SINCLAIR
COMMUNITY COLLEGE

Programs & Policies
2012 - 2013

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

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Fall 2012	**FULL TERM** Aug. 27–Dec. 16	**A-TERM** Aug. 27–Oct. 17	**B-TERM** Oct. 18–Dec. 16
On-time registration begins	May 23		
On-time registration ends	Aug 17	Aug 17	Oct 15
Payment due for on-time registration by 5:00 p.m.	Aug 17	Aug 17	Oct 15 (by 7:00 p.m.)
Late registration	Aug 18–Aug 24	Aug 18–Aug 24	Oct 16-17
Golden Age and audit registration	Aug 20–Aug 24	Aug 20–Aug 24	Oct 16-17
Payment due for late registration by 5:00 p.m.	Aug 24	Aug 24	Oct 17 (by 7:00 p.m.)
Classes begin	Aug 27	Aug 27	Oct 18
Last day to withdraw with refund and without record	Sep 4	Aug 31	Oct 22
Last day to withdraw	Nov 26	Oct 6	Dec 2
Evaluation Week	Dec 10-16		
Classes end	Dec 16	Oct 17	Dec 16

Campus Close Dates:
Sept 3: Labor Day holiday; all campuses closed
Nov 12: Veterans' Day holiday; all campuses closed
Nov 22–23: Thanksgiving holiday; all campuses closed

Spring 2013	**FULL TERM** Jan 7–May 5	**A-TERM** Jan 7-Mar 1	**B-TERM** Mar 11-May 5
On-time registration begins	November 5		
On-time registration ends	Dec 21	Dec 21	March 6
Payment due for on-time registration by 5:00 p.m.	Dec 21	Dec 21	March 6 (by 7:00 p.m.)
Late registration	Dec 22-Jan 4	Dec 22-Jan 4	March 7-8
Golden Age and audit registration	Dec 31 & Jan 2-4	Dec 31 & Jan 2-4	March 7-8
Payment due for late-registration by 5:00 p.m.	Jan 4	Jan 4	March 8
Classes begin	Jan 7	Jan 7	March 11
Last day to withdraw with refund and without record	Jan 14	Jan 11	March 15
Last day to withdraw	Mar 29	Feb 18	April 22
Evaluation Week	Apr 29-May 5		
Classes end	May 5	Mar 1	May 5

Campus Close Dates:
January 21: Martin Luther King Holiday–all campuses closed
May 27: Memorial Day holiday; all campuses closed

Visit *www.sinclair.edu/services/registration/dates* for up-to-date information.

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

Summer 2013	FULL TERM May 20–Aug 11	A-TERM May 20–Jul 12
On-time registration begins	April 1	
On-time registration ends	May 10	May 10
Payment due for on-time registration by 5:00 p.m.	May 10	May 10
Late registration	May 11-17	May 11-17
Golden Age and audit registration	May 13-17	May 13-17
Payment due for late registration by 5:00 p.m.	May 17	May 17
Classes begin	May 20	May 20
Last day to withdraw with refund and without record	May 28	May 24
Last day to withdraw	July 19	July 1
Classes end	Aug 11	July 12

Campus Close Dates:
Jul 4: Independence Day holiday; all campuses closed

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MAP—My Academic Plan

My Academic Plan (MAP) is a prescriptive plan of courses, created with the input of an academic advisor that assists students in meeting their academic goals. The *MAP* uses the curriculum of a student's academic program and creates a personalized schedule of that curriculum that takes into consideration the student's academic and non-academic life. While the *MAP* process is currently being used extensively to assist students in a smooth transition from quarters to semesters, it is an excellent tool for all students.

In order to have a *MAP* created, a student should contact their academic advisor. Once the *MAP* is created and agreed upon by the advisor and the student, it will be made active. In order to ensure that they are staying *On Plan* with their *MAP*, a student can access their *MAP* electronically in a number of ways:

- Ask the academic advisor to email them a copy of their *MAP*
- Log in to the Course Schedule via my.sinclair.edu
- Go to http://my.sinclair.edu/ either from a computer or smart phone, click on the *My Academic Plan (MAP)* icon.

A student with an active *MAP* will have the extra benefit of an easier time scheduling each term. By logging in to the Course Schedule available via the my.sinclair portal, these students will be presented with the courses for which they and their advisor agreed they should register that term. This serves as both a reminder and eliminates the need to search through the entire Sinclair catalog for their courses. Further, if a student has inadvertently registered for the wrong course or failed to register for agreed upon courses, they will receive notification that they are *Off Plan* and should contact their advisor to modify their plan or make corrections. All of these features serve to assist a student in meeting their academic goals in a timely and personalized fashion.

My Schedule

My Schedule provides students with their course schedule for a specific term. The schedule can be viewed in weekly or daily format and also provides the student with a list of books required or recommended for their courses section as well as the ISBNs and prices for each book. This book list can be printed for use in the bookstore, but also provides a direct link to used to add books to the electronic bookstore shopping cart. To use these tools, login to http://my.sinclair.edu and select the option for *My Schedule* in the central light blue box.

A student can also access their schedule by going to http://my.sinclair.edu/ from either a computer or smart phone and selecting the options for *My Schedule* and *My Booklist*.

Accreditation

Sinclair is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools, 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.

To review a list of the associations, agencies, and/or governmental bodies that accredit, approve, or license the college's programs, check www.sinclair.edu/about/information/accreditation.

The official documents for the associations, agencies, and/or governmental bodies that accredit, approve, or license the school and its programs are housed in the office of the Provost, Building 7, Room 7330. In order to receive a copy for review, go to this office. For additional and specific details regarding program accreditations, approvals or licensures, see the individual program descriptions in this catalog. Sinclair Community College, 444 West Third Sreet, Dayton, Ohio 45402-1460

Sinclair at-a-Glance

Change is Good

Welcome to semesters!

This is a very exciting time to be at Sinclair, as we mark our first year under semesters since 1968. Over the past two years, the faculty, staff and administration of Sinclair have worked not only to convert from a quarter-based system to a semester-based one, but also to look for opportunities to refresh, revamp and improve the college in every way they can. You will see these improvements reflected throughout the 2012-2013 catalog.

Throughout the transition to semesters, the progress and success of our students have been our top priorities. This commitment to our students will continue as they work through their personal shifts to semesters. Students are encouraged to maintain contact with their Academic/ Faculty Advisor to ensure that the My Academic Plans (MAPs) created for their transitions are updated and current.

What's Changing?

Academic Terms	Quarters	Semesters
Terms (not including summer)	3: Fall, Winter, Spring	2: Fall, Spring
Winter Break	Approx. 5 weeks (Thanksgiving-New Year's Day)	Approx. 3 weeks (End of Dec.-2nd week of January)
Summer Session	10 weeks total	12 weeks total
Spring Break	12th week of year (mid to end of March)	10th week of year (begin. to mid March)
Length of Mini-term	5 weeks	8 weeks
Credit Hours per Year (based on full-time student at 15 hours per term)	45	30
Length of Term (including 1 week for final exams)	11 weeks	16 weeks

Average Number of Classes Taken	Quarters	Semesters
Per Term	4	5
Per Academic Year	12	10

Cost (based on Fall 2011 rates)	Quarters	Semesters
Cost per Term (based on 15 credit hours per term)	$768	$1,152
Cost per Credit Hour (based on in-county rate)	$51.20	$76.80
Number of Times Purchasing Books	3	2

Class Numbers	Quarters	Semesters
Class numbering system	3 numbers (ENG 111)	4 numbers (ENG 1101)

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What's Changing?

FACTS Payment Plan	Quarters	Semesters
Number of payments due (if enrolling during the first FACTS enrollment period)	4	5
Amount of each payment (based on Fall 2011 in-county rate at 15 credit hours per term)	$192.00	$230.40

What's Staying the Same?

	Quarters	Semesters
Cost per Year	$2,304	$2,304
Average Credit Hours Taken by Term	15	15
FAFSA Deadline	April 15	July 15

Benefits of Changing to Semesters

1. Transferring to other colleges/universities within Ohio will be easier because the calendars will be the same.
2. You will only have to register for classes and buy books twice per year.
3. You will have more time per term in each class, so you'll have more time to learn and understand the material.
4. You will have fewer fee bills to pay per year.

Change is Good

Campus Security Report (Campus Security Act of 1990)

The federal Jeanne Clery Disclosure of the Campus Security Policy and Crime Statistics Act requires Sinclair Community College annual security report to include statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings owned or controlled by Sinclair Community College; and on public property within, or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, emergency response and evacuation procedures, the reporting of crimes, sexual assault, a statement of the enforcement authority of campus security personnel, and other matters. The public may obtain a copy of the report by contacting the Sinclair Department of Public Safety at (937) 512-2700 or www.sinclair.edu/police.

Federal Education Rights & Privacy Act (FERPA)

The Family Education Rights & Privacy Act (FERPA) grants four specific rights to current or former students with respect to their educational records at Sinclair. Those rights are a) the right to inspect and review all the information about them held by Sinclair; b) the right to seek amendment of incorrect records; c) the right to some control over disclosure of the students' education records; and d) the right to file a complaint with the FERPA office in Washington, D.C.

For more information about students' rights under FERPA, review the Sinclair Student Records Policy, available in the Registration & Student Records office or at www.sinclair.edu/services/registration/policies. Problems or questions concerning the Sinclair Student Records Policy may be brought to the FERPA coordinator, director of Registration & Student Records.

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, sexual orientation, gender identity, marital status, veteran status, national origin, ancestry, citizenship.

Inquiries and complaints concerning this policy should be referred to the Equal Opportunity Officer who coordinates Title VI (discrimination claims on the basis of race, color, or national origin); Title IX (discrimination on the basis of sex/gender); ADA (as amended) and Section 504 (discrimination on the basis of disability) and ADEA (discrimination on the basis of age). Contact: Equal Opportunity Officer, Office of Human Resources, Sinclair Community College, 444 West Third Street, Room 7340, Dayton, Ohio 45402-1460. Or Title IX Student Coordinator who coordinates Title IX (discrimination claims by students on the basis of sex-- including claims of sexual harassment or sexual assault). Contact: Title IX Student Coordinator, Gwen Jones, Chief Diversity Officer, Sinclair Community College, 444 West Third Street, Room 7342, Dayton, Ohio 45402-1460

Degrees & Certificates

Associate of Applied Science—AAS

The associate of applied science degree provides students with the applied knowledge, theory and experience needed to pursue employment in specific occupational areas; these degrees may transfer into the academic curriculum at other four-year colleges and universities. Students who intend to transfer may find it beneficial to take additional general education courses, but because course requirements vary, it is recommended that students pursuing an AAS discuss goals with an academic advisor.

Associate of Arts Degree—AA

An associate of arts degree provides background in general education and is equivalent to the first two years of study toward a bachelor's degree in the humanities, social sciences, general studies or fine arts. Students who intend to transfer to a four-year college or university should contact an admissions representative from that school to assure that elective courses will transfer.

Associate of Science—AS

An associate of science degree provides background in general education and is equivalent to the first two years of a bachelor's degree in the sciences, social sciences, mathematics and selected pre-professional programs. Students who intend to transfer to a four-year college or university should contact an admissions representative from that school to assure that elective courses will transfer.

Associate of Technical Study—ATS

The associate of technical study 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 students' 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.

Associate of Individualized Study—AIS

The associate of individualize study 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.

www.sinclair.edu/online
online@sinclair.edu

Online learning is an excellent alternative for motivated students who like a flexible class schedule. SinclairOnline offers a variety of courses. Course content is the same as regular, on-campus courses and meets all program and transfer requirements. Students register for SinclairOnline courses in the same way they register for other Sinclair courses. All course work must be completed within the term it is taken.

