ Cr. Hrs.
Transmission and molecular genetics, gene regulation, microevolution, speciation. Three lecture, two lab hours (BIO 118) per week.
Prerequisite(s): BIO 111

## 113 General Biology III <br> 4 Cr. Hrs.

Population genetics, evolution, biological diversity, and ecology. Three lecture and two lab hours (BIO 119) per week.
Prerequisite(s): 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.

## 121 Human Anatomy \& Physiology I

5 Cr. Hrs.
Structure and function of cells, tissues, the Integument, Skeletal, Muscular, and Nervous systems. Emphasis on structural relationships. Four lecture, two lab hours (BIO 127) per week.
Prerequisite(s): DEV 065 and DEV 075 and DEV 085

## 122 Human Anatomy \& Physiology II

 5 Cr . Hrs.Continuation of BIO 121. Structure and function of the cardiovascular, lymphatic, immune, respiratory, digestive, urinary system, and reproductive systems. Four lecture, two lab hours (BIO 128) per week.
Prerequisite(s): BIO 121 or BIO 131 or BIO 161

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(s): BIO 107
127 Lab for BIO 121
Laboratory must be taken with BIO 121.
128 Lab for BIO 122
Laboratory must be taken with BIO 122.

## 141 Principles of Anatomy \&

 Physiology I4 Cr. Hrs.
Structure and function of the human body with an emphasis on introductory terminology, biochemistry, cytology, digestion, metabolism, nutrition, arthrology, skeletal and integumentary systems. Three lecture, two lab hours (BIO 147) per week.
Prerequisite(s): DEV 065, DEV 075, DEV 085 or equivalent and CHE 117 or CHE 120 or equivalent

## 142 Principles of Anatomy \& Physiology II

4 Cr. Hrs.
Continuation of BIO 141/147, Principles of Anatomy \& Physiology I, with an emphasis on the human muscular, nervous, endocrine and reproductive systems. Three lecture, two lab hours (BIO 148) per week.
Prerequisite(s): BIO 141 or BIO 121

## 143 Principles of Anatomy \&

 Physiology III 4 Cr. Hrs.Continuation of BIO 142/148, Principles of Anatomy \& 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(s): 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.
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.
Prerequisite(s): DEV 065 and DEV 075, MAT 101 or equivalent

172 Principles of Biology II 5 Cr. Hrs.
The second course in a university parallel sequence for biology and science majors. Topics include DNA structure and replication, protein synthesis, microbial genetics, eukaryotic gene regulation, DNA technology, developmental genetics, Darwinian evolution, population genetics (microevolution), speciation (macroevolution), phylogeny and systematics. Four lecture, three lab hours (BIO 178) per week.
Prerequisite(s): BIO 171
173 Principles of Biology III 5 Cr. Hrs.
A continuation of BIO 172. Topics covered include Origin of Life, prokaryotes, protists, plant diversity and evolution, fungi, invertebrates, vertebrate evolution, human evolution, animal reproduction, behavioral ecology, conservation biology. Four lecture, three lab hours (BIO 179) per week.
Prerequisite: BIO 172 or equivalent
177 Lab for BIO 171
Laboratory must be taken with BIO 171.
178 Lab for BIO 172
Laboratory must be taken with BIO 172.

## 179 Lab for BIO 173

Laboratory must be taken with BIO 173.
205 Microbiology
4 Cr. Hrs.
Morphology and physiology of microorganisms and selected human parasites, mechanisms of disease production, host responses, spread of infectious diseases. Three lecture, three lab hours (BIO 206) per week.
Prerequisite(s): BIO 107 or BIO 111 or BIO 115 or BIO 121 or BIO 141 or BIO 161 or BIO 211 or CHE 117 or CHE 122
206 Lab for BIO 205
Laboratory must be taken with BIO 205.

## 211 Human Physiology 5 Cr. Hrs.

Essentials of human physiology for nursing students in the LPN Fast Track Program who have had an anatomy and physiology course in LPN school; therefore, this course substitutes for the departmental anatomy and physiology sequence (BIO 141, 142, and 143). Other students who have completed one of the course prerequisites may take this course to gain a background in the functioning of the human body at a more advanced level. Four lecture, three lab hours (BIO 212) per week.
Prerequisite(s): 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.

## 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.

## 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.

Prerequisite(s): BIO 113 or BIO 173 or BIO 143 and MAT 116

## 236 Lab for BIO 235

Laboratory must be taken with BIO 235.
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.

## Prerequisite(s): CHE 245 and PHY 245

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

## 297 Special Topics in Biology R <br> 1-6 Cr. Hrs.

Provides opportunity to receive credit for non-traditional courses, workshops, and special interest topics in Biology.

# Business Information Systems (BIS) 

101 Personal Computer Keyboarding 2 Cr. Hrs.

Development of "touch" keyboarding using word processing software on a personal computer; development of competency on the ten-key pad; minimum of 20 wpm expected. Out-of-class lab work required.
102 Document Formatting 2 Cr. Hrs. Introduction to word processing software and continued development of personal computer skills; format and produce reports, letters, memos, multiple-column tables, and other business documents; minimum speed of 35 wpm expected. Completion of BIS 101 or OIS 101 or 118, and completion of or concurrently taking BIS M61 and BIS M62 or OIS M61 and OIS M62. Out-of-class lab work required.
Prerequisite(s): BIS 101 or OIS 101 or OIS 118 and BIS M61 or OIS M61 or BIS 160 or OIS 160

## 103 Advanced Document Formatting/ Skillbuilding <br> 4 Cr . Hrs.

Use of personal computer word processing software to produce correctly formatted letters and memos, complicated tables, reports, and other business documents; minimum of 50 WPM expected. Out-ofclass lab work required.
Prerequisite(s): 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 <br> 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.
Prerequisite(s): 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.
Prerequisite(s): BIS 103 or OIS 103 and ENG 132 or ENG 112. BIS M11 must be taken as a corequisite

## 136 Introduction to Medical

 Terminology4 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.

Correctspelling, pronunciation, definition, use of words, clinical procedures and pathologies relating to the female and male reproductive, nervous, cardiovascular, respiratory, blood and lymphatic systems Prerequisite(s): BIS 136 or OIS 136

## 138 Advanced Medical Terminology 4 Cr. Hrs.

Correct spelling, pronunciation, definition, use of words, clinical procedures and pathologies relating to the musculoskeletal system, the skin, sense organs, endocrine system, cancer medicine, radiology and pharmacology.
Prerequisite(s): BIS 136 or OIS 136

## 143 Introduction to Transcription \& Legal Terms <br> 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 <br> 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, Excel and Microsoft Windows. Keyboarding skills necessary. Out-of class work required.

## 161 Intermediate Word, PowerPoint, \& Excel <br> 3 Cr . Hrs.

Course is a combination of three modules: BISM62 (Word), BISM52 (PowerPoint), and BIS M42 (Excel). Intermediate concepts and applications ofMicrosoftWord,PowerPoint, and Excel. Assumes experience with Microsoft Word, PowerPoint, Excel and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite(s): BIS 160 or OIS 160

## 162 Advanced Word, PowerPoint, \& Excel <br> 3 Cr. Hrs.

Course is a combination of three modules: BISM63 (Word), BISM53 (PowerPoint), and BIS M43 (Excel). Advanced concepts and applications ofMicrosoftWord,PowerPoint, and Excel. Assumes experience with Microsoft Word, PowerPoint, Excel and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite(s): 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 with how the individual applications in Microsoft can work individually and together to solve business problems. Assumes experience with basic MS Office packages, computers, and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
Prerequisite(s): BIS 161 and BIS M32 or BIS M32 and BIS M42 and BIS M52 and BIS M62

## 201 Customer Service <br> 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 <br> 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(s): BIS 201
207 Telecommunications $\quad 2$ Cr. Hrs.
Telecommunications technologies: voice mail, management of telecommunications equipment, appropriate use of services, automated dictation systems, fax machines, cell phones, digital phones, pagers, multifunction devices, and software for teleconferencing purposes.

## 215 Office Applications Practicum/ Seminar <br> 4 Cr . Hrs.

This course will simulated a work environment where students are expected to practice professional work behavior and ethics, and to employ critical thinking skills to solved simulated business problems and accomplish work related tasks.
Prerequisite(s): BIS 161 or BIS M62 and BIS M42, BIS M52 and BIS M32 or BIS M85 and BIS M45, BIS M55 and 80 credit hours

## 220 Computer Applications for the Medical Office <br> 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-ofclass lab work required.
Prerequisite(s): 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.
Prerequisite(s): BIS 103 or OIS 103 and BIS 137 or BIS 138 or OIS 137 or OIS 138 and ENG 199
252 Medical Transcription II 4 Cr. Hrs. Continuing emphasis on precision of transcription and personal computer word processing skills in preparation of complex medical reports. Second of a two-course sequence.
Prerequisite(s): BIS 251 or OIS 251

## 270 Business Information Systems Internship R <br> 1-9 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite(s): 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.
M25 Desktop Publishing 2 Cr. Hrs. Desktop publishing for office applications using Microsoft Publisher software for creation of proposals, flyers, newsletters, and web pages using styles and other special features; keyboarding skills necessary; out-of-class lab work required.

## M35 Microsoft Access <br> 2 Cr. Hrs.

Introductory and intermediate database features of Microsoft Access. Skills and activities used to create databases and tables, enter and update data, display and printrecords, createforms and queries, and create reports, including subforms, updating forms and report designs. Assumes experience with computers and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

## M36 Advanced/Expert Access 3 Cr. Hrs.

Advanced and expert level features of Microsoft Access: managing and analyzing database objects, creating, running, and troubleshooting macros; creating modules using Visual Basic; managing databases through backup procedures, synchronization, and security techniques including user level permissions, password protection and data encryption. Also includes exporting Microsoft Access objects to other programs, defining relationships and join properties, creating action queries, advanced reports, and basic data access pages.
Prerequisite(s): BIS M35 or BIS M32

## M45 Microsoft Excel

2 Cr. Hrs.
Spreadsheet applications emphasizing planning, creating, printing, and saving workbooks, entering data into worksheets, using formulas and functions, enhancing spreadsheets using formatting and style features, and creating and enhancing charts. Assumes experience with Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.
M46 Advanced/Expert Excel 2 Cr. Hrs. Advanced and expert level Excel skills, including analyzing list data, generating reports and charts with enhancements, mapping data, What-if Analysis, and pivot tables, as well as incorporating worksheets in other applications and linking worksheets to the Internet.
Prerequisite(s): BIS M45 or BIS 161 or BIS M42
M55 Microsoft PowerPoint 2 Cr. Hrs. Features, commands, and capabilities of MicrosoftPowerPoint for creatingbusiness presentations for delivery via electronic slide shows, paper based printouts, 35 mm slides, and the Internet. Presentation creation and enhancement using formatting features, animation, movies and sounds, and various delivery methods. Assumes experience with computer and Microsoft Windows. Keyboarding skills necessary. Out-of-class lab work required.

## M75 The Internet <br> 2 Cr. Hrs.

Navigation through the Internet and the World Wide Web with intermediate and advanced applications, including information retrieval, file transfer, file modification, online service utilization, e-mail attachments, basic web page building, electronic commerce, and Internet security issues. Internet terminology, concepts, and applications. Assumes experience with computers and Microsoft windows. Keyboarding skills necessary. Out-of-class lab work required.

## M81 Intermediate Microsoft Project

 $1 \mathrm{Cr} . \mathrm{Hr}$. 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 <br> 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(s): BIS M81

## M85 Microsoft Word

2 Cr. Hrs.
Fundamental and intermediate concepts and applications of Microsoft Word for professional and/or personal use. 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.

## M86 Advanced/Expert Word 2 Cr. Hrs.

 Advanced and expert concepts and applications of Microsoft Word for professional and/or personal use emphasizing creating and using forms; creating and working with master documents and subdocuments; tracking changes; working with comments; and creating an index, table of contents, and a table of figures.Prerequisite(s): BIS M62 or BIS 161 or BIS M85

## 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. Prerequisite(s): Restricted to majors

## 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 (cG.M.P). Prerequisite(s): MAT 106 or MAT 116 and concurrent course CHE 131 or CHE 120 or equivalent and restricted to majors

## 130 Biological Reagents Preparation

 4 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.
Prerequisite(s): BTN 120 and restricted to majors

## 131 Lab for BTN 130

Laboratory must be taken with BTN 130.

## 140 Cell Culture <br> 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.
Prerequisite(s): BIO 111 and BTN 130 and restricted to majors

## 141 Lab for BTN 140

Laboratory must be taken with BTN 140.

## 210 Protein Purification \& Analysis

6 Cr. Hrs.
Introductionto purificationmethods-bulk fractionation, size-exclusion, ion-exchange and affinity chromatography; equipment, buffers, assays used; principles of protein quantification and analysis; precautions taken to avoid proteolysis, loss of activity; purification strategy, calculation of yield, enrichment, purity. Three lecture, six lab hours (BTN 211) per week.
Prerequisite(s): BIO 112 and CHE 122 and BTN 130, restricted to majors

## 211 Lab for BTN 210

## Laboratory must be taken with BTN 210.

## 220 Microbiology \& Fermentation Methods <br> 4 Cr. Hrs.

Introduction to microbiology, metabolism and genetics of microorganisms, food and water microbiology, use of microbes in biotechnology, principles of fermentation, batch vs. continuous cultures, use of bioreactors for large-scale propagation. Two lecture, four lab hours (BTN 221) per week.
Prerequisite(s): BIO 112 and CHE 122 and BTN 130, restricted to majors

## 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, Southernand Northern hybridization, DNA amplification and sequencing. Three lecture, six lab hours (BTN 231) per week.
Prerequisite(s): BIO 112 and CHE 122 and BTN 130, restricted to majors

## 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 differenttypes of chromatography, and sample preparation; includes establishing parameters for chromatographic separations.
Prerequisite(s): BTN 210, restricted to majors

## 240 Bioinformatics <br> 3 Cr. Hrs.

Introduction to public domain DNA sequence databases, use of software and internet resources for database searching, use of database information in sequence comparisons, sequence alignment, structure prediction, gene prediction, and genome analysis. Two lecture, two lab hours (BTN 241) per week.
Prerequisite(s): 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.
Prerequisite(s): Approval of department
295 Biotechnology Seminar 2 Cr. Hrs.
Review of current issues in biotechnology through student literature research and presentation.
Prerequisite(s): Must be second year student and restricted to majors
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(s): Instructor's signature

# Business Technology (BU) 

101 Student Success Experience
2 Cr . Hrs.
Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## Business (BUS)

270 Business Internship R
1-6 Cr. Hrs.
Application of classroom skills and competencies to career related worksite activities related to academic program. Development of learning objectives linking classroom learning with responsibilities at the job site, preparation of a final report and/or project as agreed upon with internship instructor, and evaluation onsite by worksite supervisor. Academic credit is earned for the learning that occurs as a result of working, not for actual work done on the job. Students already working in their career field may apply to use a current job to meet internship requirements; learning objectives must reflect new and/or expanded responsibilities or special projects at the worksite during the current academic quarter.
Prerequisite(s): Approval of coordinator or approval of chairperson

## 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.

## Civil Architectural Technology (CAT)

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

3 Cr . Hrs.
Develop proficiency in manual drafting of architectural residential elevations, sections, section details, along with stair, door and window details. Two lecture, two lab hours per week.
Prerequisite(s): CAT 101 or ARC 101

## 105 Residential Construction Methods \& Materials <br> 4 Cr. Hrs.

Construction materials and methods of construction for residential buildings. Emphasis on processes and techniques. Understanding of blueprint reading of the architectural drawings. Two lecture, four lab hours per week.

## 106 Commercial Construction Methods \& Materials 3 Cr. Hrs.

Materials and methods of construction for commercial buildings. Foundation systems, structural frames interior and exterior walls and roof finishes. Two lecture, two lab hours per week.

## 110 Introduction to Civil \&

Architectural Technology 3 Cr. Hrs.
Anintroduction to career fields of Architectural and Civil Engineering Technology.

## 121 Civil Construction Blueprints \& Drafting <br> 2 Cr . Hrs.

Understanding civil and construction blueprints by sketching and drafting. One lecture, two lab hours per week.
Prerequisite(s): MAT 101 or equivalent math score

## 123 Basic Construction Surveying

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4 \mathrm{Cr} \text {. 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.
Prerequisite(s): CAT 121 or CCT 103

## 131 Properties of Construction

 Materials3 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. Prerequisite(s): DEV 108

## 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. Two lecture, two lab hours per week.

## 139 Mechanical Systems Blueprint Reading <br> 2 Cr . Hrs.

Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC, and fire protection systems. One lecture, two lab hours per week.

## 151 Portland Cement Concrete

Introduction to the craft of working with concrete with strong emphasis on handson learning exercises. Two lecture, six lab hours per week.

## 153 Introduction to Structural Framing 4 Cr. Hrs.

An orientation to construction trades with emphasis on floor and wall framing in the carpentry trade. Two lecture, six lab hours per week.

## 154 Structural Framing Systems II

$$
4 \mathrm{Cr} \text {. Hrs. }
$$

Advanced technical training in wood and light gauge steel framing systems. Two lecture, six lab hours per week.
Prerequisite(s): CAT 153 or CCT 152

## 155 Structural Framing Systems III

5 Cr. Hrs.
Further study of wood frame construction with emphasis on exterior wall finishing and roof construction.
Prerequisite(s): CAT 154
156 Commercial Interiors 4 Cr. Hrs.
An orientation to interior and exterior finishes on frame construction. Two lecture, six lab hours per week.

## 157 Residential Electrical Systems

4 Cr. Hrs.
Basic safety procedures, use of power and hand tools, electrical circuit theory and basics of residential wiring observing the National Electric Code.

## 159 Excavation Equipment \& Operations

4 Cr. Hrs.
An introduction to the operation and management of motorized construction and excavation equipment. Two lecture, six lab hours per week.
Prerequisite(s): SRM 154

## 181 Construction Techniques I R

4 Cr. Hrs.
Basic safety, hand and power tools, wood building materials and fasteners, and framing systems.
Prerequisite(s): Approval of chairperson

## 182 Construction Techniques II R

 4 Cr. Hrs.Construction of concretestructures including forming, placing and finishing.
Prerequisite(s): Approval of chairperson

## 183 Construction Techniques III R

$$
4 \text { Cr. Hrs. }
$$

Exterior and interior finishing of frame structures including roofing materials, siding, drywall, stairs, doors and trim.
Prerequisite(s): Approval of chairperson
184 Construction Techniques IV R 4 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. Two lecture, six lab hours per week. Prerequisite(s): Approval of chairperson

199 Architectural 2-D Drafting 3 Cr. Hrs. Study and application of advanced drawing using computer graphic systems. Major emphasis on 2-D commands and page layout. Two lecture, two lab hours per week.
Prerequisite(s): ETD 199 and CAT 101 or equivalent

## 207 Architectural Building Codes

## 3 Cr. Hrs.

Building permit process and definition of buildings as described in the Ohio Building Code. Emphasis on use groups, construction classification, exit requirements and fire resistance revquirements. Develop graphics of proper code assemblies of wall/roof/floor materials. Identify and apply minimum materials standards to construction standardsand develop installation details. Two lecture, two lab hours per week.
Prerequisite(s): CAT 106 or ARC 105
216 Construction Estimating 4 Cr . Hrs. Construction estimating, beginning with an understanding of the costs of labor equipment and materials as well as profit and overhead. Quantity measurements of basic construction materials will be used to develop bidding packages. Two lecture, four lab hours per week.
Prerequisite(s): ETD 198 and CAT 102 or CAT 138 or equivalent

## 218 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, resource planning and cost control. Two lecture, two lab hours per week.
Prerequisite(s): MAT 132 and CAT 216 or CCT 216 or ETD 102

## 221 Highway Surveying \& Design 4 Cr . Hrs.

Design and surveying concepts for highways using state-of-the-art equipment and software. The course combines field surveying projects with classroom projects to develop an understanding of highway geometrics. Two lecture, four lab hours per week.
Prerequisite(s): CAT 123 and CAT 199 or CCT 102 and ARC 199
223 Subdivision Design 4 Cr. Hrs.
Complete subdivision design process. Research of court house records, subdivision regulations and plat drawings. Grading and storm water control. Two lecture, four lab hours per week.
Prerequisite(s): CAT 221 or CCT 247

## 227 Introduction to GIS \& GPS

3 Cr . Hrs.
An introduction to Geographic Information Systems (GIS) used in the land and utility record keeping systems using Global Positioning Systems (GPS) to gather data. Two lecture, two lab hours per week.
Prerequisite(s): CAT 223 or CCT 203

## 229 Advanced Construction Surveying <br> 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.
Prerequisite(s): MAT 132 and CAT 123 or CCT 102
235 Legal Principles for Surveyors
4 Cr . Hrs.
The first of two courses on the legal principles of surveying. Field investigation and case studies are used to understand the elements that govern establishment of real property boundaries.

## 240 Residential Design with CAD

 4 Cr. Hrs.First of a two-course sequence using computers for architectural drafting and design incorporating architectural file structure, manipulation of architectural symbols, menu commands, and text conventions to generate architectural plans. Two lecture, four lab hours per week.
Prerequisite(s): CAT 102 and CAT 199, or ARC 102 and ARC 199

## 241 Commercial Design with CAD

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(s): CAT 207 and CAT 240 or ARC 107 and ARC 240

## 245 Soil Mechanics

4 Cr. Hrs.
Theories of soil mechanics including soil classifications, sampling and testing methods, stress distribution, shearing resistance and strength of soils. Two lecture, four lab hours per week.
Prerequisite(s): CAT 131 and ETD 198 and ETD 213; or CCT 105 and MET 198 and MET 203

## 252 Construction Law \& Specifications

4 Cr. Hrs.
Examination of legal principles in the area of contracts, specifications, and personnel issues connected to construction. Three lecture, two lab hours per week.
Prerequisite(s): CAT 105 and CAT 106; or CCT 105 ARC 105

## 256 Construction Management

3 Cr. Hrs.
Inter-relationships and operations of a construction firm with a simulation of the management process by student teams demonstrating management skills required to succeed in business today. Finance, accounting, marketing and sales will be examined. Two lecture, two lab hours per week.
Prerequisite(s): CAT 218 or CCT 258

## 260 Architectural Energy Analysis

3 Cr . Hrs.
Critical examination of energy consumption in building, both residential and commercial, for the purpose of identifying energy conservation opportunities. Two lecture, two lab hours per week.
Prerequisite(s): CAT 199 and PHY 131 or ARC 199 and PHY 131

## 266 Reinforced Concrete Design 4 Cr. Hrs.

Theories of structural analysis with emphasis on the design of reinforced concrete. Hands-on design problems will enable students to demonstrate concepts. Two lecture, four lab hours per week.
Prerequisite(s): ETD 222 or MET 207

## 270 Civil Architectural Internship

1-12 Cr. Hrs.
Earn credits toward degree requirements for work learning experience. Students establish learning outcomes and prepare related reports and/or projects.

## 278 Civil Architectural Capstone

 4 Cr. Hrs.Assessment of achievement by Civil Architectural Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Teamwork on projects will be emphasized. One lecture, six lab hours per week.
Prerequisite(s): MAT 132 and CAT 256 or CAT 223 or CAT 241 or ARC 241 or CCT 203

## 297 Civil Architectural Special Topics

1-6 Cr. Hrs.
Varied content offerings of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in a nontraditional format such as television, videotapes, etc.
Prerequisite(s): Permission of instructor

## Chemistry (CHE)

## 116 Introduction to Scientific Glassblowing R <br> 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, nonscience and elementary education majors. Atomic theory, periodic law, chemical bonding, nomenclature, basic chemical calculations, states of matter, solutions, acids and bases, and nuclear chemistry. Three lecture, two lab hours (CHE 126) per week.
Prerequisite(s): 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(s): 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(s): 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.
Prerequisite(s): MAT 102 or MAT 103

## 134 Environmental Analytical

 Chemistry4 Cr. Hrs.
Field data acquisition techniques; separation techniques, volumetric techniques, gravimetric techniques, gas and high pressure chromatrographic techniques, atomic absorption techniques of analysis; and statistical methods using EPA protocols. Two lecture, six lab hours per week.
Prerequisite(s): 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 hours (CHE 147) per week.
Prerequisite(s): 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 hours (CHE 148) per week.
Prerequisite(s): 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 hours (CHE 149) per week.
Prerequisite(s): 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, periodiclaw, chemical bonding, nomenclature, stoichiometry, and elementary organic chemistry. Four lecture, three lab hours (CHE 157) per week.
Prerequisite(s): 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 hours (CHE 158) per week.
Prerequisite(s): CHE 151 and MAT 116 or MAT 132

## 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 I.R. and atomic absorption spectroscopy are studied in the laboratory. Three lecture, six lab hours (CHE 159) per week.Prerequisite(s): 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(s): 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(s): 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(s): 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.
Prerequisite(s): 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(s): CHE 211

## 217 Lab for CHE 211

Laboratory must be taken with CHE 211.

218 Lab for CHE 212
Laboratory must be taken with CHE 212.
245 Concepts in Chemistry 5 Cr. Hrs.
Basic concepts and applications including matter, physical states and changes, periodicity, compounds and bonding, chemical changes, solutions and electrolytes, acids and bases, oxidation and reduction, and organic chemistry. Applications use an inquiry learning environment which emphasizes science process skills integrated with mathematics. Early childhood education majors only. Does not satisfy chemistry requirement for middle childhood education majors. Four lecture, three lab hours per week.
Prerequisite(s): ASE 145 and MAT 142 or MAT 110 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 creditupon submission of a portfolio to an evaluation committee. Younger students with limited experience will participate in selected nonclassroom experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and/or projects are submitted each quarter.

## 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 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(s): CHN 100

## 297 Special Topics in Chinese R

 1-6 Cr. Hrs.Provides opportunities to receive credit for non-traditional courses as well as special interest topics in the discipline.

## Computer Information Systems (CIS)

## 100 CIS Student Orientation for

## Success

2 Cr. Hrs.
An introduction to the Computer Information Systems (CIS) department and the career field of Information Technology (I.T.), and a thoughtful examination of legitimate use of information found on the Internet, including practical application of ethical questions and issues regarding computer and Internet use. Emphasis on the development of practical knowledge, skills and information needed to assist learners in the attainment of I.T. career goals and developing responsible actions for using computers and the Internet.

## 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(s): BIS 105

## 107 Introduction to Operating Systems 3 Cr. Hrs.

Introduction to the current Windows desktop operating system Administrative Tools and various Control Panel applets used to manage Windows. Beginning and intermediate operating system commands as executed from a command prompt on a Windows system. An assessment of basic computer concepts, keyboarding, and mouse skills will be done upon entering the course. Students should possess keyboarding, mouse skills, and complete all Developmental Studies courses (DEV) prior to enrolling in this course. Recommend BIS 105 (or equivalent). Intended for CIS majors.

## 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(s): 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, fundamentals of data concepts, structured design involving sequence, selection and repetition structures using both flowcharts and pseudocode, and application of the program development process: design, code, and test. Recommended prerequisite: BIS 105 or equivalent.Prerequisite(s): MAT 101 or MAT 116 or MAT 121 or MAT 102
112 Object Oriented Concepts 3 Cr. Hrs. Introduction to software development using object oriented analysis and design (OOA\&D). 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 OOA\&D tools and models including UnifiedModeling Language (UML) will be introduced. Students will apply OO skills to some introductory programming solutions using Visual Basic. MS Visio will be used to create OOD documentation under UML standards.
Prerequisite(s): 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(s): 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(s): 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 web standards will be used, such as XHTML and CSS. Students will create and publish several web sites and present those sites for critique of the class.
Prerequisite(s): CIS 130 and CIS 136

## 134 Macromedia Flash <br> 3 Cr. Hrs.

Development of interactive, animated, digital creations appropriate for disk, C.D. or web delivery. The primary authoring tool is Macromedia's Flash with other authoring tools being reviewed. The course is best described as a community of learners who develop collaborative project skills as they develop Flash expertise.
Prerequisite(s): 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.
Prerequisite(s): OIS M71 or BIS M71 or CIS M71 or BIS M75

## 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.
Prerequisite(s): CIS 136 and CIS 111 or equivalent

## 138 Advanced Macromedia Flash <br> 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(s): CIS 134

## 143 Cold Fusion Markup Language <br> 3 Cr. Hrs.

Introduction to the Cold Fusion Markup Language (CFML) technology for use in the development of dynamic, databasedriven web sites. Students will be introduced to the CFML tags then develop Cold Fusion web applications that interact with users, query and update databases, generate dynamic content, create session and client variables, and interact with the web server.
Prerequisite(s): CIS 129 or CIS 136, CIS 111 and CIS 265

## 144 PERLCommon Gateway Interface

 3 Cr. Hrs.Introduction to the PERLscripting language used to develop Common Gateway Interface (CGI) programs that generate HTML. Students will be introduced to PERLlanguage constructs, learn to use the command line debugger, and code PERLapplications that use regular expressions, PERLmodules with CGI.pm and perldoc. The basics of CGI environment variables and form processing will be covered. Students will learn how to set up a web server to host CGI programs that deliver HTML content.
Prerequisite(s): CIS 129 or CIS 136 and CIS 137, CIS 111 and CIS 265

## 147 Visual Basic Programming I

## 4 Cr. Hrs.

Development and implementation of event driven, object oriented programs for graphical user interfaces within the Windows environment using the Visual Basic programminglanguage.Learningoutcomes include: using the Visual Basic.NET development environment, implementation of fundamental Visual Basic control objects and an introduction to ADO controls; use of selection and repetition programming structures, manipulating data obtained through user input, sequential files, and arrays; implementation of modular programming through use of sub and function procedures; string data manipulation through VB properties, methods and statements; how to set up and print formal business reports; an introduction to setting up classes of objects in the implementation of object oriented design; and an introduction to the development and implementation of user interfaces to a database.
Prerequisite(s): CIS 111, CIS 112

## 148 Advanced Visual Basic 4 Cr. Hrs.

Advanced programming in the Visual Basic.NET environment. Primary topic is developing Windows based user interfaces to relational databases. Other topics include the use of Visual Basic system classes along with creating user defined classes in applying object oriented design and programming techniques, web forms with ASP, and accessing databases with web forms.

## Prerequisite(s): CIS 147

## 162 Microsoft Office Troubleshooting \& Problem Solving 3 Cr. Hrs.

 Introduction to troubleshooting and problem solving techniques for Microsoft Office. Review of the major components of the complete Office package. Real-world cases help the students to develop critical thinking skills in evaluating needed computer support while focusing on avoiding or preventing software problems. The students work with integration of networks and web as used in the software.Prerequisite(s): BIS 160 or BIS M41 and 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(s): 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(s): CIS 164

## 200 Fundamentals of Programming a Firewall <br> 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): CIS 230 or CIS 241, CIS 108 or CIS 271, equivalent knowledge such as TCP/I.P. 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(s): CIS 206, working knowledge of TCP/I.P. 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(s): CIS 111
221 COBOLI
3 Cr. Hrs.
Syntax and grammar of the COBOL language; structured design and documentation. Programming assignments require lab time outside of class.
Prerequisite(s): CIS 111

## 222 COBOLII

3 Cr. Hrs.
Advanced COBOL programming; tablehandling and multiple file handling techniques; interactive program development and interaction with data bases. Programming assignments require lab time outside of class.
Prerequisite(s): 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.
Prerequisite(s): CIS 111, CIS 265 and CIS 129 or CIS 136 and CIS 137

## 224 Web Server Administration \& Security <br> 4 Cr. Hrs.

Introduction to the technical skills needed to install, configure and maintain a secure web server. Topics include web directories and permissions, user accounts and documents, client and server security, secure online transactions, and intrusion detection and recovery.
Prerequisite(s): 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.
Prerequisite(s): CIS 107
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.
Prerequisite(s): 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 OpenSystems Interconnection (OSI) and Systems Network Architecture (SNA).

## Prerequisite(s): CIS 107

## 231 Fundamentals of the Linux <br> Operating System $\quad 3$ Cr. Hrs.

Linux operating system installation, management, administrative and troubleshooting techniques for beginning and intermediate students. Both the command line interface, with commonly used instructions, and a graphical interface will be used to manage and administer the Linux system. This class will help prepare students for industry or vendor-specific certification exams.
Prerequisite(s): CIS 107

## 232 Intermediate Linux 3 Cr. Hrs.

Intermediate study of the Linux Operating System including writing and debugging shell procedures, pipes and interprocess communications, and command lists. Assignments require lab time outside of class.
Prerequisite(s): CIS 231, CIS 107
233 C++ Programming I 4 Cr. Hrs.
Introduction to the $\mathrm{C}++$ programming language, building on prior introduction to programming studies. Topics include $\mathrm{C}++$ syntax with its constructs, data types, logic and repetition structures, input/output methods, one-dimensional arrays, structures, and classes.
Prerequisite(s): 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 $\mathrm{C}++$, 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(s): CIS 233
236 C++ Programming III 4 Cr. Hrs. Advanced C++ programming: Basic data structures including recursions, lists, stacks, queues, trees, and to introduce analysis of simple algorithms. Enrolling students should already know the C++ programming language.
Prerequisite(s): CIS 234
237 Data Structures in Java 4 Cr. Hrs. The course covers data structures, methods of organizing large amounts of data; and algorithm analysis, the estimation of the running time of algorithms. The goal of this course is to teach students good programming and algorithm analysis skills so that they can develop efficient programs.
Prerequisite(s): CIS 281 and MAT 116

## 238 P.C. Installation Management <br> 3 Cr. Hrs.

Installing, configuring, maintaining and trouble shooting 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(s): 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(s): 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(s): 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(s): 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 I.P.X, and threaded case studies. Additional assignments will require lab time outside of class.
Prerequisite(s): 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(s): CIS 243
245 Remote Access for CCNP ${ }^{\circledR} 4$ Cr. Hrs.
Building, configuring and troubleshooting a remote access network to interconnect central sites to branch offices and home offices. Also includes learning how to control access to the central site, as well as to maximize bandwidth utilization over the remote links. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification
Prerequisite(s): CIS 244 or CCNA certification

## 246 Router Internetworking for CCNP ${ }^{\circledR}$ 4 Cr . Hrs.

Routing principles of both distance vector and link-state routing protocols; I.P. 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.
Prerequisite(s): CIS 244 or CCNA certification

## 247 Multi-layer Switching for CCNP ${ }^{\circledR}$

 4 Cr. Hrs.Building campus networks using multilayer switching technologies over high speed Ethernet. Includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. Includes handson lab exercises to practice configuration, apply troubleshooting knowledge, and acquire the skills necessary to configure these technologies in customer networks. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP) ® certification.
Prerequisite(s): CIS 244 or CCNA Certification

## 248 Network Support \& Troubleshooting for CCNP ${ }^{\circledR}$

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 Catalystsoftware tools to diagnose and correct problems. Part of the recommended learning path for students seeking the Cisco Certified Network Professional (CCNP)® certification.
Prerequisite(s): CIS 244 or CCNA certification
251 php Web Programming 3 Cr. Hrs. php web programming language and php web applications. Includes php program development by individuals and teams to modify and create larger php web applications as well as publishing and testing php programs and applications on a live web server.
Prerequisite(s): CIS 111 and CIS 137, recommended CIS 233 or CIS 280

## 253 Securing a Windows Network Environment 4 Cr. Hrs.

Provides students with the knowledgeand skills to successfully plan, implement, and troubleshoot security for a Microsoft Windows network using the current version of the Microsoft Server operating system. Includes 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.
Prerequisite(s): CIS 271, CIS 272 or equivalent knowledge

## 255 Securing a Unix/Linux Operating System <br> 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.
Prerequisite(s): 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. Preparesstudents for the indus-try-standard certification exam related to this product. Assignments require lab time outside of the classroom.
Prerequisite(s): CIS 272

## 259 Designing Security for Windows Networks <br> 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 I.P.Sec policies and virtual private networks (VPNs); securing wireless communication; and specific security requirements for various enterprise services, e.g., web, database and mail servers.
Prerequisite(s): CIS 272 and CIS 273 and CIS 274 and CIS 253

## 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. Prerequisite(s): CIS 272 and CIS 274

## 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.
Prerequisite(s): CIS 225 and CIS 238

## 265 Database Management Systems

3 Cr. Hrs.
Introduction to database systems. Discussion of data base environments, design, planning and implementation in a relational model environment. Students will design and develop a simple database and implement a portion of this application including forms, queries and reports. Emphasis on database design techniques, normalization and the SQL database language.
Prerequisite(s): CIS 111 or OIS M69 or BIS M35 or BIS M32 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.
Prerequisite(s): CIS 113 or CIS 111 and BIS M31

## 268 Introduction to Oracle: SQL \& PL/SQL <br> 3 Cr. Hrs.

Introduction to Oracle DBMS in a client/ serverenvironment. The course coversSQL 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/SQLblocks of application code that can be shared by multiple forms, reports and data management applications.
Prerequisite(s): 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.
Prerequisite(s): CIS 107 and CIS 111, approval of chairperson or approval of coordinator

## 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. Prerequisite(s): CIS 107 and CIS 230

## 272 Microsoft Windows Server Operating System <br> 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.
Prerequisite(s): CIS 107 and CIS 230

## 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 troubleshootDNS, DHCP,Remote Access, Network Protocols, I.P. Routing, and WINS in a Windows network. Prepares students for the Industry certification exam. Assignments require lab time outside of class.
Prerequisite(s): CIS 272

## 274 Windows Directory Services Administration <br> 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(s): 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.
Prerequisite(s): CIS 274 and CIS 273

## 277 Planning a Windows Network Infrastructure <br> 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 (I.P.) 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.
Prerequisite(s): 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.

## 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(s): CIS 272

## 280 Java Programming I 4 Cr. Hrs.

The course covers the basics of Java programming and object oriented software.
Objects, attributes, ad methods in Java are covered. The basics of programming structures are covered: selection, looping and arrays.
Prerequisite(s): 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(s): 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(s): CIS 113
284 Client/Server Web Tools 3 Cr. Hrs. Designing, writing and deploying web based n-tier applications using current development tools such as Microsoft Visual InterDev. Topics include: HTML, JavaScript, cookies, session variables, server-side scripting, ODBC, and Data Objects. Extensive lab exercises reinforce course topics. Students will design, create and deploy a small e-business web site. Prerequisite(s): CIS 111 and OIS M68 or CIS 265

## 285 Web Application Development with Java <br> 4 Cr. Hrs.

Designing, writing and deploying web based $n$-tier applications using Java related technologies. Topics include: HTML, JavaScript, cookies, session variables, Java Servlets, JavaServer Pages, JDBC, Java Beans and XML Extensive lab exercises reinforce course topics. Students will design, create and deploy a small e-business web site.
Prerequisite(s): 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.
Prerequisite(s): CIS 283, CIS 285

## 288 Java Enterprise Development Project Seminar <br> 5 Cr . Hrs.

Project based course where student teams propose, design, develop and implement a distributed Java application based on a set of requirements. Guest lecturers will provide insight on the latest Java Enterprise technologies.
Prerequisite(s): CIS 283, CIS 285

## 297 Special Topics in Computer Information Systems R 0.5-7 Cr. Hrs.

Provides opportunities to receive credcit 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.
Prerequisite(s): CIS 210, CIS 222, CIS 265, COM 211
M72 Cyber Security Tools $\quad 1 \mathrm{Cr}$. 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.
Prerequisite(s): BIS 105, BIS M71

## M73 Cyber Ethics

$1 \mathrm{Cr} . \mathrm{Hr}$.
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.
Prerequisite(s): BIS 105, BIS M71

## Criminal Justice (CJS)

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, first aid, and crowd control techniques. This 132-hour training program provides certification as a security officer by the Ohio Peace Officer Training Council, Officer of Attorney General, State of Ohio.

## 101 Introduction to Criminal Justice Science 3 Cr. Hrs.

Overview of the criminal justice system and an analysis of the interdependence of its components, including legislative, law enforcement, prosecution, court and correctional systems. Examination of responsibilities of professionals in each of these systems, including ethical and legal responsibilities.
Prerequisite(s): DEV 064 and DEV 074 and first time college students are required to take EL 101, Student Success

102 Constitutional Law 3 Cr. Hrs.
Survey of federal and state constitutional law. Emphasis on the Bill of Rights and the Fourth, Sixth, Eighth and Fourteenth Amendments. Key federal and state statutes and their interpretations are reviewed, with particular attention to due process, equal protection and administrative law. Prerequisite(s): DEV 065 and DEV 110 or DEV 130

104 Criminal Evidence \& Procedures 3 Cr. Hrs. Procedures of criminal justice professionals in criminal investigation, evidence collection, prosecution, testimony and trial. Legal and ethical guidelines and restrictions for professionals at each stage of the criminal justice process. Overview of court systems and procedures.
Prerequisite(s): DEV 065 and DEV 110 or DEV 130

105 Criminal Law
3 Cr. Hrs.
Basic principles of criminal law, including federal and state statutes. Analysis of types and levels of offenses; common defense, prosecution and sentencing processes. Preparation of case materials, court procedures and case disposition.
Prerequisite(s): DEV 065 and DEV 110

## 110 Interrogation, Documentation \& Testimony <br> 3 Cr. Hrs.

Development of communication skills applicable to criminal justice professions. Emphasis on interviewing, interrogation, and documentation of evidence through reports and oral testimony.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent

## 111 Criminal Justice Ethics \& Professionalism

3 Cr. Hrs. Examination of the legal and ethical obligations of professionals in law enforcement, the courts, corrections, and private security. Analysis of actions of individuals and organizations within the criminal justice system againstaccepted standards for ethical and legal professional practice.
Prerequisite(s): DEV 110 or DEV 130 or DEV 065 or equivalent

## 125 Police Organization \& Administration

3 Cr. Hrs. Management of law enforcement agencies, including operational units such as investigations, patrol, internal affairs and traffic enforcement. Principles of organization, staffing, budgeting, controlling, training, and planning. Examination of approaches to leadership and management in a law enforcement context.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent

130 Homeland Security Administration 3 Cr. Hrs. Contemporary security issues in public and private spaces including risk analysis, critical incident management, interagency cooperation, specialized security fields, intelligence gathering and litigation. Students will explore a broad range of career opportunities in this field.
Prerequisite(s): DEV 065, DEV 075

## 140 Human Relations \& Cultural Diversity <br> 3 Cr. Hrs.

Examination of cultural differences and the handling of special needs population by the criminal justice system, including current trends in meeting community needs. Emphasis on development of the knowledge and skill sets required of the criminal justice professional to address the needs and issues of diverse clientele throughout the criminal justice process. Prerequisite(s): DEV 065, DEV 075

## 145 Correctional Case Management

 3 Cr. Hrs.Survey of case management theories and approaches for criminal offenders. Understanding of intervention strategies for different types of offenders in institutional and community based correctional programs.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent
155 Homeland Security Issues 3 Cr. Hrs. Overview of Homeland Security threats, statutes and resources. The role of law enforcement officers as first responders, with emphasis on interagency cooperation.
Prerequisite(s): DEV 065 and DEV 075

## 165 Corrections Administration \& Operations <br> 3 Cr . Hrs.

Analysis of operations of correctional facilities from historical, functional and management perspectives. Attention to administrative and management issues in different types of facilities, with different populations and in community based programs.
Prerequisite(s): DEV 065 and DEV 110

## 170 Community Based Policing

3 Cr. Hrs. Overview of community based and problem oriented policing theory and practice. Emphasis on crime analysis and prevention, community partnerships to reduce crime, and community education.
Prerequisite(s): DEV 065 and DEV 075

## 197 Corrections Full Service Jails/Basic Correction Officer Academy

 6 Cr. Hrs.Training required by the State of Ohio for corrections officers to attain certification for performing corrections officer functions. Prerequisite(s): Approval of coordinator

200 Mediation \& Conflict Resolution 3 Cr. Hrs.
Strategies for mediation, conflict resolution and critical incident management for law enforcement and corrections personnel, including hostage negotiation. Circumstances that contribute to and prevent conflict in community and institutional settings.
Prerequisite(s): DEV 065 and DEV 075
205 Criminal Investigation 3 Cr. Hrs. Survey of the legal, technical and ethical aspects of criminal investigation. Common principles and techniques of criminal investigation, including crime scene procedures, collection and preservation of evidence, development of leads, criminalistics, and crime scene reconstruction. Skills for investigating major crimes, including homicide, robbery, theft, arson and sexual offenses.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent
209 Computer Crime 3 Cr. Hrs.
Overview of criminal investigation of crimes committed in conjunction with computer technology. Types of crimes, prosecution and prevention strategies.
Prerequisite(s): DEV 065 and DEV 075

## 210 Youthful Offenders \& The Law

3 Cr. Hrs.
Overview of the history, organization and jurisdiction of Juvenile Justice Agencies. Detention, evaluation, and sentencing procedures, including rights of youthful offenders. Current trends in rehabilitation of youthful offenders and denoting particular attention to the youthful offender within the State of Ohio.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent

## 215 Introduction to Forensic Science

3 Cr. Hrs.
Physical evidence collection, identification and preservation. Crime laboratory capabilities and limitations.
Prerequisite(s): DEV 110 or DEV 130 and DEV 065 or equivalent

## 226 Contemporary Practices in Corrections <br> 3 Cr. Hrs.

Examination of best practices in the field of corrections, including state and federal programs for institutional and community settings.
Prerequisite(s): DEV 065 and DEV 110
265 Criminal Justice Research 3 Cr. Hrs. Overview of basic social science research methods as applied to the criminal justice profession. Research design, types of research and data analysis will be covered, along with ethical, legal, and political implications of research and data analysis in criminal justice.
Prerequisite(s): ENG 111, DEV 110 or DEV 130 and DEV 085 and DEV 065 and CJS 101

## 270 Criminal Justice Science Internship I 3 Cr. Hrs.

Observation and participation in a criminal justice agency appropriate to the student's professional goals. Opportunity for integration and application of learning in a professional setting.
Prerequisite(s): DEV 065 and DEV 110, approval of chairperson

## 271 Criminal Justice Science Internship II

3 Cr. Hrs.
Opportunity for additional observation and participation in a criminal justice agency. A continuation of CJS 270.
Prerequisite(s): DEV 065 and DEV 110, approval of chairperson

## 280 Basic Peace Officer Training I <br> 12 Cr. Hrs.

Training required by the State of Ohio for prospective police officers. This course includes one-half of the required training in order to be eligible for certification to perform law enforcement duties.
Prerequisite(s): DEV 065 and DEV 074, approval of coordinator

## 281 Basic Peace Officer Training II <br> 12 Cr. Hrs.

Preparation for entry level peace officer/police positions. Curriculum follows the required content and instructional standards set by the Ohio Peace Officer Training Commission.
Prerequisite(s): DEV 065 and DEV 075, approval of coordinator

## 295 Criminal Justice Science Seminar

 3 Cr. Hrs.Capstone experience for Criminal Justice Science students that focuses on the integration of learning throughout the program through case study analysis and service learning. Attention to preparation for employment in the field of criminal justice.
Prerequisite(s): DEV 065 and DEV 110, approval of chairperson

## 297 Special Topics in Criminal Justice Science <br> 1-6 Cr. Hrs.

Current issues and trends in the field of criminal justice. Topics are offered throughout the academic year on a variety of subjects and in response to emerging trends and requests from professionals in the field.

# Communication Arts (COM) 

## 201 Introduction to Mass Communication

3 Cr. Hrs.
History, practices, and functions of the press, television, radio, film, advertising, digital media and public relations. Investigates mass media's influence on modern society. An extensive examination of media theory and social effects is at the heart of the course.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course

## 206 Interpersonal Communication

## 3 Cr. Hrs.

This course focuses on the development of effective verbal and non-verbal 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.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course
211 Effective Public Speaking 3 Cr. Hrs. Designed to improve speaking and listening skills through the study and application of public speaking structure, content, and style.
Prerequisite(s): DEV 065 and DEV 110 or any other college level English course.

## 212 Advanced Public Speaking

3 Cr. Hrs.
Speech composition with emphasis on research and factors important to delivery in securing a desired audience response. Presentations recorded for analysis. Prerequisite(s): COM 211

## 220 Introduction to Communication Theory <br> 3 Cr. Hrs.

Examination of major/ foundational theories that inform the field of communication. Special emphasis on communication theories that examine the self and the message, relationship development, groups and organizations, the public, the media, as well as culture and diversity.
Prerequisite(s): DEV 065, DEV 075 or any college level English

## 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.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course

227 Principles of Persuasion 3 Cr. Hrs.
Examination of political and product campaigns, social movements, and elements of popular culture that contain messages designed to influence the general population; emphasis upon the use and development of persuasive appeals.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course

## 230 Non-verbal Communication

3 Cr. Hrs.
Development of effective non-verbal communication skills for the successful communicator, stressing better methods of expressing oneself and understanding others through the learning of the non-verbal theory, Impression Management.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course

## 265 Communication \& Conflict

3 Cr. Hrs.
Asystematic examination of the theoretical factors that contribute to the entire conflict process with a major focus on the role of how the communicative process affects the conflict event. Special attention will be given to the critical analysis of participant behavior during selected conflict events.
Prerequisite(s): DEV 065 and DEV 110 or any college level English course and COM 206

## 270 Communication Internship R

## 1-12 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience related to the discipline of communication. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes related to communication, and prepare reports and/or projects each quarter, detailing how the experience allowed for the application of communication theory and/or skills.
Prerequisite(s): Approval of chairperson and restricted to majors and 12 hours of completed COM courses

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.
Prerequisite(s): COM 201 and COM 206 and COM 211 and COM 225 and one other COM or JOU class and approval of chairperson and restricted to majors

## 285 Organizational Communication

3 Cr. Hrs.
Study of the theories of communication in organziations. Analysis of the initiation, diffusion, and reception of messages in organizational environments. Exploration of effective communication strategies for work relationships, management practices, and organizational culture. Prerequisite(s): COM 206

## 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.
Prerequisite(s): DEV 065 and DEV 110, orany college level English course

## 290 Introduction to Broadcasting

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3 \text { Cr. Hrs. }
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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.

## Dance (DAN)

## 105 Beginning Dance R $1 \mathrm{Cr} . \mathrm{Hr}$.

Basic movement classes for students with no previous dance experience. Classwork consists of placement exercises, combinations to improve flexibility, and movements common to ballet and modern dance. Two lab hours per week.

## 107 Jazz Workout R <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

Basicjazz combinations for the non-dancer performed to popular and jazz music, designed to strengthen and stretch the body by developing correct alignment. Two lab hours per week.
110 Dance Workshop R 1 Cr. Hr.
Workshop developing skills in a specialized area of dance, with emphasis on technical competency, proper alignment, muscular strength, endurance, and flexibility.
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. Two lab hours per week.

## 146 Middle Eastern Dance Performance 1 Cr . Hr.

Performance opportunity for students of Middle Eastern Dance. Students learn and develop their own choreographies and perform as an ensemble in a public performance. Two lab hours per week.
Prerequisite(s): DAN 262
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.

## 162 Beginning Middle Eastern Dance $1 \mathrm{Cr} . \mathrm{Hr}$.

Basic fundamentals and theory of Middle Eastern dance for beginning students. Class work consists of hip work/ isolations, rhythm, history and cultural comparisons. Two lab hours per week.
170 Point Technique I R 1 Cr . Hr. Classes in basic point technique. Two lab hours per week.
Prerequisite(s): DAN 272

172 Ballet I R
3 Cr. Hrs.
Basic fundamentals and theory of classical ballet for beginning students. Classwork consists of barre work, center combinations and steps. Two lecture, two lab hours per week.
173 Modern Dance I R 3 Cr. Hrs. Basic fundamentals and theory of modern dance for beginning students. Classwork consists of floor exercises, combination of movements and basic steps. Two lecture, two lab hours per week.

## 174 Jazz I R

3 Cr. Hrs.
Basic fundamentals of jazz techniques. Classwork consists of warm-up exercises, isolations and basic movements. Two lecture, two lab hours per week.

## 175 Tap Dance I R

3 Cr . Hrs.
Basic fundamentals of tap technique. Classwork consists of warm-up exercises, isolations and basic movements. Two lecture, two lab hours per week.
176 Men's Technique Class R 1 Cr. Hr. Ballet classes emphasizing the skills needed and required of the male dancer. Two lab hours per week.
178 Tech Theatre for Dancers 3 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. Two lab hours per week.

## 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. Two lab hours per week.
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. Two lab hours per week.

## 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. Two lab hours per week. 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. Two lecture, two lab hours per week.
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. Two lecture, two lab hours per week.
Prerequisite(s): DAN 241

## 245 Contemporary Dance of Sinclair Performance R <br> 1 Cr. Hr.

Perspectives of dance presentation, emphasizing dedication to group dynamics and the artistic collaboration process, culminating in a public performance. By audition only.
Prerequisite(s): Approval of department

## 262 Intermediate Middle Eastern Dance <br> 1 Cr. Hr.

Combinations and layering of Middle Eastern Dance technique. Class work consists of floor work, veil work, zills, combining movements with rhythm and movement across the space. Two lab hours per week.

## 272 Ballet II R

3 Cr. Hrs.
Intermediate ballet level. Working knowledge of basic barre and center work required. Two lecture, two lab hours per week.
Prerequisite(s): DAN 111 or DAN 172

## 273 Modern Dance II R 3 Cr. Hrs.

Intermediate modern level. Working knowledge of modern dance technique required. Two lecture, two lab hours per week.
Prerequisite(s): DAN 173

## 274 Jazz II R

3 Cr. Hrs.
Intermediate jazz dance level stressing techniques and styles needed for musical theatre performance. Two lecture, two lab hours per week.
Prerequisite(s): 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. Two lecture, two lab hours per week.
Prerequisite(s): DAN 175

## 297 Special Topics in Dance $R$

 1-3 Cr. Hrs.Varied content offerings of special interest to thedisciplinebutnotcovered withinexisting courses; may be scheduled in a classroom/ seminarsetting orinanon-traditional format such as TV, video tape, etc.

## Dental Hygiene (DEH)

100 Lab for DEH 101
Laboratory must be taken with DEH 101.
101 Dental Anatomy 2 Cr. Hrs.
Morphology and function of permanent and primary dentitionincluding root morphology, dentition periods, eruption patterns, numbering systems and occlusion and malocclusion within and between the dental arches. One lecture, two lab hours per week.
Prerequisite(s): Admission into the Dental Hygiene program
103 Head \& Neck Anatomy 3 Cr. Hrs. Gross anatomy of the head and neck region including the oral cavity. Two lecture, two lab hours per week.
Prerequisite(s): BIO 141 and BIO 142 and acceptance into Dental Hygiene program

## 104 Dental Anatomy for Dental Auxiliaries

2 Cr. Hrs.
A study of form and function of the human dentition. This course was designed to provide an overview of the terminology and characteristics of all teeth in the adult and deciduous dentition. The course is open to all dental professionals, but it is a mandatory prerequisite for acceptance into Expanded Function for Dental Auxiliaries. The course will include lecture/hands-on identification of all anatomical tooth structures, divisions of teeth, eruption schedule, occlusion and other identifying factors. Prerequisite(s): Acceptance into the EFDA program

## 105 Introduction to Dental Hygiene

2 Cr. Hrs.
This course provides students with historical, professional, legal and ethical aspects of the dental hygiene profession, and includes preventive dental health concepts; infection control; and related health and safety, commonly known as exposure control.
Prerequisite(s): BIO 141, BIO 142 and DEH 120 and ALH 104
106 Nutrition \& Oral Health 2 Cr. Hrs. Basic nutrition principles in dental hygiene care, including principles of nutrition, application of basic nutrition principles through the lifespan, nutritional aspects of oral health and disease, systemic disease and nutrition status, and nutrition assessment and counseling for the dental hygiene client.
Prerequisite(s): BIO 141, BIO 142, CHE 122 and BIO 143

109 Lab for DEH 103
Laboratory must be taken with DEH 103.

## 111 Preclinical Dental Hygiene I

## 4 Cr. Hrs.

Scientific principles of dental hygiene with emphasis on data collection, client assessment, oral health education, and basicinstrumentation. Practice of infection control standards and regulations are an integral component. Two lecture, six lab hours per week.
Prerequisite(s): DEH 103 and DEH 105

## 112 Preclinical Dental Hygiene II

## 4 Cr. Hrs.

Scientific principles of dental hygiene practice with emphasis on care planning and periodontal instrumentation. Two lecture, six lab hours per week.
Prerequisite(s): DEH 111
113 Clinical Dental Hygiene I 3 Cr. Hrs. Skill developments 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, two clinic hours per week.
Prerequisite(s): DEH 112 and DEH 106 and DEH 220

## 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 includesa"sounds like" pronunciation system along with definitions and relationships of words to other similar dental terms.
Prerequisite(s): Completion of any required DEV courses (if applicable)
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(s): 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(s): DEH 103 and DEH 155
136 Lab for DEH 135
Laboratory must be taken with DEH 135.

## 155 Oral Pathology \& Embryology

3 Cr. Hrs.
Development, microscopic anatomy and pathogenesis of congenital/acquired abnormalities of oral and para-oral tissues. Embryogenesis of head and neck tissues and dental structures is offered where applicable for selected conditions.
Prerequisite(s): DEH 103
156 Dental Hygiene Research Project
1 Cr . Hr .
Prepare a scientific literature review of a health care related topic with relevance to the clinical practice of dental hygiene. Prerequisite(s): ALH 104 and DEH 157

## 157 Research Methodology 2 Cr. Hrs.

Overview of statistical terminology and notations needed for dental hygiene research and literature review.
Prerequisite(s): DEH 105 and DEH 103

## 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. Understanding and applying HI.P.PA regulations as they pertain to the dental field are presented.
Prerequisite(s): ALH 104 and restricted to DEH majors

## 170 Radiology for Dental Auxiliaries

3 Cr. Hrs.
Standard diagnostic radiologic procedures that contribute to high quality dental care. Topics include radiation physics, radiation biology, radiation hygiene, safety measures for theoperatorand the patient. Alsoincludes imaging receptors such as conventional film, phosphor plates, and charged coupled devices. Student practice of intraoral and extraoral techniques, basic interpretation skills, including proper film mounting and discriminating betweenrestorativematerials and identifying basic dental anatomy. Overall quality assurance, including darkroom operations and maintenance, proper documentation, duplicationand confidentiality of dental records are also covered. Two lecture, two lab hours per week.

## 171 Lab for DEH 170

Laboratory must be taken with DEH 170.

## 210 Drug Therapy in Dentistry 2 Cr. Hrs.

Overview of conventional drug classes with emphasis on actions, effects and indications for dental practice.
Prerequisite(s): DEH 113 and DEH 215

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, four clinical hours per week.
Prerequisite(s): 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. Twolecture, four clinical hours per week.
Prerequisite(s): 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, four clinical hours per week.
Prerequisite(s): 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(s): 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 <br> 2 Cr. Hrs.

Principles of first aid and the management of medical emergencies in dental practice settings. One lecture, two lab hours per week.
Prerequisite(s): DEH 103 and certification in American Heart Association Health Care Provider BLS

## 221 Lab for DEH 220

Laboratory must be taken with DEH 220.
Prerequisite(s): ALH 220

## 235 Community Dental Health I

3 Cr. Hrs.
Introduction to public health concepts, principles and practices in oral health promotion and disease prevention. Students will be introduced to their roles as community health educators through didactic and experiential learning opportunities.
Prerequisite(s): DEH 113 and DEH 215
236 Community Dental Health II
2 Cr. Hrs.
Principles of public health practice will be emphasized using community outreach processes, e.g., service learning, for community health promotion and disease prevention activities.
Prerequisite(s): DEH 235

## 247 Expanded Functions for Dental Auxiliary I 6 Cr. Hrs.

Typodont experience of placing cavity bases and liners, matrices, rubber dams, placing and contouring amalgam and tooth-colored restorations, and the technique of instrument transfer.

## 248 Expanded Functions for Dental Auxiliary II <br> 6 Cr. Hrs.

Laboratory and clinical application of placement of CI, II, III, IV, V restorations. Prerequisite(s): DEH 247

## 249 Expanded Functions for Dental

 Auxiliary III6 Cr. Hrs.
Mastery of clinical application of placing amalgam and composite restorations.
Prerequisite(s): DEH 248

## 250 Periodontics II

2 Cr. Hrs.
Acontinuation of the study of periodontology;emphasis on non-surgical periodontal therapy and supportive periodontal therapy. Parameters and guidelines for patient care; analysis of current literature; and overview of surgical periodontal therapy, including dental implants.
Prerequisite(s): DEH 215 or licensed dental hygienist
253 Pain Control in Dentistry 2 Cr. Hrs. Anatomy, physiology, pharmacology and administration of local anesthesia and nitrous oxide sedation and the indications, limitations and precautions associated with the use of these agents. One lecture, two lab hours per week.
Prerequisite(s): DEH 210

## 254 Lab for DEH 253

Laboratory must be taken with DEH 253. Prerequisite(s): DEH 210

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 resumeand/or portfolio development; interviewing strategies and practice setting selection; legal and ethical issues; professional development for lifelong learning; and organized dental hygiene.
Prerequisite(s): 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 simple present, present progressive and simple present, talking about the future, asking questions, modals of probability and possibility, past progress and simple past with time clauses, similarities and differences, and measure words and quantifiers. Moderate beginner reading text to be used for the purpose of reading comprehension, discussion, writing, vocabulary, and pronounciation. Requires a basic understanding of spoken and written English.

## 046 ESL Basic II R <br> 4 Cr. Hrs.

For non-native speakers of English, study and appreciation of grammar, reading comprehension and analysis of a required reading text, and writing using vocabulary learned from that text.
Prerequisite(s): DEV 045

## 047 ESL Basic III R <br> 4 Cr. Hrs.

For non-native speakers of English: a higher level study and appreciation of grammar, reading comprehension and analysis of a required reading text, and writing using vocabulary learned from that text.
Prerequisite(s): DEV 046
048 ESL Intermediate I R 4 Cr. Hrs. For non-native speakers of English; comprehension, appreciation, and use of various aspects of grammar supported by writing exercises, grammar quizzes, summarizing, vocabulary development, spoken clarity, and listening comprehension.
Prerequisite(s): DEV 046, DEV 047

## 049 ESL Intermediate II R 4 Cr. Hrs.

Fornon-nativespeakers of English:improvement of writing, reading, pronunciation, listening, vocabulary, grammar knowledge and use, summarizing, and critical thinking skills, all with the intent for preparation in academic college level courses.
Prerequisite(s): 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 successful handling and completion of degree level classes.
Prerequisite(s): 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(s): 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 oral and written summaries.
Prerequisite(s): DEV 063 or placement 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.
Prerequisite(s): DEV 064 or placement scores

## 074 Fundamentals of Sentence

 Structure4 Cr. Hrs.
Review of basic grammar and writing skills with emphasis on creating proper sentence structure through combining, coordinating, and subordinating ideas in correct sentence form including application of the basic principles of grammar. Prerequisite(s): 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.
Prerequisite(s): DEV 074 placement
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(s): 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.
Prerequisite(s): DEV 084 or satisfactory score on placement test
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(s): DEV 085 or equivalent or placement test score

## 110 Introduction to Composition

4 Cr. Hrs.
Introduction to the fundamentals of essay writing, including the stages of the composing process-pre-writing, drafting, and revising; introduction to 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.
Prerequisite(s): DEV 064 and DEV 075 or placement

## 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.
Prerequisite(s): DEV 075 and DEV 064, placement and/or instructor recommendation

## 297 Special Topics in Developmental Studies R <br> 0.5-6 Cr. Hrs.

Provides opportunities to receive creditfor additional learning opportunities in basic skills through special topics and alternative learning modes.

# 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.
## 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.

## 129 Human Nutrition <br> 5 Cr. Hrs.

Principles of nutrition with emphasis on the functions of the nutrients, their digestion, absorption metabolism and inter-relationships, including food economics.
Prerequisite(s): 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.
Prerequisite(s): 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 foodborne illnesses with emphasis on correct sanitary practices and techniques to ensure quality in food procurement, storage, preparation, service, and disposal. Designed for food service staff with limited time 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

$1 \mathrm{Cr} . \mathrm{Hr}$.
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.

## 203 Medical Nutrition Therapy for Dietary Managers 4 Cr. Hrs.

 Introductory course for nutrition care personnel in health care institutions. Overview of nutrition, diet therapy and menu planning. Exploration of diseases that require medical nutrition therapy, concepts of therapeutic diets, and how these relate to body systems.Prerequisite(s): DEV 065 and DEV 084

## 204 Practicum for DIT 2033 Cr. Hrs.

A hands-on course related to food preferences, basic nutrition principles, medical nutrition therapy, nutrition screening, documentation, care plans, and continuous quality improvement programs. Six hours lab per week; lab is conducted at an approved site.
Prerequisite(s): DEV 065 and DEV 084

## 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.Prerequisite(s): HMT 112 and HMT 113 or approval of chairperson

209 Laboratory for DIT 2082 Cr. Hrs. Laboratory component of DI.T. 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.
Prerequisite(s): HMT 112 and HMT 113 or approval of 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. Prerequisite(s): HMT 112 and HMT 113 or approval of 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.
Prerequisite(s): HMT 112 and HMT 113 or approval of chairperson
219 Laboratory for DIT $216 \quad 1 \mathrm{Cr}$. Hr. This laboratory component of the DI.T. 216 course addresses recipe standardization, modified and therapeutic recipe preparation, and food science principles for the functions of ingredients in food. This lab is a continuation of quantity cooking principles, sensory evaluation of food, kitchen equipment, and food safety and sanitation. Two lab hours per week.
Prerequisite(s): HMT 112 and HMT 113 or approval of chairperson

## 221 Medical Nutrition Therapy I

3 Cr . Hrs.
Medical nutrition therapy for diabetes mellitus and physiologicstress 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 (DI.T. 226).
Prerequisite(s): 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.
Prerequisite(s): DIT 221 or permission of department chairperson

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 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.Prerequisite(s): 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.
Prerequisite(s): 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 DI.T. 221 including diet writing, patient interviews, nutritional assessments, and care plans. Eight practicum hours per week. Prerequisite(s): 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 DI.T. 222 including diet writing, patient interviews, nutritional assessments, and care plans. Eight practicum hours per week. Prerequisite(s): 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 DI.T. 223 including diet writing, patient interviews, nutritional assessments/protocols, care plans, minimum data sets and counseling. Six practicum hours per week. Prerequisite(s): DIT 222 and DIT 227 or approval of chairperson

236 Dietary Organization \& Management

4 Cr. Hrs.
Management principles and practice for the dietary/foodservice supervisors; planning, staffing, directing, controlling, and budgeting functions as well as labor relations.
Prerequisite(s): DIT 216 and DIT 218 and DIT 219 or approval of 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.
Prerequisite(s): DIT 216 and DIT 218 and DIT 219 or approval of 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.

 Capstone review to prepare students for national comprehensive dietetic technology examination and employment. Review of the following domains; Food and Nutrition, Food ServiceSystem and Sanitation, and Management. Also includes the job market, resume writing, interviewing skills, recent developments in nutritional care, nutrition research, legislation and challenges related to dietetics.Prerequisite(s): Permission of department chairperson

## 297 Special Topics In Nutrition R <br> 0.5-6 Cr. Hrs.

Topics and trends in nutrition and dietetics for personal enrichment and continuing education.

## 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.

## 130 A.T.S./A.I.S. Degree Planning Seminar <br> 1 Cr . Hr.

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 and career and life/work planning. Open only to A.T.S./ A.I.S. students. Prerequisite(s): DEV 065 and DEV 110 or equivalent

200 Portfolio Update R 1 Cr. Hr.
A continuation of Prior Learning Portfolio Development, facilitated through individual sessions with a portfolio faculty person.
Prerequisite(s): EBE 100 or CWE 100
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(s): EBE 130

## Early Childhood Education (ECE)

## 101 Introduction to Early Childhood Education <br> 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.
Prerequisite(s): DEV 065 and DEV 075 or or equivalent
104 Prenatal Life \& Birth 3 Cr. Hrs.
Prenatal development progressing from conception through birth.

## 106 Childhood Nutrition, Health, \& Safety <br> 3 Cr . Hrs.

Nutritional, health and safety needs of 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.
Prerequisite(s): DEV 065 and DEV 075 and DEV 085 or equivalent

## 111 Child Abuse Recognition \& Prevention <br> 1 Cr . Hr.

Fulfills criteria for child abuse recognition and prevention training requirements established by the Ohio Administrative Code (Chapter 5101), including indicators, reporting, interagency information sharing, familiar support, day care issues. Center participation required.

## 112 ECE First Aid

$1 \mathrm{Cr} . \mathrm{Hr}$.
Recognition and emergency management of first aid situations in a day care center setting; fulfills criteria established by the Ohio Administrative Code (Chapter 5101). 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 \& Literacy Experiences in Early Childhood <br> 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. Prerequisite(s): DEV 065 DEV 075 or equivalent score on placement test

## 118 Math \& Science Experiences in Early Childhood <br> 4 Cr. Hrs.

Creating a developmentally appropriate math and science curriculum for preschool children following guidelines and standards established by themajor professional organizations and the Ohio Department of Education Early Learning Content Standards for Mathematics and Science.
Prerequisite(s): ECE 120 and SOC 215 and ENG 112

## 119 Creative Experiences in Early Childhood <br> 4 Cr. Hrs.

The developmental characteristics of young children in art, music, and movement. Planning curriculum to facilitate the individual development of creativity in young children. Establishing the link between art, movement, and music to other disciplines.
Prerequisite(s): ECE 120 and SOC 215 and ENG 112

## 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.
Prerequisite(s): ECE 101 ECE 106 ECE 150 and ENG 111

## 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 of Young Children

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(s): DEV 075 and DEV 065 or equivalent

## 146 The Challenging Child 3 Cr. Hrs.

An overview of children's behavior identified by practioners as challenging; development of an operational definition of challenging behaviors; causes, techniques and interventions to address challenging behaviors.
Prerequisite(s): ECE 145, ECE 120

150 The Young Child
4 Cr. Hrs.
Promotingpositivegrowthofinfants, toddlers, and preschoolers. Impact of the learning environment including family, community and culture on the child's development
Prerequisite(s): DEV 065, DEV 075 or equivalent

## 160 Teaching Techniques in ECE

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
Prerequisite(s): ECE 117 and ECE 118 and ECE 119 and ECE 229

## 190 Early Childhood Education <br> 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 <br> 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 <br> 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.
Prerequisite(s): 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 ContentStandards for Social Studies.
Prerequisite(s): 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(s): ECE 129

## 225 Administration of Child Care Centers <br> 4 Cr. Hrs.

Major aspects of developing a program of early education and care including licensing laws, program development, personnel management, staff and program assessment, marketing and advocacy.
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.
Prerequisite(s): SOC 215, ECE 120, COM 206 or COM 211, ENG 112 and approval of chairperson

## 275 Internship <br> 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 theSinclairCommunity CollegeEarlyChildhood Education Center. Written application required one quarter in advance.
Prerequisite(s): 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.
Prerequisite(s): ECE 182 or ECE 280

## 295 Special Topics in Early Childhood <br> 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.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 296 Special Topics in Early Childhood Education R 1-5 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline as well as receive credit for instruction delivered in a non-traditional format such as TV.

## 297 Special Topics in Early Childhood Education R 1-5 Cr. Hrs.

Provides opportunities to offer special interest content within the discipline as well as receivecreditfor instructiondelivered in a non-traditional format such as TV.

## Economics (ECO)

## 105 General Economics <br> 3 Cr. Hrs.

The basic concepts, principles, terminology, and philosophy of economics from both the social and political viewpoint for the non-business student.

## 216 Principles of Macroeconomics

## 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.
Prerequisite(s): DEV 108

## 218 Principles of Microeconomics 4 Cr. Hrs.

Microeconomic 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.
Prerequisite(s): DEV 108

## 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/activites, including special interest topics, workshops or customized training.

## Education (EDU)

100 Foundations of Education 4 Cr. Hrs. Introduction to education as a profession and a potential career. Candidates will explore themes, utilize readings, investigate current issues, interview and observe professionals in the field of teacher education to explore the purposes of schools in society. Candidates will produce carefully considered reflections in order to review the knowledge, skills, dispositions and performances necessary for an individual to become an effective teacher.
Prerequisite(s): DEV 065 and DEV 075 or equivalent skill evidenced by skills assessment
103 Educational Technology 4 Cr. Hrs. Required course for students transferring to four-year institutions within the field of education. Effective identification, location, evaluation, design, preparation and efficient use of educational technology as instructional resources in the classroom related to principles of learning and teaching, including legal and ethical use. Students develop increased classroom communication abilities through lectures, discussions, modeling, laboratory experiences and completion of a comprehensive project. It is recommended that this course be taken early in the student's program of specialized study.

## 105 Introduction to Exceptionalities 4 Cr. Hrs.

Survey of developmental characteristics of persons with and withoutexceptionalities. Introduction to foundations, theory, legal issues, intervention strategies and service delivery models for working with exceptional individuals in educational, community, residential and work settings.

## Electronics Engineering Technology (EET)

114 Basic Electronic Measurements 4 Cr. Hrs.
Scientific and engineering notation, electrical quantities and units, metric prefixes, voltage, current and resistance, resistor color code, ohm's law, energy and power. Breadboarding and circuit building. Measurementtechniques, types of error in measurement, use of measuring instruments: digital multimeter, function generator, D.C. power supplies, analog oscilloscopes, function generators and frequency counter. Project assembly. This course requires time outside the normal class time. Two lecture, four lab hours per week.
Prerequisite(s): DEV 108

## 116 Electronics Schematics \& Layout

 4 Cr. Hrs.Basic computer literacy skills with applications for electronic drafting and circuit simulation using Multisim and ultiBoard software, electronic symbols, schematic diagrams, printed circuit board layout, design, and assembly. Three 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(s): DEV 108 or INT 141 or INT 142 or INT 143

## 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.

## 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.
Prerequisite(s): EER 127 or EER 133 or EET 119
150 Electrical Circuits \& Instruments I
4 Cr. Hrs.
Electrical units of measure, electrical laws, power and energy, circuit theorems, resistive networks, R.L. and R.C. circuits and D.C. measuring instruments. Three lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): EET 105 or EET 150
156 Alternate Energy Sources 3 Cr. Hrs. Overview of past, recent and current research to find viable alternative sources of energy; examples include water, wind, solar, bio-mass, alternative liquid fuels, and introduction to fuel cell technology. Study of applied technologies in the context of how to relieve complete dependence on petrochemical based products. A case study approach to learning is used. Two lecture, two lab hours per week.

## 166 Industrial Machine Wiring \& Standards <br> 3 Cr Hrs.

Elementary industrial machine wiring principles; schematics, panel layouts, assembly, wiring techniques, and equipment used in automated industry; standards for safe operation of equipment and protection of personnel with emphasis given to hands-on work and actual wiring of panels. One lecture, four lab hours per week. Prerequisite(s): EER 127 or EET 119

## 181 Electrical Construction I R

4 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. Two lecture, six lab hours per week.

## 182 Electrical Construction II R 4 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. Two lecture, six lab hours per week.
Prerequisite(s): EER 181 or EET 181
183 Electrical Construction III R
4 Cr. Hrs.
Load calculations for branch circuits, overcurrent protection, wiring devices, distribution equipment, transformers, calculations for motor circuits; motor maintenance and controls; and basics of HVAC systems. Two lecture, six lab hours per week.
Prerequisite(s): EER 182 or EET 182

## 184 Electrical Construction IV R <br> 4 Cr . Hrs.

Calculation procedures for residential, commercial and farming applications, various wiring systems, stand by and emergency systems, basic electronics, fire alarms, special transformers, solidstate controls, welding techniques, heat and freeze protection and high voltage termination. Two lecture, six lab hours per week.
Prerequisite(s): EER 183 or EET 183
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.

## 198 Digital Technology 3 Cr. Hrs.

Electrical fundamentals, introduction to basics of digital logic and circuits, digital systems, basic digital circuit design. Two lecture, two lab hours per week.

## 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(s): 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(s): 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(s): 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(s): EET 201
231 Digital Logic \& Circuits 4 Cr. Hrs.
Number systems, codes, Boolean algebra, Karnaugh mapping, exclusive circuits or arithmetic circuits. Three lecture, two lab hours per week.
Prerequisite(s): EET 114 and EET 116

## 251 Digital Systems I

4 Cr. Hrs.
Basic TTL gates, Flip-Flops, clocks, counters, shift-registers, multiplexers and demultiplexers. Three lecture, two lab hours per week.
Prerequisite(s): 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-toanalog converters, communication protocols, keyboard decoders and CRT displays. Three lecture, two lab hours per week. Prerequisite(s): EET 251
256 Introduction to Fuel Cells 3 Cr. Hrs. Review of the historical significance of early development of fuel cells covering the last five decades: proton exchange membrane fuel cell (PEM), solid oxide fuel cell (SOFC), alkaline fuel cell (AFC), phosphoric acid fuel cell(PAFC),molten carbonatefuelcell(MCFC), direct methanol fuel cell (DMFC), current state of the art fuel cell technology; overview of associated technologies necessary for effective fuel cell development; use and applications of methanol, DMFC technology; analysis of various fuel cell technologies. Two lecture, two lab hours per week.

## 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, wiringsteps andSubVirtual 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.
Prerequisite(s): EET 116 and EET 105 or EET 150

## 261 Microprocessor/Microcontroller

 Systems4 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(s): EET 231

## 262 Microprocessor Applications

4 Cr. Hrs.
Study of 8-bit microprocessor systems, hardware interfacing and serial data transfers, system interrupts. Analog-todigital and digital-to-analog conversion, addressing modes, motor control, LC.D. interfaces and basic interfacing techniques including use of EPROMS. Three lecture, two lab hours per week.
Prerequisite(s): EET 261

## 264 P.C. Troubleshooting \& Repair I <br> 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. Twolecture,twolab 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(s): EET 264

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

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.
Prerequisite(s): 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.
Prerequisite(s): EER 136 or EET 198 or EET 231

## 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(s): EET 281

## 283 Introduction to Lasers 3 Cr. Hrs.

Basic concepts and principles associated with characteristics and measurements involving lasers in varied professional and industrial applications. Two lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): EER 128 or EET 201

## 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. Prerequisite(s): Permission of chairperson

## Engineering \& Industrial Technologies (EN)

101 Student Success Experience 2 Cr. Hrs.
Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## 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.
128 Robotics in CIM Systems 3 Cr. Hrs. Computer modeling, CNC equipment, CAM software, robotics, and flexible manufacturing systems. The course will be taught using demonstration and discussion combined with individual and team centered, project based learning. Two 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.