Students will retrieve their syllabus and assignments, send email to the instructor and fellow classmates, participate in discussion forums and link to other resources though the Internet. Students without personal computers and Internet access may use the computers located in the Sinclair's open labs.

SinclairOnline Registration Policy

Current or returning Sinclair students will need a 2.0 minimum cumulative grade point average to enroll in online courses. Students who are new to Sinclair may register if they have met the course prerequisite.

Testing Information

Most online courses have online testing in the course. Courses that do not offer this option require that students living within 60 miles of the Dayton campus take their tests at Sinclair's Testing Center. (Information about testing will be included in the course syllabus.) A listing of the method of testing for each online course per specific term may be found on the SinclairOnline website (www.sinclair.edu/online).

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 website (www.sinclair.edu/online, click on "Testing Information").

How to Succeed in an Online Course

All students who wish to take a SinclairOnline course are required to complete the free course, How to Succeed in an Online Course. Information and registration instructions, maybe be found on the SinclairOnline website: *www.sinclair.edu/online/benefits/success/*

SinclairOnline Degrees

- Associate of Science, Business Administration
- Associate of Applied Science, Business Management
- Associate of Applied Science, Health Information Management
- Associate of Arts, Liberal Arts and Sciences
- Associate of Science, Liberal Arts and Sciences
- Associate of Arts, Psychology Emphasis, Liberal Arts and Sciences

Admissions
Degree/Certificate Seeking Students
Apply to Sinclair

There are three ways to apply:
- Fill out your application online at www.sinclair.edu.
- Mail the application to the address provided.
- Drop off the application at the office of Admissions, Building 10, First Floor, Dayton campus or at the main desk at any Learning Center.

You will receive an acceptance letter within one week.

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 the Life & Health Sciences programs, Paralegal, Police Academy, Early Childhood Education, ASEP, CAP, Honda PACT, and the A.I.S. and A.T.S. degrees.

Those who would like information about Sinclair Community College and its academic programs or would like to schedule a tour of the campus, contact Admissions, (937) 512-3648.

Placement Testing

Sinclair's mandatory assessment policy requires that all degree and certificate seeking students test for proper placement in math, reading and writing. The placement testing process begins at the Enrollment Center kiosk located in Building 10, lobby of the fourth floor. All tests are administered to students on a first come, first served (walk-in) basis. Students must present a valid photo I.D. to take the test. The Accuplacer placement test is an untimed computerized test. Students may take all three sections—math, reading and writing—in one session. Some students may only need to take one or two sections if they qualify for an exemption based on prior college or ACT scores. The Enrollment Center staff will be able to assist with the next steps in the enrollment process.

The Placement Test requirement may be waived if you:
- Submit transcripts. To transfer college credit to Sinclair, you must have your previous college(s) send your official transcript(s) to Sinclair Community College, Registration & Student Records, 444 West Third Street, Dayton, Ohio, 45402-1460.
- Submit ACT scores. You are exempt from the Placement Test if your scores are at or above a certain level (Math ≥ 22, Reading ≥ 21, Writing ≥ 18).

SinclairOnline Students

Living beyond 60 miles from Sinclair's Dayton Campus, students needing placement and/or academic testing may require that a test proctor be obtained. Information regarding proctored testing can be found at www.sinclair.edu/online. For additional information call (937) 512-2990 or toll free 1-888-226-2457.

Attend New Student Orientation

Staff at the Enrollment Center will schedule you for this mandatory information session.

Meet with an Academic Advisor

An advisor will help you select appropriate courses based on educational goals and placement test results.

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Registration & Records

Develop a class schedule

View Sinclair's course schedule online at www.sinclair.edu/schedule.

Staff at Sinclair Central (Building 10, Second Floor, Dayton Campus) or at the Learning Centers will help you select days, times, and sections of courses, and show you how to register online.

Register for classes

There are two ways to register:

1. Online—log on to my.sinclair.edu, click on the Web Advisor tab, select Student, and Register
   - Online registration begins at 12:01 a.m. on the first day of the registration period each semester. For dates, check the calendar in the catalog, online calendar, or call (937) 512-3000 or 1-800-315-3000.
   - Log on to http://my.sinclair.edu and click Web Advisor.
   - Search for classes and build a schedule.
   - Register!

2. In person—go to Registration & Student Records, Building 10, Second Floor, Dayton Campus or at the Learning Centers
   - In-person registration begins at 8:00 a.m. on the first day of the registration period each term.
   - Registration forms and drop/add/withdrawal forms are available and may be processed in Registration & Student Records, Building 10, Second Floor Lobby, or at the Learning Centers, and Courseview Campus Center.

NOTE: Registration is final when the bill is paid in full by the scheduled deadline. Payment options are shown under the section *Methods of Payment*.
Please visit www.sinclair.edu/services/bursar

NOTE: Courses in the 1100 series usually are recommended for first-year students and courses in the 1200 series for second-year students. Those numbered below 1100 are developmental courses, do not count toward a degree and may not be accepted by other colleges and universities as transfer credits.

Get a Tartan Card (Student I.D.)

Pick up your Tartan Card from Registration & Student Records, Building 10, Second Floor, Dayton Campus, after you register for the first time or take your photo at the Learning Centers.

Tuition & Fees

Pay for classes

There are four ways to pay:

- Online—using any computer with Internet access, log on to my.sinclair.edu (click on Web Advisor, Student, Select, Make Payment, under Financial Information, and the click on Pay on My Account); follow remaining instructions accordingly.
- In person—go to the Bursar's Office, Building 10, Second Floor, Room 10244, Dayton Campus or at the Learning Centers
- Mail—send a check or money order made out to Sinclair Community College to: Bursar's Office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460
- FACTS Tuition Payment Plan—please visit http://facts.sinclair.edu

Cost of Attendance or Budget

The average amount a student pays to attend a college or university varies. This amount includes direct expenses such as tuition, fees and books and indirect expenses such as supplies, transportation and personal expenses. Please keep in mind that a student attending Sinclair is only required to pay the direct expenses on his or her student accounts.

BUDGET A/Dependent	In-County/Two Semesters (9 months)
Tuition, Fees and Lab Fees	$2,216
Books and Supplies	$1,140
Transportation	$680
Room and Board	$2,700
Personal and Other	$1,340
TOTAL	$8,076

BUDGET B/Independent	In-County/Two Semesters (9 months)
Tuition, Fees and Lab Fees	$2,216
Books and Supplies	$1,140
Transportation	$680
Room and Board	$5,442
Personal and Other	$1,340
TOTAL	$10,818

Out of county surcharge for 9 months $1,134 • Out of state surcharge for 9 months $4,176

Apply for Financial Aid

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.
2. If students are selected for verification, they will receive an e-mail 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.
3. Some 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.

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To complete the FAFSA students will need the following documents:
- Student's Federal Income Tax Return
- Parent's Federal Income Tax Return (dependent students only)
- Student's W2s
- Parent's W2s (dependent students only)
- Parent's social security number, birth date, marital status and date (dependent students only)
- Amounts of any additional income received in an entire year, such as child support, social security, welfare benefits, etc.

Students will receive two replies after submitting this application.
- From Department of Education, the students will receive a Student Aid Report (SAR).
- From Sinclair, students will receive an email explaining the next steps.

Please keep in mind that the complete financial aid process may require additional paper work and/or applications in order to offer the best financial aid package possible.

The FAFSA application is used to determine if students qualify for grants.

When should I apply? Apply as early as possible each year. **July 15** is the annual priority date established by Sinclair. Those who apply by **July 16** this year, have the best chance of receiving financial aid. Priority dates for each term will be posted in the class schedules. If students miss a priority date, they can still apply for financial aid but may be required to pay up front for tuition and books. If students receive a financial aid award after they have paid tuition, Sinclair can arrange for students to be reimbursed up to the amount of the award.

The complete financial aid process could take as little as four to six weeks from start to finish or as long as ten to twelve weeks, depending on individual circumstances; so plan accordingly.

Tuition and Fees (per credit hour)*

Fees current as of Fall 2012. For current tuition rates see www.sinclair.edu/services/bursar or call (937) 512-3000.

Per Credit Hour Fees	Montgomery County Residents	Other Ohio Residents	Out-of-State and International Students
Instructional Fee	$78.12	$78.12	$78.12
General Fee	$14.25	$14.25	$14.25
Out-of-County Surcharge	---	$47.25	---
Out-of-State Surcharge	---	---	$174.03
Total Tuition and Fees			
Per Credit Hour	$92.37	$139.62	$266.40

Other Fees
Application for Admission $20.00
Late Registration Fee (nonrefundable) $30.00
Online Classes (extra fee beyond tuition) . . . . . $5.00 per credit hour
Returned Check $25.00
Tartan Card deposits (credit/check) . . . . $10.00 minimum
Transcripts (each) $5.00
Transcripts (same day service) $10.00
Laboratory fees determined for individual classes.

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

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Federal Financial Aid

Name of Aid	Type of Aid	College Expenses Covered	Annual Limits	Special Requirements
Federal Pell Grant	Grant	Tuition; fees; books; educational expenses	$5,550; award amount based on need determined by EFC	Not have a bachelor's or advanced degree *Subject to lifetime limits
Federal Supplemental Educational Opportunity Grant (FSEOG)	Grant	Tuition; fees; books; educational expenses	Limits based on availability of funds	Not have a bachelor's or advanced degree Enroll in at least 6 credit hours Have exceptional need
Federal Work Study	Work	Educational Expenses	$7,500; award amount based on need and determined by Sinclair Financial Aid after reviewing other aid student received	Enroll in at least 6 credit hours Have unmet financial need
Federal Direct Stafford Loan	Loan	Tuition; fees; books; educational expenses	**Dependent:** $5,500 - No more than $3,500 may be in subsidized loans; 2nd year dependent limit $6,500 with no more than $4,500 in subsidized **Independent:** $9,500 - No more than $3,500 may be in subsidized loans; 2nd year independent limit $10,500 with no more than $4,500 in subsidized Actual award amounts based on Cost of Attendance and subsidized portions determined by EFC	Enroll in at least 6 credit hours Complete online entrance counseling. Complete online master promissory note **Subject to lifetime limits Students interested in borrowing the full amount are required to attend a loan counseling session All loans MUST be repaid
***Federal Parent PLUS Loan (Dependent Students Only)	Loan	Tuition; fees; books; educational expense	Parents may borrow up to the Cost of Attendance less any other aid and EFC	Enroll in at least 6 credit hours Complete parent loan application Complete online master promissory note All loans MUST be repaid

* A student can receive the Pell Grant only up to 12 full time semesters or the equivalent

** Lifetime Stafford Loan Limits: Dependent

***- $31,000 with no more than $23,000 in subsidized; Independent - $57,500 with no more than $23,000 in subsidized.

*** Dependent students whose parents are unable to obtain a PLUS Loan may be eligible for additional Stafford Loan amounts

Educational expenses include books, supplies, equipment, dependent child care expenses, transportation and computer rental/purchase

All students using federal aid are subject to federal aid guidelines. The most up to date policies are available at www.sinclair.edu/services/finaid

All federal loans must be repaid. Repayment begins 6 months after a student's enrollment drops below 6 credit hours, including students attending part-time, graduating, and withdrawing. Additional information regarding loan repayment and required exit counseling is available at www.sinclair.edu/services/finaid. Contact the financial aid office with any questions regarding federal aid.

Important Note: Aid received at another institution may affect the amount of aid a student is eligible for at Sinclair and it is the responsibility of the student to only accept aid for which he or she is eligible with regard to annual limits. Students should contact the financial aid office with any questions concerning aid amounts and eligibility.