## 144 Sensors

3 Cr. Hrs.
Introduction to basic sensors used in Computer Integrated Manufacturing (CIM) systems. Theory of operation, wiring, installation, testing and troubleshooting sensors and circuits, proximity switches, limit switches; ultrasonic, laser, photoreflective, pressure, and temperature sensors, and applications. Two lecture, two lab hours per week.
Prerequisite(s): EET 119

## 160 Succeeding in Engineering Technology <br> 2 Cr. Hrs.

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.

## 210 Human-Machine Interfaces (HMIs)

3 Cr. Hrs.
The basics of Human-Machine Interfaces (HMIs) with emphasis on creating and customizing displays, creating and configuring interactive controls, creating and modifying tags, configuring alarms and security, adding animation, creating data logs, and configuring messages. Two lecture, two lab hours per week.
Prerequisite(s): EET 281

## 215 Control Systems <br> 3 Cr. Hrs.

Introduction to modern control theory as applied to industrial robotics mechanical unit positioning, accuracy, repeatability, control techniques, with initial focus on three phase electric motors, utilizing various forms of positioning and speed control; pulse width modulation; feedback systems; control techniques for variable speed motors and drive systems; analysis techniques using Laplace transforms; troubleshooting techniques. Two lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): EGR 128, EER 166

## 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(s): EGR 252

## 231 Introduction to Troubleshooting of Automated Systems 3 Cr. Hrs.

Concept of troubleshooting and its importance in manufacturing systems. Basic troubleshooting philosophies, flowchart examination, simple electrical and mechanical troubleshooting. Two lecture, two lab hours per week.
Prerequisite(s): EET 119 or EET 201 and EGR 128

## 232 Advanced Troubleshooting of

Automated Systems 3 Cr. Hrs.
Complex problems experienced in automation systems, building on Introduction to Troubleshooting of Automated Systems (EGR 231). Techniques for troubleshooting systems containing sensors, PLCs, robots, HMIs, and other common automation equipment. Fault determination using troubleshooting software to monitor the performance of small automated systems. Two lecture, two lab hours per week. Prerequisite(s): EGR 231 and EET 282 and EER 166 and EGR 210

## 244 Automation \& Control Devices

3 Cr . Hrs.
How to wire, connect, test, program, and interface industrial control devices, peripheral sensors, and computer controlled systems found in Computer Integrated Manufacturing (CIM), Flexible Manufacturing (FM) and robotic workcells. Includes message displays; touch screen I/O devices, barcode readers, sensors; hall effect devices, reed relay, set point modules, micro Programmable Logic Controllers, visual and audio awareness devices; robotic input and output systems. Two lecture, two lab hours per week. Prerequisite(s): EET 282 and 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.

## 251 Robot Controller Diagnostics

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3 \text { Cr. Hrs. }
$$

Teaches the student theory of controller operation, function of power input and supply units, command and feedback signals and troubleshooting and diagnostics. Two lecture, two lab hours per week.
Prerequisite(s): EGR 252 and EER 136
252 Teach Pendant Robot Programming 3 Cr. Hrs.
Introduction to Teach Pendant Programming (TPP) for robots, including TPP program development on the teach pendant and through off-line programming software. Programs, tested using Fanuc Robots, will be written for motion control, input/output activation, and palletizing. Two lecture, two lab hours per week. Prerequisite(s): EGR 128 and EGR 161

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/softwarenetworking protocols; serial, parallel, modulation techniques, multiplexing, optical, radio frequency and selected networking software. Twolecture, two lab hours per week.
Prerequisite(s): EGR 210 and EET 282

## 256 Automated Data Acquisition Systems $\quad 3$ Cr. Hrs.

 Application of data acquisition technologies; bar coding, image recognition, optical character recognition,CC.D.cameraimages, laser scanning, voice recognition, and radio frequency and microwave transponders; data capture techniques at the site of event with direct transmission toa computer/storage system for processing data. Two lecture, two lab hours per week.Prerequisite(s): EER 136 and EGR 261 and EGR 252

## 261 Engineering Problem Solving Using " C " <br> 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.
Prerequisite(s): MAT 131 and EGR 161

## 262 Advanced C++ Programming Engineering Applications 4 Cr. Hrs.

Solverepresentative engineering problems using advanced C and $\mathrm{C}++$ 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(s): 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, withemphasis on robot workcell system design, layout and integration of related industrial systems, and skills from the following areas: robots and programming languages, electronic systems, component installation, troubleshooting, mechanical repair, and preventative maintenance. Additional focus on graphics, word processing, analytical and simulation tools,
assembly, testing, troubleshooting and repair of a functional robot workcell. One lecture, four lab hours per week.
Prerequisite(s): EGR 210 and EGR 220 and EGR 232 and EGR 252 and EGR 255 and EET 282

## 297 Special Topics in Engineering <br> 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.
Prerequisite(s): Permission of department chairperson

## Extended Learning \& Human Services (EL)

101 Student Success Experience
2 Cr. Hrs.
Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## 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(s): 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 creditregistration. Successful completion establishes eligibility for state certifying/recertifying exam. One lecture, three lab, one-half clinical hours per week.
Prerequisite(s): EMS 115

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 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 EMTBasic 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(s): Must be at least 18 years old

## 118 Lab for EMS 117

Laboratory must be taken with EMS 117.
120 EMT-Basic Refresher 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 and one lab hour per week.
Prerequisite(s): Current certification as EMTBasic

## 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(s): Ohio State EMT-Basic Certification

## 136 EMT-Paramedic II: Cardiovascular Emergencies 8 Cr . Hrs.

Following the 1998National Standard Curriculum for EMT-Paramedics, emphasis on general anatomy and physiology of the cardiovascular system, assessment, managementand evaluation of the cardiac patient. Five lecture, two lab, six clinical hours per week.
Prerequisite(s): 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(s): EMS 136

## 138 EMT-Paramedic IV: The Medical Patient <br> 8 Cr. Hrs.

Following the 1998National 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(s): EMS 137

## 139 EMT-Paramedic V: Integration

 7 Cr. Hrs.Following the 1998National 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(s): 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 and enhancing knowledge and skills. Three lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): 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(s): ENG 111 or equivalent
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(s): ENG 112 or equivalent

## 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(s): 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(s): 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(s): ENG 121

## 131 Business Communications I

3 Cr. Hrs.
The four major types of business letters, emphasizing use of correct grammar, punctuation, spelling, and vocabulary.
Prerequisite(s): 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(s): ENG 131

## 199 Text Editing <br> 3 Cr . Hrs.

Strategies to achieve a clear, concise, cohesive, emphatic writing style; sentence structure; contemporary grammar and usage.
Prerequisite(s): 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(s): ENG 112
247 The Art of Film R $\quad 3$ 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(s): 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 <br> 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(s): ENG 256

## 259 Writing the Novel 3 Cr. Hrs.

Study of traditional novel elements and the mechanics of manuscript submission in a workshop setting.
Prerequisite(s): ENG 256 or permission of instructor

## 260 Memoir Writing <br> 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.
Prerequisite(s): ENG 255 or permission of instructor

## 297 Special Topics in English R <br> 1-6 Cr. Hrs.

Opportunity to study specialized rhetorical and linguistic topics such as stylistics, sentence-combining, heuristics, history of English, dialects.

## Entrepreneurship (ENT)

## 105 Introduction to Entrepreneurship 3 Cr. Hrs.

An introduction to a challenging and rewarding career as an entrepreneur. The role of small businesses in the U.S. and the impact on the national and global economy. Addresses skills and commitment necessary for a successful entrepreneurial venture, various entrepreneurial types, and talent/aspiration self-assessment. Highlights successful practices of entrepreneurs and skills necessary to identify potential entrepreneurial opportunities.

## 210 Small Business Management

 3 Cr. Hrs.Management techniques vital to the success of small entrepreneurial businesses, including decision making skills in the areas of start-up, legal structure, marketing, financial planning, human resources, and operations management.
Prerequisite(s): ENT 105

220 Small Business Marketing 3 Cr. Hrs. Essential marketing skills for entrepreneurial ventures, utilizing innovative marketing strategies. Analysis of marketing philosophies implemented by successful entrepreneurs, and preparation of a thorough marketing plan that can be used to launch or grow an entrepreneurial venture.

## 240 Small Business Finance 3 Cr. Hrs.

Identification and evaluation of the various sources available for funding a small business. Financial terminology; reading, preparing, and analyzing financial statements typical of a small entrepreneurial business; and preparing and presenting a loan proposal to a financial institution. Also includes ways to overcome the typical financial obstacles encountered by entrepreneurs.

## 260 Business Plan Development

4 Cr. Hrs.
Business concept evaluation and sound business plan development. Business concept strengths and weaknesses assessment, organizational structure planning, marketing plan research, data collection, and organization; preparation of financial projections; identification and evaluation of various resources available for funding a new or existing enterprise. Extensive writing expected and use of the Internet required. The successful student will leave the course with a complete and ready-touse business plan document.

## 278 Entrepreneurship Capstone

$1 \mathrm{Cr} . \mathrm{Hr}$.
Assessment of achievement by Entrepreneurship Concentration students through project based activities and portfolio review. Student demonstration of the achievement of degree concentration outcomes via oral and written presentations, portfolio development, and the creation of a professional growth plan.
Prerequisite(s): MAN 216 and ECO 218 and ENT 210 and restricted to majors and approval of chairperson

## Engineering Technology Design (ETD)

100 Gateway to Technology 3 Cr. Hrs. Overview of the field of technology and its related processes. Course activities include (1) Design and Modeling, (2) The Magic of Electrons, (3) The Science of Technology, and (4) Automation and Robotics. Two lecture, two lab hours per week.

## 101 Introduction to Engineering Design 3 Cr. Hrs.

An introductory course in design skills and tools utilizing 3-D parametric tools (Inventor) in the creation of design projects. Development of skills in Parametric Part creation, assembly modeling, and documentation of designs; additional topics in sketching, design for production, presentations and marketing. Two lecture, two lab hours per week.
Prerequisite(s): MAT 101
102 Principles of Engineering 3 Cr. Hrs. Development of student understanding of the engineering/engineering technology field. Through exploration of various technology systems and manufacturing processes, students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people. Also includes concerns about social and political consequences of technological change. Two lecture, two lab hours per week.
Prerequisite(s): ETD 101 and MAT 131

## 110 Engineering Design \& Development

 3 Cr. Hrs. An engineering research course in which students work in teams to research, design and construct a solution to an openended engineering problem. Students apply principles developed in the four preceding courses; students also present progress reports, submit a final written report and defend solutions to a panel of outside reviewers. Two lecture, two labPrerequisite(s): ETD 102 and EGR 128 and EET 198

## 118 Introduction to the Product <br> Realization Process 1 Cr. Hr.

Processes for the formulating and substantiating ideas and concepts for the design of systems, components, and technical processes.

## 121 Ethics for Engineering Technology Professionals <br> 2 Cr. Hrs.

Introduction to the core skills of an engineering professional: technical skills, soft skills and team management techniques. Concepts of lifelong learning, continued personal improvement, engineering ethics, working in a diverse industry and future trends in engineering technology. One lecture, two lab hours per week.

## 128 Print Reading with GD\&T 3 Cr. Hrs.

Training in the interpretation of engineering drawings. Includes principles of orthographic projection, drafting symbols, surface finish symbols, welding symbols, and geometric dimensioning and tolerancing symbols. Two lecture, two lab hours per week.

## 160 Mechanics for Skilled Trades <br> 3 Cr. Hrs.

Fundamentals of mechanics, including concepts of force, work, energy, stress, friction and basic properties of materials. Analysis of simple mechanical machines. Prerequisite(s): DEV 108 or permission of instructor

## 161 Advanced Mechanics for Skilled Trades <br> 3 Cr. Hrs.

Fundamentals of mechanics as applied to the actual hardware and equipment used in production environment.
Prerequisite(s): MET 101 or ETD 160
165 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.

## Prerequisite(s): MAT 101 or equivalent

166 Industrial Hydraulics II 3 Cr. Hrs. This is the second course in the Hydraulics sequence. It builds on the previous course with additional topics of actuators and controls. Two lecture, two lab hours per week. Prerequisite(s): ETD 165 or MET 151
167 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(s): MET 152 or ETD 166

## 198 Personal Computer Applications

 for Engineering Technology2 Cr. Hrs.
Applied computer tools to solve engineering technology problems emphasizing the integration of word processing, draw function, spreadsheets, databases, and engineering research skills using the Internet. Applications of an integrated approach to research papers, engineering technology analysis, technical laboratory reports and technical presentation. Onelecture, twolab hours per week.
Prerequisite(s): DEV 085

## 199 Introduction to Computer-Aided

 Drafting Concepts 2 Cr. Hrs.P.C. based computer-aided drafting, including two-dimensional drawing, drawing layout and sizing, drawing and editing commands, drawing magnification, and drawing output using the latest release of AutoCAD. One lecture, two lab hours per week.
Prerequisite(s): Take one group: DRT 196 or ARC 138 and MET 198; or ARC 101 and MET 198; or ARC 101 and BIS 160; or ETD 128; or ARC 138 and ETD 198 or ARC 101 and ETD 198
211 Engineering Mechanics I 5 Cr. Hrs. Vectorial treatment of forces and analysis of trusses, centroids, friction and moment of inertia. This calculus based course is designed for Engineering Science university parallel students.
Prerequisite(s): 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(s): MET 211 or ETD 211

## 213 Statics

4 Cr. Hrs.
Various types of force systems, analysis of trussess, friction, center of gravity and moments of inertia.
Prerequisite(s): MAT 132 and PHY 131, or MAT 116 and PHY 141

## 214 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(s): ETD 213 or MET 203
222 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(s): MET 203 or ETD 213

225 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.
228 Emerging Technology Tools 1 Cr. Hr. Trends and global issues within the design industry: Product Lifecycle Management (PLM) concepts in document management, green manufacturing, collaborative communication techniques, rapid prototyping/tooling and the application of new design tools, techniques and the integration of several software tools.
Prerequisite(s): ETD 110

## 230 Introduction to Geometric Design \& Tolerancing <br> 3 Cr. Hrs.

Develop an understanding of the geometric dimensioning and tolerancing system, incorporating dimensioning of parts with respect to the function of the part. Two lecture, two lab hours per week.
Prerequisite(s): DRT 196 and INT 109 or ETD 128 and INT 109 or ETD 101 and ETD 128

## 231 Advanced Design Interpretation

 3 Cr. Hrs.An advanced course in Geometric Design and Tolerancing (GD\&T) for experienced machinists. Three lecture hours per week.

## 238 Product Development \& Testing

2 Cr. Hrs.
Designing for all factors that are desirable: safety, manufacturability, environment, durability, reliability, and maintainability. Analysis and assessment of the effectiveness of a design over its lifecycle through prototype testing and rapid prototyping. Prerequisite(s): ETD 228

## 245 Machine Design 5 Cr. Hrs.

Design and evluation of machine elements; design for safety, strength, stability and wear. Analysis and design of gears, shafts, drive systems, mechanical fasteners, permanent connections, roller and journal bearings, and springs. A design project including an oral presentaion and written report is required. Four lecture, two lab hours per week.
Prerequisite(s): ETD 222 and PHY 131

## 260 Engineering Technology Applications with Computers

3 Cr. Hrs.
Computer solutions of enginering problems using MathCAD; algorithms, numerical analysis and matrix methods for problem solving of physical principles and engineering applications. Two lecture, two lab hours per week.
Prerequisite(s): MET 198 or IET 198 or ETD 198 and MAT 133

## 270 Mechanical Engineering Technology Internship R <br> 1-12 Cr. Hrs.

Preparing a portfolio based on work re-lated/on-the-job experience. One to twelve hours per week.

## 278 Mechanical Engineering Technology Capstone

4 Cr. Hrs. Assessment of achievement by Mechanical 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.
Prerequisite(s): Approval of chairperson

## 280 Advanced Computer-Aided Drafting <br> 3 Cr. Hrs.

Study and application of advanced drawing using computer graphic systems. Majoremphasis on 2-D commands with an introduction to 3-D drawings. Two lecture, two lab hours per week.
Prerequisite(s): DRT 198 and MET 198 or ETD 199 and ETD 198

## 284 Solidworks Basics <br> 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(s): DRT 196 or ETD 128

## 287 Solidedge Basics

5 Cr. Hrs.
A computer aided drafting course using Solid Edge with information for new users on how to get started with the software. Emphasis on the development of basic skills and methods to create solid models. Two lecture, six lab hours per week.
Prerequisite(s): DRT 196 or ETD 128

## 291 Unigraphics Basics

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(s): DRT 196 or ETD 128

## 297 Special Topics in Engineering

Technology Design R1-6 Cr. Hrs.
Varied content offering of special interest to the discipline but not covered within existing courses; may be scheduled in a classroom/seminar setting or in non-traditional format such as TV, videotape, etc. One to six lecture hours per week.

## Environmental Technology (EVT)

## 106 Air Pollution Control <br> 3 Cr. Hrs.

Chemicals that are air pollutants; sources of air pollution; particularly chemical; monitoring techniques and control methods with applicable federal and state air pollution acts, amendments, and standards. Two lecture, two lab hours per week.
Prerequisite(s): EVT 110 and CHE 131 or CHE 151

## 107 Water Management Technology

3 Cr. Hrs.
Causes of water pollution; methods of contaminate identification and source site identification; Clean Water Act; and applicable state regulations. Two lecture, two lab hours per week.
Prerequisite(s): EVT 110 and CHE 151 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 <br> 3 Cr. Hrs.

Sampling and analysis techniques for environmental compliance are discussed in detail. Sampling methods and protocols are presented and sampling plans developed. Environmental monitoring is explained with emphasis on 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(s): EVT 110

## 210 Environmental Site Assessment

 4 Cr. Hrs.Environmental liability aspects of property transfer; environmentalliability 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

 Mechanics4 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.
Prerequisite(s): 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. Prerequisite(s):EVT110 or SRM101 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.
Prerequisite(s): EVT 260 and MAT 132 and CHE 131
278 Environmental Capstone 3 Cr. Hrs. Assessment of achievement by Environmental Engineering Technology degree students in attaining program outcomes by employing reflective learning through demonstration of environmentally related principles and practices. Two lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): DEV 074, DEV 064

## 105 Study Skills <br> 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.
Prerequisite(s): DEV 063 or DEV 064 and DEV 074 and DEV 084
140 Speed Reading $\quad 2$ 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(s): DEV 065 or equivalent

## 297 Special Topics in Extended

 Learning $R$ 1-6 Cr. Hrs. Opportunities to receive credit for nontraditional courses such as courses by TV or web, as well as, special interest topics. Objectives will vary with the particular content area. Course is repeatable as topics change.
## Financial Management (FIN)

## 105 Introduction to Financial Institutions

3 Cr . Hrs.
Overview of financial institutions, including the money creation function of the commercial banking system, the history and roles of various financial institutions, their services and operations.

## 200 Consumer Credit <br> 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(s): FIN 105

## 202 Consumer Credit Counseling

3 Cr. Hrs.
Skills and practice necessary to provide financial counseling services. Includes diagnosis of financial problems and their causes; effective questioning and listening techniques; ethical responsibilities of counselors; credit management strategies; and the development of debt management plans.
Prerequisite(s): 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(s): FIN 200

## 208 Sports Finance

3 Cr. Hrs.
Aspects of collegiate and professional sport finance. Challenges, trends, economic impact, organizational structure, sources of funds, player payroll, operations management, financial management, ownership transfers, and taxation of sport enterprises will be covered.
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 longterm financing; and asset management. Prerequisite(s): 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(s): 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(s): 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.
Prerequisite(s): FIN 205, FIN 245, FIN 246 and ACC 113 and MAT 122 and ECO 216, 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.

# Fine \& Performing Arts <br> (FP) 

101 Student Success Experience

2 Cr. Hrs.
Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## French (FRE)

## 100 Introduction to French Conversation, Language, \& Culture 3 Cr. Hrs.

Basic introductory levels of 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(s): FRE 101
103 Elementary French III 4 Cr. Hrs. Foundation for understanding, speaking, reading, and writing French. Language laboratory work may be required.
Prerequisite(s): 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(s): 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(s): 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(s): FRE 202

## 297 Special Topics in French R

1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special interest topics in the discipline.

## 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): FST 101 or FST 181 or permission of chairperson

## 152 Technical Rescue Refresher R

## 2 Cr. Hrs.

Practical application to assure that the studenthas 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.
Prerequisite(s): 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 (RI.T.). Covered will be the fire scene factors involved in implementing a RI.T.. 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.

## Prerequisite(s): 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 theNational 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.
Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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.Prerequisite(s): 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 techniques, 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.
Prerequisite(s): 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 ManagementSystem 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.
Prerequisite(s): 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. Prerequisite(s): FST 169 and FST 171 and FST 173 and FST 179

## 179 Victim Location, Operation Level <br> 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(s): 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.
Prerequisite(s): Permission of chairperson

181 Firefighter I
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.
Prerequisite(s): Permission of chairperson
182 Advanced Firefighting Procedures 8 Cr. Hrs.
A refresher and refinement of professional fire suppression skills to include 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(s): FST 193 and two years firefighting experience. Must have own SCBA and turn-out gear and approval 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.
Prerequisite(s): 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(s): 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(s): FST 192 or FST 181
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

Fundamental principles of water movement through pipe and fire hose; application of formulas to solve friction loss, flow rate, engine and nozzle pressures; evaluation of water supplies and sprinkler requirements. Four lecture, two lab hours per week.
Prerequisite(s): 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

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(s): FST 201

## 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(s): Five years experience as a firefighter and pass firefighter knowledge pre-test

## 210 Water Suppression System II <br> 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(s): 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(s): ARC 107

## 220 Fire Protection Systems Design 4 Cr. Hrs.

Design, installation and maintenance requirements for fire detection systems, chemical suppression systems, standpipe systems, foam systems, fire sprinkler systems; use of computer programs to perform hydraulic calculations and the use of appropriate national fire codes on sprinkler design. Three lecture, two lab hours per week.
Prerequisite(s): FST 116 or FST 204

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(s): FST 192

## 252 Fire Officer Level II

4 Cr. Hrs.
Management, supervision and leadership needed to manage and command multicompany situations are examined. This course meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Level II.
Prerequisite(s): 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(s): 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(s): FST 253

## 270 Fire Science Technology <br> Internship R 1-12 Cr. Hrs.

Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite(s): Permission of chairperson

## 278 Fire Administration Capstone

4 Cr. Hrs.
Master planning, decision making, and problem solving in the public fire protection environment. A capstone course for the Fire Science Technology, Fire Administrative Option.
Prerequisite(s): 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 software. 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, 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.
An introduction to world regional geography, focusing on the developed regions of the world based on their human and physical characteristics and their economic and political organizations.

## 202 World Regional Geography II

## 3 Cr. Hrs.

An introduction to world regional geography, focusing on the developing regions of the world based on their human and physical characteristics and their economic and political organization.
204 Political Geography 3 Cr. Hrs.
This course will introduce students to the field of political geography and focus on the spatial characteristics of political phenomena; emphasis includes the evolution of state, nation, and nation-state as well as the global economy, uneven development, and power politics.
Prerequisite(s): GEO 102 or instructor signature

206 Appalachian Environment 3 Cr. Hrs. Overview of the various cultural and geographic aspects of the rural and urban Appalachian region, including physiography and geology;migration and settlement patterns; historical development, cultural diffusion, population characteristics and economy.

## 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 Ger-man-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(s): GER 101
103 Elementary German III 4 Cr. Hrs. Foundation for understanding, speaking, reading and writing German. Language laboratory work may be required.
Prerequisite(s): GER 102
201 Intermediate German I 4 Cr. Hrs. In the second year of langauge study, students learn to understand the use of most tenses, moods and grammatical features and learn a variety of appropriate idiomatic expressions through readings on topics pertinent to German speakers.
Prerequisite(s): GER 103 and approval of department

## 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.
Corequisite(s): GLG 147 (lab)
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.
Prerequisite(s): GLG 141 and GLG 147 Corequisite(s): GLG 148 (lab)
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 hours (GLG 149) per week. Prerequisite(s): GLG 141 GLG 147
Corequisite(s): GLG 149 (lab)
144 Geological Field Trips 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. Three lecture, two lab hours per week. Prerequisite(s): 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.
Prerequisite(s): ASE 145, MAT 110 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 creditupon submission of a portfolio to an evaluation committee. Younger students with limited experience will participate in selected nonclassroom experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and/or projects are submitted each quarter.

## 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.
Prerequisite(s): Permission of chairperson

## 111 Health Information Processing II <br> 3 Cr. Hrs.

Health care data management, including organization of HIM functions, data quality, access, and retention. Discussion of classification systems, clinical vocabularies and nomenclatures. Two lecture, two lab hours per week.
Prerequisite(s): HIM 110 and approval 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 termsand standard abbreviations of the basic body systems. Prerequisite(s): DEV 065 or equivalent

## 122 Specialized Medical Terminology <br> 3 Cr. Hrs.

Continuation of HIM 121 for students in Health Information Management and in other health related programs requiring expanded working knowledge and understanding of the language of medicine. Prerequisite(s): HIM 121

## 135 Medicolegal Aspects of Health Care Records <br> 3 Cr. Hrs.

Evaluation of health care records as legal documents; special emphasis on policies and procedures concerning release of medical information and protecting patient confidentiality; principles and organization of thejudicial system;health care fraud and abuse and HI.P.AA regulations.
Prerequisite(s): DEV 065 or equivalent

## 178 HIM Intermediate Capstone

1 Cr . Hr .
Practical applications of competencies from the first-year HIM curriculum including projects, laboratory simulations and case studies. Completion of a mock credentialing examination required. Two lab hours per week.
Prerequisite(s): HIM 111 and HIM 135 and HIM 240 and HIM 245 and HIM 265 and ALH 142 and approval of chairperson

## 204 Health Informatics <br> 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.
Prerequisite(s): HIM 111 and permission of chairperson

## 218 Cancer Registry

$1 \mathrm{Cr} . \mathrm{Hr}$.
Organization and operation of a hospital cancer registry under guidelines of the American College of Surgeons emphasizing case finding, accession, indexing, abstracting and follow-up of cancer data.
Prerequisite(s): 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.Prerequisite(s): Approval 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 clinical databases with emphasis on knowledge of abbreviations, laboratory tests, treatments, symptoms and drug therapies. Significant laboratory abstracting practice. Two lecture, two lab hours per week.
Prerequisite(s): ALH 142 and ALH 201 and HIM 111 and approval of chairperson

## 240 Hospital Ambulatory Coding

4 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.
Prerequisite(s): BIO 122 and HIM 260 and HIM 261 and approval of chairperson

## 241 Hospital Inpatient Coding

4 Cr. Hrs.
Theory and application of skills necessary to assign ICD-9-CM diagnosis and procedure codes to inpatient cases for reimbursement and research. Two lecture, four lab hours per week.
Prerequisite(s): HIM 265 and HIM 240 and approval of chairperson

## 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 currentexternal regulatory guidelines and accreditation requirements. Two lecture, two lab hours per week.
Prerequisite(s): HIM 111 and BIS M45 and approval of chairperson

## 245 Health Information Resource Management <br> 3 Cr. Hrs.

Planning, organizing, staffing, budgeting and analysis of management systems along withjob standards and performance evaluations emphasizing development of supervisory managementand leadershipskills. Two lecture, two lab hours per week.
Prerequisite(s): HIM 111 and approval of chairperson

246 Health Care Information Systems 3 Cr. Hrs.
An in-depth look at the use of information systems technology in the health care delivery system. Includes electronic clinical information systems and health records, varioushealth information system applications, information systems life cycle, and information security. Two lecture, two lab hours per week.
Prerequisite(s): HIM 110 and approval of chairperson
249 Health Care Statistics 2 Cr. Hrs. Theory and application of health care statistics as related to data definitions and uses, mathematical review, statistical data collection, computation of statistical formulae and collection and reporting of vital statistics. One lecture, two lab hours per week.

## Prerequisite(s): DEV 085 or equivalent

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. Four practicum hours per week.
Prerequisite(s): HIM 111 and approval of chairperson

## 251 Supervised Professional Practice II 3 Cr. Hrs.

Practical application of health information management processes including medicolegal release of medical information, patientregistration, patient accounts, DRG coordination and assignment, ambulatory coding, flowcharting, generation of job procedures and optical disk scanning. Six practicum hours per week.
Prerequisite(s): HIM 250 and HIM 135 and HIM 236 or HIM 240 and approval of chairperson
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, utilization review, risk management and trauma, cardiac, burn and tumor registries. Eight hours per week in full term.
Prerequisite(s): HIM 231 and HIM 251 and approval of chairperson

## 258 Health Information Registries

## 2 Cr. Hrs.

Organization and operation of health care registries including cancer and trauma. Skill development emphasizing case finding, accession, indexing, abstracting and follow-up of data. One lecture, two lab hours per week. Prerequisite(s): HIM 111 and approval of chairperson

## 260 ICD-9-CM Medical Office Coding <br> 3 Cr. Hrs.

Introduction to principles and conventions 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.
Prerequisite(s): HIM 121 or BIS 137

## 261 CPT Medical Office Coding

3 Cr. Hrs.
Introduction to 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.
Prerequisite(s): HIM 121 or BIS 137

## 262 Advanced Medical Office Coding

 4 Cr. Hrs.Advanced theory and practice of ICD-9CM and CPT coding for the medical office environment. Three lecture hours, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): HIM 231 mustbe 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, AP.C.s and RBRVS. Discussion of data flow from admission to billing and analysis of casemix. Two lecture, two lab hours per week.
Prerequisite(s): HIM 110 and HIM 260 and HIM 261 and approval of chairperson
278 HIM Capstone 3 Cr. Hrs.
Projects, oral and written presentations, case studies, 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. Six lab hours per week.
Prerequisite(s): HIM 251 and approval of chairperson

## 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 (1919Present) <br> 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 UnitedStates 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: 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. Throughlecture and demonstration modules, students will attain skills in these two environments. One lecture, two lab hours per week.
Prerequisite(s): DEV 065 and DEV 085 and DEV 110

## 102 Kitchen Chemistry 3 Cr. Hrs.

An introduction to the applied chemistry of food and food preparation. Lecture demonstrations and take home projects will be used to illustrate course principles.
Prerequisite(s): DEV 065 and DEV 085 and DEV 110 or DEV 101

## 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'soperation and management of food service organizations.
Prerequisite(s): DEV 065, DEV 085, DEV 110

## 107 Sanitation \& Safety 3 Cr. Hrs.

Food sanitation topics including food spoilage, microorganisms, food illnesses and outbreaks, and HACCP (Hazard Analysis Critical Control Point) controls, proper handling of equipment and personal hygiene.
Prerequisite(s): DEV 065, DEV 110 or equivalent

## 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.
Prerequisite(s): DEV 065 and DEV 085 and DEV 110
112 Basic Food Preparation 5 Cr. Hrs. Understanding and practicing food preparation and culinary techniques, soups, sauces, vegetables, grains, farinaceous dishes and salad preparation; interpretation of menus and recipe conversion; maintaining a safe and sanitary kitchen. Two lecture, six lab (HMT 113) hours per week.
Prerequisite(s): HMT 107, DEV 085 and HMT 101 or DIT 137 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.
Prerequisite(s): 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.
Prerequisite(s): HMT 208 and HMT 238

## 125 Bar Operations Management 3 Cr. Hrs.

The use, procurement, cost controls, security aspects and consumption regulation that pertain to alcoholic beverages used and sold in the hospitality industry. Knowledge of beers, wines and spirits, pairing food with drink and equipment needed for a bar operation.
Prerequisite(s): HMT 105
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.
Prerequisite(s): 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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, presentation and application to classical dessert making. Two lecture, six lab hours (HMT 238) per week.
Prerequisite(s): 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 hours (HMT 239) per week.
Prerequisite(s): 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.
Prerequisite(s): HMT 105 and approval of chairperson

## 211 Hospitality Industry Computer Systems <br> 3 Cr. Hrs.

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

## 215 Food \& Labor Cost Controls

3 Cr. Hrs.
Basic methods used to control food, labor and operational costs in an average restaurant, bar and fast food operation. Financial statement analysis as a control, weekly usage sheets, inventories, control records, time card analysis, and sales slips.
Prerequisite(s): HMT 105 and ACC 112 or ACC 121

## 218 Advanced Confectionery \& Pastries

## 5 Cr . Hrs.

Advanced pastry and confectionery techniques including laminated doughs, candy making, plating techniques and introduction to sugar work.
Prerequisite(s): HMT 114 and HMT 115

## 225 Organization \& Administration of Hospitality Industry <br> 3 Cr. Hrs.

This course is designed to provide students with the principles of supervision as they apply specifically to the hospitality industry.
Prerequisite(s): MAN 205, HMT 105

## 226 Purchasing for the Hospitality Industry <br> 3 Cr. Hrs.

Procurement techniques and product information on food, furniture, fixtures and equipment, with emphasis on purchasing as a managerial function.
Prerequisite(s): HMT 105

## 227 Marketing in the Hospitality Industry <br> 3 Cr. Hrs.

Organization of the marketing function in the hospitality industry; its role and responsibility in developing an integrated hospitality marketing program.
Prerequisite(s): 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

This is a corequisite laboratory course to be taken with HMT 207, Butchery \$ Fish Management. Includes hands-on learning associated with several varieties of meats and seafood; butchery and commercial kitchen considerations. Four lab hours per week.
Prerequisite(s): 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

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3 \text { Cr. Hrs. }
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Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students 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 studentseeking employment with application procedures and job interviews.
Prerequisite(s): HMT 215, HMT 225 and MAN 205

## 297 Special Topics in Hospitality Industry R 1-5 Cr. Hrs.

 Topics within the Hospitality or Culinary Arts programs not covered within existing courses; opportunities for non-traditional learning and continuing professional development in these areas.
## Humanities (HUM)

115 International Environment: Culture \& Business $\quad 3$ 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. In addition, this course provides an introduction to human thought, creativity, and human forms of expression by examining the links between historical realities and human culture.

## 130 Humanity \& the Challenge of Technology <br> 3 Cr. Hrs.

Opportunities and dangers faced by humankind in the evolution of new technologies through examining several instances of contemporary technological development.

## 131 The Search for Utopia 3 Cr. Hrs.

A survey of humanity's creative search for the ideal society with special emphasis on 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.
204 Religion in Appalachia 3 Cr. Hrs. The role of Appalachian Mountain religion in rural and urban Appalachia and the intertwining of the Appalachian culture and religion. Also focuses on a variety of distinctive Appalachian regional religious traditions.

## 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.

## 255 People \& Religion 3 Cr. Hrs.

Interdisciplinary investigation of the religious influences in the life of the individual and in society.
297 Special Topics: 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.

# Heating, Ventilating, Air Conditioning \& Refrigeration Engineering Technology (HVA) 

101 ABC Level 1-A Core Curriculum

3.5 Cr. Hrs.

Core curriculum in the ABC apprenticeship program, including safety, basic math, hand and power tools, blueprint reading and rigging. One and one-half lecture, six lab hours per week.
Prerequisite(s): Approval of chairperson

## 102 HVAC Level 1-B ABC 3.5 Cr. Hrs.

Beginning HVAC courses for participants in the ABC apprenticeship program. Includes introduction to HVAC, piping practices, basic electricity, and introductions to cooling and heating. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 101 and approval of chairperson

## 103 HVAC Level 2-A ABC 3.5 Cr. Hrs.

Air distribution systems, furnaces, mechanical maintenance, electricity and electronics, and HVAC controls. One and one-half lecture, six lab hours per week. Prerequisite(s): HVA 102 and approval of chairperson

## 104 HVAC Level 2-B ABC 3.5 Cr. Hrs.

Fundamentals of heat pumps, compressors, metering devices and refrigerant management. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 103 and approval of chairperson

## 112 Sheetmetal Level 1-B ABC

### 3.5 Cr. Hrs.

Basic sheetmetal topics, including fasteners, hangers, supports, insulation, installation of accessories, and basic fabrication. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 101 and approval of chairperson

## 113 Sheetmetal Level 2-A ABC

### 3.5 Cr . Hrs.

Trade math, basic piping practices and fabrication using radial lines. One and onehalf lecture, six lab hours per week.
Prerequisite(s): HVA 112 and approval of chairperson

## 114 Sheetmetal Level 2-B ABC

3.5 Cr. Hrs.

Blueprints and specifications, air properties and distribution, sheet metal duct fabrication standards, soldering and fabrication of fiberglass ductwork. One and one-half lecture, six lab hours per week. Prerequisite(s): HVA 113 and approval of chairperson

122 Plumbing Level 1-B ABC
3.5 Cr. Hrs.

Plumbing profession, plumbing safety, piping, fittings, fixtures, plumbing drawings and plumbing math. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 101 and approval of chairperson
123 Plumbing Level 2-A ABC
3.5 Cr. Hrs.