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Results of Financial Aid Application

Notification: If students are eligible for financial aid, they will receive a letter via email from Sinclair's Financial Aid & Scholarships office within 4-6 weeks. Students will need to go through Web Advisor to retrieve their awards. Students will need to accept or reject the award before funds will be available for tuition, fees and/or books. Students interested in taking out federal loans are required to complete online Entrance Counseling and an online Master Promissory Note prior to loans being disbursed. Both can be found at www.studentloans.gov

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 your fee bill after you have registered for classes each term.

First time borrowers are subject to a 30 day waiting period after the start of the semester, prior to loans being disbursed. Disbursements of additional loans may require a student to attend a loan counseling session. Information regarding the frequency of disbursements, including dates, is available online at www.sinclair.edu.

Priority Dates

- Priority dates are critical when applying for financial aid. Apply as early as possible.
- **July 15** is the annual priority date established by Sinclair. Apply by **July 16** this year for the best chance of receiving a financial aid award for the next academic year.
- Sinclair also has established semester priority dates. See www.sinclair.edu/services/finaid 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 percent of tuition and fees at the time payment is due should see the Bursar office about the FACTS payment plan. This plan allows students to spread tuition over two or three payments. Students also may apply online at http://facts.sinclair.edu.

NOTE: The priority dates are the dates that all forms must be submitted to Financial Aid including the results of the students' FAFSA application. It is recommended that students begin the process 3-4 weeks prior to the priority date.

Veterans 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)
- Reserve Educational Assistance Program (REAP) Chapter 1607
  This educational program is designed to provide educational assistance to reservist who were activated after September 11, 2001, for 90 continuous days or more.
- Veterans Educational Assistance Program (VEAP) (Chapter 32)
- Post 9/11 GI Bill - Educational benefits for eligible individuals, veterans and service members who served on active duty after September 11, 2001 (Chapter 33)
- Survivors' 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 term:

- 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. *The regulations vary for Chapter 31 veterans.

For specific benefit and payment information, contact the Veterans Assistance office, Building 10, Room 10324, Dayton Campus, (937) 512-2586.

Repayment of Benefits

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

Courses and Programs of Study

Students with prior credits who attended previous college(s) or served in the military must request official transcripts. Transcripts will be evaluated by the office of Registration & Student Records, and once the credits have been evaluated the school will send the student 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 term 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.

Non-Degree Seeking Students

Apply to Sinclair

There are three ways to apply:
- Online at www.sinclair.edu
- Mail the application to the address provided
- Drop off the application at the office of Admissions, Building 10, First Floor, Dayton Campus or at the main desk at any Learning Center.

You will receive an acceptance letter within one week. Visiting students should send or bring in a copy of your unofficial transcript or grade report for academic advising purposes (i.e. waiving prerequisites).

For more information: enrollmentcenter@sinclair.edu (937) 512-3000, or 1-800-315-3000 (toll free in Ohio and Indiana).

Develop a Class Schedule

View Sinclair's course schedule online at www.sinclair.edu and click on the Course Schedule link. Staff at Sinclair Central (Building 10, Second Floor, Dayton Campus) will help you select days, times, and sections of courses, and show you how to register online.

Register for Classes

There are two ways to register:
- Online—log on to my.sinclair.edu, click on the Web Advisor tab, select Student, and Register
- In person—go to Registration & Student Records, Building 10, Second Floor, Dayton Campus or at the Learning Centers

Get a Tartan Card (Student I.D.)

Pick up your Tartan Card (Student I.D.) from Registration & Student Records, Building 10, Second Floor, Dayton Campus or at the Learning Centers, after you register for the first time.

Pay for classes

There are four ways to pay:
- Online—using any computer with Internet access, log on to my.sinclair.edu (click on Web Advisor, Student, Select, Make Payment, under Financial Information, and the click on Pay on My Account); follow remaining instructions accordingly.
- In person—go to the Bursar's Office, Building 10, Second Floor, Room 10244, Dayton Campus or at the Learning Centers.
- Mail—send a check or money order made out to Sinclair Community College to: Bursar's Office, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

Campus Directory & Facilities

Academic Advising

Building 11, Room 11346 • (937) 512-3700 • www.sinclair.edu/services/advising

All students are encouraged to meet with an academic advisor before and during their academic career at Sinclair. Students who are new, first time to college, should plan to work with advisors in the *First Year Advising Center* located in Building 10, Room 10335. Academic advisors are available to assist with understanding requirements for degree, certificate and short term certificate programs, placement test results and many other services.

Academic Resource Center (ARC)

Library, Room 7L001 • (937) 512-3495 • www.sinclair.edu/support/readiness

The primary function of the ARC instruction facilitator is to review skill levels once Accuplacer has been completed and guide the students to help improve their Developmental Math, English and Reading skills. The facilitator will also work with students that have tested into a developmental class and would like to utilize the ARC lab in conjunction with developmental class work.

Admissions

Building 10, Room 10112 • (937) 512-3000, or 1-800-315-3000 (Ohio and Indiana)
TDD 512-2187 • www.sinclair.edu/admissions

Hours: Monday-Thursday   8:00 a.m. - 6:00 p.m.
            Friday   8:00 a.m. - 5:00 p.m.

Admissions serves as the Welcome Center for prospective students. Staff is there to assist in the enrollment process, and can provide general information about academic programs and services to students, college publications such as catalogs, and enrollment information.

Alumni Relations

Building 12, Room 12201 • (937) 512-2510 • www.sinclair.edu/alumni

The Alumni Affairs office develops and maintains relationships with all Sinclair's 42,000+ graduates through social and service opportunities, benefits, publications, and special events.

Bookstore

Building 7, Room 7110 • (937) 512-2665 (BOOK) • http://bookstore.sinclair.edu

Students may shop for all college needs at the Bookstore. Students can also order conveniently online for their course materials, supplies and Sinclair insignia items.

Bursar Office

Building 10, Room 10244 • (937) 512-3000 • www.sinclair.edu/services/bursar/

Bursar's Office Hours:
Monday thru Friday   8:00 a.m. - 5:00 p.m.
Cashier's Window:
Monday thru Thursday   8:00 a.m. - 7:00 p.m.
Friday   8:00 a.m. - 5:00 p.m.
The Bursar Office handles payments of tuition and fees.

Campus Ministry

Building 10, Room 10310 • (937) 512-2768 • www.sinclair.edu/support/ministry

The office of Campus Ministry, a Multi-Faith Center for Spiritual Life is served by two Interfaith Campus Ministers. Students, staff, faculty and administrators of all religious and spiritual traditions are welcome. Campus Ministry offers programming for spiritual growth and many other services.

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

Career Services
Building 10, Room 10312 • (937) 512-2772 • www.sinclair.edu/services/career

Students may use Career Services to help make the most of their 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 term, focused on career decision making, job readiness skills and transitioning to the world of work.

Child Care/Early Childhood Education Centers
Building 9, Room 9101 • (937) 512-2234 • www.sinclair.edu/facilities/cec

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.

College for Lifelong Learning
Building 10, First Floor, Room 10112, Dayton Campus • (937) 512-5184 or (937) 512-2372
www.sinclair.edu/lifelong

Adults of any age may enroll in non-credit seminars and workshops. Classes meet both on campuses and at various sites across the community. Topics include Lunch and a Topic, or Dinner and a Concert or Theatre, Writing About Your Life & Times, Introduction to Personal Computers, Taking Care of Mom & Dad, Managing Money, Dayton History, and more. Some classes carry a modest fee to cover instructional costs, while others are free. Classes are listed in the College for Lifelong Learning newsletter.

Counseling Services (Center for Student Success)
Building 10, Room 10424 • (937) 512-3032 or (937) 512-2752
www.sinclair.edu/support/counseling

Hours: Monday-Thursday   8:00 a.m. - 7:00 p.m.
            Friday   8:00 a.m. - 5:00 p.m.
            Summer hours will vary

Students interested in addressing challenges that may affect their ability to achieve personal and professional growth and academic success may contact Counseling Services for individual counseling about educational, personal or social concerns and many other services. Counseling Services uses a holistic approach to helping students. All counseling services are free, confidential and available by appointment or walk-in basis.

Counseling Services serves, among others, academic intervention students, probationary students, readmission students, and Second Chance Scholarship students. The department also serves African American male students who need assistance and support to attain their educational goals.

Disability Services
Building 10, Room 10421 • (937) 512-5113 or 512-3096 (TTY)
www.sinclair.edu/support/disability

Hours: Monday - Friday   8:00 a.m. - 5:00 p.m.
            Summer hours will vary

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.

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

Enrollment Center

Building 10, Fourth Floor Lobby • (937) 512-3000 • www.sinclair.edu/services/enroll

The 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 a helpful staff ready to assist them. Placement testing is done on a walk-in basis—no appointment needed. Valid photo I.D. is required.

Financial Aid & Scholarships

Building 10, Room 10324 • (937) 512-3000 • www.sinclair.edu/services/finaid

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

The office of Financial Aid & Scholarships provides financial aid applications and advising and awards financial aid packages including federal, state, and institutional grants, loans, and scholarships.

International Study Abroad

Building 12, Room 12211 • (937) 512-2510

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

I.T. Help Desk

(937) 512-4357 (HELP) • (866) 781-4357 (HELP) • www.sinclair.edu/about/offices/helpdesk

Hours   6:00 a.m. - 12:00 midnight

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 or via the Help Desk Tickets Online, http://hdto.sinclair.edu. They will not be expected to answer questions about non-supported software or commercial online services (AOL, FastNet, etc).

Learning Communities

Building 3, Room 3142 • (937) 512-2347

The Learning Communities program improves student success by providing opportunities for increased student engagement and pass rates. It also gives advisors and/or counselors direct classroom connections. The Learning Communities program ties two courses together with a common theme, schedules them back to back, and has two instructors joining forces to help students learn.

Library

Building 7, Lower Level • (937) 512-3007 • www.sinclair.edu/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

The Sinclair Library is a state-of-the-art facility on the lower level of Buildings 1 through 7 and a complete digital library on the Internet. The 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. Sinclair belongs to the OhioLINK consortium and students can use their Tartan Cards as library cards at other Ohio college and university libraries.

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

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. Full-time students at Sinclair can enroll in Army ROTC and participate without obligation in the first two years of the four-year program.

Ombudsman (Center for Student Success)

Building 10, Room 10424 • (937) 512-2205 • www.sinclair.edu/support/advocate

The Ombudsman provides assistance to individuals who have problems/issues or concerns that need resolution within the campus community. The Ombudsman can cut red tape, investigate, mediate, and provide clarification of college policies and procedures.

Out-of-School Youth Fast Forward Center

Job Center, Edwin C. Moses Blvd. • (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) county wide out-of-school youth initiatives in the country that encourages and allows students 15-21 to earn a high school diploma. G.E.D. 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).

Pre-College Programs

Building 12, Room 12331 • (937) 512-5188 • www.sinclair.edu/precollege

The office of Pre-College Programs promotes and provides access to academic support services, program and resources while proactively and collaboratively guiding students to achieve their academic and career goals in a learning college environment. Students interested in Advanced College Entry, Educational Talent Search, PSEO, Quick Start, Seniors to Sophomores, Upward Bound, or Young Scholars, should contact Pre-College Programs.

Advanced College Entry (ACE) – Grades 8-12

Building 12, Room 12331 • (937) 512-2495 • www.sinclair.edu/precollege

The ACE program is a self-pay program open to upper middle* and high school students. Program participants have an opportunity to enroll, acquire college credit and possibly earn a certificate or associates degree from Sinclair. Enrollment is at the discretion of Sinclair's Office of Pre-College Programs and the academic chairperson.

Carl. D. Perkins Act 2006

Building 12, Room 12331 • (937) 512-5226 • www.sinclair.edu/precollege

Funded through the Ohio Department of Education, Perkins funding is used to promote and support academic achievement, career and technical education, strengthen the connection between secondary and post-secondary education, and improve state and local level accountability.

Educational Talent Search—Grades 9-12

Building 12, Room 12331 • (937) 512-5186 • www.sinclair.edu/precollege

The goal of Talent Search is to increase the number of program participants to complete high school and enroll in and complete their postsecondary education. This 5-year program will provide academic, career and financial literacy and a comprehensive academic rigorous track for selected students to enroll in college courses while in high school.

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

Building 6, Room 6122 • (937) 512-2461 • www.sinclair.edu/precollege

PSEO, one of the State of Ohio's dual enrollment programs, permits high school students to take college classes while enrolled in high school. The program is fully funded to include tuition, fees and books based on specific criteria and proposed limits by the State of Ohio.

Quick Start—Grades 11-12

Building 12, Room 12331 • (937) 512-2335 • www.sinclair.edu/precollege

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

Seniors to Sophomores (S2S)—Grade 12

Building 12, Room 12331 • (937) 512-4188 • www.sinclair.edu/precollege

Sinclair's S2S program, a State of Ohio dual enrollment program, selects students from Dayton Public Schools to complete their final year of high school and earn dual credit for their freshman year of college. In addition to their regularly scheduled classes, students participate in a customized academic-enriched support program.

Upward Bound—Grades 9-12

Building 12, Room 12382 • (937) 512-2331 • www.sinclair.edu/precollege

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

Young Scholars Program (YSP) – Grades 8-12

Building 12, Room 12331 • (937) 512-3730 • www.sinclair.edu/precollege/ysp

YSP is a five-year pre-college program designed to help first generation Montgomery County youth become academically and socially prepared to graduate from high school and enroll in college. YSP recruits 7th and 8th grade 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, that is aligned to the Ohio Graduation Test outcomes.

Project READ

Building 6, Room 6130 • (937) 461-7323 or 512-4570 • www.project-read.org

Although Sinclair does not have a GED program, Project READ is a grant-funded program that provides student and volunteer referral for literacy programs, outreach and literacy awareness in the local three-county area. The program recruits, trains and manages volunteer literacy tutors that work with children and adult learners in free classes focusing on basic literacy, GED preparation and English as a second language (ESL) studies.

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

Sinclair Public Safety

Building 7, Room 7112 • (937) 512-2700 • www.sinclair.edu/police

To reduce crime and ensure the safety and security of the campus community, the Sinclair department of Public Safety employs 24 sworn public safety officers, 85 part-time safety information officers and 4 student safety information officers. Personnel is stationed in Buildings 9, 12, 13, 14, 19 and 20, as well as the library, perimeter parking lots and each level of the garage. Safety officers are also stationed at the Huber Heights, Englewood and Preble County learning centers, Miami Valley Research Park and the Courseview Campus Center on a limited basis. All of these officers provide a visible public safety presence to help prevent crime.

Registration & Student Records

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

Hours:	Monday - Thursday	8:00 a.m - 7:00 p.m.
	Friday	8:00 a.m. - 5:00 p.m.
	Saturday	9:00 a.m. - 12:00 noon
	before and after the first day of classes each term	

The Registration & Student Records office handles student records, registration for classes, transcripts, diplomas, Tartan I.D. cards. The office also reviews student eligibility for awards such as scholarships, graduation honors, Dean's List and degrees.

Service Learning

Building 14, Room 14324 • (937) 512-204 • www.sinclair.edu/about/learning/slearning

Students who want to develop and explore academic, personal, social and career goals, gain work experience, and meet community needs can do that while meeting a course requirement. Students may sign up for Service Learning, a teaching and learning strategy that provides students with community based experiences to meet course objectives. Students participating in course related Service Learning gives "real world experience" building their resumes and increasing employment opportunities.

Sinclair Central

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

Sinclair Central assists students with enrollment and registration. Students can access current information about open classes or to register online using Web Advisor.

Student Judicial Affairs

Building 8, Room 8025 • (937) 512-2509 • www.sinclair.edu/student/leader

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. Disciplinary action as described in the Student Judicial Affairs Code of Conduct Handbook may be taken against a person who has been admitted to Sinclair, as well as against student organizations.

Student Success Planning Services (Center for Student Success)

Building 10, Room 10424 • (937) 512-3032 • www.sinclair.edu/support/success

New degree or certificate seeking students, based on their needs, will be offered the opportunity to develop a Student Success Plan (SSP) with an assigned Student Success Planning Services academic coach. After completing the placement test, students will receive next step information about the SSP at the Assessment/Intake Center. With the assistance of their academic coach, students will develop and implement a personalized action plan. The SSP plan will serve as a personal guide from entry point to completion of their academic goals.

Student Support Services

Building 11, Room 11342 • (937) 512-3550 • www.sinclair.edu/support/sss

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.

Testing Center

Building 10, Room 10445 • (937)512-3076 • www.sinclair.edu/services/enroll/testing

Hours: Monday-Thursday   8:00 a.m. - 8:00 p.m.
                (First test given 8:30 a.m. Last test given 7:00 p.m.)
                Friday   8:00 a.m. - 5:00 p.m.
                (First test given 8:30 a.m. Last test given 7:00 p.m.)
                Saturday*   8:00 a.m.-12:00 noon
                (First test given 8:00 a.m. Last test given 11:00 a.m.)

*No Saturday hours during summer term and winter break

The Sinclair Testing Center provides a secure and quiet testing environment for placement and academic testing. Sinclair's mandatory assessment policy requires that all degree and certificate seeking students test for proper placement in math, reading and writing. The Testing Center also provides academic testing for students taking SinclairOnline classes, individual students needing to make up classroom exams and students requiring special accommodations. All tests are administered to students on a first come, first served (walk-in) basis.

Tutorial Services

Library, Building 7, Lower Level • (937) 512-2792 • www.sinclair.edu/support/tutor

Hours: Monday - Thursday   8:00 a.m. - 8:00 p.m.
                Friday   9:00 a.m. - 5:00 p.m.
                Saturday   10:00 a.m. - 2:00 p.m.
                Summer hours will vary

Tutorial Services offers free individualized educational assistance in most 100 level courses to students enrolled at Sinclair for credit. Tutors, selected on the basis of scholastic ability and interpersonal skills, are available in open learning laboratories, on a scheduled basis, and in group supplemental instruction sessions.

Veterans Assistance

Building 10, Room 10324 • (937) 512-2586 • www.sinclair.edu/support/counseling/veterans

Hours :   Monday-Friday   8:00 a.m. - 5:00 p.m.
Veterans Assistance provides assistance regarding V.A. educational benefits for service members, veterans, reservists, National Guard and dependents of veterans.

Workforce Development

Building 12, Room 12101 • Dayton Campus • (937) 252-9787 • www.sinclair.edu/workforce

Sinclair's Workforce Development (WFD) is a first-stop solution for a growing number of employers and individuals striving to function at the top of their game. WFD offers a wide array of innovative, high value, customer-focused programs and services in organizational and professional development, career assessments and coaching, leadership, information technology, advanced engineering and manufacturing, industry credentials and online learning.

Courseview Campus Centers

Courseview Campus Center is located in Mason, Ohio off Interstate 71 and State Route 741 across from Kings Island. Courseview offers eight complete degree programs and fifteen certificates and provides all nescessary services and support needed for academic success.

Courseview Campus Center
5386 Courseview Drive
Mason, Ohio 54040
(513) 339-1212 • www.sinclair.edu/courseview

Learning Centers

www.sinclair.edu/learningcenters

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

Three regional learning centers located next to the YMCAs, provide Sinclair's award winning academics and services in the convenience of students' neighborhoods.

These regional campuses provide degree, certificate and general education opportunities and university parallel courses. There are day, evening, and weekend courses, on-site student services such as admissions, registration, financial aid, student advising, Bursar/Cashier and computer lab services.

Englewood Learning Center
1150 West National Road
Clayton, Ohio 45315
Corner of Hoke Road and State Route 40 in Englewood next to the Kleptz YMCA
(937) 836-8750

Huber Heights Learning Center
7301 Shull Road
Huber Heights, Ohio 45424
Next to the Huber Heights YMCA
(937) 233-5550

Preble County Learning Center
450E Washington-Jackson Road
Eaton, Ohio 45320
Next to the YMCA
(937) 456-5252

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

WPAFB Neighborhood Center

2130 Fifth Street, Building 50, Area B
(937) 781-9800 • wpafb@sinclair.edu • www.sinclair.edu/wpafb

Hours: Monday, Tuesday and Thursday   7:30 a.m. - 3:00 p.m.
                 Wednesday   12:00 noon - 3:00 p.m.

The Wright-Patterson Neighborhood Center provides degree offerings in general education and university parallel courses for transfer to a four-year institution. The center also offers on-site classes for active duty Air Force personnel wishing to complete their CCAF (Community College of the Air Force) degree. Classes are open to active duty and base employees, as well as any student from the community at large—civilian students are welcome! The Wright-Patterson Neighborhood Center provides intake services on site, including admission, registration, financial aid, and academic advising assistance. The center also offers evening, weekend, online and hybrid (mixed online/face-to-face) courses to suit any schedule.

Neighborhood Center Classes

www.sinclair.edu/about/locations/neighbor

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 Neighborhood Learning 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

Miami Valley Research Park
1900 Founders Drive
Dayton

Wright-Patterson Air Force Base
All classes are held in Area B

Articulation & Transfer Policies

Students can complete many freshman and sophomore level courses before transferring to a four-year institution. At the same time, students can earn an associate degree and apply many of those credits toward a bachelor's degree.

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. Information regarding incoming agreements is available from your academic advisor.
- Outgoing agreements with other colleges and universities indicate how Sinclair Community College programs and courses will transfer to those institutions. Consult with your academic advisor for the most up-to-date agreements.

Articulation & Transfer Policy
Institutional Transfer

The Ohio Board of Regents in 1990, following a directive of the 119th Ohio General Assembly, developed the Ohio Articulation and Transfer Policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of course requirements. A subsequent policy review and recommendations produced by the Articulation and Transfer Advisory Council in 2004, together with mandates from the 125th Ohio General Assembly in the form of Amended Substitute House Bill 95, have prompted improvements of the original policy.

While all state assisted colleges and universities are required to follow the Ohio Articulation and Transfer Policy, independent colleges and universities in Ohio may or may not participate in the transfer policy. Therefore, students interested in transferring to independent institutions are encouraged to check with the college or university of their choice regarding transfer agreements. In support of improved articulation and transfer processes, the Ohio Board of Regents will establish a transfer clearinghouse to receive, annotate, and convey transcripts among state assisted colleges and universities. This system is designed to provide standardized information and help colleges and universities reduce undesirable variability in the transfer credit evaluation process.

Transfer Module

The Ohio Board of Regents' Transfer and Articulation Policy established the Transfer Module, which is a subset or entire set of a college or university's general education curriculum in AA, AS and baccalaureate degree programs. Students in applied associate degree programs may complete some individual transfer module courses within their degree program or continue beyond the degree program to complete the entire transfer module. The Transfer Module contains 54-60 quarter hours or 36-40 semester hours of course credit in English composition (minimum 5-6 quarter hours or 3 semester hours); mathematics, statistics and formal/symbolic logic (minimum of 3 quarter hours or 3 semester hours); arts/humanities (minimum 9 quarter hours or 6 semester hours); social and behavioral sciences (minimum of 9 quarter hours or 6 semester hours); and natural sciences (minimum 9 quarter hours or 6 semester hours). Oral communication and interdisciplinary areas may be included as additional options. Additional elective hours from among these areas make up the total hours for a completed Transfer Module. Courses for the Transfer Module should be 100- and 200-level general education courses commonly completed in the first two years of a student's course of study. Each state assisted university, technical and community college is required to establish and maintain an approved Transfer Module.