Reading commercial drawings, installing and treating DWV piping, installing roof, floor and area drains, pipe hangers and supports, and valves. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 122 and approval of chairperson

## 124 Plumbing Level 2-B ABC

3.5 Cr. Hrs.

Installing, testing and servicing water supply piping, fixtures, valves, faucets, water heaters and fuel gas systems. One and onehalf lecture, six lab hours per week.
Prerequisite(s): HVA 123 and approval of chairperson

## 140 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 \& power connections. Hands-on skills and code requirements will be stressed along with good safety practices. Two lecture, two lab hours per week.
Prerequisite(s): DEV 085

## 141 HVAC Installation Practices

2 Cr . Hrs.
Installation practices for residential and light commercial HVACR systems. Includes study of applicable codes, installation techniques/ and installation of a completeresidential HVACRsystem. Note: this course is scheduled to coincide with work on homes for Habitat for Humanity and requires 4-6 Saturday build days offcampus in the local metropolitan area. One lecture, two lab hours per week.
Prerequisite(s): HVA 140 and HVA 162

## 144 Introduction to HVAC Systems

3 Cr. Hrs.
Basic concepts and theory of heating, ventilating, air conditioning and refrigeration systems, including basic use of required instruments to measure temperature, humidity, airflow and refrigerant pressures. Two lecture, two lab hours per week. Prerequisite(s): DEV 108 or INT 141

## 160 Basics of Heating \& Heating

 Systems3 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(s): MET 106 or HVA 144

## 162 HVAC Loads \& Distribution for Small Buildings $\quad 4$ 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, four lab hours per week.
Prerequisite(s): DEV 108 or INT 141

## 170 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.
Prerequisite(s): MET 106 or HVA 144 and MET 198 or ETD 198 and MAT 101 or MAT 192

## 174 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.
Prerequisite(s): MET 106 or HVA 144 and MET 198 or ETD 198 and MAT 101 or MAT 192

## 177 Testing, Adjusting \& Balancing in HVAC Systems <br> 3 Cr. Hrs.

Theory and practice of testing, adjusting and balancing (TAB) air and water in HVAC systems. Includes practices, 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.
Prerequisite(s): MET 106 or HVA 144 and MET 120 or HVA 162 or MET 125 or MET 126 or HVA 170

180 Boilers in HVAC Systems 3 Cr. Hrs. A reference course for experienced and inexperienced HVAC professionals. A comprehensive study of low pressure and high pressure hot water/steam generation, including the fundamentals of heat generation in water based heating systems and gas-fired radiant heating systems. Two lecture, two lab hours per week.
Prerequisite(s): MET 106 or HVA 144

## 184 Basics of Cooling \& Cooling Systems <br> 3 Cr . Hrs.

 Foundations in the applications of cooling principles in light commercial equipment. Designed for those with hands-on HVAC responsibilities or the desire to gain a deeper understanding of the principles behind the refrigeration cycle. Major components include refrigerant flow through equipment, applications of equipment to the refrigeration cycle, heat transfer fundamentals and preparation for the EPA refrigerant handler's certification exam. Two lecture, two lab hours per week. Prerequisite(s): HVA 144 or MET 106
## 186 Modern Refrigeration Practice

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3 \text { Cr. Hrs. }
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Theoretical and practical basis for design and application of refrigeration systems, including cycle analysis and equipment sizing. Two lecture, two lab hours per week.
Prerequisite(s): MET 130 or HVA 184 and MAT 101 or MAT 192

## 190 HVAC Mechanical Troubleshooting <br> 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.
Prerequisite(s): MET 111 or HVA 160 and MET 130 or HVA 184

## 194 HVAC Electrical Troubleshooting

 3 Cr. Hrs.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 electrical control problems. Two lecture, two lab hours per week.
Prerequisite(s): EET 119 and MET 111 or HVA 160 and MET 130 or HVA 184
201 HVAC Level 3-A ABC 3.5 Cr. Hrs. Basics of preventive and planned maintenance, electrical and electronic troubleshooting, and troubleshooting heating systems. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 104 and approval of chairperson

202 HVAC Level 3-B ABC 3.5 Cr. Hrs.
Troubleshooting of cooling systems, heat pumps and accessories; commercial heating and cooling systems, air and water balance, steam systems and customer relations. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 201 and approval of chairperson

## 203 HVAC Level 4-A ABC 3.5 Cr. Hrs.

Advanced blueprint reading, indoor air quality, energy conservation equipment, energy management systems and water treatment for HVAC systems. One and onehalf lecture, six lab hours per week.
Prerequisite(s): HVA 202 and approval of chairperson

## 204 HVAC Level 4-B ABC 3.5 Cr. Hrs.

Start-up and shutdown of HVAC systems, heating and cooling system design, and commercial and industrial refrigeration. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 203 and approval of chairperson

## 211 Sheetmetal 3-A ABC 3.5 Cr. Hrs.

Field measuring and fittings, air systems, welding, brazing, cutting, refrigeration and airflow principles. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 114 and approval of chairperson

## 212 Sheetmetal Level 3-B ABC

3.5 Cr. Hrs.

Comprehensive blueprint and specification reading, fabrication by triangulation, and architectural sheet metal. One and onehalf lecture, six lab hours per week.
Prerequisite(s): HVA 211 and approval of chairperson

## 213 Sheetmetal Level 4-A ABC

3.5 Cr. Hrs.

Sheetmetal shop production and organization, air balance, louvers, dampers and access doors. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 212 and approval of chairperson

## 214 Sheetmetal Level 4-B ABC

3.5 Cr . Hrs.

Fume and exhaust system design, review of fabrication techniques, and introductory skills for the crew leader. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 213 and approval of chairperson

## 221 Plumbing Level 3-A ABC 3.5 Cr. Hrs.

Sizing water supply piping, potable water supply treatment and backflow preventers. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 124 and approval of chairperson

## 222 Plumbing Level 3-B ABC

3.5 Cr. Hrs.

Types of venting, sizing DWV and storm systems, sewage and sump pumps, corro-sive-resistant waste pipe and compressed air systems. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 221 and approval of chairperson

## 223 Plumbing Level 4-A ABC

3.5 Cr. Hrs.

Sizing DWV and storm systems, private water supply systems, private waste disposal systems, locating buried water and sewer lines, and hydronic and solar heating systems. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 222 and approval of chairperson

## 224 Plumbing Level 4-B ABC

### 3.5 Cr. Hrs.

Water supply treatment, swimming pools and hot tubs, compressed air, corrosiveresistant waste piping, and plumbing for mobile homes and mobile home parks. One and one-half lecture, six lab hours per week.
Prerequisite(s): HVA 223 and approval of chairperson
231 Stationary Engineering 4 Cr. Hrs. Fundamentals of stationary engineering, including hydronic and steam boilers, burners, fuels, combustion, pumps and specialties. Three lecture, two lab hours per week.

## Prerequisite(s): Approval of chairperson

232 Electricity \& Refrigerants 4 Cr. Hrs. Review of electrical principles as applied to HVAC systems, use of meters and schematics for electrical troubleshooting, current refrigerants and refrigerant oils, and refrigerant pipe sizing. Three lecture, two lab hours per week.
Prerequisite(s): Approval of chairperson

## 233 Compressors <br> 4 Cr . Hrs.

Fundamentals of reciprocating, rotary, centrifugal, scroll and screw compressors and accessories. Three lecture, two lab hours per week.
Prerequisite(s): Approval of chairperson
234 Chillers 4 Cr. Hrs.
Application of reciprocating and centrifugal chillers to HVAC systems; includes chiller specialties, cooling towers and water conditioning. Three lecture, two lab hours per week.
Prerequisite(s): Approval of chairperson

## 235 Testing, Adjusting \& Balancing P/P

 4 Cr. Hrs.Principles of air and water balance, including how to properly balance air handling units, fans, ducts and water systems. Three lecture, two lab hours per week.
Prerequisite(s): Approval of chairperson

## 236 Heating \& Cooling Controls

4 Cr. Hrs.
Controls for HVAC systems, including heating and cooling controls as well as pneumatic and DDC systems. Three lecture, two lab hours per week.
Prerequisite(s): Approval of chairperson

## 240 Principles of Process 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 with an emphasis on control loop performance and tuning. Two lecture, two lab hours per week.
Prerequisite(s): EET 119 and MET 198 or ETD 198 and MET 205 or HVA 286 or MET 125 or MET 126 or HVA 170

## 243 Controls for Building HVAC

 Systems3 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.
Prerequisite(s): MET 228 or HVA 240 and MET 145 or MET 146 or HVA 174

## 250 Industrial Process Exhaust

3 Cr . Hrs.
The design and operation of ventilation systems for laboratory, kitchen and industrial process exhaust. Two lecture, two lab hours per week.
Prerequisite(s): MET 125 or MET 126 or HVA 170

## 253 Advanced HVAC Applications

## 3 Cr. Hrs.

Theory and techniques for design of heating, ventilation, and air conditioning systems for modern commercial and industrial buildings. Two lecture, two lab hours per week.
Prerequisite(s): MET 125 or MET 126 or HVA 170 and MET 145 or MET 146 or HVA 174

## 254 Advanced HVAC Applications II

3 Cr . Hrs.
This continuation of MET 253 (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(s): MET 240 or HVA 253

## 270 HVACR Engineering Technology Internship R 1-12 Cr. Hrs.

Preparing a portfolio based on work re-lated/on-the-job experience.
Prerequisite(s): Approval of chairperson

## 272 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 with a special emphasis on methods of estimating piping and ducting systems. Two lecture, two lab hours per week.
Prerequisite(s): ARC 138 or CAT 138 and MET 106 or HVA 144

## 276 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. Two lecture, two lab hours per week. Prerequisite(s): MET 240 or HVA 253 or equivalent professional experience

## 278 HVACR Applications Capstone

 Project6 Cr. Hrs.
Application of design techniques including computer software to design of HVAC system for representative model building. Four lecture, four lab hours per week.
Prerequisite(s): MET 229 or HVA 243 and MET 242 or HVA 254

## 286 Fluid Mechanics <br> 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(s): ETD 213 or MET 203

## 288 Thermodynamics <br> 4 Cr . Hrs.

The laws and application of the principles of thermodynamics as they apply to internal combustion engines, steam cycles, and refrigeration.
Prerequisite(s): MET 205 or HVA 286

## 297 Special Topics in HVACR <br> Technology 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(s): Approval of chairperson

> Industrial Engineering Technology (IET) See Operations Technology (OPT)

## 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(s): 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.
Prerequisite(s): 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(s): IND 131
135 Graphic Rendering 3 Cr. Hrs.
Technique development to aid in the visualization of materials and colors in presentation drawings and three-dimensional interpretation of space.
Prerequisite(s): IND 132

## 231 Advanced Interior Design I

4 Cr. Hrs.
Advanced issues in barrier-free/universal design. Study and application of construction types. Two lecture, four lab hours per week.
Prerequisite(s): 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. Twolecture, four lab hours per week.
Prerequisite(s): 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(s): 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(s): 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): INT 109 or INT 112 and ETD 128 or 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

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2 \text { Cr. Hrs. }
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Introduction to patternmaking tools and safe operation practices.

## 122 Basics of Pattern Making 2 Cr. Hrs.

The various constructions, machinery and processes are demonstrated.
Prerequisite(s): INT 121
131 Basic Moldmaking 3 Cr. Hrs.
Basic topics of moldmaking including material properties, injection, transfer and blow molding.

132 Advanced Moldmaking 3 Cr. Hrs. Advanced aspects of moldmaking including die casting, rubber molds, blow molding and mold construction.
Prerequisite(s): INT 131

## 141 Applied Shop Mathematics I

 3 Cr. Hrs.Topics in arithmetic and algebra that relate durability with problems encountered in a metalworking training program.
Prerequisite(s): DEV 085

## 142 Applied Shop Mathematics II

 3 Cr. Hrs.Theory and applications of plane geometry encountered in the metalworking industry.
Prerequisite(s): INT 141

## 143 Applied Shop Mathematics III

3 Cr. Hrs.
Theory and application of trigonometry as applied to the metalworking industry: compound angles, tapers and measurement set-ups.
Prerequisite(s): 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.
Prerequisite(s): INT 109 or INT112 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, parallelclamp,non-twistclamp,1-2-3blocks, 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 gage, magnetic parallels (2), V-block and clamp assembly, and double V-block and clamp assembly. Two lecture, eighteen lab hours per week.
Prerequisite(s): 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(s): INT 162

## 165 Advanced Machine Operations Laboratory <br> 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.
Prerequisite(s): 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(s): INT 113
209 Computer Numerical Control Wire Electrical Discharge Machining Programming 3 Cr. Hrs.
ComputerNumerical Control Wire Electrical Discharge Machining (EDM) programming and machine tool operation. Two lecture, two lab hours per week.
Prerequisite(s): INT 113

## 211 Advanced Computer Numerical Control <br> 3 Cr . Hrs.

Basics of CNC programming language, the programming format and CNC tools and equipment. Two lecture, two lab hours per week.
Prerequisite(s): INT 113

## 212 Computer Assisted Programming

3 Cr. Hrs.
Programming assignments and implementation with CNC equipment. Two lecture, two lab hours per week.
Prerequisite(s): INT 211

## 213 Computer Numerical Control Applications <br> 3 Cr. Hrs.

Programming and operation ofmachinesusing single part and large volume production techniques with emphasis on workholding, roughmachining,high precisionmachining, computer assisted programming, G-code programming, and conversational programming; production of a variety of products. Two lecture, two lab hours per week.
Prerequisite(s): INT 212

## 225 Tool Design <br> 3 Cr. Hrs.

Scientific principles involved in the design and use of tools used for material removal, press working, casting, joining and inspection processes. Two lecture, two lab hours per week.
Prerequisite(s): 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(s): ETD 231, INT 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.
Prerequisite(s): ETD 231, INT 226 and QET 117

## 228 Advanced CNC Milling 3 Cr. Hrs.

Designed for toolmakers, machinists and Computer Numerical Control (CNC) technicians. This class introduces students to the concept of advanced CNC mill applications and procedures. It also teaches advanced process refining, advanced setup procedures, and in-process inspection. Two lecture, two lab hours per week.
Prerequisite(s): INT 226 and QET 117 and ETD 231, INT 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.
Prerequisite(s): Approval of chairperson

## 297 Special Topics in Tooling \& Machining $R \quad$ 3-12 Cr. Hrs.

Providesopportunities 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(s): 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(s): ENG 111

## 102 Journalism II

3 Cr. Hrs.
Advanced reporting and news writing with emphasis in writing news, features, and sports articles. Students will report, write and submit articles for possible publication.
Prerequisite(s): JOU 101

## 203 Multimedia Journalism 3 Cr. Hrs.

Reporting and writing for online journalism with an emphasis on multi-element news stories. Audio interviews and individual web logs will be created.
Prerequisite(s): 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 languageand 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(s): JPN 100

## Liberal Arts \& Sciences <br> (LA)

## 101 Student Success Experience

2 Cr. Hrs.
Campus resources overview; general education introduction and skills development; diversity; learning/teaching styles; study skills; planning and goal setting.

## Law (LAW)

101 Business Law I
4 Cr. Hrs.
The American legal system as it relates to business transactions including the judicial system and sources of law, legal procedures, torts, business ethics and social responsibility, contacts, property, employment law, partnerships and corporations.
102 Business Law II
4 Cr. Hrs.
The American legal system as it relates to business transactions including the laws of commercial paper, secured transactions, agency, corporations, partnerships, bankruptcy, consumer rights, insurance, and crimes that affect businesses.
Prerequisite(s): LAW 101
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 effect 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.

## Literature (LIT)

## 201 Survey of English Literature (to 1660) <br> 3 Cr. Hrs.

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

## 202 Survey of English Literature (16601832) <br> 3 Cr. Hrs.

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

## 203 Survey of English Literature (1832present) <br> 3 Cr. Hrs.

Chronological survey of major writers of English poetry, drama, and prose from 1832 through the modern era.

## 205 Modern Short Story 3 Cr. Hrs.

Studies literary techniques and thematic concerns of modern writers.

## 211 Survey of American Literature I (Colonial \& Early 19th Century)

 3 Cr. Hrs. A chronological survey of notable American authors from the colonial to the Civil War eras.
## 212 Survey of American Literature II (Later 19th Century) 3 Cr. Hrs.

Notable American authors from the Civil War era to the 1920's.

## 213 Survey of American Literature III (20th Century) <br> 3 Cr . Hrs.

Notable American authors from the 1920s until the present.

## 215 Introduction to Science Fiction Literature <br> 3 Cr. Hrs.

Literary values, themes, and techniques of science fiction.

## 217 Images of Women in Literature

 3 Cr. Hrs.Major images of women in literature, with emphasis on contemporary literature's role in both reflecting and shaping society's views of women.

## 219 Literature of Aviation 3 Cr. Hrs.

An analysis of five works of fiction and nonfiction that reflect both the technological and the humanistic impact of aviation in the twentieth century.

## 227 Introduction to Shakespeare

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(s): 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(s): ENG 111

## 234 Literature of Africa, Asia, \& Latin American <br> 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(s): 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. Includes basic introduction of concepts of management, marketing, economic, and accounting and other important business principles.

## 110 Introduction to International Business $\quad 3$ 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 emphasizing 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.
Prerequisite(s): 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(s): MAN 205

## 210 Introduction to Project

 Management3 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.
Prerequisite(s): MAT 122, BIS 160

## 225 Human Relations \& Organizational Behavior <br> 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(s): 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(s): MAN 205

## 230 Motivational Concepts \& Applications <br> 1 Cr . Hr .

Practical interactive application of current motivational principles. Emphasis is placed on behavior modification, work groups, and the use of gainsharing.
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 human resource management environment using a diagnostic model of internal and external influences.
Prerequisite(s): MAN 205

## 238 Human Resource Management Applications <br> 3 Cr. Hrs.

Case method applied to contemporary human resource management concepts, such as methods of communication, motivation, performance reviews and other personnel issues to achieve a productive and efficient work climate.
Prerequisite(s): MAN 237

## 241 Introduction to Supply Chain Management <br> 3 Cr. Hrs.

Introduction to the basic elements of Supply Chain Management (SCM) and their impact on the effective operations of manufacturing, service, and government organizations in the private and public sectors. Key roles of purchasing and materials management as part of the distribution channel between suppliers and consumers, including the importance of integration of the purchasing, operations, and logistics functions.

242 Advanced Supply Chain Management

3 Cr. Hrs. In-depth study of Supply Chain Management (SCM) functions and the application of effective SCM strategies and practices to achieve improved operations in manufacturing, service, and government organizations.Analysis of real-world SCM challenges, strategies, and techniques associated with materials requirements, supplier relations, purchasing, operations, and logistics management.
Prerequisite(s): MAN 241 and MAT 116 or MAT 121
243 Materials Management 3 Cr. Hrs. In-depth study of the important functions of Materials Management in manufacturing and service industries and in government organizations. Traditional and emerging standards, tools, and techniques for supplies and materials requirements forecasting, capacity planning, production scheduling, and inventory control. Prerequisite(s): MAN 241
244 Negotiation Techniques 3 Cr. Hrs. Application of basic principles of Negotiation Techniques through the introduction and analysis of the negotiation process and through case studies. Accurate identification of requirements specifications, proposal analysis, and purchasing and contract negotiations with relevance to conciliation, compromise, and agreement in other business and personal life situations.

## 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(s): MAN 205

## 247 DoD Systems Acquisition Management

3 Cr. Hrs.
This course provides a broad overview of the DoD Systems Acquisition Management process, covering all phases of acquisition. It introduces the Joint Capabilities Integration and Development System (JCIDS) and resource allocation processes, the DoD 5000 Series documents governing the defense acquisition process, and current issues in systems acquisition management.

## 248 DoD Acquisition Logistics Fundamentals

3 Cr. Hrs.
Broad overview of the role of the DoD Acquisition Logistics process in systems acquisition life cycle and system engineering processes. Logistics-relevant aspects of requirements identification, life cycle costing, integrated product and process development, sustainment logistics, supportability analysis, product support, contracting, and contractor support. Prerequisite(s): MAN 247

251 Logistics Management 3 Cr. Hrs.
An examination of the Logistics Management process, its major functional areas, and objectives. Common life cycle operations in manufacturing, service, and government organizations, including the study of the logistics functional process, its physical and automated systems, interrelationships, and interdependencies.
Prerequisite(s): MAN 205
255 Management Information Systems I

## 3 Cr. Hrs.

Management perspective of information systems activity from development through implementation.
Prerequisite(s): MAN 205

## 256 Informations Systems Applications

 3 Cr. Hrs.Techniques for conducting a systems project; management concepts/tools applied in systems analysis/design.
Prerequisite(s): 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.
Prerequisite(s): CIS 119, MAT 122
261 Management Science II 3 Cr. Hrs. A continuation of MAN 260. Greater emphasis is placed on problem solving and analysis.
Prerequisite(s): MAN 260

## 263 The Business of Art: A Historical Perspective <br> 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.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

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(s): MAN 295
295 Management Seminar 3 Cr. Hrs. Application of previously learned management concepts through case study, readings, and discussion of contemporary issues.
Prerequisite(s): MAN 201 and MAN 205 and MAN 216 and MAN 225 and MAN 255 and approval of faculty member
296 Special Projects in Business $R$ 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.
Prerequisite(s): MAS 101 and HIM 121 and restricted to majors
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(s): MAS 101 and approval of chairperson

## 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.
Prerequisite(s): MAS 103 and HIM 122 and ALH 142 and ALH 106 and restricted to majors

## 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.
Prerequisite(s): MAS 102 and ENG 132 and restricted to majors

## 106 Medical Office Emergency Procedures <br> 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(s): ALH 140 and MAS 104 and restricted to majors
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.
Prerequisite(s): 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(s): 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.Prerequisite(s): MAS 104 and MAT 106 and restricted to majors

## 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 preservicing records. Two lecture, two lab hours per week.
Prerequisite(s): HIM 122 and HIM 260 and HIM 261 and ALH 104

## 203 Medical Assisting Directed Practice I <br> 2 Cr. Hrs.

Introduction to the ambulatory care clinical setting involving structured observation and participation in the administrative and clinical aspects of patient care under the supervision of a licensed physician or certified medical assistant; assisting with patient preparation, physical examinations, scheduling appointments, bookkeeping tasks and medical transcription. One lecture, six clinical hours per week. Prerequisite(s): MAS 104 and COM 206 and MAS 105 and ALH 140 and restricted to majors

## 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(s): MAS 203 and restricted to majors

## 205 Medical Assisting Directed Practice III <br> 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(s): MAS 204 and restricted to majors

## 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.
Prerequisite(s): 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(s): MAS 104 and ALH 142 and restricted to majors

## 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(s): MAS 204 and restricted to majors

## 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 Technology 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.
Prerequisite(s): 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. Prerequisite(s): MAT 101 or MAT 192 grade of "C" or better 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.
Prerequisite(s): DEV 085 or DEV 108 or MAT 101 or satisfactory score on placement test

## 106 Allied Health Mathematics

4 Cr. Hrs.
Applications of fractions, decimals, and percentages, the metric system, the apothecary system, signed numbers, first-degree equations, literal equations, ratios and proportions, instrumentation, graphing and interpreting graphs, frequency distributions, central tendency, and scientific notation.
Prerequisite(s): 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, descriptiveand inferential statistics, game theory, logical reasoning, and growth and decay.
Prerequisite(s): MAT 102 or MAT 116 or MAT 131 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.
Prerequisite(s): Acceptance into Nursing program or permission of the Mathematics department

## 116 College Algebra

5 Cr. Hrs.
Polynomial, rational, inverse, exponential and logarithmic functions and their graphs, roots of polynomialfunctions, conicsections, systems of equations, matrices and determinants, sequences and series. A scientific calculator is required. A graphing calculator is required in some sections.
Prerequisite(s): Grade of " $C$ " or better in MAT 102 or MAT 117 or MAT 132 or MAT 133 or MAT 201 or MAT 202 or MAT 203 or equivalentor satisfactory scoreon mathematics placement test

## 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.
Prerequisite(s): Grade of " C " or better in MAT 116 or equivalent or satisfactory score on mathematics placement test

## 121 Mathematics for Business Analysis

 5 Cr. Hrs.Applications of mathematics to business analysis. Polynomials, fractional forms, exponents, radicals, equations and inequalities, graphs and functions, systems of equations, matrices, linear programming, permutations and combinations, simple and compound interest and annuities.
Prerequisite(s): Grade of "C" or better in MAT 101 or MAT 102 or equivalent or satisfactory score on mathematics placement test

## 122 Statistics I <br> 4 Cr. Hrs.

Statistical techniques and methodology. Graphical and tabular presentation of data, probability, parameters, statistical distributions, sampling, confidence intervals, and tests of hypotheses.
Prerequisite(s): Grade of " C " or better in MAT 116 or MAT 121 or satisfactory score on mathematics placement test

## 131 Technical Mathematics I 5 Cr. Hrs.

 Accuracy and precision with approximate numbers, functions, graphs, right triangle trigonometry, systems of linear equations, factoring, rational expressions, quadratic equations. Scientific calculator required.Prerequisite(s): Grade of " $C$ " or better in MAT 101 or sufficient score on mathematics placement test

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

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(s): Grade of "C" or better in MAT 131 or sufficient score on mathematics placement test
133 Technical Mathematics III 5 Cr. Hrs. Conic sections, polar coordinates, derivatives of algebraic functions, applications of the derivative, integration, applications of integration. Scientific calculator required. Prerequisite(s): Grade of "C" or better in MAT 132 or sufficient score on mathematics placement test
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.
Prerequisite(s): Grade of "C" or better in MAT 133 or sufficient score on mathematics placement test

## 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.
Prerequisite(s): Grade of "C" or better in MAT 102 or sufficient score on mathematics placement test

## 142 Algebra \& Data Analysis for Teachers 4 Cr. Hrs.

Introduction to the concepts of using functions to model data; basic probability; and basic statistics as appropriate for early and middle childhood teachers. An inquiry and activity based approach is used to explore linear and quadratic functions, linear inequalities, modeling data with functions, probability concepts, descriptive statistics, and basic inferential statistics.
Prerequisite(s): Grade of "C" or better in MAT 141 and score of $90 \%$ or better on math proficiency test for teachers

## 143 Geometry \& Measurement for Teachers <br> 4 Cr. Hrs.

This course introduces the concepts of geometry and measurement as appropriate for early and middle childhood teachers. An inquiry and activity based approach is used to explore basic two- and three-dimensional geometric concepts, basic geometric constructions, congruence, similarity, measurement, computing area and volume, symmetry, and transformations of two-dimensional figures. Three lecture, two lab hours per week.
Prerequisite(s): Grade of " C " or better in MAT 142 or grade of " C " or better in both MAT 110 and MAT 141

## 151 Introduction to Mathematical Modeling <br> 3 Cr. Hrs.

Includes data analysis (linear and nonlinear methods), modeling with continuous functions, modeling with discrete mathematics (matrices and graph theory). Prerequisite(s): MAT 116 or equivalent

## 201 Calculus \& Analytic Geometry I

## 5 Cr. Hrs.

Cartesian coordinate system, functions, limits and continuity of functions, the derivative and its applications, the integral and the fundamental theorem of calculus. This is the first of a four quarter sequence.
Prerequisite(s): Satisfactory score on mathematics placement test or grade of " C " or better in MAT 117 or MAT 133

## 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.
Prerequisite(s): Satisfactory score on mathematics placement test or grade of " C " or better in MAT 201 or MAT 134

## 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.
Prerequisite(s): Grade of " C " or better in MAT 202 or satisfactory score on mathematics placement test

204 Calculus \& Analytic Geometry IV 5 Cr . Hrs.
This is the last course in a four quarter sequence for science and engineering majors. functions of several variables, partial derivatives with applications, multiple integrals with applications, line integrals, surface integrals, vector fields, Green's Theorem, the Divergence Theorem and Stokes's Theorem.
Prerequisite(s): Grade of "C" or better in one of the following: MAT 203 or MAT 215 or MAT 216 or satisfactory score on mathematics placement test
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.
Prerequisite(s): Grade of " C " or better in MAT 203 or satisfactory score on mathematics placement test

## 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.
Prerequisite(s): Grade of " C " or better in MAT 203 or satisfactory score on mathematics placement test

## 218 Calculus for Business \& Economics

## 5 Cr . Hrs.

Functions and graphs, limits and continuity, the derivative, techniques of differentiation, applied problems in business and economics, exponential and logarithmic functions, techniques of integration, applications of integration.
Prerequisite(s): Grade of "C" or better in MAT 116 or MAT 117 or MAT 133 or MAT 134 or MAT 151 or MAT 201 or sufficiently high score on mathematics placement test
220 Statistics II
4 Cr. Hrs.
Statistical inferences including estimation, confidence intervals, and tests of hypotheses for means, standard deviation, and proportions; analysis of variance; regression analysis; chi-square; business applications. Students will develop a basic competency in using a computer spreadsheet to perform statistical calculations. Prerequisite(s): "C" or better in MAT 122 or satisfactory grade on MAT 220 placement test

## 297 Special Topics in Mathematics R

0.5-6 Cr. Hrs.

Varied content offerings of special interest within the discipline, but not covered within existing courses.

## 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 Casework

3 Cr. Hrs.
Basic principles and skills for the professional helping relationship. Professional and multi-cultural issues in clinical practice. Casework problem solving model is emphasized.
Prerequisite(s): MHT 101, restricted to MHT majors

## 120 Chemically Dependent Women

$$
1 \mathrm{Cr} . \mathrm{Hr} .
$$

Needs and issues pertaining to chemically dependent women. Engaging women in the treatment process. Treatment techniques which foster recovery.

## 121 Chemically Dependent Families

$1 \mathrm{Cr} . \mathrm{Hr}$.
Effects of addiction on the family unit. Addiction's impact on family communication patterns, codependency, coping skills, and the process of family recovery.

## 122 Appalachian Issues in 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 <br> 1 Cr . Hr .

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

## 126 Introduction to Substance Related Disorders <br> 3 Cr. Hrs.

Fundamentals of chemical dependency. Physical and mental effects of psychoactive drugs. Impact of addictive illness on the individual, family and society. Knowledge regarding: (a) the disease concept, (b) stigma and misunderstanding of addictive illness, (c) identification and assessment, (d) trends in treatment, and (e) the relapse process. Developing empathy and personal insight into the inner life of persons with addictions. Challenging biases; identifying issues that may hinder work in the addictions field. Elements of professional / ethical behavior.

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 <br> 4 Cr. Hrs.

Contemporary holistic treatment methods. Models of treatment with individual, group, case management, intervention and family. Levels of care and stages of recovery. Ethical, legal and professional behaviors. Three lecture, two lab hours per week.

## 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$1 \mathrm{Cr} . \mathrm{Hr}$.
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

 Care3 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 IIIness <br> 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 childrenand adolescents.Service planning and community resources.

## 141 Treating Potentially Dangerous People <br> 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 $\quad 1 \mathrm{Cr}$. Hr .

An integrative, practical, and analytical approach to understanding the client and stimuli that may evoke violence.

## 143 Issues in Professional Ethics R <br> 1 Cr . Hr.

Application of ethical codes, laws and agency policies and procedures, focusing on a current issue in professional ethics in the helping professions. Review of professional ethics in relation to personal biases and opinions on the issues. Example issues include death with dignity, personal biases, religion and professional ethics, technology's application in the work place.

## 144 Counseling Strategies in Cases of

 Domestic Violence1 Cr. Hr.
This course reviews best practices by advocates for victims of domestic violence including professional interventions, screening, treatment approaches/ risk factors, crisis intervention strategies, diagnoses, and professional reporting duties. Special populations are considered.

## 146 Group Counseling in Chemical

 Dependency Treatment 1 Cr . Hr. Overview of group counseling for clients and families affected by substance abuse/ dependence. Group models and techniques as applied to the needs, culture, and readiness for change of the individual; client preparation and phases of C.D. group development; group leader traits; typical difficult group dynamics. Significant class time devoted to group counseling participation, practice and observation.
## 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(s): 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.
Prerequisite(s): 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, two lab hours per week.
Prerequisite(s): 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(s): 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(s): MHT 203

## 205 Psychosocial Interventions

3 Cr. Hrs.
Acquiring and applying advanced clinical interventions and treatment modalities for various client populations.
Prerequisite(s): MHT 115 and PSY 217
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 <br> 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(s): MHT 115

## 212 Group Dynamics II <br> 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(s): 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(s): 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(s): MHT 115
226 Lab for MHT 221
Laboratory must be taken with MHT 221.

## 245 Mental Health \& the Family

4 Cr. Hrs.
Underlying dynamics and interactional patterns in family functioning and the impact of family dysfunction on individuals. Methodologies of clinical intervention, highlighting issues and trends facing contemporary families.
Prerequisite(s): MHT 205 and ENG 112
296 Special Topics in Mental Health 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(s): MRK 201

## 205 Direct Marketing <br> 3 Cr. Hrs.

The use of directing marketing continues to grow each year, as more and more organizations are employing it to cost effectively create profitable, long-term customer relationships. In this course, students will learn practical tools and techniques to evoke, record, and analyze customers' behavior. The course discusses trends such as e-commerce and database marketing, as well as covering the tried-and-true approaches that have made direct marketing such as vital part of leading companies' strategies.
Prerequisite(s): MRK 201

## 208 Sports Marketing 3 Cr. Hrs.

An introduction to the specialized field of sports and event marketing. Develops basic knowledge and understanding of sports and event marketing and highlights areas of consumer preference, segmentation, targeting, positioning and other critical strategic issues.
Prerequisite(s): MRK 201

## 209 Hip Hop Marketing: Buying \& Selling Culture 3 Cr. Hrs.

Examination of the impact marketing has on hip-hop culture and the effects of hiphop on corporate America product sales to the younger generation. Exploration of the interdependent relationship between hip hop artists and marketing.

## 210 Computer Applications in Marketing <br> 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.
Prerequisite(s): MRK 201, MRK 202, MAT 105

215 Advertising
3 Cr. Hrs.
The course emphasizes a part of the marketing mix involving integrated marketing communications (IMC). The concepts of IMC enhance the equity of brands and show how advertising, promotion, packaging and branding strategies, point-of-purchase communications, public relations, event, and cause oriented sponsorships can affect the marketing of products, goods, services, or ideas.
Prerequisite(s): 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.
Basic principles of sales management and the development of techniques for training and managing a personal sales force. Direct participation by the student in simulated sales management situations.
Prerequisite(s): MRK 225
230 International Marketing 3 Cr. Hrs. Basic principles of international marketing and how to apply marketing techniques in a global market. Learning the importance of understanding cultures, languages, and traditions that may be different from their own and how to apply marketing strategies in a foreign market.

## 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(s): MRK 202

## 236 Consumer Behavior <br> 3 Cr. Hrs.

For companies to compete effectively in today's competitive marketplace, managers and marketers must better understand consumers and their behaviors. This course gives students the tools to understand and analyze how, and why, consumers make purchase decisions. The student will be introduced to concepts of category of influences on consumer behavior, the consumer decision process, and why he or she, personally, makes purchase decisions.
Prerequisite(s): 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(s): MRK 202
245 Principles of Retailing 3 Cr. Hrs. Functions and concepts for the retail organization. Development and implementation of policies and procedures in planning, pricing, display, layout, buying and services from a mid-management perspective.A consumer centered approach to examining problems of various types and sizes of stores.
Prerequisite(s): 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(s): 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(s): 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 <br> 0.5-6 Cr. Hrs.

Provides opportunities to receive credit for non-traditional courses (such as TV and newspaper) as well as special interest topics within the discipline. Only six credit hours earned by Special Topics courses can apply toward an associate degree in Business.
Prerequisite(s): 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 <br> 2 Cr. Hrs.

Italian and English diction will be studied with emphasis on clarity, expressiveness, regard for correct pronunciation, and sound production as applied to singing and reading.
Prerequisite(s): 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(s): MUS 106
108 Vocal Diction III 2 Cr. Hrs.
French diction will be studied withemphasis on the fundamentals of phonetics and sound production as applied to singing and reading. German will be continued. Prerequisite(s): MUS 107
109 Using Finale 1 Cr. Hr.
A series of tutorial projects covering note entry methods, textentry, functions of the main tool palette, basic plug-ins,layoutissues, and MIDI document import and export.
Prerequisite(s): Ability to locate notes on a keyboard recommended

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 111 Music Theory I <br> 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(s): 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(s): 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(s): 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.
Prerequisite(s): 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(s): 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(s): 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(s): 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.
Prerequisite(s): Audition, permission of instructor

## 120 African-American Music/Gospel

 Choir R1 Cr . Hr .
The performance and presentation of mixed choral literature from the AfricanAmerican Spiritual and Gospel music tradition. The choir will present at least one concert per quarter.
Prerequisite(s): Audition, permission of the 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 <br> 3 Cr. Hrs.

Correct piano playing techniques. Selected piano literature, sight reading, all major scales and ensemble playing is stressed. Prerequisite(s): MUS 121 or permission of instructor

## 123 Piano Class III <br> 3 Cr. Hrs.

Correct piano playing techniques. Selected piano literature, sight reading, all major scales and ensemble playing is stressed. Prerequisite(s): MUS 122 or permission of instructor
124 Handbell Choir Conducting $1 \mathrm{Cr} . \mathrm{Hr}$. Major factors associated with direction of handbell ensembles, emphasizing organization of choirs, performance pedagogy, conducting techniques, repertoire selection, performance aspects, and care of equipment.
Prerequisite(s): 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 <br> 1 Cr. Hr.

The rehearsal, performance, and presentation of SATB (soprano, alto, tenor, bass) mixed choral music, representing all periods and styles. This course is for experienced choral singers. The choir will present at least one concert per quarter.
Prerequisite(s): Audition, permission of the 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(s): 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(s): MUS 132
135 Percussion Methods $\quad 1 \mathrm{Cr} . \mathrm{Hr}$.
Students learn to identify and play the mostc ommon 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.
Prerequisite(s): MUS major or permission of instructor
136 Choral Conducting 2 Cr. Hrs. Fundamentals of direction of choral groups with emphasis on basic baton technique, cueing meters, vocal exercises, and conducting terminology.
Prerequisite(s): 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(s): MUS 126

## 142 Singing \& Dictation II <br> 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(s): 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(s): MUS 142

## 145 Voice Class <br> 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 <br> 3 Cr. Hrs.

Historical styles of music within the Christian church covering written and aural documentation 1400 to 1800 A.D.
Prerequisite(s): 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(s): 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 $\quad 1 \mathrm{Cr}$. Hr .

Fundamental study of guitar playing including melodic line playing, scales, chords and various rhythmic patterns.
Prerequisite(s): 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(s): MUS 152 or permission of instructor

## 154 Jazz Combo R

$1 \mathrm{Cr} . \mathrm{Hr}$.
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(s): Audition
155 Sinclair Singers R $\quad 1 \mathrm{Cr}$. 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(s): 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): Audition, permission of instructor
166 Chorale $R \quad 1 \mathrm{Cr} . \mathrm{Hr}$.
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(s): Audition
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 courseactivities. One lecture, twolabhours per week.
Prerequisite(s): 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 courseactivities. One lecture, twolabhours per week.
Prerequisite(s): Audition

## 206 Voice Pedagogy I

$1 \mathrm{Cr} . \mathrm{Hr}$.
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.
Prerequisite(s): Music major or permission of instructor.