Transfer Module course(s) or the full module completed at one college or university will automatically meet the requirements of individual Transfer Module course(s) or the full 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 have general education courses that go beyond its Transfer Module. State policy initially required that all courses in the Transfer Module be completed to receive its benefit in transfer. However, subsequent policy revisions have extended this benefit to the completion of individual Transfer Module courses on a course-by-course basis.

Transfer Assurance Guidelines (TAGS)

Transfer Assurance Guides (TAGs) comprise Transfer Module courses and additional courses required for an academic major. A TAG is an advising tool to assist Ohio university and community and technical college students planning specific majors to make course selections that will ensure comparable, compatible, and equivalent learning experiences across the state's higher education system. A number of area specific TAG pathways in the arts, humanities, business, communication, education, health, mathematics, science, engineering, engineering technologies, and the social sciences have been developed by faculty teams.

TAGs empower students to make informed course selection decisions and plans for their future transfer. Advisors at the institution to which a student wishes to transfer should also be consulted during the transfer process. Students may elect to complete the full TAG or any subset of courses from the TAG. Because of specific major requirements, early identification of a student's intended major is encouraged. A complete list of approved TAG courses can be viewed at http://ohiohighered.org/transfer/reportingsystem

Conditions for Transfer Admission

1. Ohio residents with associate degrees from state assisted institutions and a completed, approved Transfer Module shall be admitted to a state institution of higher education in Ohio, provided their cumulative grade point average is at least 2.0 for all previous college level courses. Further, these students shall have admission priority over out-of-state associate degree graduates and transfer students.

2. When students have earned associate degrees but have not completed a Transfer Module, they will be eligible for preferential consideration for admission as transfer students if they have grade point averages of at least a 2.0 for all previous college level courses.

3. In order to encourage completion of the baccalaureate degree, students who are not enrolled in an AA or AS degree program but have earned 60 semester or 90 quarter hours or more of credit toward a baccalaureate degree with a grade point average of at least a 2.0 for all previous college level courses will be eligible for preferential consideration for admission as transfer students.

4. Students who have not earned an AA or AS degree or who have not earned 60 semester hours or 90 quarter hours of credit with a grade point average of at least a 2.0 for all previous college level courses are eligible for admission as transfer students on a competitive basis.

5. Incoming transfer students admitted to a college or university shall compete for admission to selective programs, majors, and units on an equal basis with students native to the receiving institution.

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 native students. Furthermore, transfer students shall be accorded the same class standing and other privileges as native students on the basis of the number of credits earned. All residency requirements must be completed at the receiving institution.

Acceptance of Transfer Credit

To recognize courses appropriately and provide equity in the treatment of incoming transfer students and students native to the receiving institution, transfer credit will be accepted for all successfully completed college level courses completed in and after fall 2005 from Ohio state assisted institutions of higher education. Students who successfully completed AA or ASß degrees prior to fall 2005 with a 2.0 or better overall grade point average would also receive credit for all college level course they have passed. (See Ohio Articulation and Transfer Policy, Definition of Passing Grade and Appendix D) While this reflects the baseline policy requirement, individual institutions may set equitable institutional policies that are more accepting.

Pass/fail courses, credit by examination courses, experiential learning courses, and other non-traditional credit courses that meet these conditions will also be accepted and posted to the student record.

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. Students should use the Transfer Module, Transfer Assurance Guides, and Course Applicability System for guidance in planning the transfer process. 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

Following the evaluation of a student transcript from another institution, the receiving institution shall provide the student with a statement of transfer credit applicability. At the same time, the institution must inform the student of the institution's appeals process. The process should be multi-level and responses should be issued within 30 days of the receipt of the appeal.

Ohio Transfer Module (OTM)

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 - 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
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. A complete list of approved transfer module courses can be viewed at http://ohiohighered.org/transfer/reportingsystem

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 36. 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 their academic program and transfer institution—to take to complete the Transfer Module.

NOTE: The Transfer Module is updated twice per year.

Advanced Placement Credit Award

The State of Ohio, working through the University System of Ohio, has initiated policies to facilitate the ease of transition from high school to college as well as between and among Ohio's public colleges and universities. Beginning fall 2009:

1. Students obtaining an Advanced Placement (AP) exam score of three (3) or above will be awarded the aligned course(s) and credits for the AP exam area(s) successfully completed.
2. General Education courses and credits received will be applied toward graduation and will satisfy a general education requirement if the course(s) to which the AP area is equivalent fulfill a requirement.
3. If an equivalent course is not available for the AP exam area completed, elective or area credit will be awarded in the appropriate academic discipline and will be applied toward graduation where such elective credit options exist within the academic major.
4. Additional courses or credits may be available when a score of four (4) or five (5) is obtained. Award of credit for higher score values varies depending on the institution and academic discipline.
5. In academic disciplines containing highly dependent sequences (Science, Technology, Engineering and Mathematics –STEM) students are strongly advised to confer with the college/university advising staff to ensure they have the appropriate foundation to be successful in advanced course work within the sequence.

A complete list of approved AP courses equivalenicies can be viewed athttp://ohiohighered.org/transfer/reportingsystem

u.select

u.select (formerly CAS) is an online tool that will help students view program requirements, research course equivalencies, and see how courses they have taken or plan to take transfer to another college or university.

Anyone can create a free u.select account in order to:
- View course equivalencies
- See program requirements
- Enter and store course work
- Request an evaluation of transfer work against a program

Access u.select at https://oh.transfer.org/cas/uselect

OHTech eStudent Services

The Ohio Learning Network provides an OhioLearns 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.

Degree Programs

At Sinclair Community College, there are a variety of academic programs offered. As a two-year college, students are provided with the opportunity to earn an associate degree or certificate, take a few courses, and even prepare for future employment or education at a four-year institution.

There are three types of degree programs offered at Sinclair: university parallel programs, career programs, and individualized degree programs.

University parallel programs are associate of arts or associate of science degree programs designed specifically for transfer to a four-year institution.

Career programs are associate of applied science degree programs designed to prepare for a particular job or vocational area or transfer to a four-year school.

Individualized degrees are associate of individualized study or associate of technical study degree programs designed for specialized interest, often combining multiple degree programs.

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
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Short Term Technical Certificates (STC)

Individualized Programs (AIS, ATS)

Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

University Parallel Programs

University parallel programs are degree programs designed to transfer to four-year colleges and universities. Each of these academic options allow you to receive either a Associate of Arts (AA) or Associate of Science (AS) degree upon completion.

In addition some of these programs have specific agreements with other Ohio colleges and universities. This helps make for a seamless transition from Sinclair to your next educational milestone.

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Art

Program Code: ART.S.AA • Total Semester Credit Hours 69

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 students' creative thinking abilities with its studio and art history courses. In addition, this degree will fulfill the requirements for the Ohio Transfer Module* at other Ohio public colleges and universities.

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.

Accreditation

Sinclair's Art Department is accredited by the National Association of Schools of Art and Design (NASAD).

ART	1101	2-D Foundations	3
ART	1102	3-D Foundations	3
ART	1111	Drawing I	3
ART	2230	Art History: Ancient Through Medieval Periods	3
ART	2231	Art History: Renaissance Through Contemporary Periods	3
ART	2270	Fine Art Internship	1
ART	2295	Graduation Portfolio Development & Exhibition	1
ART	XXXX	ART from area of Concentration	6
ART	XXXX	2D Elective (if concentration 3-D) OR	
		3-D Elective (if concentration 2-D)	3
ART	XXXX	ART Elective (any ART course)	12
ART	XXXX	Art History Elective	3
COM	XXXX	AA Communication Group	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Math	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	

Drawing Concentration (2D)

ART	1112	Drawing II	3
ART	2111	Intermediate Drawing I	3

Life Drawing and Anatomy Concentration (2D)

ART	2216	Life Drawing & Anatomy I	3
ART	2217	Life Drawing & Anatomy II	3

Painting Concentration (2D)

ART	1121	Beginning Painting I	3
ART	1122	Beginning Painting II	3
ART	2221	Intermediate Painting —Observation & Concept	3

Photography Concentration (2D)

ART	1161	Black & White Darkroom Photography I	3
ART	1162	Black & White Darkroom Photography II OR	3
ART	2265	Digital Color Photography I	3
ART	1170	Non-Silver Photography OR	3
ART	1171	Studio Photography	3

Ceramics Concentration (3D)

ART	1141	Introduction to Ceramics	3
ART	1142	Intermediate Ceramics	3

Sculpture Concentration (3D)

ART	1131	Introduction to Sculpture	3
ART	1132	Intermediate Sculpture	3

2D Electives

ART	1106	Fine Art Sampler	3
ART	1112	Drawing II	3
ART	1121	Beginning Painting I	3
ART	1122	Beginning Painting II	3
ART	1161	Black & White Darkroom Photography I	3
ART	1162	Black & White Darkroom Photography II	3
ART	1170	Non-Silver Photography	3
ART	1171	Studio Photography	3
ART	1175	Computer Photography	3
ART	2216	Life Drawing & Anatomy I	3
ART	2217	Life Drawing & Anatomy II	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Art Curriculum continued

ART	2221	Intermediate Painting—Observation & Concept	3
ART	2222	Intermediate Painting—The Figure	3
ART	2265	Digital Color Photography I	3
ART	2266	Digital Color Photography II	3
ART	2269	Introduction to Printmaking	3

3D Electives

ART	1106	Fine Art Sampler	3
ART	1131	Introduction to Sculpture	3
ART	1132	Intermediate Sculpture	3
ART	1133	Figurative Sculpture	3
ART	1141	Introduction to Ceramics	3
ART	1142	Intermediate Ceramics	3
ART	2141	Advanced Ceramics	3

Art History Electives

ART	2235	History of Photography	3
ART	2236	History of Women Artists	3
ART	2237	History of American Art	3
ART	2238	History of African Art	3

Associate of Arts (AA)

Program Code: LA.S.AA Total Semester Credit Hours 60

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities.
In addition, this degree will fulfill the requirements for the Ohio Transfer Module* at other Ohio public colleges and universities.

BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1
XXXX		Associate of Arts Electives*** (limit of 2 hours in PED)	8
XXXX		Multicultural Elective**	3
XXXX		Ohio Transfer Module*: Math	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	12
XXXX		Ohio Transfer Module*: Natural &Physical Sciences Elective	6
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	12

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*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Communication Studies

Program Code: COM.S.AA • Total Semester Credit Hours 62

Description

Communication is the study of interactions between people in interpersonal, small group, public speaking, organizational and mass-media settings. This degree can lead to successful transfer to a four-year college or university baccalaureate program. Through careful course selection, a program of study can be planned to satisfy a student's particular educational and career interests. Enhancing communication skills provides invaluable benefits for all students, regardless of major. Specific articulation agreements have been developed with Wright State University and the University of Dayton. See an academic advisor for appropriate course selection.

Career Opportunites

A communication degree can provide opportunities in journalism, speech education, business, industry, government, broadcast media, law, ministry, social services, public relations, or provide valuable communication skills to enrich any career.

BIS	1120	Computer Concepts & Applications	3
COM	2201	Introduction to Mass Communication	3
COM	2206	Interpersonal Communication	3
COM	2211	Effective Public Speaking	3
COM	2220	Introduction to Communication Theory	3
COM	2225	Small Group Communication	3
COM	2278	Communication Capstone	1
COM	XXXX	Communication /Journalism Elective	6
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1
	XXXX	Any course in Catalog	3
	XXXX	Ohio Transfer Module*: Any Course	6
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	6
	XXXX	Ohio Transfer Module*: Mathematics	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

Communication/Journalism Elective

COM	2230	Non Verbal Communication
COM	2235	Principles of Interviewing
COM	2245	Intercultural Communication
COM	2286	Public Relations Principles
COM	2287	Effective Listening
COM	2290	Introduction to Broadcasting
JOU	2101	Introduction to Journalism
JOU	2203	Reporting & Writing for Media

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Creative Writing

Program Code: CRWE.S.AA • Total Semester Credit Hours 60-61

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The student taking the associate of arts in Liberal Arts and Sciences with the creative writing emphasis would plan to transfer to a four-year program in creative writing, English, or related field for which creative writing is a solid base. 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.

BIS	1120	Computer Concepts & Applications	3
COM	XXXX	Communication Elective (Any COM course)	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENG	2255	Creative Writing: Poetry	3
ENG	2256	Creative Writing Fiction	3
ENG	2259	Novel Writing	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
SCC	1101	First Year Experience	1
	XXXX	Associate of Arts Electives*	11
	XXXX	Multicultural Elective*	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	6
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	9

English

Program Code: ENGE.AA • Total Semester Credit Hours 60-61

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The student taking the associate of arts in Liberal Arts and Sciences with the English emphasis would plan to transfer to a four year program in English, or related field for which English is a solid base.

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.

BIS	1120	Computer Concepts & Applications	3
COM	XXXX	Any COM Course	3
ENG	1101	English CompositionI	3
ENG	1201	English Composition II	3
LIT	2201	British Literature I	3
LIT	2211	American Literature I	3
LIT	2212	American Literature II	3
LIT	2202	British Literature II	3
LIT	2230	Great Books of the Western World	3
LIT	2234	Literature of Africa, Asia & Latin America	3
LIT	2270	Introduction to Shakespeare	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
SCC	1101	First Year Experience	1
	XXXX	Associate of Arts Electives*	6
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective (not ENG or LIT courses)	3
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	9

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Modern Languages

Program Code: FORE.S.AA • Total Semester Credit Hours 60-63

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The student enrolled in the associate of arts in Liberal Arts and Sciences modern languages emphasis would plan to transfer to a four-year university as a French, German or Spanish major, or into a major for which modern language is a strong base. 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.

BIS	1120	Computer Concepts & Applications	3
COM	XXXX	Communication Elective (Any COM course)	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
SCC	1101	First Year Experience	1
	XXXX	First Year Modern Language Sequence	8
	XXXX	First Year or Second Year Modern Language Sequence	8
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective (not ENG or LIT courses)	6
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

First-Year Modern Language Course Sequences

FRE	1101	Elementary French I	4
FRE	1102	Elementary French II	4
SPA	1101	Elementary Spanish I	4
SPA	1102	Elementary Spanish II	4
GER	1101	Elementary German I	4
GER	1102	Elementary German II	4

Second -Year Modern Language Course Sequences

FRE	2201	Intermediate French I	3
FRE	2202	Intermediate French II	3
GER	2201	Intermediate German I	3
GER	2202	Intermediate German II	3
SPA	2201	Intermediate Spanish I	3
SPA	2202	Intermediate Spanish II	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Multimedia Journalism

Program Code: COMMJ.S.AA • Total Semester Credit Hours 69

Description

Communication is the study of interactions between people in interpersonal, small group, public speaking, organizational and mass-media settings. The multimedia journalism emphasis degree is a collaboration of the communication, journalism and visual communication programs. Multimedia journalism is presently the fastest growing area of journalism. It will also prove valuable for students who plan to transfer to a four-year college or university baccalaureate program to continue their studies in journalism or mass communication.

Career Opportunites

Multimedia journalism is the fastest growing area of journalism, and this degree prepares students to work as producers for news and corporation websites.

BIS	1120	Computer Concepts & Applications	3
CIS	1304	Web Site Development with HTML/JavaScript	3
COM	2201	Introduction to Mass Communication	3
COM	2206	Interpersonal Communication	3
COM	2211	Effective Public Speaking	3
COM	2225	Small Group Communication	3
COM	2278	Communication Capstone	1
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
JOU	2101	Introduction to Journalism	3
JOU	2203	Reporting & Writing for Media	3
JOU	2270	Journalism Internship	3
SCC	1101	First Year Experience	1
VIS	1140	Digital Design I	3
VIS	1218	Digital Design II	4
XXXX		Ohio Transfer Module*: Any Course	6
XXXX		Ohio Transfer Module*: Arts & Humanities	6
XXXX		Ohio Transfer Module*: Math	3
XXXX		Ohio Transfer Module*: Natural & Physical Sciences	6
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences	6

Music

Program Code: MUS.S.AA • Total Semester Credit Hours 69

Description

The associate of arts in music is designed for students who will be transferring to a four-year institution for further studies upon graduation in music education, music performance, or any baccalaureate program in music. The associate of arts curriculum fulfills the requirements of the first two years of a bachelor of music, with special emphasis on public performance. An audition is required upon entering the program and a solo recital is required before graduation.

Accreditation

Sinclair Community College is an accredited institutional member of the National Association of Schools of Music.

COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
HUM	XXXX	OTM Arts & Humanities Elective	3
MTH	XXXX	Math Elective	3
NPS	XXXX	OTM Natural/Physical Sciences Elective	3
SBS	XXXX	OTM Social/Behavioral Sciences Elective	3
MUS	1110	Music Technology for Music Majors	1
MUS	1111	Music Theory I	3
MUS	1113	Music Theory II	3
MUS	2111	Music Theory III	3
MUS	2113	Music Theory IV	3
MUS	1112	Aural Skills I	1
MUS	1114	Aural Skills II	1
MUS	2112	Aural Skills III	1
MUS	2114	Aural Skills IV	1
MUS	2117	Survey of Musical Styles I	3
MUS	2118	Survey of Musical Styles II	3
MUS	1115	Piano for Music Majors I	1
MUS	1116	Piano for Music Majors II	1
MUS	2115	Piano for Music Majors III	1
MUS	2116	Piano for Music Majors IV OR	1
MUS	1119	Secondary Voice I	1
MUS	1120	Secondary Voice II	1
MUS	2119	Secondary Voice III	1
MUS	2120	Secondary Voice IV AND	1
MUS	1131	Chorale I	1
MUS	1132	Chorale II	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

Music Curriculum
continued, MUS.S.AA

MUS	2131	Chorale III	1
MUS	2132	Chorale IV OR	1
MUS	1143	Concert Band I	1
MUS	1144	Concert Band II	1
MUS	2143	Concert Band III	1
MUS	2144	Concert Band IV OR	1
MUS	1145	Classical Guitar Ensemble I	1
MUS	1146	Classical Guitar Ensemble II	1
MUS	2145	Classical Guitar Ensemble III	1
MUS	2146	Classical Guitar Ensemble IV	1

Must take a total of 8 credit hours in Applied Instrument

MUS	2500	Applied Piano for Majors I	2
MUS	2501	Applied Piano for Majors II	2
MUS	2502	Applied Voice for Majors I	2
MUS	2503	Applied Voice for Majors II	2
MUS	2504	Applied Classical Guitar for Majors I	2
MUS	2505	Applied Classical Guitar for Majors II	2
MUS	2506	Applied Flute for Majors I	2
MUS	2507	Applied Flute for Majors II	2
MUS	2508	Applied Clarinet for Majors I	2
MUS	2509	Applied Clarinet for Majors II	2
MUS	2510	Applied Saxophone for Majors I	2
MUS	2511	Applied Saxophone for Majors II	2
MUS	2512	Applied Oboe for Majors I	2
MUS	2513	Applied Oboe for Majors II	2
MUS	2514	Applied Bassoon for Majors I	2
MUS	2515	Applied Bassoon for Majors II	2
MUS	2516	Applied Trumpet for Majors I	2
MUS	2517	Applied Trumpet for Majors II	2
MUS	2518	Applied French Horn for Majors I	2
MUS	2519	Applied French Horn for Majors II	2
MUS	2520	Applied Baritone Horn for Majors I	2
MUS	2521	Applied Baritone Horn for Majors II	2
MUS	2522	Applied Trombone for Majors I	2
MUS	2523	Applied Trombone for Majors II	2
MUS	2524	Applied Tuba for Majors I	2
MUS	2524	Applied Tuba for Majors II	2
MUS	2526	Applied Violin for Majors I	2
MUS	2527	Applied Violin for Majors II	2
MUS	2528	Applied Viola for Majors I	2
MUS	2529	Applied Viola for Majors II	2
MUS	2530	Applied Cello for Majors I	2
MUS	2531	Applied Cello for Majors II	2
MUS	2532	Applied String Bass for Majors I	2
MUS	2533	Applied String Bass for Majors II	2
MUS	2534	Applied Percussion for Majors I	2
MUS	2535	Applied Percussion for Majors II	2
MUS	2536	Applied Organ for Majors I	2
MUS	2537	Applied Organ for Majors II	2
MUS	2538	Applied Harpsichord for Majors I	2
MUS	2539	Applied Harpsichord for Majors II	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Political Science

Program Code: PLSE.S.AA • Total Semester Credit Hours 61

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The associate of arts with emphasis in political science is designed for students who plan to transfer to a four-year college or university and pursue a baccalaureate degree in political science or a degree in which political science is a strong foundation for the baccalaureate. 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.

BIS	1120	Computer Concepts & Applications	3
COM	XXXX	AA Communication Group	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PLS	1120	American Federal Government	3
PLS	1232	State & Local Government	3
PLS	2200	Political Life, Systems & Issues	3
PLS	2220	International Relations	3
SCC	1101	First Year Experience	1
	XXXX	Associate of Arts Electives*	12
	XXXX	Multicultural Elective*	3
	XXXX	Ohio Transfer Module*: Math	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	6
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

Psychology

Program Code: PSY.S.AA • Total Semester Credit Hours 60-61

Description

The associate of arts is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The student who pursues the associate of arts in Liberal Arts and Sciences Psychology emphasis would plan to transfer to the university as a psychology major, or into a major for which psychology is a strong base. 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.

BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking OR	
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
PSY	1100	General Psychology	3
PSY	1160	African American Psychology OR	
PSY	1180	Psychology of Gender	3
PSY	2200	Life Span Human Development	3
PSY	2220	Personality Psychology	3
PSY	2225	Social Psychology	3
PSY	2217	Abnormal Psychology	3
PSY	2XXX	200 Level PSY Course	3
SCC	1101	First Year Experience	1
	XXXX	Associate of Arts Electives*	8
	XXXX	Multicultural Elective*	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	6
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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SINCLAIR
COMMUNITY COLLEGE

Social Work

Program Code: SWKE.S.AA Total Semester Credit Hours 60-62

Description

The associate of arts degree is for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. Social Work is designed for students who are planning to transfer to a four- year university in social work or a related field. 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.

BIO	1111/1117	General Biology I & Lab	4
BIO	1211/1217	General Biology II & Lab	4
COM	2206	Interpersonal Communication	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PLS	1120	American Federal Government OR	
	2200	Political Life, Systems & Issues	3
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC		Ohio Transfer Module: Sociology Elective	3
SOC	1101	Introduction to Sociology	3
SWK	1206	Introduction to Social Work	3
SWK	1213	Introduction to Social Welfare	3
SWK	2207	Cultural Competence in a Diverse World	3
		Modern Language	6-8
		Ohio Transfer Module: Arts & Humanities Elective	6
		Ohio Transfer Module: Math	3

Sociology

Program Code: SOC.S.AA • Total Semester Credit Hours 60

Description

The Associate of Arts in Liberal Arts and Sciences is designed for students who are planning to transfer to a four-year college or university and pursue baccalaureate degree programs such as education, English, geography, history, modern languages, philosophy, political science, psychology, social work, sociology, etc. The Associate of Arts in Liberal Arts & Sciences Sociology emphasis is designed for students who are planning to transfer to a four-year university in sociology or a related field. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and univerisities. In addition, this degree will fulfill the requrements for the Ohio Transfer Module* at other Ohio public colleges and universities.