207 Voice Pedagogy II
$1 \mathrm{Cr} . \mathrm{Hr}$.
A continuation of MUS 206. One lecture, one lab hour per week.
Prerequisite(s): MUS 206
208 Voice Pedagogy III 1 Cr. Hr.
A continuation of MUS 207. One lecture, one lab hour per week.
Prerequisite(s): MUS 207

## 211 Music Theory IV <br> 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(s): MUS 113

## 212 Music Theory V

3 Cr. Hrs.
Composition, sonata allegro, rondo, late Renaissance polyphony, two-voice eighteenth century counterpoint, fugue.
Prerequisite(s): 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-toneset techniques.
Prerequisite(s): MUS 212

## 216 Music Major Piano Class IV

$1 \mathrm{Cr} . \mathrm{Hr}$.
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(s): MUS 118

## 217 Music Major Piano Class V

1 Cr . Hr.
Continuation of MUS 216.
Prerequisite(s): MUS 216

## 218 Music Major Piano Class VI

$1 \mathrm{Cr} . \mathrm{Hr}$.
Continuation of MUS 217. One lecture, one lab hour per week.
Prerequisite(s): MUS 217
221 Sight Singing for Singers I 1 Cr. Hr. Developing and understanding of solfeggiothrough 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.
Prerequisite(s): 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(s): Audition

226 Brass Methods I $\quad 1 \mathrm{Cr}$. 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.
Prerequisite(s): Music major or permission of instructor
227 Brass Methods II $\quad 1 \mathrm{Cr}$. Hr.
Continuation of MUS 226. One lecture, two lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): 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(s): MUS 111

## 237 Jazz Improvisation II 2 Cr. Hrs.

Students will learn the art of spontaneously creating music (extempore) while performing.
Prerequisite(s): MUS 236

## 241 Singing \& Dictation IV 1 Cr. Hr.

Chromatic pitches, augmented and diminished intervals, seventh chords, harmonic structure and function, non-harmonic tones, modulation, secondary dominates and diminished/minor sevenths and diminished/diminished sevenths. One lecture, two lab hours per week.
Prerequisite(s): 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(s): 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(s): 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(s): 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(s): MUS 245
270 Music Internship R 1-12 Cr. Hrs. Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Students establish learning outcomes and prepare related reports and/or projects each quarter.
Prerequisite(s): Departmental permission
275 Church Music Practicum 2 Cr. Hrs.
Fundamentals of worship, musician-clergy relationships, hymn festivals, formation of youth choirs, preparation of cantatas, seminar availabilities, and budgeting. Prerequisite(s): 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.
Prerequisite(s): 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(s): Audition
298 Performance Class R $1 \mathbf{C r}$. Hr.
Performance repertoire from intermediate to advanced levels. Designed to anticipate and alleviate the public performance problems. Emphasizing all aspects of technique and music including sight-reading, memorization and control of nervousness (Piano-Section 01, Voice-Section 02) Prerequisite(s): 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.
Prerequisite(s): 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.
Prerequisite(s): BIO 141 and PSY 119 and ENG 111 and COM 206 and ALH 103. Acceptance in Nursing program

## 121 Identifying Responses Through Assessment <br> 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.
Prerequisite(s): BIO 141 and PSY 119 and ENG 111 and COM 206 and ALH 103. Acceptance in Nursing program

## 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.Prerequisite(s): 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 settings across the health care continuum. Two lecture, three lab hours per week.
Prerequisite(s): NSG 120 and NSG 121 and BIO 141 and BIO 142 and BIO 205 and MAT 109. Acceptance in Nursing program

## 132 Transition to Registered Nursing <br> 4 Cr. Hrs.

The OhioNursing ArticulationModel transition course is designed to enable the student to explore integrative concepts in Nursing and to assist the student in the transition from licensed practical nurse to registered nurse. Students refine and update previous learning in addition to identifying goals for a successful transition into the registered Nursing program. Combined with classroom and nursing laboratory experiences, the student learns through the application of concepts. The student will demonstrate the ability to solve problems through the use of the nursing process with a focus on client assessment and to communicate more effectively. This course meets 16 hours per week for one-half quarter. Two lecture, six lab hours per week.
Prerequisite(s): BIO 211 and COM 206 and ENG 111 and PSY 119, restricted to NSG majors

## 133 Transition to Registered Nursing II 6 Cr. Hrs.

Continues to assist the student in the transition from LPN to second year ADN student. Focuses on Sinclair nursing philosophy and conceptual framework. 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. This course meets 24 hours per week for one-half quarter. Three lecture, nine clinic hours per week.
Prerequisite(s): NSG 132, restricted to NSG majors

## 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.Prerequisite(s): NSG 122 and 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.
Prerequisite(s): 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. Two lecture, six clinic hours per week.
Prerequisite(s): NSG 220 and PSY 208 and ALH 219

## 223 Promoting Healthy Responses in Women <br> 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.
Prerequisite(s): 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.
Prerequisite(s): ALH 104 and NSG 221 and NSG 222

## 225 Promoting Healthy Responses in the Child \& Family <br> 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.
Prerequisite(s): NSG 223 and NSG 224 and ENG 112

## 226 Promoting Healthy Responses to

 Interrelated Pathophysiological Stressors4 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.
Prerequisite(s): 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 nor/ 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.Prerequisite(s): NSG 225 and NSG 226 and 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.
Prerequisite(s): RN or nursing students who have completed $50 \%$ of their Nursing courses
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.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 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 Laterallateral 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 <br> 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 <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

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(s): 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.
Prerequisite(s): NSG 224 or current RN license
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 IV 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 <br> 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 <br> 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.
Prerequisite(s): Healthcare professional or current student in health care

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.

## Operations Technology (OPT)

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 Introduction to Operations

3 Cr. Hrs.
Introduction to operations process design, process improvement and the skills, methods and techniques used to accomplish this; the interactions and relationships between people and process change and the interactions between different processes in organizations. Two lecture, two lab hours per week.

## 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. One half lecture, one lab hour per week.

## 110 Operations Work Measurement

2 Cr. Hrs.
The application of the fundamentals of work measurement techniques in various operations. Basics of time study, performance rating and work measurement.
Prerequisite(s): OPT 101 or IET 101

## 111 Manufacturing Work Measurement 2 Cr. Hrs.

The application of the fundamentals of work measurement techniques in manufacturing environments, 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.
Prerequisite(s): OPT 110

R - Course may be repeated for credit.

## 112 Ergonomics <br> 3 Cr. Hrs.

Introduction to the application of ergonomic design principles in the work environment, including ergonomic planning and implementation for a variety of work environments, repetitive strain injuries, National Institute of Occupational Safety and Health (NIOSH) work standards, and the impact of these factors on workstation and equipment design. Two lecture, two lab hours per week.
Prerequisite(s): ENG 111 or ENG 121

## 113 Coordinate Measurement 3 Cr. Hrs.

Introduction to coordinate measurement instruments and GD\&T principles as applied to measurements. Two lecture, two lab hours per week.
Prerequisite(s): QET 100 or QET 112 or OPT 100 and ETD 128 or DRT 106 or DRT 196 and INT 143 or MAT 131

## 114 Advanced Coordinate Measurement <br> 3 Cr. Hrs.

Advanced operating techniques and practice for a computer-aided servo driven coordinate measurement machine. Two lecture, two lab hours per week.
Prerequisite(s): QET 113 or OPT 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.
Prerequisite(s): QET 100 or QET 112 or OPT 100 or equivalent, or 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.Prerequisite(s): DEV 108 and DEV 065 or equivalent

## 123 Non-Destructive Inspection \& Testing <br> 3 Cr. Hrs.

Review of the requirements and application of the skills required to become certified as an American Society for Non-Destructive Testing Technician. Two lecture, two lab hours per week.
Prerequisite(s): QET 120 or OPT 120

125 Introduction to World-Class Operations $\quad 3$ Cr. Hrs. An overview of world-class operations principles, illustrating the many inter related functions within successful companies including market research, conceptual design, detailed design, production planning, operations, sales and customer support. Additional focus on current trends.
126 Supervision \& Team Leadership 3 Cr. Hrs.
Introduction to the fundamental techniques of industrial supervision and team leadership, including supervision functions, teams leadership functions, leadership styles, employee motivation, and supervision of union personnel.

## 128 Operations Logistics <br> 3 Cr. Hrs.

Basic concepts of operations logistics in industrial an service organizations. Introduction of production and inventory control, Enterprise Resource Planning (ERP) and supply chain management.
130 Lean Operations
3 Cr. Hrs.
Lean Operations principles including lead time reduction, containerization, module design, Kanban, and management by eye. Two lecture, two lab hours per week. Prerequisite(s): OPT 101 or IET 101

## 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. One lecture hour, three lab hours per week. Prerequisite(s): ETD 101 or CHE 120
133 Non-Metallic Materials 2 Cr. Hrs. Factors related to the selection of nonmetallic materials and the relationship between the nature of the materials and their properties. Thermoplastics, thermosetting, ceramics, composites and glasses are included. One lecture hour, three lab hours per week.
Prerequisite(s): ETD 104 or CHE 120 or PHY 132
136 Plastics \& Composites 3 Cr. Hrs. Introduction to the plastics and composites industry. Terminology, materials and product development including an overview of basic processing methods with an emphasis on safe operating procedures. Two lecture, two lab hours per week.

## 137 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(s): DEV 108 or equivalent

161 Operations Technology Seminar I 1 Cr . Hr.
An overview of the unique skills and education needed by Operations Technology students. Students will also set career goals and develop a vision for their early career progress.
Prerequisite(s): Permission of the instructor
162 Operations Technology Seminar II
1 Cr . Hr .
Career exploration in the field of Operations Technology through site tours and classroom contact with practicing operations technicians.
Prerequisite(s): IET 161 or OPT 161
163 Operations Technology Seminar III 1 Cr. Hr.
An overview of Operations Technology career development opportunities available after the associate degree.
Prerequisite(s): IET 162 or OPT 162
190 Operations Technology Workshop R 1-3 Cr. Hrs.
Various topics related to Operations Technology.

## 198 Excel for 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 Statistical Process Control

3 Cr. Hrs.
Applications and concepts of statistical process control with emphasis on process capability, control charts techniques, and analysis. Two lecture, two lab hours per week.
Prerequisite(s): OPT 101 and MAT 101 or equivalent

## 202 Advanced Statistical Process Control <br> 4 Cr. Hrs.

Applications of statistical quality control methods including hypothesis testing, design of experiments and analysis, single factor experiments, factorial experiments, confidence limits, and linear regression analysis. Three lecture, three lab hours per week.
Prerequisite(s): OPT 201 or QET 201 or OPT 101 and MAT 131 or MAT 102

204 Operations Processes 3 Cr. Hrs. Survey of modern operations processes found in service industries, healthcare, transportation, food and restaurant, financial, retail, military, government and others.Specialemphasis on resource planning and quality assurance.

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(s): OPT 101 or IET 101

## 206 Value Analysis

3 Cr . Hrs.
An introduction to the purpose and need of Value Engineering Techniques in order to reduce the cost of the product while maintaining the quality and functional requirements of product.
Prerequisite(s): OPT 205 or IET 205 or permission of instructor

## 207 Operations Systems Analysis

3 Cr. Hrs.
Computer simulation to solve manufacturing and non-manufacturing problems. Involves actual programming of computer models consisting of labor, material, processing times and resources to predict future outcome of different alternatives. Two lecture, two lab hours per week.
Prerequisite(s): OPT 101 or IET 101

## 208 Engineering Technology Economics 3 Cr . Hrs.

Basic economic concepts, decisions, analysis and evaluations as applied to engineering design, production, maintenance and quality control.
Prerequisite(s): OPT 198 or IET 198 and MAT 131 or equivalent
209 Operations Cost Analysis 3 Cr. Hrs. Cost analysis and control for manufacturing and non-manufacturing operations to include standard, overhead, and other types of costs; budget breakeven points; cost-volume-profit relationships, cost estimating, and Activity Based Costing (ABC).
Prerequisite(s): OPT 198 or IET 198 and MAT 131 or equivalent

## 212 Operations Project Management

3 Cr. Hrs.
Project management in technical environments, including cost management, quality management and personnel communications.
Prerequisite(s): OPT 101 and OPT 110 and OPT 209; or IET 101, IET 111 and IET 135

## 216 Facilities Planning 3 Cr. Hrs.

Study of actual 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, two lab hours per week.
Prerequisite(s): OPT 204 or OPT 205 or IET 205 or permission of instructor

## 217 Measurement \& Calibration

3 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, two lab hours per week.
Prerequisite(s): OPT 100 or QET 100 and OPT 201 or QET 201 and OPT 113 or QET 113 or ETD 230 or DRT 217

## 221 Quality Assurance <br> 4 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, three lab hours per week.
Prerequisite(s): OPT 201 or QET 201

## 223 ISO 9000/16949 Quality Systems \& Auditing <br> 3 Cr . Hrs.

Review of the ISO 9000:2000 and ISO16949 standards, requirements, and implementation strategies. Additional focus on the development and implementation of internal auditing programs.

## 225 Design \& Process Failure Modes \& Effects Analyses <br> 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(s): OPT 101 or ETD 101 or QET 101
240 Six Sigma - Green Belt 3 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.

## 261 Continuous Process Improvement 3 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, three lab hours per week.
Prerequisite(s): OPT 221 and OPT 202 and OPT 130 or equivalent

## 265 Quality Engineering \& Quality Management Certification Review R 3 Cr. Hrs.

Review of the requirements and topics to become certified by the American Society for Quality (ASQ) in one of the engineering or management fields.

## 266 Quality Technician Certification Review R 3 Cr. Hrs.

Review of the requirements and topics to become certified by the American Society for Quality (ASQ) in one of the technician fields.

## 270 Operations 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 Operations Technology Project

 3 Cr. Hrs.Application of Operations Technology principles, using student teams for real or laboratory simulations of operations processes. Two lecture, two lab hours per week.
Prerequisite(s): IET 162 or OPT 162

## 278 Operations Technology Capstone

3 Cr. Hrs.
Assessment of achievement by Operations Technology students in attaining program related outcomes by completing a project demonstrating principles and practices of the major. One lecture, four lab hours per week.
Prerequisite(s): Permission of instructor

## 297 Special Topics in Operations

## Technology R 1-8 Cr. Hrs.

New developments in Operations Technology and their impact on operations, competitiveness and productivity. Prerequisite(s): Permission of the instructor

## Occupational Therapy Assistant (OTA)

## 101 Introduction to Occupational Therapy Assistant <br> 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 hours (OTA 141) per week.

## 104 Functional Muscles $\quad 1 \mathrm{Cr}$. Hr .

Functional anatomy of musculoskeletal systems. Analysis of major joint and muscle groups involved in daily living tasks such as dressing, bathing, grooming, eating, cooking and housekeeping. Two lab hours per week.
Prerequisite(s): BIO 141 or BIO 107
105 Functional Nervous System 1 Cr . Hr.
Functional anatomy of neurological systems. Analysis of central and peripheral nervous systems involved in daily living tasks such as dressing, bathing, grooming, eating, cooking and housekeeping. Twolab hours per week.
Prerequisite(s): OTA 104 and OTA 132

## 131 Therapeutic Self

9 Cr. Hrs.
Development of the self as an effective therapeutic tool, including exploration of values, personal and cultural attitudes, sensitivity to cultural differences, group process, and ethical decision making, safety issues relating to laboratory and clinical experiences. Introduction to a community setting involving structured observations, documentation of observations with weekly verbal reports to peers. Five lecture, six lab and three clinical hours per week.
Prerequisite(s): OTA 101 and admission to program

## 132 The Nature of Being Human

9 Cr. Hrs.
A holistic view of normal development as related to areas of occupation, performance skills, performance patterns, activity demands, and client factors, including the influence of culture and society. 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(s): OTA 131

133 The Dysfunctional Human 9 Cr . Hrs. The screening and evaluation of occupational performance from conception to senescence within the cultural context of family and society. Includes the use of occupation for the purpose of assessment, specified screening tools, assessments, skilled observation, checklists, histories, interviews with the client/family/significant others, and consultations with other professionals. Continued experience in a community setting involving structured observations relating to dysfunction in areas of occupation; documentation of observations with weekly verbal report to peers. Five lecture, six lab and seven clinical hours per week.
Prerequisite(s): 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.
160 Learning Communities for OTA
1 Cr . Hr.
Understandinglearning styles and the development of learning methods which facilitate success within the OTA program including developing learning communities.
Prerequisite(s): Restricted to majors

## 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.
Prerequisite(s): 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.
Prerequisite(s): 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(s): OTA 220
231 Treatment Issues I 9 Cr. Hrs.
Focus on implementation of treatment to increase levels of independence in areas of occupation; includes frames of reference and models of practice; documentation, role of occupational therapy assistants in a variety of settings and practice areas; establishing therapeutic relationships with clients and families, therapists, health care professionals; mentorship in community settings. Five lecture, six lab, three clinical and seven practicum hours per week.
Prerequisite(s): OTA 133
232 Treatment Issues II 9 Cr. Hrs. Continued treatment implementation with groups and individuals; focus on compensatory strategies, low tech and high tech adaptive technology, and case coordination. Five lecture, six lab, and seven practicum hours per week.
Prerequisite(s): 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(s): 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(s): OTA 233
251 Lab for OTA 231
Laboratory must be taken with OTA 231.
252 Lab for OTA 232
Laboratory must be taken with OTA 232.
261 Clinical for OTA 231
Clinical must be taken with OTA 231.

## 262 Clinical for OTA 232

Clinical must be taken with OTA 232 and OTA 252.
Prerequisite(s): OTA 231

## 297 Special Topics in Occupational Therapy Assisting 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 <br> 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.Prerequisite(s): 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 <br> 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.
Prerequisite(s): 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.Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 112 Legal Research \& Writing II

4 Cr. Hrs.
Builds on and develops skills learned in Legal Research and Writing I. Use of federal and national regional legal materials. Students will prepare a memorandum of law and trial brief.
Prerequisite(s): LAP 111 or PAR 111 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 113 Legal Research \& Writing III

## 3 Cr. Hrs.

Analysis and computer assisted research of federal and state statutory and case law with emphasis on use of LEXIS system; preparation of memoranda of law.
Prerequisite(s): LAP 112 or PAR 112 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 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.Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 121 Litigation I

3 Cr. Hrs.
The basics of jurisdiction of state and federal courts, and tort law. Introduction to the Rules of Civil Procedure.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 122 Litigation II

3 Cr. Hrs.
Paralegal's role in the litigation process. Drafting of pleadings and discovery materials. Participation in mock trial.
Prerequisite(s):LAP 121 or PAR 121 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.
131 Real Estate Transactions I 3 Cr. Hrs.
The law of real property and common types of real estate transactions and conveyances, such as deeds, real estate sales contracts, and leases and an overview of the system of recording. Problems in instrument drafting.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
201 Business Organization I 3 Cr. Hrs. Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements and employment contracts.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
202 Business Organization II 3 Cr. Hrs. Corporation problems involving foreign corporations, mergers, consolidations and dissolutions, shareholder agreements.
Prerequisite(s): LAP 201 or PAR 201 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 205 Criminal Law \& Procedure

3 Cr. Hrs.
The Ohio Criminal Code and the Criminal Procedure Laws. Pleadings of criminal trials. Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
212 Probate Law II
3 Cr. Hrs.
The law of wills and estates, and estate administration including Ohio tax returns and fiduciary accounting.
Prerequisite(s): LAP 211 or PAR 211 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 213 Estate Taxes <br> 3 Cr. Hrs.

Tax law affecting the decedent's estate with emphasis on final personal income tax, Ohio and federal estate tax and the estate's income tax including preparation of tax returns and schedules.
Prerequisite(s): LAP 211 or PAR 211 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 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.
Prerequisite(s): LAP 121 or PAR121 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.
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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
235 Bankruptcy Law 3 Cr. Hrs.
Federal bankruptcy statutes. Procedures required to file bankruptcy and skills necessary to gather information are stressed. Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
240 Social Security Law 1.5 Cr. Hrs. Introduction to Social Security Law concepts and practices.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 241 Workers' Compensation Law 1.5 Cr. Hrs.

Introduction to concepts and practices of Ohio Workers' Compensation Law and the Industrial Commission.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 242 Intellectual Property 1.5 Cr. Hrs.

Overview of legal concepts of patents, trademarks and copyrights. Forms and procedures required to legally acquire ownership of intellectual property.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 245 Administrative Law $\quad 1.5$ Cr. Hrs.

Introduction to Federal and Ohio Administrative Law and Agencies.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.
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. Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and BIS 160 or equivalent and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program.

## 248 Employment Discrimination

1.5 Cr. Hrs.

An introduction to employee rights in the work place, including civil rights, Title VII, age discrimination and sexual harassment.
Prerequisite(s): PAR 105 and PAR 106 or LAP 105 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.
249 Litigation Presentations 1.5 Cr. Hrs. Presentation development using scanner technology, digital and paper photographs, and paper and electronic documents for use in litigation scenarios using rules of evidence.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and BIS 160 and PAR 121 and restricted to majors.
250 Appellate Procedures 1.5 Cr . Hrs. The process of initiating criminal and civil appeals. Requirements for ordering transcripts and organizing appellate briefs. Prerequisite(s): PAR 121 and grade of " C " or better required to pass. Student must be accepted into the Paralegal program.

## 251 Attorney Client Privilege/Work Product 1.5 Cr. Hrs.

Attorney-client privilege and non-discoverable work product.
Prerequisite(s): PAR 121 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 252 Real Estate Transactions II

1.5 Cr. Hrs.

Emphasis on commercial transactions and financing instruments, condominium and environmental laws. The student acquires skillsdealing with forms required by lending institutions and government agencies.
Prerequisite(s): LAP131 or PAR 131 and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

## 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)Prerequisite(s): LAP 112 or PAR 112 and LAP 220 or PAR 220 and LAP 121 or PAR 121 and approval of coordinator and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.
292 Paralegal Internship II 2 Cr. Hrs. Application ofskillslearned 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)
Prerequisite(s): LAP 291 or PAR 291 and approval of coordinator and grade of "C" or better required to pass. Student must be accepted into the Paralegal program.

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.
Prerequisite(s): LAP 105 or PAR 105 and PAR 106 and grade of " $C$ " or better required to pass. Student must be accepted into the Paralegal program and have permission of department chairperson.

## Physical Education (PED)

101 Beginning Swimming R 1 Cr . Hr . Elementary knowledge ofswimming 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 breaststroke, side stroke, backstroke, front and back crawl plus diving and water safety skills. Two lab hours per week.
Prerequisite(s): PED 101 or equivalent skill
105 Physical Fitness $\mathrm{R} \quad 1 \mathrm{Cr}$. 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 <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

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 $\mathrm{R} \quad 1 \mathrm{Cr}$. 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 <br> 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 <br> 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 $\quad 1 \mathrm{Cr}$. 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 $\mathrm{R} \quad 1 \mathrm{Cr}$. 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.
Prerequisite(s): 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.
Prerequisite(s): PED 132 or equivalent skill

## 136 Beginning Yoga R <br> 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. Prerequisite(s): 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 $1 \mathbf{C r}$. 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(s): 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(s): 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(s): PED 148 or equivalent skill

## 153 Water Aerobics R <br> 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. Abasic 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.
Prerequisite(s): Successful completion of PED 161, instructor's approval or a "C" 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.
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(s): PED 106 or permission of instructor
170 Tai Chi R
1 Cr . Hr.
The ancient art of TaiChiChuan 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.
Prerequisite(s): Successful completion of PED 171, instructor's approval, or a green belt from another organization.
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.
192 Group Indoor Cycling R 1 Cr. Hr. Introduction to group indoor cycling. Understanding of the contributions of cycling to cardiorespiratory endurance, muscular endurance, and additional components of physical fitness. A variety of training techniques enable students to design individualized programs to help themimprove their level of fitness and health. 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 basisin order to enhance selection of physical activities. This will enable the students to determine the desirablelevel of physical fitness to best meet the personal needs/requirements of the client.
Prerequisite(s): Suggested BIO 107

## 200 First Aid \& Safety <br> 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(s): 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(s): 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(s): 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(s): PED 126 or equivalent skill
215 Basketball Officiating 2 Cr. Hrs.
Basketball officiating includes basic knowledge about rules, regulations and officiating techniques. Materials will be supplied by OHSAA and students passing the final exam will be certified to officiate in Ohio.
216 Football Officiating $\quad 2 \mathrm{Cr}$. Hrs.
Basic information about rules, regulations and officiating techniques. Materials will be supplied by OHSAA Students passing the final exam will be certified to officiate in Ohio.
217 Baseball Officiating $\quad 2$ Cr. Hrs.
Basic information about rules, regulations and umpiring techniques in baseball. Materials supplied by OHSAA Students passing the final exam will be certified to officiate in Ohio.
224 Intermediate Golf $\quad \mathrm{R} \quad 1 \mathrm{Cr} . \mathrm{Hr}$. 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(s): PED 119 or equivalent skill

## 229 Advanced Open Water Scuba Diving R <br> 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(s): 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(s): 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(s): 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

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 Recreation, Fitness \& Sports Programming 3 Cr. Hrs.

This course provides the concepts and applications of effective programming and administration of sport, fitness and recreation programs. Students will be able to identify best practices applicable to various settings and groups.
Prerequisite(s): DEV 065 and DEV 110

## 238 Physical Education for the

Elementary School
3 Cr. Hrs.
Designed to acquaint students with a variety of teaching techiques; 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 $\quad 2$ 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.

## 249 Principles of Coaching \& Leadership

3 Cr. Hrs.
Foundational knowledge essential for successful coaching of any sport, including development of personal coaching philosophy. Addresses three levels of coaching: youth, collegiate and professional.
Prerequisite(s): DEV 064 and DEV 075 and DEV 084
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 I 3 Cr. Hrs.

Anexploration 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.
Prerequisite(s): PED 193 and DEV 085 and DEV 064 and DEV 075

## 252 Principles \& Methods of Training II 3 Cr. Hrs.

Integration of risk stratification, fitness assessment, exercise testing, interpretation, consultation, and exercise prescription skills. Application of knowledge and skills to various populations and disease states through case studies and simulations.
Prerequisite(s): PED 251

## 253 Advanced Water Aerobics R <br> 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(s): PED 153 or permission of instructor

## 260 Introduction to Sport Management

 3 Cr. Hrs.Exploration of the growing professional opportunities within the sport management industry while surveying the sociological, historical, psychological, and philosophical foundations of sport. Application of management and organization concepts to sport enterprises.
Prerequisite(s): DEV 064 and DEV 075 and DEV 085

## 261 Athletic Facility Planning \& Management <br> 3 Cr. Hrs.

Sport facility management and the role of the facility manager, including application skills to a variety of types of facilities. Prerequisite(s): DEV 085 and DEV 064 and DEV 075

## 263 History of Sport \& Physical

 Education3 Cr. Hrs.
Analysis of the history of American sport from the Colonial era to the present with study of the relationship between sport and major social issues such as race, gender, ethnicity, and class.
Prerequisite(s): DEV 064 and DEV 075 and DEV 084
268 Motor Development 3 Cr. Hrs.
Development of movement abilities as a continuous process of change in functional capacity with emphasis on how motor development relates to age and how change occurs sequentially. Also includes developmental change in movement behavior, factors underlying developmental changes, the process of change, and the movement outcome.
Prerequisite(s): DEV 064 and DEV 075 and DEV 084

## 269 Motor Learning \& Performance <br> 3 Cr . Hrs.

Exploration of the relationship between motor learning and motor performance, including the physical and psychological principles that influence both. Examination of the elements that facilitate or prohibit the control, achievement, and retention of motor skills.
Prerequisite(s): PED 268

## 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.

## 271 Certification Exam Preparatory Course <br> 3 Cr. Hrs.

Theoretical knowledge and practical skills in preparation for a national certification exam aligned with guidelines and standards of the fitness industry.

## 272 Methods of Teaching Strength <br> Training 2 Cr. Hrs.

Introduction to methods of teaching strength training which includes the use of free weights, machines and additional equipment used in the field. Emphasizes a variety of training techniques used to design individualized programs for different populations. Also includes the basic principles of kinesiology and physiology. Prerequisite(s): PED 106

## 273 Methods of Teaching Group Fitness 2 Cr . Hrs.

Knowledge and experience for teaching and evaluating a variety of group exercise classes. Includes a variety of group exercise forms, including step aerobics, water aerobics, yoga, pilates, cycling, kickboxing and strength training.
Prerequisite(s): PED 154

## 297 Special Topics in Physical

Education R 1-3 Cr. Hrs.
Opportunity forstudents toreceivecreditfor both non-traditional and traditional courses, workshops or special interest topics in the discipline of physical education.
Prerequisite(s): Will vary according to topic area.

## Philosophy (PHI)

204 Great Books: Philosophy 4 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

4 Cr. Hrs.
Basic nature of philosophy, its relationship to physical and social sciences and theology and its value to the individual.
206 Ethics 4 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 <br> 4 Cr. Hrs.

Principleelements in deductive and inductive logic. Analysis of three acts of the intellect and the laws of reasoning. Application of principles to specific cases.

## 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.
Prerequisite(s): 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(s): 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(s): 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.
Algebra based mechanics including kinematics, dynamics, statics, work, energy, power, rotational motion and fluids. Three lecture, three lab hours per week. Prerequisite(s): MAT 132 or equivalent

## 132 Technical Physics II 4 Cr. Hrs.

Algebra based properties of matter, heat, thermodynamics, waves, sound and light. Three lecture, three lab hours per week. Prerequisite(s): PHY 131

## 133 Technical Physics III <br> 4 Cr. Hrs.

An Algebra based 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(s): 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 rotational motion. Three lecture, three lab hours per week.
Prerequisite(s): MAT 116 or equivalent

## 142 College Physics II

4 Cr. Hrs.
Algebrabased 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(s): PHY 141

143 College Physics III
4 Cr. Hrs.
Algebra based university parallel course in electrostatics, D.C. and A.C. circuits, electromagnetism, and optics. Three lecture, three lab hours per week.
Prerequisite(s): PHY 141
201 General Physics I
6 Cr . Hrs.
Fundamentals of mechanics including kinematics, dynamics, work and energy, momentum using calculus as appropriate. Five lecture, three lab hours (PHY 207) per week.
Corequisite(s): 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 hours (PHY 208) per week.
Prerequisite(s): PHY 201
Corequisite(s): MAT 202

## 203 General Physics III

6 Cr. Hrs.
Electrostatics, D.C. conduction and circuits, magnetism, electromagnetic induction, quantum mechanics and special relativity. Calculus used extensively. Five lecture, three lab hours (PHY 209) per week.
Prerequisite(s): PHY 202
Corequisite(s): 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.
Prerequisite(s): PHY 201 and MAT 201 or equivalent
245 Concepts in Physics 5 Cr. Hrs.
Basic concepts and applications of physics including motion, forces, electricity, magnetism and optics, emphasizing scientific inquiry and process skills integrated with mathematics. Elementary education majors only. Four lecture, three lab hours per week.
Prerequisite(s): ENG 112 and ASE 145 and MAT 142 and MAT 110

> Industrial Engineering Technology (IET) See Operations Technology (OPT)

246 Concepts \& Applications in Physics 5 Cr. Hrs.
Concepts and applications in physics with emphasis on scientific inquiry and process skills. Topics include motion, force and dynamics, work and energy. Middle childhood education majors only. Four lecture, three lab hours per week.
Prerequisite(s): ASE 145 and MAT 142 or MAT 110 and 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 nonclassroom experiences with relationship to their educational needs. Students already working full or part time may apply to use that experience in fulfillment of the internship requirement. For the latter two types of students, learning outcomes are established and related reports and/or projects are submitted each quarter.

## 295 Independent Study in Physics R

1-3 Cr. Hrs.
Investigates areas of special interest under the direction of physics faculty. Course may be repeated once (PHY 296) but not to exceed six credit hours. Open to second year students with 3.0 GPA in physics and mathematics.
Prerequisite(s): Permission of instructor

## 297 Special Topics in Physics R

## 1-3 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.

## 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 threebranches 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

 4 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 4 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.

## Psychology (PSY)

105 Survey of Psychology 3 Cr. Hrs. Asurvey 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 of hearing impaired persons. 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.
Prerequisite(s): DEV 065
120 Psychology Applications 1 Cr. Hr. This recommended companion course to PSY 119 provides practical applications of theories, methods and research in psychology. Individual and group activities emphasize learning through experience. Topics include psychology's history and research, the physiology of behavior, sensation and perception, states of consciousness, learning, memory, personality theory, lifespan development, gender, social psychology, cognition, motivation, emotion, stress, psychological disorders and therapies.

## 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 and university parallel programs will not accept PSY 121 without subsequent completion of PSY 122.
Prerequisite(s): DEV 065
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(s): PSY 121

## 123 Honors Seminar for PSY 121

$1 \mathrm{Cr} . \mathrm{Hr}$.
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.
Prerequisite(s): 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.
Prerequisite(s): 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.

## 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 life goals.

## 145 Patterns of Human Relationships 3 Cr. Hrs.

Theoretical perspectives of traditional and non-traditional styles of relating and covershow psychological developmentaffects 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 <br> 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.Prerequisite(s): 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.
Prerequisite(s): PSY 119 or PSY 122

## 207 Psychology of Aging 3 Cr. Hrs.

 Research and theory concerning the physical, cognitive and social issues of aging. Prerequisite(s): 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.
Prerequisite(s): 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 ligandreceptor interactions.
Prerequisite(s): 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 currentscientific research.
Prerequisite(s): 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.
Prerequisite(s): 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, egopsychology, object relations theory, trait/biological theory, phenomenology, behavior-environmental theory, and cognitive/self regulation theory.
Prerequisite(s): 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.
Prerequisite(s): PSY 119 or 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.
Prerequisite(s): PSY 119 or PSY 122

## 228 Psychology in the Work Place

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.
Prerequisite(s): 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 <br> Sciences <br> 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. Prerequisite(s): 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-parametricstatistics, hypothesis testing, tests of significance and analysis of variance.Prerequisite(s): 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.
Prerequisite(s): PSY 119 or PSY 122

## 270 Psychology Internship

 R 1-6 Cr. Hrs.Involvement in a field related experience outside the classroom setting, in which the learning outcomes and the form of evaluation will be determined by the supervising psychology instructor.
Prerequisite(s): 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 <br> R 1-6 Cr. Hrs.

Opportunity to receive credit for nontraditional courses (TV and newspaper), workshops and special interest topics in the discipline of psychology.

## Physical Therapist <br> Assistant (PTA)

## 106 Introduction to Physical Therapy

 1 Cr . Hr. Purpose, philosophy, history and development of the Physical Therapy profession. PTAduties,PT/PTArelationship, essential functions, legal and ethical responsibilities and professional behaviors. Function of regulatory agencies, licensing bodies and professional associations.
## 107 Fundamentals of PTA Practice I 3 Cr. Hrs.

Scope and practice of the PTA. Introduction to human response, critical thinking, decision making and collaborative practice. Foundation in therapeutic communication, business practices, ethics and personal professional development.
Prerequisite(s): PTA 106 and restricted to majors

110 Fundamentals of PTA Practice II 2 Cr. Hrs.
Advanced principles related to scope and practice of the PTA, including human response, critical thinking, decision making and collaborative practice. Foundations of therapeutic communication and documentation with emphasis on medical terminology for the PTA.
Prerequisite(s): PTA 106 and restricted to majors

## 116 Movement Science I 5 Cr. Hrs.

 Clinical kinesiology with emphasis on integration of anatomy, physiology, physics and geometry in relationship to human movement. Three lecture, four lab hours per week.Prerequisite(s): BIO 142 and restricted to majors

## 117 Lab for PTA 116

Laboratory must be taken with PTA 116.
118 Movement Science II 5 Cr. Hrs.
Continuation of clinical kinesiology with emphasis on the effect of movement on posture, gait analysis, transfer techniques and body mechanics. Three lecture, four lab hours per week.
Prerequisite(s): PTA 116 and restricted to majors

## 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.
Prerequisite(s): PTA 106 and restricted to majors
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.
Prerequisite(s): PTA 118 or PTA 120 and restricted to majors

## 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(s): PTA 118 and restricted to majors
131 Lab for PTA 130
Laboratory must be taken with PTA 130.

134 Tests \& Measures $\quad 3$ Cr. Hrs.
Application of standardized tests and measures including goniometry, manual muscle testing, cardiovascular and pulmonary response, balance and endurance. Understanding diagnostic procedures and tests. One lecture, six lab hours per week. Prerequisite(s): PTA 118 and restricted to majors

## 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. Twenty-one practicum hours per week.
Prerequisite(s): 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.
Prerequisite(s): 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(s): PTA 212

## 221 Clinical Procedures III 3 Cr. Hrs.

Physiology and clinical rationale for use and application of athermal and deep thermal physical agents. One lecture, four lab hours per week.
Prerequisite(s): PTA 124 and restricted to majors

## 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 hours per week. Prerequisite(s): PTA 130 and restricted to majors
224 Lab for PTA 223
Laboratory must be taken with PTA 223.

R - Course may be repeated for credit. NOTE: See divisional sections for curriculum changes.

## 226 Clinical Procedures II 2 Cr. Hrs.

Theory and clinical rationale for use and application of massage and soft tissue mobilization with emphasis on functional outcomes and patient education. One lecture, two lab hours per week.
Prerequisite(s): PTA 221 and restricted to majors

## 228 Lab for PTA 226

Laboratory must be taken with PTA 226.

## 230 Neuroscience for the Physical Therapist Assistant <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

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(s): PTA 223 and restricted to majors

## 233 Rehabilitation Skills 6 Cr. Hrs.

Therapeuticinterventions forneurological, cardiovascular and pediatric pathologies. Wheelchair, orthotic and prosthetic use. Two lecture, eight lab hours per week. Prerequisite(s): PTA 230 and restricted to majors. PTA 234 corequisite

## 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(s): PTA 226 and restricted to majors
240 Clinical Procedures Review 1 Cr. Hr. Comprehensive review of curricular content with required competency of technical skills.
Prerequisite(s): Approval of chairperson and restricted to majors

## Purchasing (PUR)

## 201 Purchasing Principles 3 Cr. Hrs.

The contribution of the purchasing organization within the firm; development of sources of supply; purchasing procedures, policies, and techniques. Basic functions of procurement and materials management common to manufacturing, service, and government organizations.

## 202 Advanced Purchasing 3 Cr. Hrs.

In-depth approaches to actual situations encountered by purchasing personnel: quality; pricing; types of contracts, international purchasing and the more challenging aspects of government purchasing. Prerequisite(s): 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(s): 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.
Prerequisite(s): PUR 201 or MAN 251

## 215 Inventory \& Production Control

$$
3 \text { Cr. Hrs. }
$$

The role of inventory and production control in modern industrial management with emphasis on data processing, MRP centralized control, standardization, obsolescence control and other modern techniques.
Prerequisite(s): 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 $\quad$ 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.> Industrial Engineering Technology (IET) See Operations Technology (OPT)

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. Prerequisite(s): BIO 107 and HIM 121

## 105 Lab for RAT 104

Laboratory must be taken with RAT 104.

## 111 Clinical Competency

 Development I4 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(s): RAT 121

## 112 Clinical Competency

## Development II <br> 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(s): 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(s): 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(s): 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(s): 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(s): 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(s): RAT 131, restricted to RAT majors

## 137 Lab for RAT 131

Laboratory must be taken with RAT 131.

## 199 Computers in Medical Imaging <br> 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(s): 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(s): 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.
Prerequisite(s): RAT 212

## 214 Clinical Education Development Capstone <br> 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.
Prerequisite(s): RAT 213

## 215 Pathology for Radiographers

2 Cr. Hrs.
Radiographic appearance of diseases and technique adjustments for both additive and destructive pathologies.
Prerequisite(s): RAT 123

## 218 Advanced Radiographic Practice 3 Cr. Hrs.

Specialty practice considerations related to geriatrics, pediatrics, mobile, surgical and trauma radiography.
Prerequisite(s): 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(s): RAT 123

## 222 Principles of Radiographic

 Techniques5 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(s): 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 flouroscopic, general and mobile radiography.

## 227 Lab for RAT 222

Laboratory must be taken with RAT 222.

## 229 Quality Management in Medical Imaging <br> 1 Cr . Hr.

Basic principles and concepts of quality management and overview of quality assurance testing applicable to the radiographic system.
Prerequisite(s): 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(s): 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(s): RAT 222

## 237 Lab for RAT 231

Laboratory must be taken with RAT 231.

240 Computed Tomography Practicum
R 2-6 Cr. Hrs.
A variable credit clinical experience performing actual patient exams involving computer tomography.
Prerequisite(s): RAT 199 and RAT 231

## 241 Principles of Computed

 Tomography4 Cr. Hrs.
Basic instrumentation and application concepts including computer and x-ray unit components and their application to protocols for acquiring sectional images of various body systems.
Prerequisite(s): RAT 199 and RAT 231

## 243 Principles of Magnetic Resonance Imaging (MRI) <br> 4 Cr. Hrs.

Basic physics concepts involving the generation and construction of human planar images using magnetic resonance imaging technology.

## 244 Magnetic Resonance Imaging (MRI) Applications 4 Cr. Hrs.

Magnetic resonance imaging procedures including patient preparation, positioning, filming protocol, instrumentation and archiving.
Prerequisite(s): RAT 243

## 245 Magnetic Resonance Imaging <br> Practicum R 2-8 Cr. Hrs.

Variable credit clinical experience performing actual patient exams involving magnetic resonance imaging.
Prerequisite(s): RAT 199 and RAT 231
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(s): 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(s): 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(s): 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, four lab hours per week.

## 261 Radiography Practicum R <br> 2-8 Cr. Hrs.

Clinical experience involving a variety of patient procedures. Experiences include, but are not limited to, fluoroscopy, mobile and general radiography.
Prerequisite(s): 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(s): Permission of chairperson required

## Religious Studies (REL)

## 111 Eastern Religions <br> 4 Cr. Hrs.

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

## 112 Western Religions <br> 4 Cr. Hrs.

An introduction to religions originating in the Near East, focusing on Judaism, Christianity, and Islam.