BIS	1120	Computer Concepts & Applications	3
COM	XXXX	Communication Elective (Any COM course)	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
SOC	1115	Sociology of Marriage & Family	3
SOC	1160	Sociology of Aging	3
SOC	2205	Social Problems	3
SOC	2215	Race & Ethnicity	3
SOC	1145	Intro to Cultural Anthropology	3
	XXXX	Associate of Arts Electives*	6
	XXXX	Ohio Transfer Module*: Math	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	6
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	8
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Theatre Performance

Program Code: THEP.S.AA • Total Semester Credit Hours 61-62

Description

This degree is designed as a university-parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on student development and performance training. Classroom theory is applied in a multiple-performance theatre season. Students must pass theatre major courses at a grade of C or better to move to the next course.

Career Opportunities

The faculty and staff are a group of actors, designers, choreographers and directors with professional theatre experience. This knowledge and experience guides our curriculum planning in the areas within the performance degree. As a two-year program, we focus our curriculum on basics needed for performance. Based on survey results from guest directors as well as with input from the professional actors, directors and designers on our own faculty, we modify our courses to address the basic skills students will need to be successful in the field of theatre. The faculty and production team work together to ensure students are applying what they learn in the classroom to their production work. This creates career opportunities in multiple capacities within the theatrical field, including performance.

Accreditation

Sinclair's Theatre department is accredited by the National Association of Schools of Theatre (NAST).

COM	2211	Effective Puble Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
LIT	XXXX	Ohio Transfer Module* Elective	3
MAT	1440	Excursions in Mathematics OR	3-4
MAT	1470	College Algebra	
THE	1105	Introduction to Theatre	3
THE	1106	Stagecraft	2
THE	1107	Lab for Stagecraft	1
THE	1108	Voice & Speech for the Actor	3
THE	1109	Movement for the Actor	3
THE	1111	Acting I	3
THE	1112	Acting II	3
THE	1194	Applied Theatre Technology I	2
THE	1196	Applied Theatre Technology II	1
THE	1199	Applied Theatre Performance	1
THE	2201	Theatre History I	3
THE	2202	Theatre History II	3
THE	2206	Script Analysis	3
THE	2113	The Audition Process	3
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	6
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Theatre Technology

Program Code: THET.S.AA • Total Semester Credit Hours 62-63

Description

This degree is designed as a university-parallel program for students to transfer to four-year institutions. This comprehensive and intense degree is focused on student development and performance training. Classroom theory is applied in a multiple performance theatre season. Students must pass Theatre major courses at a grade of C or better to move to the next course.

Career Opportunities

The faculty and staff are a group of actors, designers, choreographers and directors with professional theatre experience. This knowledge and experience guides our curriculum planning in the areas within the Theatre Technology degree. As a two-year program, we focus our curriculum on basics needed for technical theatre. Based on survey results from guest directors as well as with input from the professional technicians, directors, and designers on our own faculty, we modify our courses to address the basic skills students will need to be successful in the field of theatre. The faculty and production team work together to ensure students are applying what they learn in the classroom to their production work. This creates career opportunities in multiple capacities within the theatrical field.

Accreditation

Sinclair's Theatre Department is accredited by the National Association of Schools of Theatre (NAST).

COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
LIT		Ohio Transfer Module Elective	3
MAT	1440	Excursion in Mathematics OR	
	1470	College Algebra	3-4
THE	1105	Introduction to Theatre	3
THE	1106	Stagecraft & Lab	2
THE	1107	Lab for Stagecraft	1
THE	1111	Acting I	3
THE 1116/1117		Stage Lighting & Lab	3
THE 1118/1119		Costume Fundamentals & Lab	3
THE	1194	Applied Theatre Technology I	2
THE	1196	Applied Theatre Technology II	2
THE	2201	Theatre History I	3
THE	2202	Theatre History II	3
THE	2206	Script Analysis	3
THE	2220	Theatre Portfolio	2
THE	2240	Stage Management	3
THE	2296	Applied Theatre Technology IV	2
	XXXX	Ohio Transfer Module: Natural/ Physical Sciences	6
	XXXX	Ohio Transfer Module: Social/Behavioral Sciences Elective	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

University Parallel Associate of Science (AS)

Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Associate of Science (AS)
Program Code: LA.S.AS • Total Semester Credit Hours 60

Description

The associate of science 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, geology, mathematics, physics and pre-professional programs , i.e. medicine, pharmacy, etc. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. In addition, this degree will fulfill the requirements for the Ohio Transfer Module* at other Ohio public colleges and universities.

Career Opportunities
Students could work in the Emphasis Area of choice as a support person in Research and Development (R&D) or related industry.

COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1470	College Algebra	4
SCC	1101	First Year Experience	1
XXXX		Associate of Sciences Electives*	10
XXXX		Multicultural Elective*	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	9
XXXX		Ohio Transfer Module*: Natural &Physical Sciences Elective	12
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	12

Biology
Program Code: BIO.S.AS • Total Semester Credit Hours 60

Description

The sssociate of science in biology is designed for students who are planning to transfer to a four-year college or university and pursue a baccalaureate degree program in biology. 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.

Career Opportunities
Biology is an ever-growing field of occupations that includes medical pharmaceutical, and biological research. These areas are among the fastest growing fields in the world.

BIO	1171	Principles of Biology I	5
BIO	1272	Principles of Biology II	5
CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
CHE	2111	Organic Chemistry I	5
CHE	2121	Organic Chemistry II	5
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	2270	Calculus & Analytic Geometry I	4
MET	1131	Personal Computer Applications for Engineering Technology	1
SCC	1101	First Year Experience	1
XXXX		Multicultural Elective*	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	6
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Business Administration

Program Code: BUS.S.AS • Total Semester Credit Hours 67

Description

This university parallel program is designed for the student who wants to pursue a baccalaureate degree at a four-year institution in a business discipline. The purpose of the degree program is to provide the basic core of business and general education requirements for the first two years of a four-year program.

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
ENG	1131	Business Communications	3
ENG	1201	English Composition II	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MAN	2150	Organizational Behavior	3
MAT	2160	Calculus for Business & Economics	5
MAT	2170	Business Statistics I	4
MAT	2180	Business Statistics II	3
MRK	2101	Principles of Marketing Management	3
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	6
XXXX		Ohio Transfer Module*: Natural & Physical Sciences Elective	6
XXXX		Ohio Transfer Module*: Social & Behavioral Science Elective	3

Chemistry

Program Code: CHE.S.AS • Total Semester Credit Hours 61

Description

The associate of science chemistry emphasis is designed for students who are planning to transfer to a four-year college or university and pursue a baccalaureate degree program in chemistry. 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.

Career Opportunities

Students could work in the emphasis area of choice as a support person in Research and Development (R&D) or a related industry specific to chemistry.

CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
CHE	2111	Organic Chemistry I	5
CHE	2121	Organic Chemistry II	5
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication OR	
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	2270	Calculus & Analytic Geometry I	5
MAT	2280	Calculus & Analytic Geometry II	5
MAT	2290	Calculus & Analytic Geometry III	5
MET	1131	Personal Computer Applications for Engineering Technology	1
SCC	1101	First Year Experience	1
XXXX		Multicultural Elective*	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	6
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Engineering University Transfer

Program Code: ESUP.S.AS • Total Semester Credit Hours 63

Description

The engineering university transfer, associate of science program is for the student who plans to transfer to a four-year college or university for a degree in engineering. This program is designed to bring an entering student up to the level of a third-year university student in engineering. 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 different courses. The student who wishes to earn an associate degree 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 Science, Math & Engineering.

See an academic advisor for assistance in selecting electives toward your major and acceptability by the receiving transfer institution.

CHE	1211	General Chemistry I	5
COM	2211	Effective Public Speaking	3
EGR	1101	Introductory Mathematics for Engineering Applications	4
EGR	XXXX	Engineering Elective	12
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	2270	Calculus & Analytic Geometry I	5
MAT	2280	Calculus & Analytic Geometry II	5
PHY	2201	General Physics I	5
	XXXX	Ohio Transfer Module*: Arts &Humanities Elective	9
	XXXX	Ohio Transfer Module*: Social & Behavioral Science Elective	9

Engineering Electives

BIO	1141	Principles of Anatomy & Physiology I	4
CHE	1221	General Chemistry II	5
EET	1131	Digital Electronics	5
EET	2252	Advanced Digital Circuits	3
EGR	2261	Engineering Problem Solving using "C" & C++	4
MAT	2290	Calculus & Analytic Geometry III	5
MAT	2310	Elementary Differential Equations	4
MAT	2320	Linear Algebra	3
MAT	2330	Differential Equations & Linear Algebra	5
MEE	2101	Statics for Engineers	3
MEE	2201	Thermodynamics for Engineers	3
MEE	2301	Strength of Materials for Engineers	3
MEE	2401	Dynamics for Engineers	3
PHY	2202	General Physics II	5
PHY	2210	Problem Solving using MAT LAB	2

Mathematics

Program Code: MAT.S.AS • Total Semester Credit Hours 62

Description

The associate of science in mathematics is designed for students who are planning to transfer to a four-year college or university and pursue a baccalaureate degree program in mathematics. 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.

Career Opportunities

Students could work as a support person in Research and Development (R&D) or a related industry.

COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication OR	
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	2270	Calculus & Analytic Geometry I	5
MAT	2280	Calculus & Analytic Geometry II	5
MAT	2290	Calculus & Analytic Geometry III	5
MAT	2310	Elementary Differential Equations	4
MAT	2320	Linear Algebra	3
MET	1131	Personal Computer Applications for Engineering Technology	1
SCC	1101	First Year Experience	1
	XXXX	Multicultural Elective*	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	9
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	8
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	9

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

Physical Education/Sport & Recreational Management

Program Code: PED.S.AA • Total Semester Credit Hours 66

Description

This program is designed for students seeking physical education 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 students for a career in sports pedagogy, the teaching of physical education pre-K through 12. Students complete the two-year degree and transfer, continuing with the requirements needed to obtain their teaching license. The track in Sport and Recreation Management provides two years of a solid foundation in sport related business. It also contains a Coaching short-term certificate. Course work includes facility management, sport promotion, coaching and 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.

Career Opportunities

The degree with a track in Physical Education needs to transfer to a four-year program to complete the requirements to become a physical education teacher. Once the four-year degree is complete, the major responsibilities are teaching health and/or physical education classes during the day. Coaching is another duty that may be part of the teaching responsibility. The track in Sport and Recreation Management gives the student a variety of options. The student could work in sports information, promotions, ticket sales, media relations, event management, tournament planning and marketing and facility management. Some careers will require a baccalaureate degree.

BIO	1121	Human Anatomy and Physiology I (PED Track) OR	
GLG	1101	General Geology I (Sports Management Track)	3
BIO	1222	Human Anatomy and Physiology II (PED Track) OR	
GLG	1201	General Geology II (Sports Management Track)	3
COM	2206	Interpersonal Communication	3
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1110	First Aid & CPR	2
ENS	1118	Lifetime Physical Fitness & Wellness	3
ENS	2419	Health Promotion, Fitness & Sport Programming	3
ENS	2471	Exercise, Nutrition & Sports Science Practicum	2
ENS	XXXX	ENS Concentration of Track	18
HIS	1111	Western Civilization I	3
HIS	1112	Western Civilization II	3
PED	XXXX	PED Elective	2
PSY	1100	General Psychology	3
MAT	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	OMT Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Science Elective	3

ENS Concentration of Track

Physical Education Electives

DIT	1111	Nutrition for Health & Fitness	3
ENS	1112	Introduction to Physical Education	3
ENS	1214	Personal & Community Health Behavior	3
ENS	2312	Basic Athletic Training	3
ENS	2316	Motor Development & Motor Learning	3
ENS	2412	Integration of Physical Education for Elementary Educators	3

Sport and Recreation Management Electives

ENS	1114	Introduction to Sport & Recreation Management	3
ENS	1212	Fundraising & Sport Budgeting	3
ENS	2314	Sport Promotions	3
ENS	2414	Foundations of Coaching	3
ENS	2415	Coaching & Leadership	3
MAN	1107	Foundations of Business	3

PED Elective
Any PED Course

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Career Programs

Career programs are degree programs that prepare students to enter a particular job or vocational area. These career-oriented programs that allow you to receive an associate of applied science (A.A.S.). These academic options were not specifically designed to transfer to four-year colleges and universities, but many credits still may be transferred to another school.