## 135 American Religious Movements

 4 Cr. Hrs.What makes certain religious movements uniquely American? This course examines the history of American religious movements and analyzes the beliefs and practices of these movements for their greater understanding.

## 204 Great Books: The Bible \& Western Culture <br> 4 Cr. Hrs.

Anexploration of how and why the Bible is viewed as a"great book." Both the Old and New Testaments will be explored in their respectivehistorical 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 nontraditional format such as television, videotape, etc.
## Real Estate (RES)

121 Real Estate Abstracting I 3 Cr. Hrs. Recorded documents affecting real estate, terms used in abstracting and the function of public offices in the abstracting process.
122 Real Estate Abstracting II 3 Cr. Hrs. Liens, mortguages, foreclosure, divorce, wills and estates proceedings are examined as they relate to real property and the abstracting process.
Prerequisite(s): 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, coownership, mortguages, 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 mortguage 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 in-come-producing property and functions which influence value of nonresidential property.
Prerequisite(s): RES 204

## 210 Real Estate Practice Seminar

3 Cr . Hrs.
Apply knowledge and practice skills acquired in real estate courses concerning principles, law, finance, and appraisal through the use of case studies, simulations, and role playing.
Prerequisite(s): 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.
Prerequisite(s): 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(s): ALH 106

## 111 Lab for RET 110

Laboratory must be taken with RET 110.

## 118 Cardiopulmonary Rehabilitation

$1 \mathrm{Cr} . \mathrm{Hr}$.
Basic principles of patient selection, program components, goals, sequencing, equipment,outcomes, and reimbursement of cardiac and pulmonary rehabilitation programs.
Prerequisite(s): 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, noninvasive monitoring, and resuscitation techniques. Three lecture, three lab hours per week.
Prerequisite(s): RET 110

## 121 Lab for RET 120

Laboratory must be taken with RET 120.

## 130 Cardiopulmonary Disease Processes <br> 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(s): RET 120

## 140 Adjuncts to Respiratory Care

11 Cr. Hrs.
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 24 clinical hours per week.
Prerequisite(s): RET 120

## 141 Lab for RET 140

Laboratory must be taken with RET 140.

## 142 Clinical for RET 140

Clinical must be taken with RET 140.
146 Clinical Practice $\quad 4$ 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(s): 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(s): RET 110

## 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.
Prerequisite(s): 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.
Prerequisite(s): 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 thenewborn infantemphasizing neonatal and pediatric pulmonary physiology and disease. Two and one-quarter lecture, one and one-half lab hours per week.
Prerequisite(s): RET 230
251 Lab for RET 250
Laboratory 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.
Prerequisite(s): RET 240
261 Lab for RET 260
Laboratory must be taken with RET 260.

## 280 Correlations in Respiratory Care

 6 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, fifteen clinical hours per week.
Prerequisite(s): RET 240
282 Lab for RET 280
Laboratory must be taken with RET 280.

## 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 creditas 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(s): High school graduate or GED; signature of chairperson

## M02 Driver Safety for Home Care Oxygen R <br> 1 Cr . Hr .

Safety issues pertinent to the delivery and use of liquid and cylinder oxygen in the home care setting.
Prerequisite(s): High school graduate or GED; signature of chairperson

## M03 Driver Safety for Hazardous <br> Materials $\quad \mathrm{R} \quad 0.5 \mathrm{Cr}$. Hrs.

Driver safety issues pertinent to transporting hazardous materials and the commercial driver license (C.D.L) hazmat examination.
Prerequisite(s): 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(s): 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(s): High school graduate or GED; signature of chairperson

## M06 Practicum for Home Medical <br> Equipment $\mathrm{R} \quad 1 \mathrm{Cr}$. Hr .

Hands-on experience with durable medical equipment and common home care oxygen equipment in the industry.
Prerequisite(s): 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 <br> 3 Cr. Hrs.

Acritical analysis of dynamics betweenhuman behavior and society through the use of the scientific method and data analysis. Topics will include culture, socialization, the nature of groups, deviance and social inequalities.

## 112 General Sociology II 3 Cr. Hrs.

 Analysis of contemporary American society, focusing on the social institutions of family, education, religion, government, economics, collective behavior, social change, population and urbanization.Prerequisite(s): SOC 111

## 114 Courtship \& Marriage 3 Cr. Hrs.

Courtship, dating, and marriage; realities surrounding affectional relationships and marital conflict. Budget planning, buying insurance, writing a will, and purchasing a home. Divorce, remarriage and stepparenthood.
Prerequisite(s): SOC 111 or SOC 120
115 Today's Changing Family 4 Cr. Hrs.
The developmental stages of the family life cycle from the childless couple through death or divorce, family issues and problems.
Prerequisite(s): 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.

## 118 Appalachian Families <br> 3 Cr. Hrs.

Acritical and analytical examination of the Appalachian experience from the 1700s through the present day with emphasis on the Appalachian family (both rural and urban) as a varied and complex social system.

## 119 Diversity in Appalachia 3 Cr. Hrs.

 Examination of the diverse populations within the Appalachian region. Historical and current overview of the significant social, political, intellectual, cultural, and educational themes impacting the diversity of rural and urban Appalachia.
## 120 General Sociology 5 Cr. Hrs.

Analysis of contemporary American society with review of major sociological theories, research methods, culture, socialization, groups, social structure, social institutions, deviancy, social inequalities, social processes, and social change. Not open to students with SOC 111.

## 125 Drug Implications 3 Cr. Hrs.

Use, misuse and abuse of the most common drugs, emphasizing extent, effects, prevention and treatment.

130 Family Violence
3 Cr. Hrs.
The nature of family violence: child abuse, abuse of elderly parents, sexual abuse, incest, marital rape, marital violence, effects of family violence, and societal reactions to family violence. Also offered as LEP 130; students may enroll in either course, but not both.
Prerequisite(s): SOC 111 or SOC 120
145 Comparing Cultures 3 Cr. Hrs. Cultural anthropology, including cultural evolution, similarities and differences among world cultures, comparative analysis of family organization, religious beliefs, educational systems, economics and governmental systems.
160 Social Patterns in Aging 3 Cr. Hrs. Orientation to the biological, sociological, and psychological dimensions of the aging process, and society's response to its older members and their social problems.
Prerequisite(s): SOC 111 or SOC 120
205 Social Problems
4 Cr . Hrs.
Causes, treatment and prevention of such societal problems as mental illness, inadequate health care, alcohol and drug abuse, violence, crime, delinquency, inequality, aging, family breakdown and environmental concerns.
Prerequisite(s): SOC 111 or SOC 120

## 208 Sociology of American Cities

3 Cr. Hrs.
Evolution and growth of cities, emphasizing affluence and poverty, racial and ethnic pluralism, physical and moral decay of inner cities, and their effects on urban residents.
Prerequisite(s): SOC 111 or SOC 120

## 209 Futuristics: Life Experiences in the Future <br> 3 Cr. Hrs.

Future trends regarding scientific, technological, and social developments that will change lifestyles; emphasis on exploring a variety of "possible futures" and ways in which individuals produce or influence future direction.
Prerequisite(s): SOC 111 or SOC 120
210 Rural Communities 3 Cr. Hrs.
Examines the significance of rural communities in American history, and seeks to develop an appreciation for its diversity and complexity. Analyzes the drastic economic transition occurring in rural America today and the social impact of these changes on the individuals, families, and communities.

## 214 Applied Population Demography

3 Cr. Hrs.
Introduction to the study of human populations and the process that governs their change, fertility, migration and mortality. Application of demographic data to social and economic issues through computer applications for demographic research.
Prerequisite(s): SOC 111 or SOC 120

215 Cultural Diversity
4 Cr. Hrs.
Exploration of American diversity in terms of the dynamics of intergroup relations from past to present. Groups included in the exploration: racial, ethnic, social class, gender, religious, age, disability, and sexual preference.
Prerequisite(s): 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(s): SOC 216
225 Juvenile Delinquency 3 Cr. Hrs.
Extent, theories, treatment and prevention of juvenile delinquency.
Prerequisite(s): SOC 111 or SOC 120
226 Criminology 3 Cr. Hrs. Nature and extent of conventional, organized, and white collar crime in modern society, contibuting causes, and methods used in control.
Prerequisite(s): 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(s): SOC 226
235 African-American Family 3 Cr. Hrs. This course presents a critical and analytical examination of the African-American experience in white America from the early 1600 s up through today. The course's central theme is viewing the AfricanAmerican family as a varied and complex social system within the African-American community, which is in turn highly interdependent with the wider multicultural American community.

## 240 Controversial Social Issues

3 Cr. Hrs.
This course will address itself to a critical analysis of opposing viewpoints which surround some of today's most hotly debated, controversial, and explosive social issues as abortion, prayer in school, nuclear deterrence, etc.
Prerequisite(s): 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 Span-ish-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(s): SPA 101
103 Elementary Spanish III 4 Cr. Hrs. Foundation for understanding, speaking, reading, and writing Spanish. Language laboratory work may be required.
Prerequisite(s): SPA 102

## 161 Conversational Spanish for Criminal Justice R 2-4 Cr. Hrs.

Conversational Spanish focused on learning to speak with Spanish-speaking individuals in the professional capacity of a law enforcement officer. Oral practice and discussions center on the understanding of the language within its cultural context. Considerable supplementary work required.
Prerequisite(s): SPA 100 strongly recommended
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(s): 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(s): 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(s): SPA 202

## 297 Special Topics in Spanish R

1-6 Cr. Hrs.
Provides opportunities to receive credit for non-traditional courses as well as special interest topics in the discipline.

## Safety Engineering Technology (SRM)

## 101 Introduction to Safety Engineering Technology <br> 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.

## 120 Safety Lab <br> 2 Cr. Hrs.

Active participation to recognize, understand and handle common safety hazards including scaffolding, personal protection, rigging, crane operations, permit required confined space (PR.C.S) and machine guarding. One lecture, two lab hours per week.
Prerequisite(s): SRM 101 and MAT 116, CHE 151 or equivalent

## 130 Trainer Course for Occupational Safety \& Health for the Construction Industry $\quad 3 \mathrm{Cr}$. 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 <br> 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(s): SRM 130 or equivalent

## 133 OSHA General Industry Trainer Update <br> 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(s): 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 arrestequipment, 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 <br> 5 Cr. Hrs.

Training required to enter or 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 <br> $1 \mathrm{Cr} . \mathrm{Hr}$.

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 <br> 1 Cr . Hr .

Introduction to rules, interpretations, recordkeeping and standards required by OSHA(29CFRPart1926) 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 <br> 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. Prerequisite(s): 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(s): 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; doseresponse evaluations; Subpart Z "Toxic and Hazardous Materials" of OSHA 1910. Two lecture, two lab hours per week.
Prerequisite(s): 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(s): SRM 215

## 221 Safety \& Health Program

 Management3 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(s): SRM 212

## 230 Occupational Safety \& Health

## 3 Cr. Hrs.

Study of requirements of Occupational Safety and Health Act emphasizing standards governing general industry produc-tion-type operations. Two lecture and two lab hours per week.

## 231 OSHA Construction Standards

## 3 Cr. Hrs.

Rules, interpretations, record keeping and standards required by OSHA (29CFR Part 1926) for the construction industry to ensure employees a safe, healthful work place. Successful completion of this course provides the" 30 HourOSHAConstruction Safety Card." Two lecture hour and two lab hours per week.

## 232 Construction Work Site Safety

3 Cr. Hrs.
Acomprehensive approach to develop and supervise safe conditions, practices, and compliance at construction worksites. Two lecture and two lab hours per week.
Prerequisite(s): SRM 231

## 270 Safety Engineering Technology Internship R <br> 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 SRM 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.

## 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)

## 100 Introduction to Tissue Banking

5 Cr. Hrs.
Framework and environment for the practice of Tissue Banking. Introduces the use of communication, group process, and critical thinking in the tissue banking environment. Focuses on safety through surgical sterile technique, overview and history of tissue banking, quality systems, and the ethical and regulatory requirements set by the American Association of Tissue Banking (AATB), FDA, and related regulatory agencies. Four lecture, three lab hours per week.
Prerequisite(s): Restricted to majors
101 Tissue Banking I
5 Cr. Hrs.
Techniques for preparing the environment for tissue recovery to take place including surgical instrumentation, supplies, equipment, and quality controls. Discusses quality control measures used throughout tissue recovery and processing procedures. Applies these techniques to basic tissue recovery. Four lecture, three lab hours per week.
Prerequisite(s): Restricted to majors

## 111 Surgical Technology Fundamentals

6 Cr. Hrs.
Discusses the framework and environment for the practice of Surgical Technology. Introduces the use of therapeutic communication, group process, and critical thinking in perioperative care. Focuses on safety through preoperative preparation, asepsis, and an overview of anesthesia. Four lecture, four clinical hours per week.
Prerequisite(s): 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. Prerequisite(s): BIO 162 and PSY 119 and SUT 111
201 Tissue Banking II 8 Cr. Hrs.
Role transition to beginning Tissue Banking Technology practitioner. Emphasizes a common systematic approach to all tissue recovery and processing procedures. Introduces Tissue Banking Technologist's role on recovery and processing teams in all related environments. Sixteen clinical hours per week.
Prerequisite(s): Restricted to majors

## 202 Tissue Bank Certification Review 4 Cr. Hrs.

Preparation for the futuregraduate of the Tissue Banking Technology certificate program to take the Certified Tissue Bank Specialist (CTBS) exam given by the American Association of Tissue Banks (AATB). Detailed information of the AATB requirements of tissue banks that store, distribute, recover, and processhumantissue. Includes preparation for the CTBS exam through review of all previous course work.

## Prerequisite(s): Restricted to majors

211 Surgical Procedures I 10 Cr. Hrs.
Discusses specific surgical procedures of the gastrointestinal, urinary, and reproductive systems. Adapts surgical care concepts to geriatric and pediatric patients. Correlates intraoperative procedures with postoperative care. Five lecture, sixteen directed practice hours per week.
Prerequisite(s): 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.
Prerequisite(s): ALH 201 and MAT 106 and SUT 211

213 Surgical Procedures III 11 Cr. Hrs. Discusses specific orthopedic, neurological, and thoracic surgical procedures. Examines immediate postanesthesia care. Five lecture, nineteen directed practice hours per week.
Prerequisite(s): ALH 142 and ENG 112 and SUT 212 or ALH 220

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(s): SUT 213 and 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.
Prerequisite(s): 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 atrisk populations based on socio-economic class, disablement, race, ethnicity, gender and sexual orientation.
Prerequisite(s): SOC 111 or SOC 120 recommended
212 Basic Practice Theory II 4 Cr. Hrs. Social work practice theories, methods, and applications; theoretical concepts, values and principles that form the framework for a generalist social work 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 at a local agency with an absolute minimum of 32 hours.
Prerequisite(s): SWK 211

213 Social Welfare \& Social Services 4 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 congruence between personal values and social work values, especially regarding diversity.Students are required tocompletea practicum at a local agency with an absolute minimum of 32 hours.
Prerequisite(s): SWK 206, SOC 111 and SOC 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.
A study of techniques for building and handling theatrical scenery. Covers tools, materials, and hardware used, and the artistic and practical considerations of scenery construction.
Prerequisite(s): 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(s): 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 onscenework from 1850-1950. One lecture, four lab hours per week.
Prerequisite(s): THE 111

## 113 Acting III <br> 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(s): THE 112

## 115 Stage Lighting Fundamentals

3 Cr. Hrs.
A study of theatrical lighting equipment, materials, methods and techniques. Emphasis on technical aspects of stage lighting, with an introduction to the principles of lighting design.

## 117 Lab for THE 115 <br> 1 Cr. Hr.

Laboratory must be taken with THE 115.

## 122 Theatre Sound Fundamentals 3 Cr. Hrs.

Introduction to the technical processes of theatre sound production.
Prerequisite(s): THE 123 must be taken concurrently

## 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.
Prerequisite(s): THE 128 must be taken concurrently

## 126 Stage Make-Up <br> 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.
Prerequisite(s): THE 109

## 129 Lab for THE 125

Laboratory must be taken with THE 125.
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.
Prerequisite(s): Permission by the chairperson

## 198 Applied Theatre Technology R

1 Cr . Hr.
Lab experience in theatre technology; includes assistant stage management and production crew positions for departmental major productions. Assignments are made through department faculty and staff.

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 <br> 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. Focus on discovering creative, in-depth techniques of script analysis and realizing different methods for researching the script. Techniques can be applied to understanding the script as an actor, director, designer, dramaturg, or playwright. One lecture, four lab hours per week.
Prerequisite(s): THE 105
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(s): THE 113

## 213 Auditions

3 Cr. Hrs.
An overview of skills needed for successful auditioning and entry into the profession. One lecture, four lab hours per week. Prerequisite(s): THE 111
215 Acting Shakespeare 3 Cr. Hrs.
Script and character analysis and the performance of selected Shakespearean scenes, monologues, and soliloquies. 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. One lecture, four lab hours per week.

## 220 Theatre Portfolio

3 Cr. Hrs.
Process for creating a theatre resume and portfolio; development of presentation and interview skills.
Prerequisite(s): 15 hours from THE department and approval of division counselor

## 240 Stage Management 3 Cr. Hrs.

An introduction to the creative and administrative work of a stage manager. Including hands-on activities in learning the principles and practices of stage management. One lecture, four lab hours per week.
Prerequisite(s): THE 105

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(s): THE 111 or THE 103
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.

## 298 Theatre Practicum: Technical R

## 1-3 Cr. Hrs.

Practical experience in advanced stage management, engineering, technical production, and design positions for departmental major productions. Assignments are made through department faculty and staff.
Prerequisite(s): Permission of instructor

## 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.
Prerequisite(s): Approval of department

## Travel \& Tourism (TNT)

## 100 Introduction to Travel \& Tourism

 3 Cr. Hrs.Overview of terminology, concepts, and specialized fields that comprise the travel and tourism industry including job opportunities.
Prerequisite(s): 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(s): TNT 100

## 104 Tariff \& Ticketing: North America

 3 Cr. Hrs.Airline tariff interpretation, fare calculation/rating, transportation taxes, rules, and procedures for ticketing.
Prerequisite(s): TNT 100, TNT 112, MAT 105

## 106 Employment Guidelines for Travel Industry <br> 1 Cr . Hr.

Job search techniques applied to travel and tourism industry including resume preparation, application, and interviewing for a job.
Prerequisite(s): TNT 100

## 108 Accommodations, Cars, Tours \& Rail <br> 2 Cr. Hrs.

Study of research and reservation process for accommodations, car rentals, tours. and rail transportation.
Prerequisite(s): TNT 100

## 109 Cruise Line Sales

2 Cr. Hrs.
Study of research, reservation and sales process for the cruise industry worldwide.
Prerequisite(s): TNT 100

## 112 Domestic Air Travel <br> 3 Cr. Hrs.

 Survey of the domestic airline industry, domestic airline and city codes, airline terminology, aircrafttypes, major reference guides, reservations ethics, and map locations of major North American airports.Prerequisite(s): 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.
Prerequisite(s): TNT 112 and TNT 100
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.
Prerequisite(s): TNT 100, TNT 112

## 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.
Prerequisite(s): TNT 104, TNT 122

## 130 Destinations I 3 Cr. Hrs.

Tourist destinations in North America, Central and South America, the Caribbean and Bermuda, and the methods of selling these destinations.

## 131 Destinations II

3 Cr. Hrs.
Study of tourist destinations in Europe, Africa, the Middle East, Asia and the Pacific, and the methods of selling these destinations.

## 201 Tourism for the Travel Industry 3 Cr. Hrs.

Problems, issues, and trends in the travel industry.
Prerequisite(s): TNT 114, TNT 122

## 202 Marketing for the Travel Industry 3 Cr. Hrs.

 Overview of an annual plan for a travel agency, Inn, Bed \& Breakfast, or home based agency which includes units on advertising, marketing, sales, personnel, facilities, and other operational incomes and expenditures.Prerequisite(s): TNT 102, TNT 108, TNT 114, TNT 122

## 210 Management of Travel Sales Personnel <br> 3 Cr. Hrs.

Management techniques for travel agency staff emphasizing communication, selection, and professional development.
Prerequisite(s): TNT 102, TNT 108, TNT 114, TNT 122

## 215 Managing a Travel Agency

3 Cr. Hrs.
Managerial and financial aspects of agency operations, including internal flow and impact of external factors on successful management.
Prerequisite(s): TNT 102, TNT 108, TNT 114, TNT 122

## 224 Advanced Airline Computer I

2 Cr. Hrs.
Airline reservation system including hotel accommodations, cars. One lecture, two lab hours per week.
Prerequisite(s): TNT 108, TNT 123

## 225 Advanced Airline Computer II

2 Cr. Hrs.
Application of airline computer reservation system beyond airline, car, airfares, hotel. Explore airline computer reference systems and other travel reservation capabilities. One lecture, two lab hours per week.
Prerequisite(s): TNT 114, TNT 123
250 Travel Sales Practicum 3 Cr. Hrs.
Study and application of advanced sales techniques which apply to the travel industry.
Prerequisite(s): TNT 100, TNT 102, TNT 104, TNT 108, TNT 109, TNT 112, TNT 114, TNT 122, TNT 123, TNT 130, TNT 131, 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 each quarter.
Prerequisite(s): TNT 100, TNT 102, TNT 104, TNT 106, TNT 108, TNT 112, TNT 114, TNT 122 and approval of chairperson, or approval of internship coordinator

## 278 Travel \& Tourism Capstone

3 Cr. Hrs.
Assessment of achievement by Travel and Tourism degree students in attaining program outcomes by employing reflective learning through demonstration of related principles and practices.
Prerequisite(s): Approval of chairperson and student must be within 18 credit hours of completion of the TNT degree
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 relationshipsbetween 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(s): 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(s): 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(s): 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.
Prerequisite(s): 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.
Prerequisite(s): 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 <br> 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(s): 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(s): 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.

## 105 Printing Basics

3 Cr. Hrs.
Development and evaluation of printing processes including letterpress, gravure, flexographic, offset, silk screen, and digital, and the kinds of work for which they are designed. Two lecture, four lab hours per week.

## 106 Design Basics: 2-D

3 Cr. Hrs.
Introduction to 2-D design fundamentals applied to visual communications, printing and the arts. Twolecture,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(s): VIS 106

## 108 Typography

3 Cr. Hrs.
Introduction to typography as an element and tool of visual communication. The concept of type as image is emphasized. Two lecture, four lab hours per week.

109 Design Drawing
3 Cr. Hrs.
Introduction to marker rendering and other design drawing techniques as applied to visual communications and printing. Two lecture, four lab hours per week.
Prerequisite(s): 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.
Prerequisite(s): VIS 104 and VIS 114
116 Digital Animation 3 Cr. Hrs. Introduction to 2-D and 3-D animation software and the development of animations for presentations and multimedia applications.
Prerequisite(s): 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.
Prerequisite(s): VIS 104 or CIS 107 or OIS M70 or OIS M71 or CIS 129 and VIS 114 and VIS 147
118 Web Page Design II 3 Cr. Hrs. web page design using vector graphic based software. Design basics and handson approach emphasized. Development of online interactive media and/or animation.
Prerequisite(s): VIS 117
146 Digital Illustration
3 Cr. Hrs.
Computer illustration techniques using vector based software.
Prerequisite(s): VIS 104
147 Digital Imaging
3 Cr. Hrs.
Computer imaging and photo manipulation using raster based software.
Prerequisite(s): VIS 104
148 Digital Page Layout
3 Cr. Hrs.
Introduction to computer page layout and composition using desktop publishing software.
Prerequisite(s): VIS 108 and VIS 146 or VIS 147
150 Screen Printing
3 Cr. Hrs.
An introduction to producing a textile print, from preparing camera ready art to printing the finished product.

## 151 Offset Printing 3 Cr. Hrs.

 A study of basic offset printing. Characteristics and operations of the duplicator size presses. Astudy of varioustypes of dampeningsystems. Understand the required adjustments necessary for quality printing.Prerequisite(s): VIS 105 or PRT 101

201 Digital PrePress I
3 Cr. Hrs.
Fundamentals of digital prepress and the techniques used to prepare page layouts and designs for printing.
Prerequisite(s): VIS 146 and VIS 147 and VIS 148
202 Digital PrePress II 3 Cr. Hrs.
Advanced digital prepress and color separation techniques used to prepare page layouts and designs for printing.
Prerequisite(s): VIS 201 or PRT 271
206 Design Principles I 4 Cr. Hrs.
First of a two-part series exploring advanced elements and principles of design; introduction to design symbology. Two lecture, four lab hours per week.
Prerequisite(s): VIS 146 and VIS 147 and VIS 148
Corequisite(s): 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.
Prerequisite(s): VIS 206
Corequisite(s): 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.
Prerequisite(s): VIS 146 and VIS 147 and VIS 148
Corequisite(s): 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.
Prerequisite(s): VIS 236
Corequisite(s): VIS 207
265 Digital Authoring 3 Cr. Hrs.
Fundamentals of 3-D graphics software and the development of print, presentation and multimedia graphics. Onelecture,four lab hours per quarter.
Prerequisite(s): VIS 116

## 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 <br> 4 Cr. Hrs.

Each second year student will develop a portfolio from portfolio projects, work experience,freelance, etc. Throughlecture, 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. Prerequisite(s): 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.
Prerequisite(s): 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.

## Volunteer Services (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.

## Who's Who

## Board of Trustees

Katherine B. Hollingsworth,
Chairman
President
Innovative Interchange Associates
Lawrence "Larry" Porter,
Vice Chairman
President
L.P.A., Incorporated

Mary Boosalis
President \& CEO
Miami Valley Hospital
Richard J. Chernesky
Managing Partner
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Marva Cosby
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Mathile Family Foundation
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Gerald M. Hauer
President \& Owner
Hauer Music Company
Ethel M. Washington-Harris Community Volunteer
Bernard H. "Barney" Wright, Jr. Executive Vice President \& Trust Officer
Lebanon Citizens National Bank

## Administration

Steven Lee Johnson (2000)
President
B.S., University of Wisconsin
M.S., Iowa State University

Ph.D., University of Texas
Jeff Boudouris (1988)
Chief Financial Officer and Vice
President for Business Operations
B.S., M.B.A., Wright State University

Helen Grove (1999)
Senior Vice President and Provost B.S., West Virginia Wesleyan College M.S., Ph.D., University of Tennessee

Robert E. Johnson (2006)
Senior Vice President
B.A., Morehouse College
M.A., University of Cincinnati

Kenneth Moore (2000)
Senior Vice President
B.S., University of Cincinnati
M.B.A., D.Sc., Robert Morris University

Deborah L. Norris (2006)
Vice President for Workforce
Development \& Corporate Services B.S., M.B.A., University of Dayton

Mary Tripp Gaier (2003)
Vice President for Organizational Development
B.S., Wright State University
M.Ed., Xavier University

Ph.D., University of South Florida
Tom Huguley (1994)
Associate Provost for Instruction B.A., M.Ed., University of South Carolina Ph.D., Bowling Green State University

## Dan Brazelton (1977)

Dean, Learning Centers
B.S., M.Ed., University of Illinois

David L. Collins (1995)
Dean, Allied Health Technologies A.A.S., Sinclair Community College
B.A., University of Redlands
M.S., Ph.D., University of Dayton

Linda Pastore (2000)
Interim Dean, Extended Learning \& Human Services
B.S., Bloomsburg University
M.S., West Chester University

Ph.D., Miami University
George H. Sehi (1986)
Executive Dean, Courseview Campus Center
Dean, Engineering \& Industrial Technologies
B.S., M.S.M.E., Ph.D., Southern Illinois University

Sally A. Struthers (1991)
Dean, Fine \& Performing Arts
B.A., Wright State University
M.A., Ph.D., The Ohio State University

Charlotte Wharton (2002)
Interim Dean, Business Technologies
B.S., Ohio University
M.Ed., Wright State University

Marianne Gorczyca (1990)
Director, Sinclair Foundation
B.A., M.A., University of Dayton

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Executive Director, Public Relations
B.S., Bowling Green State University

Madeline J. Iseli (2003)
Director of Government Relations
B.Phil., Miami University

Saundra K. Schuster (2005)
General Counsel
B.S., M.S., Miami University
J.D., The Ohio State University

Tom Raga (2007)
Senior Director, Regional Strategy \&
Development
B.A., Cornell University

## Full-time

Professional Staff
Eva F. Abdullahi (1985)
Senior Academic Advisor, Academic Advising Center B.S., Eastern Kentucky University M.A., Bowling Green State University Ed.D., Indiana University
Ron Adams (1984)
Operations Lieutenant, Sinclair Police A.A., Sinclair Community College

Ann M. Armstrong (1986)
Administrator, College Publications
B.F.A., University of Dayton

Michael Barhorst (1999)
Director, Budget \& Analysis
B.S., M.B.A., Wright State University

Carol Baugh (1998)
Coordinator, Appalachian Outreach Studies
B.S., M.A., Wright State University Ph.D., Miami University
Bobby J. Beavers (1994)
Director, Counseling Services
A.A., Jefferson Davis Junior College
B.A., M.A., University of Southern

Mississippi
Ph.D., Iowa State University

## Marlena Beavers (1995)

Project Director, Upward Bound
B.S., M.S., University of Southern Mississippi
Ph.D., Iowa State University
Whitney Bixler (2004)
Early Language Literacy Specialist
B.A., Bluffton College
M.S., Walden University

Karen Blake (1997)
Senior Academic Advisor, Academic Advising Center
A.A., Sinclair Community College
B.A., M.S., University of Dayton

Donna C. Blankenship (1987)
Manager, Information Processing \& Technical Services, Information Technology

## Peter E. Bolmida (1989)

Director, Enrollment Services
A.S., Sinclair Community College
B.S., University of Dayton
M.S., Wright State University

Carlyn Bozeman (1984)
Director, Financial Aid \& Scholarships, Veterans Assistance
B.S., Park University
M.S.Ed., University of Dayton

## Darnell Brown (2000)

Network Engineer, Information Technology
A.T.S., Sinclair Community College

David A. Brown (2004)
Counselor, Upward Bound
B.A., Cedarville University
M.S., University of Dayton

Tony (Nicholas) Bryan (2005)
Counselor, Supported Education Program, Educational Support Services
B.A., The Ohio State University
M.S., Wright State University
(L.P.C.C.)

LaStander M. Bunch (2003)
Financial Aid Officer, Financial Aid \& Scholarships
B.A., Langston University
M.A., Antioch University McGregor

Marlene Bundy (1991)
Librarian, Acquisitions/Reference, Library
B.A., Adams State College
M.A., University of Denver

Michael Burns (2004)
Director, Systems Development \& Maintenance, Information Technology
B.A., Grinnell College
M.L.S., Indiana University

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Andrea Bush (2000)
Operations Supervisor, Tartan Campus Store
Rebecca Butler (2006)
Senior Director, Marketing \& Communications
B.S., Ohio University
M.B.A., University of Dayton

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Report Analyst, Research, Analytics \& Reporting
B.S., Hacettepe University, Ankara, Turkey
B.S., Wilberforce University

Paul Carbonaro (1999)
Coordinator, English as a Second Language
B.A., Stirling University (Scotland)
M.A., Wright State University

Michael Carter (2001)
Senior Director, High School Linkages
B.A., Wittenberg University
M.S.E., Wright State University

Gary L. Chance (1986)
Admissions Officer, Admissions
B.A., Baldwin-Wallace College
M.A., Bowling Green State University

Annesa Cheek (2006)
Assistant to the President
B.A., Tennessee State University
M.B.A., University of Dayton

Paul Ciarlariello (2005)
Senior Report Analyst, Research, Analytics \& Reporting
B.S., Park University

Michael R. Clark (1987)
Systems \& Applications Analyst, Information Technology
A.A.S., Sinclair Community College

Dean E. Cole (2000)
Senior Director, Student \& Academic Support Services
B.S., Old Dominion University
M.S., University of Arkansas
M.S., Wright State University

Suzanne M. Cole (2002)
Admissions Officer, Admissions
B.S., University of Maryland
M.S., Wright State University

Kimberly J. Collins (1998)
Counselor, Student Success Planning Services
B.A., Florida State University
M.Ed., Boston University

Pamela S. Combs (2000)
Counselor, Counseling Services
B.S., Wright State University
M.A., Xavier University

Robert A. Creager (1975)
Grounds Supervisor, Facilities Management
A.A.S., Clark State Community College

David Curtis (1998)
Technical Services Coordinator, Information Processing \& Technical Services, Information Technology
Jared Cutler (2001)
Project Analyst, Research, Analytics \& Reporting
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 Productions, Distance Learning \& Instructional Support
B.S., Xavier University
M.Ed., University of Missouri

Kristi Dinsmore (2007)
Director, Client \& Professional Services, Miami Valley Research Park Learning Center
B.S., Miami University
M.B.A., Duke University

Yvonne Dorsett (2000)
Manager, Student Success Planning Services
B.S., Manchester University
M.S., Purdue University
M.A., Bowling Green State University

Don Drumheller (1972)
Sports Information Director, Coordinator,
Physical Activities Center
A.B., Lebanon Valley College
M.D., United Theological Seminary

Fola G. Fadeyi (1998)
Program Director, Student Support Services
B.B.A., M.P.A., Western Michigan University
Ph.D., Iowa State University
Julie E. Fairchild (2004)
Records Manager/Archivist
B.A., M.A., Wright State University

Laura N. Ferguson (2004)
Admissions Officer, Admissions
B.S., Miami University
M.S.W., The Ohio 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

Geoffrey Garrison (2002)
Coordinator, Fire Academy
B.S., Miami University

Charles J. Gift (2007)
Director, Public Safety
B.A., Park College
M.A., Central Michigan 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)

Report Analyst, Research, Analytics \& Reporting
A.S., Sinclair Community College
B.S., Wilberforce University
M.A., University of Phoenix

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

Janeil Guerra (1986)
CAS Coordinator, Provost Office
B.S., Park University
M.S.Ed., University of Dayton

Robert Gutendorf, Jr. (2002)
Network Operations Center Coordinator, Information Technology
B.S., Bowling Green State University

Tambra Hale (1983)
Manager, General Accounting, Accounting Services
A.A.S., Sinclair Community College

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, Sinclair Police
A.A.S., Sinclair Community College

Joyce Haywood (1990)
Senior Academic Advisor, Academic Advising Center
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

Nina Henderson (2007)
Academic Advisor, Academic Advising Center
B.A., The Ohio State University
M.S.Ed., University of Dayton

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., The 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

Sandy Hilt (2005)
Adviser, the Clarion
Instructor, Communication Arts
B.A., Ohio State University

Letha Houston (1995)
Counselor, Student Success Planning Services
B.S., College of St. Scholastica

Tracy Jayne (1998)
Instructional Designer, Web Course Development
B.F.A., Wright State University
M.Ed., University of Dayton

Rukhi Jan (2007)
Academic Advisor, Academic Advising Center
A.A., Lahore College Pakistan
A.S., Clark State Community College
B.S., M.S.Ed., Wright State 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, Pre-College Programs
B.S., Wilberforce University
M.S., University of Dayton

Gwendolyn M. Jones (1993)
Manager, Student Leadership Development
B.A., Central State University
M.A. Ed., University of Michigan

Janet Jones (2000)
Director, Human Resources
B.A., Capital University
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## 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)

Site Coordinator, Englewood Learning Center
B.A., Berea College
M.A., Wright State University

Sonya A. Kirkwood (1975)
Coordinator, Englewood Learning Center
B.A., Duke University
M.L.S., Indiana University

Bernard J. Kirley (1983)
Bursar
B.S., M.B.A., Wright State University

## Karl Konsdorf (2004)

Manager, Analytics \& Reporting,
Research, Analytics \& Reporting
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

David Landom (2004)
Senior Budget Analyst, Budget \& Analysis
B.A., University of North Dakota
M.A., Black Hills State University
M.A., Certificate in Project Management, George Washington University
Jana L. Lehman (2004)
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A.A.S., Sinclair Community College
B.A., University of California, Riverside
M.B.A., University of Redlands

## Donald F. LeVan (1985)

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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)
Senior Academic Advisor, Academic Advising Center
B.A., State University of New York at Buffalo
M.M., Yale University
M.S., University of Dayton

James Dominic Magwood (2006)
Financial Aid Officer, Financial Aid \& Scholarships
B.A., Dillard University
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Douglas Mahoney (1986)
Supervisor, Maintenance, Facilities Management
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Elizabeth A. Maurice (1984)
Senior Report Analyst, Research, Analytics \& Reporting
A.A.S., Sinclair Community College B.S., Park College
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Thomas McAllister (2004)
Coordinator, Education Programs at DCI/MEPRC
B.A., Antioch College
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Sherry McAndrew (2001)
Manager, Web Course Development, Distance Learning
B.A., University of Missouri-Kansas City M.A., Antioch University McGregor
C. Pat McClelland (2005)

Galleries Coordinator/Collection Curator
B.F.A., Wright State University
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Scott A. McCollum (1988)
Director, Information Technology Services, Information Technology A.A.S., A.S., Sinclair Community College B.S., University of Dayton

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M.Ed., University of Dayton

Timothy McKinney (2001)
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M.S., University of Dayton

Larry McMillan (1991)
Manager, Web Systems
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Producer/Editor, Learning Technology Productions
B.A., Wright State University

Sandra Meadows (2001)
Assistant Director, Financial Aid \& Scholarships
B.S., M.S., Wright State University

John Meister (1986)
Manager, Media Services, Information Technology
B.A., Wittenberg University

Laura A. Mercer (1989)
Manager, Research, Analytics \& Reporting
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)
Director, Business Services
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

Candace Moody (2001)
Assistant Registrar
A.A., Clark State Community College

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)
Manager, Disability Services
A.A., Sinclair Community College
B.A., M.R.C., Wright State University Ph.D., The Ohio State University

## Sharyn A. Morgan (1996)

Senior Academic Advisor, Academic
Advising Center
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
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Dodie Munn (2005)
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A.S., Sinclair Community College B.S., Bowling Green State University M.B.A., University of Dayton

Nancy Nevius (2006)
Generalist, Englewood Learning Center

## Hoang Nguyen (2001)

Web Systems Administrator, Web
Systems, Information Technology
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 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)
Counselor, Enrollment Services
B.S., M.A., Bowling Green State University
(L.S.W.)

Penelope Parmer (2000)
Project Analyst, Research, Analytics \& Reporting
B.S., Xavier University
M.G.S., Miami University

## Joan Patten (1986)

Director, Research, Analytics \& Reporting
B.S., M.S., Wright State University

Latonia Peak-Brown (2001)
Site Coordinator, Huber Heights
Learning Center
B.S., Central State University
M.C., Arizona State University

Michael W. Plourde (1984)
Director, Accounting Services
B.S., Wright State University
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## Omar Powell (1999)

Counselor, Minority Student Retention, Counseling Services
B.S., Central State University
M.S.Ed., University of Bridgeport

Elizabeth A. Price (2006)
Individual Learning Plan, Early Alert
Coordinator, Student Success Services
B.A., Morehead State University
M.S.Ed., University of Dayton

Meredith A. Rainey (1986)
Senior Academic Advisor, Academic Advising Center
A.A.S., Westchester Community College
B.S., Central State University
M.S., Wright State University

## Gail Ramke (2006)

Counselor, Student Success Planning Services
B.A., Miami University
B.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

Cheryl Reindl-Johnson (2002)
Associate Dean, Courseview Campus Center
B.S., B.A., Wilmington College
M.A., Miami University

Ed.S., Nova Southeastern University
Allison Rhea (1998)
Senior Director, Enrollment Management/Registrar
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
R. Cole Rodesky (2004)

Academic Advisor, Academic Advising Center
B.S., Wright State University

Marilyn Rodney (1991)
Coordinator, Service Learning B.S.N., M.S., Wright State University

## Vandanna Rola (2006)

Web Course Facilitator, Distance Learning
A.S., Sinclair Community College
B.Ed., Annamalai University
B. Physics, Ramjas College
M.Ed., Annamalai University
M. Physics, University of Delhi

Chad Rumbarger (2004)
Network Engineer/SNA, Information Technology
Phyllis Salter (1984)
Senior Academic Advisor, Academic Advising Center
B.S., The 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

Brenda Seufert (2007)
Ombudsman
B.S., Marshall University
M.S., Miami University

Patrick Seymour (1999)
Network Application Specialist, Information Technology
Cynthia L. Shoenleben (2003)
Applications Administrator,
Administrative Systems, Information Technology
A.S., Edison State Community College

Tabitha A. Shuey (2003)
Supervisor, Call Center
B.S., The Ohio State University

Deborah A. Shuler (1996)
Senior Academic Advisor, Academic Advising Center
B.S., Kent State University
M.S.E., University of Dayton

James R. Shuler (2002)
Student Support Counselor, Counseling \& Disability Services
B.S., The Ohio State University
M.R.C., Bowling Green State University
(C.R.C.)

David Siefert (2000)
Director, Strategic Programs
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

Susanna Smith (2001)
Multimedia Services Coordinator, Media Services, Information Technology B.S., Franklin University

Susan Spacht (2003)
Senior Academic Advisor, Academic Advising Center
A.A.S., Sinclair Community College
B.S., M.S., Wright State University

Jaton R. Stanford (1999)
Senior Academic Advisor, Academic Advising Center
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

## Cheryl Stewart (2000)

Policy \& Procedures Specialist, Learning Technology Production
B.S., M.Ed., Wright State University

## Penny Stewart (1998)

Multimedia Graphics Producer, Learning Technology Productions
B.A., Pike's Peak Community College

Linda Stowe (1972)
Coordinator, Distance Learning Services, Distance Learning Programs \& Support
A.S., Sinclair Community College
B.A., Antioch University
M.Ed., Ohio 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)
Business Internship Coordinator, Business Technologies
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

## 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)
Special Assistant to the Senior Vice
President
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., The Ohio State University

Jan Tyler (2006)
Director, Academic Advising
B.A., Miami University
M.A., Ball State University

Karen L. Usrey (1999)
Coordinator, Alumni Affairs
A.A., Sinclair Community College B.A., M.A., Antioch University

Barbara Walker (2006)
Manager, Purchasing
A.A.B., The Wheeler School

Cindy Warner (2006)
Counselor, Counseling Services
B.S., Ohio University
M.S.Ed., University of Dayton
(L.P.C.)

David P. Wells (2002)
Project Analyst, Database Administrator, Research, Analytics \& Reporting
B.S., M.S., Wright State University

Ellis Willis (2004)
Coordinator, Criminal Justice Training Academy
A.A., Sinclair Community College

Patricia Willis (2007)
Academic Advisor, Academic Advising Center
B.A., M.A., 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 Yarnall (1994)

Assistant Manager, Tartan Campus
Store/Materials Management
A.S., Sinclair Community College
B.S., Franklin University

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)
Chairperson, Professor, Computer
Aided Manufacturing, Operations 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.)

Richard Andrews (2003)
Chairperson, Assistant Professor, Accounting, Economics, Financial Management
A.A., Sinclair Community College
B.S., Wright State University
M.B.A., University of Dayton
C.P.A., (Certified Public Accountant)

Natalie Andrews (2004)
Assistant Professor, Business Information Systems
A.A.S., Sinclair Community College
B.S., University of Cincinnati
M.Ed., Wright State University

Sandra J. Apgar (2000)
Associate 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)
Chairperson, Professor, Automotive Technology
B.S.Ed., M.Ed., Miami University

## S. Kay Ashworth (1989)

Chairperson, Professor, 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

Jennifer Barr (1993)
Chairperson, Professor, 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., The Ohio State University

Cynthia A. Beckett (1982)
Chairperson, Professor, Respiratory Care
B.S., The 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)

Associate 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)
Chairperson, 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
Cecilia Bidigare (2006)
Assistant Professor, Nursing
B.S.N., Nazareth College,
M.S.N., Wayne State University

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., The Ohio State University
M.Ed., Urbana University
V. Michael Brigner (2001)

Associate 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)
Associate Professor, Computer Information Systems
B.S., Rider College
M.B.A., University of Findlay

Bernice Brown (1997)
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M.A., University of Dayton

## Darrin Brown (2002)

Assistant Professor, Sociology
B. S., Central State University
M.A., Wright State University

Randall Brown (2000)
Associate Professor, Computer Information Systems
B.A., Wright State University
M.S. Ed., University of Dayton

Kimberly Brubaker (2005)
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Nutritional Management
B.S., Eastern Illinois University
M.S., Miami University

Robin Byrd (2007)
Instructor, Nursing
A.A.S., Sinclair Community College
B.S.N., Wright State University

Brian Cafarella (2003)
Assistant Professor, Developmental Studies
B.S., Pace University
M.Ed., Cambridge College

Susan Callender (1992)
Professor, English
B.S., M.A., The 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)
Chairperson, Professor, Chemistry
A.A.S., Broome Community College B.S., M.S., State University of New York at Buffalo

## Susan Cannon (1998)

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A.S., Sinclair Community College
B.S., M.S., University of Dayton
(A.R.R.T.)

Tom Carlisle (1980)
Professor, Operations Technology
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## Gene Chambers (1980)

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A.A.S., Sinclair Community College
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Robert Chambers (2002)
Associate 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)
Associate 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)
Chairperson, Associate Professor,
Theatre \& Dance
B.A., Franciscan University
M.A., Binghamton University

Ph.D., The 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, Physical Education
B.S.Ed., Bowling Green State University
M.S., Miami University

## (ACSM)

Barbara Coleman (1997)
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., The 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)
Chairperson, Professor, Hospitality
Management, Travel \& Tourism
A.S., Sinclair Commmunity 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., The Ohio State University
(R.N.)

Cynthia Cully (1995)
Professor, Design
B.F.A., University of Dayton
M.Des., University of Cincinnati

Daryl Curnutte (2005)
Instructor, Step II Coordinator,
Computer-Aided Manufacturing
A.A.S., Sinclair Community College
B.S., Nyack College

Angela Currier (2002)
Associate Professor, Biology
B.S., Baldwin-Wallace College

Ph.D., Miami University
Lori C. Cutright (1992)
Professor, Physics
B.S., St. Joseph's College
M.S., Indiana University

Tammy Czyzwski (2007)
Assistant Professor, Nursing
B.S.N., B.A., Cedarville College
M.S., Wright State University

Ribhi Daoud (2000)
Associate Professor, Economics
B.A., M.A., California State Sacramento Ph.D., Walden University

## Ronald L. Dapore (1998)

Professor, Computer-Aided
Manufacturing
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)
Chairperson, Assistant Professor, Aviation Technology
B.C.E., The Ohio State University
M.B.A., University of Southern California
(Registered Engineer)
Jennifer Day (2005)
Assistant Professor, Business Information Systems
A.A.S., Sinclair Commmunity College
B.S., Wright State University
M.S.ED., University of Dayton

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

Jeff Donbar (2004)
Associate Professor, Automation \& Control Technology with Robotics
B.S., University of Cincinnati
M.S., Ph.D., University of Michigan

Diane Drummer (2000)
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B.S., Ohio University
M.Ed., University of Cincinnati

Mary E. Dudash-White (1985)
Professor, Health Information
Management
B.S., The Ohio State University
M.A., Wright State University
(R.H.I.A., C.C.S.)

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)
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B.A., Miami University
M.F.A., Bennington College

Kimberly Dunker (2006)
Assistant Professor, Nursing
A.S., B.S., Atlantic Union College
M.S., Regis College
(R.N.)

Eric Dunn (2005)
Assistant Professor, Civil Engineering Technology
B.S., M.B.A., Wright State University

Norma J. Dycus (1976)
Professor, Physical Education
Athletic Director
A.B., MacMurray College
M.S.T., University of Illinois

Crystal Echols (1992)
Professor, Developmental Studies
B.A., Howard University
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Mark Echtner (1995)
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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.)

James Eller (1997)
Professor, Heating, Ventilating, Air Conditioning \& Refrigeration Engineering Technology
B.A., Antioch University
A.M.A.R.C., United Theological Seminary
Georgann Enright (2001)
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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

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## Sherry Farra (2001)

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Dorie Farrell (1999)
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B.S., M.S., University of Dayton
(L.P.C., L.S.W.)

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## Kyle Fisk (1991)

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B.A., Wright State University
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## Karen Fleming (2002)

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Dona Fletcher (1989)
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Randall Fletcher (2006)
Instructor, Management
B.S., Wilberforce University

Sandra Foltz (1990)
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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
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Thomas Freels (2005)
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A.A.S., B.S., Southern Illinois University

Jamie C. Fries (2004)
Assistant Professor, History
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B.A., M.A., Truman State University
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## Sean Frost (2005)

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Solomon Fulero (1981)
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B.A., University of Maryland
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## Ed Gallo (2002)

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## Virginia Garrett (1992)

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## Judy Gerhard (1995)

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## John Getrost (1990)

Professor, Design
Diploma, Dayton Art Institute
Jack Giambrone (2005)
Associate Professor, Physical Education, Assistant Athletic Director
B.S., University of Dayton
M.S., ED., The Ohio State University

Joseph A. Giardullo (1988)
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## Robert Gilbert (2005)

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

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A.T.S., Sinclair Community College
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Gloria Goldman (1980)
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B.A., Andrews University
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J.D., Valparaiso University School of Law

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## Patrick Greco (2001)

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## Daniel Greene (1989)

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## Myra Grinner (1997)

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M.S., Central Michigan University
M.A., University of Dayton

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M.F.A., The Ohio State University

Carolyn J. Hannah (1998)
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## Donna L. Hanshew (2005)

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B.S., Embry-Riddle Aeronautical University
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B.A., Capital University
M.S., Ohio University

Kevin Harris (2000)
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B.A., Hampton University
M.F.A., University of Cincinnati

Susan Harris (1995)
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B.A., Grinnell College
M.S., Wright State University

Bahar Hartmann (2004)
Assistant Professor, Modern Languages
B.A., M.A., Wright State Universtity

Ed.D, University of Cincinnati
Sharon Hawkins (2005)
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A.A., Cuyahoga Community College
B.S.N., Ursuline College
M.P.A., Cleveland State University (R.N.)

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B.A., Wittenburg University
M.A., Ohio State University

Paula Heitkemper (2002)
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B.S., M.S.N., University of Cincinnati

Sheranita Hemphill (1989)
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B.S., M.S.Ed., University of Dayton
M.P.H., The Ohio State University
(R.D.H.)

Anne Henry (1994)
Associate Professor, Geology
B.S., M.S., Wright State University

Furaha Henry-Jones (2005)
Instructor, English
Grow Our Own Program
B.S., Pennsylvania State University

## Karl Hess (2003)

Associate Professor, Mathematics
A.S., Edison 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.)

Norma Hollebeke (2005)
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B.S., M.S., University of Texas at El Paso

Stephen Holliday (1997)
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B.S., Capital University
D.D.S., The Ohio State University

Donald Homan (2002)
Associate 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, Operations 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.)

Shan Huang (2005)
Assistant Professor, Physics
B.S., Soochow University
M.S., University of Oregon

Catharine A. Huber (1980)
Professor, Health Information Management
B.S., The Ohio State University
M.A., George Washington University (R.H.I.A.)

## Mark Humbert (2002)

Associate 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
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Sandra Hutchison (2004)
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B.S., University of California Los Angeles

Ph.D., Pennsylvania State University

Elaine Isbell (1996)
Professor, Psychology
B.A., M.A., St. Mary's University

Shirley Ivory (1992)
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A.S., Sinclair Community College
B.S., University of Dayton
M.S., Wright State University

Surinder Jain (1983)
Interim Associate Dean, Engineering \& Industrial Technologies
Chairperson, Professor, Electronics Engineering Technology, Automation \& Control Technology with Robotics
B.S., M.S., Punjabi University (India)

Post M.S. Diploma, Punjabi University (India)
Bobby James (1998)
Professor, Engineering Technology Design
B.S., Bowling Green State University
M.Ed., Central State University

Cheryl Jefferies (2004)
Assistant Professor, Nursing
B.A., Monterey Institute of International Studies
A.S.N., Central Texas College
B.S., M.S., Medical University of South Carolina
(R.N.)

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Professor, Nursing
B.S.N., University of Cincinnati
M.S., Wright State University
(R.N.)

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Instructor, Developmental Studies
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Engineering Technology
A.S., B.S., M.S., University of Maryland

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Professor, Chemistry
B.S., Southampton College of Long Island
M.S., University of Dayton

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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.)

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Professor, Chemistry
B.S., Marietta College

Ph.D., Purdue University
Bruce L. Jordan (1973)
Professor, Music
B.M.Ed., Miami University
M.M., Indiana University

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Chairperson, Assistant Professor, Art
A.A., Sinclair Community College
B. A., Antioch University-McGregor
M.Hum., Wright State University

Rick Jurus (1988)
Professor, Art
B.F.A., Youngstown State University
M.F.A., The Ohio State University

Barbara J. Kabat (1973)
Professor, Psychology
B.A., Seton Hill College
M.A., University of Dayton

Tarik W. Kamil (2003)
Associate Professor, History
Advisor, Phi Theta Kappa
B.A., M.A., Northern Illinois University

Ph.D., Ohio University
Larraine Kapka (2004)
Assistant Professor, Heating, Ventilating, Air Conditioning \& Refrigeration 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

Cynthia Kennedy (1980)
Professor, Psychology
B.S., M.A., University of Dayton

## Rex Kent (2004)

Assistant Professor, Automotive Technology
B.A., Illinois State University

Joseph Keyes (1990)
Professor, Biology
B.A., Temple University
M.A., Western State College

Mohsen Khani (1997)
Professor, Geography
B.S., M.A., Western Michigan University

## Gail Kidwell (2003)

Assistant Professor, Nursing
A.A.S., Sinclair Community College
B.S.N., Capital University
M.S.N., Ball State University
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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)
Associate 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., The Ohio State University
Kay Koeninger (2003)
Assistant Professor, Art
B.A., Kenyon College
M.A., Eastern Washington University
M.A., University of California, Riverside

## 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

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)
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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

## Bree Langemo (2004)

Assistant Professor, Real Estate, Paralegal/Law
B.S., Minnesota State UniversityMoorhead
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Diana Leakas (2003)
Assistant Professor, 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

Ph.D., University of Utah
Vonya Lewis (2006)
Assistant Professor, History
M.A., Wright State University

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
Lalitha Locker (2005)
Assistant Professor, Physics
B.S., Meenakshi College, Madras University
M.S., Wright State University
M.S., University of Dayton

Marsha J. Loges (2005)
Assistant Professor, Management B.S., Park College
M.S.A., Central Michigan University
M.S., Industrial College of the Armed

Forces, National Defense University
Nolan W. 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
(ARRT)
W. Terry Maiwurm (1982)

Professor, Cooperative Education, Engineering \& Industrial Technologies B.S.Ed., Ashland University

## Carolyn Mann (1980)

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

## Russell Marcks (1990)

Professor, Heating, Ventilating, Air Conditioning \& Refrigeration
Engineering Technology
B.S., University of Wisconsin-Platteville M.S., University of Kansas
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## Tom Martin (1989)

Professor, History
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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
Anne McCrea (1998)
Interim Chairperson, 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
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Psy.D., Wright State University
Mary McGirr (2001)
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Lynden McIntyre (1989)
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A.S., Northwestern Michigan College
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Benjamin F. McKeever (1977)
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Kevin McNeeley (2001)
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B.S., M.S., Bowling Green State University
John Mersfelder (2005)
Assistant Professor, Biology
B.S., Capital University
M.S., The Ohio State University

David G. Meyer (2000)
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B.S., The Ohio State University
M.B.A., Jones International University
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## Marcia E. Miller (1988)

Professor, Nursing, Coordinator, Nursing Continuing Education
B.S.N., University of Cincinnati
M.S.N., University of Texas, El Paso

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(R.N., C.S.)

Susan Miller (2006)
Assistant Professor, Nursing
B.S.N., Wright State University
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## Kathleen Mills (1994)

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A.A.S., Sinclair Community College
B.S.N., Columbia Union College
M.S., The Ohio State University
(R.N.)

Jessica Minor (2005)
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B.S., College of Charleston
M.A., Gallaudet University

Denise Moore (1973)
Professor, Radiologic Technology
B.S., M.S., University of Dayton
(A.R.R.T.)

Jamshid Moradmand (2005)
Assistant Professor, Engineering
Technology Design
B.S., M.S., Wright State University

## Rebecca Morean (2004)

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B.A., University of California Santa Barbara
M.A., State University of New York at Stoney Brook
Richard Morales (2003)
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B.A., Wright State University
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Justin Morgan (2005)
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B.S., Southern Illinois University

## Karen Motley (2006)

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B.A., The Ohio State University (RHIA)
Linda D. Mowrey (2002)
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B.A., California State University at Long Beach
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B.S., University of California at Irvine
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Paula L. Neal (1972)
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A.A., Sinclair Community College
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Tina Partin (1993)
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B.S.N., Columbia Union College
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Nila L. Peavy (1995)
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Roger F. Penn (1975)
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Technology
A.S., Sinclair Community College
B.S., University of Louisville

Michael Porter (2002)
Associate Professor, Computer Information Systems
B.A., Miami University
M.B.A., University of Dayton

## 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
(ACE)
Katherine Quigley (2005)
Assistant Professor, Nursing
B.S.N., Wright State University
M.S.N., University of Cincinnati
(R.N.)

Sue Raffee (2003)
Assistant Professor, Dental Hygiene
EFDA Coordinator
A.A.S., Sinclair Community College
B.A., Capital University
M.S.A., Central Michigan University (R.D.H.)

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Professor, Accounting
B.B.A., M.B.A., University of Cincinnati
(Certified Public Accountant)
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Professor, Electronics Engineering Technology
B.S.E., Princeton University

Ph.D., University of Minnesota
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Chairperson, Associate Professor, Design
B.S. Des, M.S. Arch., University of

Cincinnati
(I.D.E.C., N.C.I.D.Q.)

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Assistant Professor, Developmental Studies
B.A., Xavier University
M.Ed, University of Cincinnati

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Professor, Nursing
B.S.N., Wright State University
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Chairperson, Criminal Justice
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Associate Professor, Marketing
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B.A., M.F.A., Bowling Green State University

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B.A., Creighton University
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Professor, Allied Health Technologies B.S., Central State University
M.Ed., University of Cincinnati L.N.H.A., The Ohio State University

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A.A.S., Sinclair Community College
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University

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

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Chairperson, Professor, Music
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Professor, Design
B.S., Central State University
M.S., Wright State University

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

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Professor, Computer Information Systems
B.S., M.S., University of Dayton

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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)

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M.S., Wright State University

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Professor, Operations Technology
B.S., M.B.A., University of Toledo
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Charles Setterfield (2006)
Assistant Professor, Architectural Technology
M.Arch, The Ohio State University

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B.A., Kent State University
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Associate Professor, Nursing B.S.N., Wright State University M.S.N., University of Cincinnati

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B.S.Ed., University of Dayton
M.Ed., Miami University

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B.M., M.B.A, Youngstown State University
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M.S.N., University of Cincinnati
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B.S., M.S., The Ohio State University (R.D.H.)

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M.A., Wright State University

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B.A., Eastern Illinois University
M.M., University of Kansas

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Professor, Engineering Technology Design
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B.S.I.T., Southern Illinois University
M.A., Wright State University
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B.S., M.S.Ed., University of Cincinnati

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M.S., Wright State University

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M.E., Wright State University

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

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M.S., University of Dayton

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M.S., Wright State University

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M.H.S., University of Indianapolis

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M.S., University of Dayton

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M.DIV., United Theological Seminary

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M.S., University of Houston

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M.S.N., M.B.A., University of Phoenix

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M.A., Wayne State University

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M.A., Stanford University

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M.B.A., Jones International University

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Engineering Technology
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M.S., University of Cincinnati

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M.Ed., Wright State University

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B.S., Wright State University
M.Ed., Ed.D., University of Cincinnati

Richard Wourms (2001)
Associate Professor, Computer-Aided
Manufacturing
B.A., Antioch University
M.B.A. Franklin University

John H. Yeamans (1972)
Professor, Management
B.S., The Ohio State University
M.A., Ball State University
(C.A.M., S.P.H.R.)

Ned D. Young (1994)
Professor, Business Management B.S., M.B.A., Wright State University

Ph.D., University of Dayton

Lori Zakel (1990)
Chairperson, Professor, Communication

## Arts

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B.S., University of Wyoming
M.A., Antioch University

Ph.D., University of Dayton
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Professor, Respiratory Care
Director, Clinical Education
A.A.S., Sinclair Community College
B.S., University of Dayton
(R.R.T., N.P.S, 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:
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Professor Carl M. Schell (1984)
Engineering \& Industrial Technologies
Professor Robert J. Buehler (1985)
Allied Health Technologies
Professor Helen Louise Katz Froug (1985)

Liberal Arts \& Sciences
Professor Mary W. Peelle (1986)
Business Technologies
Professor Robert 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. Kinskey (2005)
Business Technologies
Professor Yvonne C. Stebbins (2005)
Liberal Arts \& Sciences
Professor Peggy A. Falkenstein (2006)
Liberal Arts \& Sciences
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Business Technologies
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Business Technologies
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Liberal Arts \& Sciences

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Battelle \& Battelle LLP
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Linda Middlesworth
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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

## Steve Ponichtera

Recruiter
Time Warner Cable

## 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
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
Mark Hanby
Senior Manager, I.T.
Corporate Services
WorkflowOne, Incorporated
Candy Henry
Assistant Supervisor/Medical Records
Combined Health District of
Montgomery County Visiting Nurses
Association

## 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
Chrisondra V. Reese
Manager, Human Resources
McGohan Brabender, Incorporated
Mary Beth Seevers
Administrator \& Transcriptionist
Proscript
Sheila Suel
Coordinator
Business Technologies Co-op/Internship Program
Sinclair Community College
Dan Young
Business Manager
Dayton Head and Neck Surgeons

## Career Services

Megan Acton
Human Resources Specialist
AAA Miami Valley

## Michael Clark

Senior Programmer/Analyst
Administrative Systems
Sinclair Community College
Erman L. Cole, II
Research \& Development, Ivorydale
Technical Center
Procter \& Gamble
Gus DeLucia
Technical Staffing
Belcan Corporation
Charlene Edwards
Registered Nurse
Dayton Rehabilitation Institute

## Shirley Favors

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University of Dayton
Sharma Fox
Career Services Specialist
Sinclair Community College

## Polly Girvin

Counselor
Sinclair Community College
Jacalyn W. Harding
Director, Human Resources
Woolpert LLP

## Robert Jackson

Career Services Specialist
Sinclair Community College

## Bobby James

Associate Professor, Engineering
Technology Design
Sinclair Community College
Clifford Lauchlan
Career Services Specialist
Sinclair Community College
T.R. Morton

CEO
International Reactor Corporation
Kathleen O'Brien
Career Advisor
Edison State Community College
David Radkey
Director of Dining Services
Antioch University
William C. Roberts, II
Supervisor, Long-Term Residential
Nova House Association
Amanda Romero
Assistant Professor, Design
Sinclair Community College
Student Representative
Sinclair Community College
Lee Townsell
Volunteer Consultant
Montgomery County Juvenile Court

## Karen Usrey

Coordinator, Alumni Affairs
Sinclair Community College

# Civil Engineering Technology 

## Dan Baker

Engineer
Miami County Engineering Office
Creigee Coleman
Engineering Technician
City of Dayton
Mike Eckley
Vice President
Shook Construction Company
Albert Fullenkamp
Director, Public Works
City of Kettering
Eugenio Sejas
Civil Engineer
CESO
Marcelle Szynski
U.S. Army Corps of Engineers
C. David West

Civil Engineer
Barge Wagner \& Associates
Dave Williams
Construction Manager
Hutchins Realty

## the Clarion

Ann Armstrong
Administrator, Publications
Sinclair Community College
David Bodary
Professor, Communication Arts
Sinclair Community College
Ed Davis
Professor, English
Sinclair Community College
Kyle Fisk
Professor, Design
Sinclair Community College
Student
Editor, the Clarion
Sinclair Community College
Sandy Hilt
Adviser, the Clarion
Sinclair Community College

## Gary Honnert

Executive Director, Public Information Sinclair Community College

## Karla Garrett Harshaw

Vice President for Communications Development
Dayton Daily News
Robert Johnson
Senior Vice President
Sinclair Community College
Karen Weaver
Assistant Editor
Huber Heights Courier

# Computer Aided Manufacturing 

Robert Cammerer
Vice President
Midwest Tool \& Engineering
Joe Cassano
Business Unit Manager
Select Tool \& Die Corporation
Angelia Erbaugh
Managing Director
Dayton Tooling \& Manufacturing Association
Don Filbrun
Retired
Sinclair Community College
Bruce Hackett
President
Estee Mold \& Die Incorporated
Harold Jones
Retired
Sinclair Community College
Jim Skaggs
Apprentice Coordinator
Minco Group
Russ Speelman
Project Manager
A.F.C. Tool Company, Incorporated

Becky Tracey
Vice President for Human Relations Mutual Tool \& Die, Incorporated
William Trimbach
Plant Manager
A.F.C. Tool Company, Incorporated

## Computer Information Systems/Networking

Stephen Cash
Senior Systems Engineer
LexisNexis
Joe Findler
Network Administrator
Carlisle Power Transmission
Andrew Gilmore
President, BookFactory
Larry Henry
Global Learning Consultant
NCR
Jody Hodge
Senior Telecom Engineer
LexisNexis
Robert D. Koch
Senior Software Engineer \& I.T. Manager
LESG Dayton I.T. Services

## Robert Laws

Hardware/Software Analyst III
RCF Information Systems
Steve Linderman
Senior Systems Programmer/IS\&S
Sinclair Community College
Dan O‘Callaghan
Chief Information Security Officer
Sinclair Community College

## Barrie Rankine

Systems Engineer
Logitec, Incorporated

## Aaron Roe

NOC Manager
Radian Corporation
Bob Sheehan
Tech Prep Liaison
Sinclair Community College

## Eric Sphar

I.T. Instructor

Stebbins High School

## Sheila Suel

Coordinator, Co-op Internship Programs
BUS/Liberal Arts \& Sciences
Sinclair Community College

## Rick Tangeman

President
R.B. Tangeman Company

Travis Tangeman
Division Vice President
R. B. Tangeman Company

John Weber
Network Administrator
Alcohol, Drug Addiction \& Mental Health Service Boards for Montgomery County

## John Wheeler

President
Digital Cowboy Computers

## Computer Information <br> Systems/Programming

Craig Deubner
Manager, Search Services
LexisNexis
Phil Jacobs
Consulting Software Engineer
LexisNexis

## Art Ross

Chairperson, Professor, Physics
Sinclair Community College
David Siefert
Director, Strategic Programs
Sinclair Community College
David Snyder
Department Manager of Research
Solutions
SRA International Incorporated

## Drew Warren

Software Consultant
LexisNexis

## Computer Information Systems/User Support

Dennis Behm
Support/Operations Manager,
Cox Ohio Publishing, Dayton Daily News

## Donna Blankenship

Manager, Information Processing \& Technical Service
Sinclair Community College
Ann Gallaher
Director, Member Services
Greater Dayton I.T. Alliance

## Robert Hall

Manager, I.T.
Contech Construction Products, Incorporated

## Erin Henry

Senior Recruiting Specialist
Surrex Solutions Corporation
Lendon McKinney
Manager, Usage Reporting
Elsevier Dayton I.T.

## Chris McVicar

I.T. Instructor

Kettering-Fairmont High School

## Beverly Oltmann

Manager, Production Systems Support
LexisNexis
Frank Passaro
I.T. Instructor

Dayton Public Schools
Jeanna Reedy
Manager, Technical \& Help Desk
Sinclair Community College
Lori Snyder
Manager, Global Support Services
NCR Corporation
Julie Wheeler
BIS Lab Coordinator
Sinclair Community College

## Computer Information Systems/Web Development

Laura Daniel
Senior Internet Systems Programmer STG, Incorporated
Phyllis Ennist
Web Course Facilitator, Distance Learning Sinclair Community College

## Rick Ferris

Director, Sales \& Marketing
Miami Valley Mailing, Incorporated
Mike Goheen
Online Director
Cox Ohio Publishing

## Kristine Hofstra

Web Dev/Server Administrator Johnstone Downey Klein, Incorporated

Tracy Jayne
Instructional Designer
Web Course Development
Sinclair Community College
James Miller
I.T. Instructor

Centerville High School
Rex Mt. Castle
Web Developer
Sinclair Community College
Robert Nickell
Internet Designer
LM Berry
Cheryl Palafox-Stewart
Web Architect
Sinclair Community College
Vandana Rola
Web Course Facilitator
Sinclair Community College
Nancy Thibeault
Director, Distance Learning \&
Technology Support
Sinclair Community College

## Criminal Justice

Private Security
Marty Wilbur
Director of Security
Miami Valley \& Good Samaritan Hospitals
Carol Huber
Security Officer
First Financial Bank
Butch Morningstar
Vice President of Security
National City Mortgage/Sinclair
Ben Kirby
Dayton City Schools
Nancy Midura
Regional Security Manager
Meijer Stores
Mike Spencer
Chief Executive Officer, NASS
John Pawelski
Moonlight Security

## Criminal Justice <br> Law Enforcement

Steve Walker
Chief
Centerville Police Department
Mark Ecton
Major
Dayton Police Department
Roy McGill
Chief
Germantown Police Department
James O'Dell
Chief
Kettering Police Department

## Dave Vore

Sheriff
Montgomery County Sheriff's Department

## Jeff Kruithoff

Chief
Springboro Police Department
Mike Etter
Chief
Trotwood Police Department
Doug Knight
Chief
Vandalia Police Department
Richard Barnhardt
Chief
West Carrollton Police Department

## Randy Person

Chief
Xenia Police Department
James Newby
Retired Chief
Dayton Police Department
Ellis Willis
Training Coordinator
Sinclair Police Academy

## DTMA Manpower \& <br> Training

Robert Appenzeller
General Manager
Machine Products Corporation

## Robert Bremner

President
Bremner \& Associates

## Joe Cassano

Vice President of Manufacturing
Select Tool \& Die Corporation
Antonette Flohre
Consultant
Strategies Plus

## Bruce Hackett

Vice President
Estee Mold \& Die, Incorporated
Paul Harper
President
C.T.M., Incorporated

David Harry
Vice President
Gem City Engineering Company

## Dental Hygiene

Liz Atchley
Registered Dental Hygienist
Theresa Bonn
Registered Dental Hygienist
Sinclair Graduate
David L. Collins
Dean, Allied Health Technologies
Sinclair Community College

## Robert Davis

Gem City Medical/Dental
Pharmaceutical Associate

## Pam Edwards

Professor, Dental Hygiene
Sinclair Community College

## Sheranita Hemphill

Professor, Dental Hygiene
Sinclair Community College
Stephen Holliday
Professor, Dental Hygiene
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Patricia Jayson
Counselor, Allied Health Technologies
Sinclair Community College
Glenn Jividen, Jr.
Periodontist
Private Practice
Bonita Kipling
Dentist
Private Practice
Catherine Lawler
Dentist
Private Practice
Richard Morgan
Dentist, Private Practice

## Ann Naber

Registered Dental Hygienist
Past President, American Dental
Hygienists Association

## Sue Raffee

Professor, EFDA Coordinator, Dental Hygiene
Sinclair Community College
Kathryn Strehle
Registered Dental Hygienist
Past President, Dayton Dental Hygienists Association

## Rena Shuchat

Chairperson, Associate Professor, Dental Hygiene
Sinclair Community College
Debbie Terry
Expanded Functions Dental Auxiliary

## Design <br> Interior Design

Jon Blunt
Luken Interiors
Audrey Buckman
Go Home
Beth Hampton
Design Forum
Bob Reed
Reed Doran Associates
Sally Struthers
Dean, Fine \& Performing Arts
Sinclair Community College
Shari Rethman
Chairperson, Design
Sinclair Community College
Diana Leakas
Instructor, Design
Sinclair Community College
Charli Dunford
Professor, Design
Sinclair Community College

## Visual Communications

## Derrick Freeman

City of Dayton
Jie Li
Flynn Sabatino \& Day
Randy Palmer
Illustrator, Dayton Daily News
Rondi Tschopp
Five Visual Communication/Design
Sally Struthers
Dean, Fine \& Performing Arts
Sinclair Community College
Shari Rethman
Chairperson, Design
Fine \& Performing Arts
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Kyle Fisk
Professor, Design
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John Getrost
Professor, Design
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Sheila Magnuson
Academic Counselor, Fine \& Performing Arts
Sinclair Community College
Dodie Munn
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Sinclair Community College

## Dietetics \& Nutritional Management

Fran Angelo

Consulting Dietitian
Tina Banning
Clinical Dietitian
Kettering Medical Center
Bobby Beavers
Director, Counseling Services
Sinclair Community College
Peggy Bishop
Associate Director, Dietary Department
Miami Valley Hospital
Susan Brinkmeier
Director, Nutrition Services
Walnut Creek Nursing Center
Pamela Brown
Dietetic Technician
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Arthur Cohn
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## Suzanne Cryst

Nutrition Services Director
Maria Joseph Living Care Center
Patricia Dolan
Program Director, Dietetics Health \&
Sports Service Department
University of Dayton

## Connie Laux

Dayton Regional Dialysis, Inc. - North
Gwen Martin
Consultaning Dietician
Mike McKinnis
Executive Director/Administrator
Brookhaven Nursing Home
One Country Lane
Nancy Nevin-Folino
Clinical Dietitian
Children's Medical Center
Ann Partlow
Dietary Supervisor
The Franciscan at St. Leonard

## Vandadean Rogers

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Credit for Lifelong Learning Program,

## Nora Schaefer

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Academic Counselor, Allied Health Technologies
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## Developmental Studies

## Jennifer Barr

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Technology
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## Bernice Brown

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## Barb Gilbert

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Sinclair Community College
Doug Kaylor
Director, Library
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Timothy McKinney
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Sinclair Community College

## Teresa Prosser

Professor, Developmental Studies
Sinclair Community College

## Bob Rice

Chairperson, Criminal Justice Department
Sinclair Community College
Daniel Ricica
Management, Marketing, Purchasing, Transportation
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## Art Ross

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Lucinda Schweller
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Betty Wallace
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Sinclair Community College
Phyllis Williams
Chairperson, Biology Department
Sinclair Community College

## Early Childhood Education

Jeff Adkins
Coordinator
Child Care Works
Joyce Hill
Retired Teacher
Dayton Public Schools
Sue Koverman
Coordinator
Montgomery County Mentoring Collaborative
Karen Kuras
Staff Development
Coordinator-MVCDC
Sherri Lookner
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Miami Child Development Center

## Donna Ruhland

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Deb Shirley
Teacher
St. Rita Catholic School

## Dianna Smith

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University of Dayton
Nancy Snyder
Educational Support/Trainer
Council on Rural Services
Sandy West
Staff Development Coordinator-MVCDC
Darnice Wilkinson
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Miami Valley Career Technology Center

## Electronics Engineering Technology

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## Karen Blake

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## Mike Freed

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David Look
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Sinclair Community College

## Loren Marshall

Authorized Cellular \& Paging
James Martin
Sales Engineer
Arrow Electronics
Michael Martin
The Edison Materials Technology Center
Doug McClelland
Mound Technical Solutions, Incorporated
Ryan Patterson
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## George Sehi

Dean, Engineering \& Industrial
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William Wolfe
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## Emergency Medical Services

Robert Bobbitt

Fire Chief
Miamisburg Fire Department
Anne Boyd
Part-time Faculty
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James Brown
Faculty
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## Charles Chinn

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Miami Valley Hospital
Lisa Faulkner
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## Roberta Ginter

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Middletown Regional Hospital
Dixie Kirkland
EMS Coordinator
Grandview Hospital

## Brian Kuntz

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John Larch
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Children's Medical Center
Thomas Long
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Miami Valley Hospital
Bill Mangus
EMS Coordinator
Good Samaritan Hospital
George Markus
Fire Chief
New Lebanon Fire Department
Angie Mickel
EMS Coordinator
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Mike Oaster
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John Parry
Luitenant
Huber Heights Fire Department

## Stephen Rymer

Medical Director
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## Engineering Science University Parallel

## Richard Bethki

Chairperson, Mechanical \& Materials Engineering
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Osama Ettouney
Chairperson, Manufacturing Engineering
Miami University
Glen Johnson
Chairperson, Mechanical \& Aerospace Engineering
University of Dayton
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Director, Corporate Relations
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Art Ross
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Sinclair Community College
Joseph Saliba
Chairperson, Civil Engineering
University of Dayton
Tony Saliba
Chairperson, Chemical Engineering
University of Dayton
Raymond Siferd
Chairperson, Electrical Engineering
Wright State University

## Engineering Technology Design

## Bob Ekkens

Retired
Delphi Chassis Systems
Steffan Erickson
Engineer
Goodrich Aerospace
Jon Jackson
Owner
Global Neighbor, Incorporated
Myron Lee Mitchell
Retired
Delphi Chassis Systems
Rod Moorman
Superintendent
St. Henry Schools
Mark Naples
Engineer
Dayton Superior Products
Monte Schenck
Retired Engineer
Delphi Products

# Environmental Engineering Technology \& Safety Engineering Technology 

Jason Bailey

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Tom Beal
Chief, Retired
E. G. \& G. Mound

Warren Brown
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The DMAX Team, DMAX Ltd .
Michael Buchanan
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Environmental \& Natural Resources
Technology
Miami Valley Career Technology Center
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Standard Register Company
Dennis Cooper
Vice President of Corporate Study
Sunesis Construction Company
Michael Erbaugh
Eagle Registrations
Robert Erwin
Instructor
Centerville High School
Ralph Froehlich
President
Helix Environmental, Incorporated
James Lopez
Safety and Health Consultant
OSHA Onsite Consultation
Mike Morris
Manager, Environmental Investigation \& Chief Geologist
EHS Technology Group
Mike Mullen
Instructor
Miami Valley Career Technology Center
Bill Murphy
Proprietor
William M. Murphy Safety \& Health Services

## Harold O'Connell

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Ohio E.P.A.
Billy Ring
Director, Retired
Miami Valley Safety Council
Gary Tucker
Vice President, Information Services Division
Nortel PEC
Jerry Wagner
Trainer, Practical Safety \& Ergonomics

## Stephen Wilson

Corporate Director
Safety, Health \& Environmental Affairs
Flowserve-Dayton Operations

## Curtis Zahn

Environmental Health \& Safety
Coordinator
Kodak Versamark Digital Printing

## Financial Management

## Charlotte Wharton

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## Ted Hoy

Dean Witter Reynolds, Incorporated

## Robert Montavon

Edward Jones Investments

## Sharyn Morgan

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Technologies
Sinclair Community College
David Poliquin
Credit Union Executive
Thomas Shimko
Southdown, Incorporated

## Jeff Vance

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Management, Real Estate,
Entrepreneurship
Sinclair Community College
Lewis Woodruff
Professor, Economics, Real Estate
Sinclair Community College

## Fire Science Technology

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Fire Chief, Retired
City of Dayton
Daniel Alig
Chief
Riverside Fire Department
John Auberzinsky
Fire Chief, Retired
Beavercreek Fire Department

## Kerry Autio

Fire Investigator
Engineering \& Fire Investigations

## Karen Basso

Lieutenant
Miami Township Fire Department
Tom Beal
Chief, Retired
E. G. \& G. Mound

Bernie Becher
Chief
Clearcreek Township Fire Department
Michael Caudill
Assistant Chief
Dayton Fire Department
David Clapper
Director, Facilities Management
Standard Register Company

William Ennis
Fire Chief, Retired
West Carrollton Fire Department

## Steve Etter

Lieutenant
Clayton Fire Department
Michael Hannigan
Chief
Lebanon Fire Department
David Heitz
Fire Chief, Retired
E.G.\& G. Mound

## Bill Hoover

Battalion Chief
Trotwood Fire Department
Michael Ludwick
Fire Chief, Retired
Bethel Township Fire Department

## John Moore

Assistant Chief
Dayton Fire Department
James Nickel
Chief
Brookville Fire Department
Craig Rauch
Fire Inspector
Washington Township Fire Department

## Herbert Redden

Assistant Chief
Dayton Fire Department
Billy Ring
Director, Retired
Miami Valley Safety Council
Jack Royer
Assistant Chief, Emergency \& Support Services
Clearcreek Township Fire Department
Randy Staley
Fire Chief, Retired
Washington Township Fire Department

## Charles Wiltrout

Executive Director
Miami Valley Fire/EMS Alliance

# Health Information Management 

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Professor, Health Information
Management
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Cheryl Gregg Fahrenholz
Preferred Healthcare Solutions, LLC
Daniel Gross
Director, Medical Records
Childrens Medical Center
Catharine Huber
Professor, Health Information
Management
Sinclair Community College
Mary Johnson
HIS Department
Veterans Administration Medical Center

## Janeen Marx

Director, Medical Records
Ohio Masonic Home
Karen Motley
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Cathy Moore
Long Term Care Consultant
Georgia Overholser
Manager, Health Information Services
Upper Valley Medical Center
Kathy Pittman
Manager, Health Information Services
Miami Valley Hospital
Debbie Schrubb
Director, Health Information Services
Kettering Medical Center
Bonnie Vaughan
Supervisor, Health Information Management
Good Samaritan Hospital \& Health Center
Tammy Valentine
Director, Medical Records Dept
Middletown Regional Hospital
Laura Vondenhuevel
HIM Student Representative
Sinclair Community College
Barbara Wallace
Professor, Health Information
Management
Sinclair Community College
Margaret Wanzo
Consumer Advocacy Model
Janice White
Annually Contracted Faculty
Sinclair Community College
Pat Willis
Academic Counselor, Allied Health Technologies
Sinclair Community College

Heating, Ventilating,
Air Conditioning
\& Refrigeration
Engineering Technology
Steve Brudnicki
HVAC Designer
HVACR ET Two-Year Graduate
Larry Cottle
Estimator
Rieck Services
Michael Daulton
Supervisor, Commercial Scroll Engineering Lab
Copeland Corporation

## Frank Detmer

Owner
Detmer and Sons, Inc.