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Accounting

Program Code: ACC.S.AAS • Total Semester Credit Hours 68

Description

Accountants prepare, analyze, and verify financial reports, and monitor information systems that furnish this information to management. Business executives, bankers, government leaders, and investors all rely on financial statements and other reports prepared by accountants that summarize and interpret 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 who complete the accounting program can qualify to sit for the CPA exam in Ohio after completing a few additional courses and a qualifying exam as determined by the Ohio Board of Accountancy.

Career Opportunities

Employment opportunities in addition to accounting firms, exist in private business and industry as well as not-for-profit and governmental organizations. Positions available to graduates include staff accountant, cost accountant, payroll accountant, auditor, tax accountant, and financial analyst.

Accreditation

This program is fully accredited by the Association of Collegiate Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
ACC	1510	Computerized Accounting Systems	3
ACC	1220	Introduction to Managerial Accounting	3
ACC	2101	Intermediate Accounting I	3
ACC	2102	Intermediate Accounting II	3
ACC	2211	Cost Accounting	3
ACC	2212	Managerial Accounting & Finance	3
ACC	2321	Federal Taxation	3
ACC	2435	Auditing	3
ACC	XXXX	Accounting Elective	3
BIS	1410	Business Software Applications	3
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MAT	1460	Finite Mathematics for Business Analysis OR	
MAT	1470	College Algebra	4
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Accounting Electives

ACC	2322	Advanced Taxation	3
ACC	2510	Advanced Accounting	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
MAN	2110	Introduction to Project Management	3
MAN	1106	Introduction to Radio Frequency Identification	1
MAN	1110	International Business	3
MRK	2145	Principles of Retailing	3
LAW	1102	Consumer Law	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

American Sign Language Interpreting for the Deaf

Program Code: ASL.S.AAS • Total Semester Credit Hours 72-73

Description

The American Sign Language Interpreting for the Deaf (ASLID) program provides the unique opportunity for students to develop a solid foundation in language, linguistics, culture and interpretation and to master the skills necessary to successfully serve as professional interpreter for deaf, hard of hearing, and deaf-blind individuals in a variety of educational and community settings. Students will gain rich insights into the American deaf community, their beliefs, values, history, rights and cultural norms.

Career Opportunities

Employment opportunities are available in areas such as educational, community interpreter referral agencies, business, medical, legal, theatrical, governmental and religious interpreting settings.

Accreditation

This program holds accreditation by the Ohio Department of Education. Graduates are eligible to apply for the Interpreter for the Hearing Impaired Five-Year Associate Licensure.

ASL	1101	Orientation to Deafness	2
ASL	1102	Interpreting Theory & Best Practices	3
ASL	1111	Beginning American Sign Language I	3
ASL	1112	Beginning American Sign Language II	3
ASL	1116	Community Resources for the Deaf	2
ASL	1228	Intermediate American Sign Language I	3
ASL	1229	Intermediate American Sign Language II	3
ASL	2201	Interpreting I	3
ASL	2202	Interpreting II	3
ASL	2207	Role of the Interpreter	2
ASL	2212	Specialized Interpreting	3
ASL	2231	Advanced American Sign Language I	3
ASL	2232	Advanced American Sign Language II	3
ASL	2236	Transliterating	3
ASL	2261	Practicum I	3
ASL	2262	Practicum II	3
ASL	2300	Educational Interpreting	3
BIO	1101	Body Structure & Function	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
PSY	1100	General Psychology	3
SOC	1129	Sociological Aspects of Deafness	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Architectural Technology

Program Code: ARC.S.AAS • Total Semester Credit Hours 72

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.

Career Opportunities

Graduates are employed as drafters for architectural firms, inspectors and project managers in the construction industry. Many opportunities exist in the building materials and assemblies sales and supply area.

CAT	1101	Architectural Drafting	3
CAT	1121	Introduction to Revit	3
CAT	1201	Construction Methods & Materials	5
CAT	1211	Construction Materials Testing	2
CAT	1241	Building Structural Systems	3
CAT	1401	Construction Estimating	3
CAT	2101	CAD Design in Revit	5
CAT	2111	Building Mechanical & Electrical Systems	3
CAT	2201	Revit Integration	1
CAT	2401	Engineering Technology Project Management	3
CAT	2411	Building Codes & Construction Law	3
CAT	2700	Civil Architectural Technology Internship	2
CAT	2741	Current Topics in Architecture	2
CAT	2780	Architectural Technology Capstone	4
COM	2211	Effective Public Speaking	3
EGV	1301	Architectural Energy Analysis	2
EGV	2351	LEED Green Associate Exam Preparation	2
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	2711	Ethics for Engineering Technology Professionals	1
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Automation & Control Technology with Robotics

Program Code: AMCT.S.AAS • Total Semester Credit Hours 66

Description

The Automation and 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.

Career Opportunities

This program prepares graduates for control system technician and designer, electrical and electronic systems engineering technician, industrial equipment sales, purchasing, installation, and service, industrial maintenance technician, maintenance/troubleshooting, manufacturing technician, plant maintenance technician, non-HVAC, prototyping and research, retrofitting/upgrading, or robotic and non-robotic system integration engineering technician.

COM	2211	Effective Public Speaking	3
EET	1120	Introduction to D.C & A.C. Circuits	2
EET	1139	Electrical Machinery	3
EET	1166	Industrial Machine Wiring	2
EET	1198	Digital Technology	2
EET	2281	Programmable Logic Controllers	3
EET	2282	Advanced Programmable Logic Controllers	3
EGR	1128	Robotics in Computer Integrated Manufacturing	3
EGR	1144	Sensors & Vision Systems	4
EGR	1217	Fluid Power & Control	2
EGR	2231	Troubleshooting of Automated Systems	3
EGR	2244	Automation & Control Devices	3
EGR	2252	Teach Pendant Robot Programming	2
EGR	2270	Engineering Internship OR	
EGR	XXXX	EGR Elective	3
EGR	2278	Automation & Control Capstone	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1101	Introduction to Engineering Drafting	2
MET	1201	Introduction to Engineering Design using Inventor	2
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Engineering Electives

EGR	2250	Electromechanical Repair	4
EGR	2261	Engineering Problem Solving using "C" & C++"	4
EGR	2215	Control Systems	3
EGR	2256	Automated Data Acquistion Systems	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Automotive Technology

Program Code: AUT.S.AAS • Total Semester Credit Hours 70

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 and business operations is a component of the program.

Career Opportunities

Graduates are finding excellent employment opportunities existing in dealerships, independent service facilities, machine shops and other automotive businesses. Graduates may also find employment as automotive instructors or sales, service and parts managers.

Accreditation

The Sinclair Automotive Technology program is master certified by the National Automotive Technicians Education Foundation (NATEF). NATEF was founded as an independent, nonprofit organization with a single mission: To evaluate technician training programs against standards developed by the automotive industry. Since 1983, the NATEF process has resulted in certified automotive training programs in all 50 states at the secondary and post-secondary levels.

AUT	1102	Introduction to Automotive Service	2
AUT	1111	Automotive Management	2
AUT	1114	Automotive Electrical/Electronics Systems I	3
AUT	1115	Automotive Engine Performance I	4
AUT	1116	Automotive Steering & Suspension Systems	3
AUT	1142	Automotive Manual Transmission & Driveline	3
AUT	1146	Automotive Heating & Air Conditioning Systems	3
AUT	1165	Automotive Brake Systems	3
AUT	2214	Automotive Electrical/Electronic Systems II	4
AUT	2215	Automotive Engine Performance II	4
AUT	2241	Automatic Transmission Systems	4
AUT	2250	Automotive Service Operations	7
AUT	XXXX	AUT Elective	2
AUT	1108	Automotive Engine Systems	4
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3
PHY	1106	Physics for Technology	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Automotive Electives

AUT	1100	Basic Automotive Systems	2
AUT	1170	Automotive Internship I	2
AUT	2221	High Performance Engine Blocks & Heads	6
AUT	2222	High Performance Engine Assembly & Dyno Testing	6
AUT	2224	High Performance Fuel Induction Systems	5
AUT	2226	High Performance Fabrication	4
AUT	2230	Hybrid Electric Vehicle Systems	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Automotive Technology (Chrysler CAP)

Program Code: **CAP.S.AAS** • Total Semester Credit Hours 68

Description

Fully accredited by the National Automotive Technicians Education Foundation, the associate of applied science in the College Automotive Program (CAP) provides training for students aspiring to become automotive technicians for Chrysler, Dodge and Jeep dealerships. Specific Chrysler training is presented to apprentice student technicians as they apply learned content to a co-op work experience. Students attend classes for half a semester and then apprentice at a Chrysler sponsoring dealership the other half. Students are paid for work rendered during the co-op experience. Upon graduation, students will receive hundreds of hours of official Chrysler training credits that are recorded in the corporation's training database. Graduates should be 85% to 90% trained towards meeting the certification requirements for a Chrysler Master Technician. Graduates will also receive an Associate of Applied Science from Sinclair along with a job opportunity from the sponsoring dealer.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in Chrysler, Dodge and Jeep dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

Accreditation

The Sinclair Automotive Technology program is master certified by the National Automotive Technicians Education Foundation (NATEF). NATEF was founded as an independent, nonprofit organization with a single mission: To evaluate technician training programs against standards developed by the automotive industry. Since 1983, the NATEF process has resulted in certified automotive training programs in all 50 states at the secondary and post-secondary levels.

AUT	1102	Introduction to Automotive Service	2
AUT	1111	Automotive Management	2
AUT	1114	Chrysler Electrical/Electronic Systems I	3
AUT	1115	Chrysler Engine Performance I	4
AUT	1116	Chrysler Steering & Suspension Systems	3
AUT	1142	Chrysler Manual Transmission & Driveline	3
AUT	1146	Chrysler Heating & Air Conditioning Systems	3
AUT	1165	Chrysler Brake Systems	3
AUT	1170	Automotive Internship I	2
AUT	1171	Automotive Internship II	2
AUT	1172	Automotive Internship III	2
AUT	1173	Automotive Internship IV	2
AUT	2214	Chrysler Electrical/Electronic Systems II	4
AUT	2215	Chrysler Engine Performance II	4
AUT	2241	Chrysler Automatic Transmissions	4
AUT	1108	Chrysler Engine Systems	4
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Mathematics for Technologist	3
PHY	1106	Physics for Technology	3
SOC	1101	Introduction to Sociology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Automotive Technology (GM ASEP)

Program Code: ASEP.S.AAS • Total Semester Credit Hours 68

Description

Fully accredited by the National Automotive Technicians Education Foundation, the associate of applied science in General Motors Automotive Service Educational Program (ASEP) provides training for students aspiring to become automotive technicians for General Motors dealerships or AC Delco independent shops. Specific General Motors training is presented to apprentice student technicians as they apply learned content to a co-op work experience. Students attend classes for half a semester and then apprentice at a GM/AC Delco sponsoring dealership the other half. Students are paid for work rendered during the co-op experience. Upon graduation, students will receive hundreds of hours of official General Motors training credits that are recorded in the corporation's training database. Graduates should be 85 to 90% trained towards meeting the certification requirements for a GM Master Technician. Graduates will also receive an