## Tom Ferdelman

Retired Former President
Heapy Engineering
Jeff Gilley
Branch Manager
Bryant-Habegger
Chris Hampel
Controls Group Manager
Applied Mechanical Systems
Tom Hand
Consultant
International Facilities Manager's Association

## Dennis Helmig

## Partner

Helmig, Lienesch and Associates
Consulting Engineers

## Tom Homan

President
Allied Supply
Dennis Lewis
Senior Design Engineer
Design Forum

## Frank Mauro

Commissioning Project Manager
Heapy Engineering

## Bernard Maxwell

Director, A/C Labs and Global Support
Copeland Corporation

## Greg McAfee

Owner
McAfee Heating and Air Conditioning
Eric Miske
Vice President
Environmental Engineering Systems, Inc.

## Scott Naill

Department Chair
Upper Valley Joint Vocational School

## Mark Rapier

Sales Engineer
Trane
Tom Tobias
Owner
Tobias Heating and Air Conditioning

## Alan Watton

Retired Engineer
Wright-Patterson Air Force Base

## Hospitality Management

Charlotte Wharton
Interim Dean, Business Technologies
Sinclair Community College

## Derek Allen

Associate Professor, Hospitality
Management
Sinclair Community College
Jeff Baumgardner
General Manager
Crowne Plaza Hotel
John Buntemeyer
General Manager
Dayton Marriott
Steven Cornelius
Chairperson, Hospitality Management, Travel \& Tourism
Sinclair Community College
Patricia Deal
Faculty, Hospitality Management
Sinclair Community College

## Bill Evans

Executive Director
House of Bread
Jeremy Finton
Faculty, Hospitality Management
Sinclair Community College
Greg Fitzgerald
Executive Chef/Owner
Blue Moon Cafe
Lorraine Gose
Faculty, Hospitality Management
Sinclair Community College
Jay Haverstick
Owner
Jay's Restaurant
Randy Hixon
Faculty, Hospitality Management, Graduate
Sinclair Community College
Mary King
Executive Chef, Sinclair Graduate
NCR Country Club
Bob Lambert
General Manager
Doubletree Hotel
Mark Langdon
General Manager
Homewood Suites Dayton South
Frank Leibold
Associate Professor, Hospitality Management
Sinclair Community College
Kathryn Linville
Director, Catering Operations
Aramark Corporation, Dayton
Convention Center
Meredith Rainey
Academic Counselor, Business
Technologies
Sinclair Community College

David Sauer
Dayton Area Sales Manager
Gordon Food Services

## Nora Schaefer

Associate Professor, Dietetics \& Nutritional Management
Sinclair Community College
Herbert Schotz
Executive Chef, John F. Kennedy
Memorial Union
University of Dayton
George Sideras
Marketing Associate
Nestle
Malachi Sloan
Instructor, Hospitality Management
Sinclair Community College
Edward Stanziano
Director, Culinary Program
Miami Valley Career Technology Center
Tim Sweet
General Manager, Aramark
Sinclair Community College
Keith Taylor
Sinclair Graduate
Chef, Citi Lites

## Steve Taylor

General Manager
Meadowbrook Country Club
Ron Taylor
General Manager
Carver's
Daniel Towson
Instructor, Sinclair Graduate
Greene County Career Center

## Institutional \& Community Based Corrections

Willie Arnold
Superintendent
Dayton Human Rehabilitation Center
Bobby Bogan, Jr.
Montgomery Education Pre-release Center
James Cannon
Judge, Dayton Municipal Court
Dionne Carpenter
Program Director
Alvis House
Jim Dare
Director
Montgomery County Adult Probation
Carol Decker
Ohio Department of Youth Services
Tim DePew
Monday Correctional Center
John DePietro
Major, Miami Township Police Department
Wanda Jackson
Warden
Warren Correctional Institution

Frenandis Jenkins
Alvis House

## Lawrence Mack

Warden
Dayton Correctional Institution
Tom McGeady
Dayton Municipal Adult Probation
Michael Murphy
Former Judge, Montgomery County
Juvenile Court
Beverly Pitman
Probation Officer
Montgomery County Adult Probation

## Darlene Powell

Supervisor
Montgomery County Juvenile Court
Michael Richberg
Dayton Police Department, City Jail
Danny York
Montgomery County Juvenile Detention Center

## Integrative Medical Massage Therapy

Sister Agnes

Director, Mercy Sienna Woods
Donna Armentrout
L.M.T.

Private Practice
Sharon Barnes
Director/Owner, SHI
Phyllis Bills
Manager, Support Services
Good Samaritan North Health Center
Amy Chavez
L.M.T.

Alumni
David L. Collins
Dean, Allied Health Technologies
Sinclair Community College

## Sherrie Crowell

L.M.T.

Alumni
Theisa Dohner
L.M.T.

Peaceful Alternatives
Ginger Gentry
Student
Sinclair Community College
Heather Morgan
Owner, SHI

## Marketing

Charlotte Wharton
Interim Dean, Business Technologies
Sinclair Community College
Frank L. Gilland, II
Director
Irongate Incorporated, Realtors
Erin Fagan
NCR Teradata
Pat Ferrell
Sofa Express
Ron Bultenia
Elder Beerman
Jack Parente
ILC
Bill Kunzler
Sharyn Morgan
Academic Counselor, Business Technologies
Sinclair Community College
Dave Neer
Miami Valley International Trade Association
Tom Norwalk
President
Miami Valley Marketing Group
Ned D. Young
Chairperson, Business Management, Marketing
Sinclair Community College

## Medical Assistant Technology

## Jennifer Barr

Chairperson, Medical Assistant Technology
Sinclair Community College

## David L. Collins

Dean, Allied Health Technologies
Sinclair Community College
Anne Lee Duffie
Certified Medical Assistant
Reimbursement Medical Services
Martin Fujimara
Physician
Main Street Practice
Loxic Kistler
Manager of Education
Mercy Hospital
Judy Kronenberger
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Sinclair Community College
Patti McCormick
Director
Institute of Holistic Leadership
Nancy Terwood
Senior Consultant, Health Systems Management
Wright State University School of Medicine
Lora Wilson
Office Manager
South Dayton Surgeons, Incorporated

## Anne Yarger

Certified Medical Assistant

## Mental Health <br> Technology

Larry Anthony

Director, Addiction Studies
University of Cincinnati

## John Carroll

Director
Evergreen Counseling Associates

## Michelle Davis

Director
Preble County TASC

## Kathleen Estabrook

Mental Health and Recovery Center
Dianne Herman
Therapist II
Samaritan Behavioral Healthcare, Incorporated
Leslie Liszak
Clinical Director
Center for Alcoholism and Drug Abuse Services

## David Long

Director
NOVA House, Incorporated

## Sarah Massie

Warren County Abuse \& Rape Crisis Center
Thomas McElfresh
Professor, Mental Health Technology
Sinclair Community College
Gregory Meriwether
Director
The Vet Center
Linda Mowrey
Chairperson, Mental Health Technology
Sinclair Community College

## Robert Mullins

Director, Public Affairs
Alcohol, Drug Addiction \& Mental Health Services
Board for Montgomery County
Christopher Pinkleman
Clinical Director
TCN Behavioral Health Services

## Susan Sutton

Professor, Mental Health Technology
Sinclair Community College
Marjorie Thompson
Youth Partial Hospitalization
South Community, Incorporated
Patricia Willis
Academic Counselor, Allied Health Technologies
Sinclair Community College

## Annette Young

Director, Human Resources
Day-Mont Behavioral Health Care, Incorporated

## Nursing

Sharon Brown
Dean, Health and Human Systems
Edison State Community College
Kimberly Collins
Academic Counselor
Sinclair Community College
Leslie Davis
Division of Quality Assurance
Ohio Department of Health

## Melissa Dinsmore

Education Coordinator
Dayton Heart Hospital
Glen Gibbons
Director, Medical Surgical Nursing
Grandview Hospital

## Gloria Goldman

Chairperson, Nursing
Sinclair Community College
Cheryl Hoying
Senior Vice President

## Cincinnati Children's Hospital

## Sheila Leis

Education Coordinator
Miami Valley Hospital
Patricia Martin
Dean, College of Nursing and Health
Wright State University

## Anne McNeill

Vice President of Operations
Good Samaritan Hospital
Marcia Miller
Coordinator, Nursing Continuing Education
Sinclair Community College
Kathleen Mills
Curriculum Coordinator
Sinclair Community College
Marilyn Rodney
Service Learning Coordinator
Sinclair Community College
Marsha Wamsley
Clinical Coordinator
Sinclair Community College

## Occupational Therapy Assistant

S. Kay Ashworth

Chairperson, Occupational Therapy
Sinclair Community College
Lora Black
Occupational Therapy Assistant Associated Therapeutic Services
Charlene Bohlender
Occupational Therapy Assistant
Contract Services
David L. Collins
Dean, Allied Health Technologies
Sinclair Community College

## Dawayne Dancer

Reid Hospital \& Health Care Services
Department of Occupational Therapy Services

## Janet Glass

Occupational Therapy Assistant
Associated Therapeutic Services
Tracy McGuire
Occupational Therapy Assistant Upper Valley Medical Center
Julie Meyer
Occupational Therapy Assistant
Contract Services
Marta Nibert
Consultant
Phyllis Rodgers
Grafton Oaks Nursing Center

## Nanette Shoemaker

Academic Clinical Coordinator, Occupational Therapy Assistant
Sinclair Community College
Pat Stewart
Greene County Educational Service Center
Heidi Thorton
Rehab Institute of Ohio
Miami Valley Hospital
Theresa Weiser
Clinical Coordinator, Acute Occupational Therapy
Miami Valley Hospital
Pat Willis
Academic Counselor, Allied Health Technologies
Sinclair Community College

## Operations Technology

Matt Arntz

Manager
Goodwill Industries
Thomas Baehl
President
World Search
Phil Batz
Consultant
Cliff Black
President/Owner
Process Development Corporation
Barney Bishop
Retired Engineer
Dayton Tool Company
Bill Bradley
Consultant
Plastics Industry
Tim Collins
Vice President Quality Management
Miami Valley Hospital
Chris Cornelius
Ergonomics Engineer
Delphi Chassis Systems
Bill Cornn
Engineer
Carlisle Engineered Products
Robert Cox
J. \& J. Packaging

## Ken Dawson

Wright-Patterson Air Force Base
Chuck Edmonson
Industrial Engineering Technology Faculty
University of Dayton

## Sandy Feola

Consultant
Self-employed
Mike George
Retired
John S. Haley
Applications Engineer
National Composite Center
Dave Huttinger
Quality Management Department
Miami Valley Hospital
Bryan Jackson
Coordinator
Miami Valley Career Technology Center
Larry Jenkins
Researcher
USAF Aerospace System Center
Joe Kavalauskas
Vice President/General Manager
Minco Group
Bill Lewis
Vice President
Yellow Springs Instrument
Dan Lynch
Teacher
Centerville High School

## Harry Mayo

President/Owner
Mayo Industries, Incorporated
Andy McGahee
Director of Community Services
Goodwill Industries

## Scott Meeker

President
Cast Plus, Incorporated
William Metzcar
Quality Manager
Carlisle Engineered Products
Wallace Olinger
Manager, Operations
ASC/YDQ

## Denis Osterfield

Manager, Operations
Goodwill Industries
Dean Pocius
Engineer
Wilmington Precision Machining
Virgil Rehg
Professor, Quantitative Methods
Wright-Patterson Air Force Base

## Ronald Shubert

Retired, Director, Quality Assurance
Dayton Reliable Tool
Paul Snowden
Retired Engineer/Manager
General Motors
Daniel Sullivan
Green Tokai Company, Limited

## Joe Weil

Human Resources Director
Kodak Versamark, Incorporated
Arno Weller
Innovative Technologies Corporation
Jim Woessner
Vice President, Operations
Dayton Supply and Tool

## Robert Wolff

Manufacturing Faculty
University of Dayton
Larry Wood
Wright-Patterson Air Force Base

## Paralegal

Chris Albrekston
Assistant Executive Director
Dayton Bar Association
Deborah Badonsky
Professor, Paralegal
Sinclair Community College
Stacey Benson-Taylor
Paralegal
AFSCME Ohio Council 8
Willis Blackshear
Recorder
Margaret Bowers
Paralegal
Legal Aid of Western Ohio, Incorporated

## Michael Brigner

Associate Professor, Paralegal Sinclair Community College

## Jane Cape

Dean, Business Technologies
Clark State Community College

## Fidel Castro

Student, Paralegal
Sinclair Community College
Glen Dewar
Attorney
Montgomery County Public Defender

## Dalma Grandjean

Attorney
Altick \& Corwin Company, L.P.A.

## Bree Langemo

Assistant Professor, Paralegal
Sinclair Community College
Alice O. McCollum
Judge, Probate Court
Montgomery County Probate Court
Patricia Metzger
Office Administrator
Freud, Freeze \& Arnold

## Debbie Munt

Paralegal
U.S. Attorney Office

## Paul Roderer

Attorney
Roderer Law Offices
D. J. Shade

Paralegal
Bieser, Greer \& Landis

## Bonnie Shane

Chairperson, Professor, Paralegal/Law
Sinclair Community College

## Frank Williams

Vice President, Trust Officer
National City Bank
Mary Wiseman
Attorney
Coolidge Wall Womsley \& Lombard
Susan Witherspoon
Paralegal
MeadWestvaco Corporation
Joyce Young
President, Washington Township Board of Trustees
Community Liaison
Julie Zink
Attorney
Faruki Ireland \& Cox PLL

# Physical Education/ Exercise Specialist/ Exercise Science 

Cara Bonney

Miami Valley Sports Medicine
Jackie Brockman
Englewood YMCA
Becky Cobb
Personally Fit
Joan Dandeneau
Neo Limits
Kate Hinker
Health Fitness Corporation
Chris Hollan
5 Seasons Sports and Country Club
Joanne Kuk
Vandalia Recreation Center
Lloyd Laubach
University of Dayton
Jeff Potteiger
Miami University

## Jill Reed

Washington Township Recreation Center
Cathy Wells
Kettering Sports Medicine Center
Wayne Westcott
National Fitness Researcher

## Physical Therapist Assistant

## Phillip Anloague

Program Director, Physical Therapy University of Dayton
Deborah Belcher
Instructor, Physical Therapist Assistant
Sinclair Community College

## Casey Berridge

Instructor, Physical Therapist Assistant
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Barbara Branstiter
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Sinclair Community College
David L. Collins
Dean, Allied Health Technologies Division
Sinclair Community College

## Steve Eilerman

Director of Rehabilitation
Reid Memorial Hospital

## Katie Elliott

Director, Rehabilitation Services
Good Samaritan Hospital
Kymbir Evans
Physical Therapist
Good Samaritan North and Miami Valley Hospital
Linda Irvin
Supervisor, Upper Valley Medical Center

## Brian Johnson

Student, Physical Therapist Assistant Sinclair Community College

## Kim Kinney

Alumni, Physical Therapist Assistant Miami Valley Hospital

## Ray Lindeman

Physical Therapist
Lindeman Physical Therapy
Dennis McWhorter
Alumni, Physical Therapist Assistant Sinclair Community College

## Ann Patton

Nurse Educator
Miami Valley Career Technology Center
Tammy Richardson
Alumni, Physical Therapist Assistant
Rehabilitation Care Group - Wood Glen

## Marc Seitz

Alumni, Physical Therapist Assistant
Sinclair Community College

## Melissa Waker

Alumni, Physical Therapist Assistant Sinclair Community College

## Colleen Whittington

Chairperson, Professor, Physical
Therapist Assistant
Sinclair Community College
Tim Yates
Physical Therapist Assistant
Miami Valley Hospital

## Radiologic Technology

## Pat Antrobius

Fluoro Technologist
Miami Valley Hospital
Jennifer Askins
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Sinclair Community College

## Sharon Baker

Administrative Director, Radiology
Middletown Regional Hospital

## Kenneth Balcom

Q.A. Supervisor

VA Medical Center
Elizabeth Bender
Supervisor
Orthopaedic Institute of Dayton
Larry Beneke
Program Director
Kettering College of Medical Arts
Gary Blake
Imaging Manager
Miami Valley Hospital
Judy Campbell
Professor, Radiologic Technology
Sinclair Community College

## Susan Cannon

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Radiologic Technology
Sinclair Community College

## Stanley Cobb

Administrative Officer, Radiology
VA Medical Center

David L. Collins
Dean, Allied Health Division
Sinclair Community College
Molly Weiland Dean
Hocking Valley Community College
Bob Donofrio
Supervisor
O'Bleness Hospital

## Sharon Dully

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Middletown Regional Hospital
Teresa Gustafson
Supervisor
Good Samaritan Hospital
Carol Hicks
Radiology Manager
Doctor's Hospital
Darrall Hughes
Imaging Manager
Children's Medical Center

## Bud Hunton

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Jennifer Hussong
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Miami Valley Hospital

## Tuta Ionescu

Clinical Instructor
Sinclair Community College
Mary Johnson
Director
Vanguard Imaging Partners, LLC

## Martha Keplar

Classroom Facilitator
Hocking Valley Community College
Sinclair Community College

## Denise Langston

Manager, Imaging Services
Samaritan North Imaging Services

## Chad Lehman

Supervisor
Fairfield Medical Center
Vicki Luster
Instructor, Clinical Coordinator Sinclair Community College
Chris Maher
Supervisor
Upper Valley Medical Center

## Denise Moore

Professor, Radiologic Technology
Sinclair Community College

## Mark Rita

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Grandview Hospital
Bill Robbins
Manager
Grandview Hospital
Jacqui Rose
Director
Upper Valley Medical Center
Brian Sampson
Radiology Manager
Hocking Valley Community Hospital

Debra Schwartz
Chairperson
Sinclair Community College
Kristy Snell
Lead Technologist
Good Samaritan Hospital
Cyndy Stachler
Clinical Instructor
Sinclair Community College
John Stachler
Professor, Radiologic Technology
Sinclair Community College

## Ann Swartz

Clinical Instructor
Sinclair Community College
Troy Thompson
Instructor
Hocking Valley Community College
Sinclair Community College
Molly Weiland
Dean
Hocking Valley Community College
Ruth Woosley
Radiology Supervisor
Southview Hospital
Hocking Affiliates

## Real Estate/Property Management

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Appraiser
Sunrise Appraisal Services
Lori DeWine
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Sharyn Morgan
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Nick Popadyn
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Dayton Area Board of Realtors
Guy M. Roth
Big Hill Realty/GMAC Real Estate
Matt Van Leur
Countrywide Real Estate
Jeff Vance
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Sinclair Community College
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Professor, Real Estate, Economics
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## Respiratory Care <br> Anita Adams

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Good Samaritan Hospital
Cynthia A. Beckett
Chairperson, Respiratory Care
Sinclair Community College
Charles Cass
Director, Respiratory Care
Kindred Hospital of Dayton

## Sue Ciarlariello

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Children's Medical Center
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David L. Collins
Dean, Allied Health Technologies
Sinclair Community College
Louis Conn
Professor, Respiratory Care
Sinclair Community College
Lynn Cull
Respiratory Services
Good Samaritan Hospital
Michael Darden
Staff Therapist
Dayton Heart Hospital
Drema Garrity
Staff Therapist, Respiratory Care
Community Hospital Health Partners
James Murphy
Medical Director, Respiratory Care
Sinclair Community College

## William Hurley

Sales Representative
Advanced Medical Equipment

## Stephen Onder

Physician's Assistant
Miami Valley Hospital

## Kristen Parris

Director, Respiratory Services
Dayton Heart Hospital

## Roger Rickel

Director, Respiratory Services
Kettering Medical Center

## Beth Zickefoose

Director, Clinical Education, Respiratory Care
Sinclair Community College

# Sinclair Ohio Fellows Leadership Program 

Charles Curran
Commissioner
Montgomery County
Lynette Heard
Assistant to President
University of Dayton
Tom Huguley
Assistant Vice President
Instruction
Sinclair Community College

## Mortenous Johnson

Manager
Enrichment Center
Sinclair Community College
Gwendolyn Jones
Director, Student Leadership Development
Sinclair Community College

## James Puthoff

Retired Professor, Accounting
Business Technologies
Sinclair Community College

## Thomas Roberts

Advisor
Sinclair Ohio Fellows Leadership Program
Sinclair Community College

## Student Leadership Development

Derek Allen
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Hospitality Management, Culinary Arts
Sinclair Community College
Gwendolyn Jones
Director, Student Leadership Development
Sinclair Community College
Michael Barhorst
Budget Director
Budget \& Analysis
Sinclair Community College
Norma Dycus
Professor, Athletics
Director, Physical Education
Sinclair Community College
Charles Freeland
Assistant Professor
English
Sinclair Community College
Carol Johnson
Administrative Secretary
Student Leadership Development
Sinclair Community College
Richard Jones
Dean
Liberal Arts \& Sciences
Sinclair Community College
Thomas Roberts
Advisor
Sinclair Ohio Fellows Leadership Program
Sinclair Community College

Katherine Rowell
Advisor, Phi Theta Kappa
Associate Professor, Sociology
Sinclair Community College

## Sally Struthers

Dean
Fine \& Performing Arts
Sinclair Community College

## Supply Chain <br> Management

## Gary Abney

Part-time Instructor
Paxar/Sinclair Community College
Gary Ahrens
Ahrens Consulting Group, L.L.C.
Bill Dradley
Part-time Instructor
Delphi/Sinclair Community College
April Carpenter
Part-time Instructor
Trimble/Sinclair Community College
Ray Girard
Roland Kankey
Defense Acquisition University

## Marsha Loges

Assistant Professor
Sinclair Community College
Gregg Marino
Part-time Instructor
Stebbins High School/Sinclair
Community College
Sharyn Morgan
Academic Advisor
Sinclair Community College
Wayne Pyszka
Part-time Instructor
Sinclair Community College
Meredith Rainey
Academic Advisor
Sinclair Community College
Mark Schmid
Assistant Manager, Purchasing
Sinclair Community College
Bob Sheehan
Program Manager, Tech Prep
Sinclair Community College
Roy Sigritz
CPPO Director
Montgomery County

## Peter Wagner

Professor
University of Dayton
Charlotte Wharton
Interim Dean, Business Technologies
Sinclair Community College
Richard Williams
Associate Dean
Wright State University
Dave Poliquin
Management Consultant

## Surgical Technology

David L. Collins
Dean, Allied Health Technologies
Sinclair Community College

## Sherron Dalton

Nurse Manager, Surgical Services
Southview Hospital
Madalyn Galloway
Clinical Nurse Specialist, Surgical Services
Miami Valley Hospital
Tim Hall
Nurse Manager, Surgery
Dayton Heart Hospital

## Steve Hoover

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Miami Valley Hospital
Linda Johnson
Education Coordinator
Good Samaritan Hospital
Dwayne Masteller
Associate Professor, Surgical Technology
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## Kim Parker

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Grandview Hospital
Michelle Rudolf
Nurse Manager
Middletown Regional Hospital
Dee Dee Toadvine
Perioperative Educator
Kettering Medical Center

## Sandy Voight

Educator, Proprietary Services
Children's Medical Center
Susan Willin-Mulay
Chairperson, Surgical Technology
Sinclair Community College

## Travel \& Tourism

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Interim Dean, Business Technologies
Sinclair Community College

## Jeannine Ashworth

Dayton Station Manager
Delta Airlines
Jeff Baumgardner
General Manager
Crowne Plaza Hotel

## Jerry Biedenharn

President
Buckeye Charters Limited
John Buntemeyer
Area General Manager
Dayton Marriott Hotel

## Steve Cornelius

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Sinclair Community College

## Iris Davis

President
Heritage Travel
David J. Dickinson
Travel Management Consultant and Commercial Realty
HRI Commercial Realty
Micki Dudas
Director of Travel
AAA Miami Valley
Bob Hall
General Manager
Continental Airlines
Debbie Lee
Franchise Development Manager
Carlson Leisure Group
Results Travel

## Mary Lombardo

Sales and Marketing Specialist
Thrifty Car Rental
Milton Marks
Chairman, Emeritus
The Travel Institute
April Mescher
Executive Director, Travel
Excellence In Motivation

## Meredith Rainey

Academic Counselor, Business Technologies
Sinclair Community College

## Beverly Rose

Director, Marketing \& Communications
Dayton/Montgomery County
Convention
\& Visitors Bureau, Incorporated

## Sharon Sears

Manager, Marketing and Public Relations
Dayton International Airport

## www.sinclair.edu my.Sinclair.edu

# Commonly Used Terms 

Academic Advisor - Individuals in each academic division who help students plan their program of study and course selection. The Academic Advising Center, where all academic advisors are located, is in Building 6, First Floor.
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 an academic advisor 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 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 noncredit classes in the Senior Academy.
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.
Cost of Attendance (COA) - The total amount it will cost a student to go to school. This amount includes, but is not limited to, tuition and fees, books, room and board, transportation, supplies and personal expenses. The students' direct cost is tuition, fees and books.
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 offcampus 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).

Early Childhood Education Centers (ECEC) - Provides full- or part-time care for young children and also serves 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.
Entrance Counseling - A student loan borrower must complete an online entrance counseling session before an initial loan disbursement can be paid to the student's account.
Estimated Family Contribution (EFC) - Is a calculated formula established to determine a family's financial strength and what they are able to contribute toward the students' education.
Exit Counseling - A student loan borrower must complete online loan exit counseling prior to graduation, when the student withdraws from school or ceases to be enrolled in at least six hours.
Federal Parent Loan for Undergraduate Students (FPLUS) - A federal direct loan program designed to assist parents with student's educational costs. Applications are available at the office of Financial Aid \& Scholarships.
Federal Stafford Loan Program (FSLP) - A federal direct loan program designed to assist a student with educational costs. Applications are available at the office of Financial Aid \& Scholarships.
Federal Supplemental Educational Opportunity Grant
(FSEOG) - A federal grant provided to assist a student with exceptional financial need as determined by the EFC.
Federal Work Study Program (FWSP) - Provides opportunities for part-time employment either on or off campus. To determine eligibility, stop by the office of Financial Aid \& Scholarships.
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.
Free Application for Federal Student Aid (FAFSA)

- The application submitted by a student and parent(s) to the U.S. Department of Education to determine eligibility for federal and state financial aid.
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 Ohio Instructional Grant (OIG) - A state grant funded by the state of Ohio. Eligibility is determined by the Ohio Board of Regents based on the information submitted on the FAFSA. If eligible, the student must enroll in a minimum of 12 credit hours. Beginning 2006-2007 this is only available for returning students and pays tuition charges only.
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 Degrees - These are Associate of Technical Study and Associate of Individualized Study. Students design the program with help of A.I.S./A.T.S coordinator.

Individual Learning Plan (ILP) - A customized success plan for selected new degree and certificate students interested in support for completion of educational goals.
Internship - academic course in which students apply career skills and competencies learned in the classroom in a supervised work setting. Credit is earned for learning that occurs as a result of work place experience and is assessed through written assignments and evaluation by work site supervisor.
Kiosk - Stand alone information computers to check personal information, grades, locations on campus.
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.
National Student Loan Database System (NSLDS) - Is the database for federal student aid where a student can find out about the aid received throughout his or her academic history.
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.
Ohio College Opportunity Grant (OCOG) - A new program for first-time college students beginning with the 2006-2007 academic year. OCOG grants may be awarded to either full-time or part-time students. The OCOG grant covers tuition charges only and varies depending on the number of hours enrolled.
Option - This specialized curriculum is approved as a specialized area of study under an academic degree program.
Part-time Ohio Instructional Grant (PT-OIG) - A state grant funded by the state of Ohio. A student must be enrolled less than 12 credit hours. Beginning 2006-2007 this is only available for returning students and pays tuition charges only.
Part-time Student - Carries 11 credit hours or less per quarter.
PELL - A federally funded grant awarded by the federal government. If eligible, this award adjusts to how many hours the student is enrolled. Enrollment status is full time (12 or more hours), three-quarter time (9-11 hours), half-time (6-8 hours), or less than half ( 5 hours or less).
Personal Identification Number (PIN) - Originally the student's 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.
Promissory Note (PN) - The binding legal document the student signs before he or she receives a student loan.

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.
Satisfactory Academic Progress (SAP) - To be eligible for federal student aid at Sinclair Community College, a student must complete $75 \%$ of the hours he or she enrolls in and earn a 2.0 GPA each quarter. The student also has a maximum of 153 credit hours to complete a degree program.
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.
Short Term Certificate - Short term certificates include courses that are standard, quarter long that meet the same amount of contact hours. The time frame, however, is less than one full quarter.
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.
Specialized Courses - Single courses that lead to industry recognized certificate.
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.
Verification - A process by which the U.S. Department of Education or Sinclair Community College requires the student and parent to submit certain written documents to confirm the information on the FAFSA. The documents may include, but are not limited to, tax forms, household size and untaxed income received.
Web Advisor - Sinclair's online Registration \& Student Records system.

## www.sinclair.edu my.Sinclair.edu

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Admissions
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Bursar/Cashier
Counseling Services
Enrollment Center
Financial Aid \& Scholarships
Grade Reporting System

Library
Police/Lost \& Found
Registration \& Student Records
Sinclair Central Advising
Telephone Registration
Testing Center

## College Services

| Academic Advisors | $512-3700$ |
| :--- | :--- |
| Alumni Affairs | $512-2510$ |
| Bursar/Cashier | $512-3000$ |
| Campus Ministry | $512-2768$ |
| Career Services | $512-2772$ |
| College for Seniors (Citizens) | $512-5184$ |
| Corporate \& Community Services | $512-3061$ |
| Disability Services | $512-5113$ |
| Help Desk | $512-\mathrm{HELP}$ (4357) |
| Human Resources | $512-2514$ |
| Ombudsman/Student Advocate | $512-2205$ |
| Parking Information | $512-2397$ |
| Pre-College Programs | $512-5188$ |
| Student Leadership Development | $512-2509$ |
| Student Employment | $512-2772$ |
| Student Leadership Association | $512-2509$ |
| Tartan Campus Store | $512-2665$ (BOOK) |
| Teleport | $512-2002,512-5394$ |
| Tutorial Services | $512-2792$ |
| Veterans Assistance | $512-2586$ |

## Learning Centers

Courseview Campus Center Englewood Learning Center Huber Heights Learning Center Miami Valley Research Park

## Academic Departments

| Accounting | $512-2616$ |
| :--- | ---: |
| Allied Health Technologies | $512-2919$ |
| American Sign Language | $512-2722$ |
| Architectural Technology | $512-2183$ |
| Art | $512-5381$ |
| Associate of Technical Study/ | $512-2347$ |
| Associate of Individualized Study | $512-3047$ |
| Astronomy | $512-2860$ |
| Athletics \& Sports Information | $512-2570$ |
| Automation \& Control Technology | $512-3242$ |
| Automotive Technology | $512-2242$ |
| Aviation Technology | $512-2747$ |
| Biology | $512-2892$ |
| Business Information Systems | $512-2917$ |
| Business Technologies | $512-2890$ |
| Chemistry | $512-2722$ |
| Child \& Family Education | $512-2183$ |
| Civil Engineering Technology |  |

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233-5550
252-9787
(937) 512-2888

512-3700
512-3000, TDD 512-2187
512-BOOK
512-3000
512-2752
512-2210
512-3000
512-5454, or
1-800-512-5454
512-2855
512-2700
512-3000
512-2201
512-5454
512-3076

52-2768
512-2772
12-5184

512-HELP (4357)

12-5188
512-2509
12
512-2665 (BOOK)
512-2792
512-2586

| Communication Arts | 512-2271 |
| :---: | :---: |
| Computer Aided Manufacturing | 512-2570 |
| Computer Information Systems | 512-2892 |
| Criminal Justice | 512-2876 |
| Dance | 512-4580 |
| Dental Hygiene | 512-2779 |
| Design | 512-4505 |
| Developmental Studies | 512-2701 |
| Dietetics/Nutritional Management | 512-2756 |
| Distance/Online Learning | 512-2990 |
| Early Childhood Education | 512-2722 |
| Economics | 512-2615 |
| Electronics Engineering Technology | 512-2570 |
| Emergency Medical Services | 512-5338 |
| Engineering \& Industrial Technologies | 512-2918 |
| Engineering Science | 512-2242 |
| English | 512-3078 |
| Entrapeneurship | 512-2615 |
| Environmental Technology | 512-3242 |
| Experience Based Education | 512-2800 |
| Financial Management | 512-2615 |
| Fine \& Performing Arts | 512-2881 |
| Fire Science Technology | 512-3242 |
| Geography | 512-2944 |
| Geology | 512-2890 |
| Government | 512-2844 |
| Health Information Management | 512-5353 |
| Heating, Ventilating, Air Conditioning \& Refrigeration Technology | 512-2183 |
| Honors | 512-2517 |
| Hospitality Management | 512-5197 |
| Humanities | 512-2844 |
| Law | 512-2616 |
| Liberal Arts \& Sciences | 512-2916 |
| Management | 512-2615 |
| Marketing | 512-2615 |
| Mathematics | 512-2767 |
| Mechanical Engineering Technology | 512-2183 |
| Medical Assistant Technology | 512-2973 |
| Mental Health Technology | 512-2845 |
| Modern Language | 512-2844 |
| Music | 512-4580 |
| Nursing | 512-2848 |
| Occupational Therapy Assistant | 512-5177 |
| Online/Distance Learning | 512-2990 |
| Operations Technology | 512-2311 |
| Phi Theta Kappa | 512-2517 |
| Paralegal | 512-2616 |
| Physical Education \& Athletics | 512-2860 |
| Physical Therapist Assistant | 512-5355 |
| Physics | 512-3047 |
| Political Science | 512-2844 |
| Psychology | 512-2889 |
| Radiologic Technology | 512-2159 |
| Real Estate | 512-2615 |
| Respiratory Therapy | 512-2268 |
| Safety Engineering Technology | 512-3242 |
| Sociology | 512-2944 |
| Social Work | 512-2944 |
| Surgical Technology | 512-5355 |
| Theatre | 512-4580 |
| Travel \& Tourism | 512-5197 |

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[^0]:    Note: The college reserves the right to make changes to the published schedule.

    * Employee Learning Day (campus and all offices closed)

[^1]:    Antioch College
    Any A.A. or A.S. Degree
    Bellevue University
    Any Associate Degree
    Capella University
    Any Associate Degree
    Capital University
    Accounting
    Mental Health Technology
    Central State University
    Business Administration
    Civil Engineering Technology
    Communication Arts
    Early Childhood Education
    Engineering Science University Parallel Environmental Engineering Technology Hospitality Management

[^2]:    College of Mount St. Joseph
    Accounting
    Business Administration
    Computer Information Systems
    DeVry University
    Accounting
    Business Administration
    Business Management
    Computer Information Systems
    Electronics Technology
    Financial Management
    Marketing
    Edison State Community College Interior Design
    Visual Communication
    Embry-Riddle Aeronautical University
    Aviation Technology including Professional
    Pilot and Mechanical Options

[^3]:    * Sinclair's Art department is accredited by the National Association of Schools of Art and Design (NASAD).

[^4]:    * Students should keep copies of all communication course projects, papers, etc., for completion of the capstone.

[^5]:    *See page 83.

[^6]:    * See page 83.
    ** 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.

[^7]:    * See page 83.
    ** Internet elective see page 151.
    ***Concentration electives

[^8]:    * See page 83.
    ** Internet elective see page 151.
    *** Or other concentration elective

[^9]:    * See page 83.
    ** Internet elective see page 151.
    *** Or other concentration elective

[^10]:    ＊Sinclair＇s Interior Design program is accredited by the National Association of Schools of Art and Design（NASAD）．

[^11]:    *See page 83.

[^12]:    Students select nine courses from the list above to total 27 hours.

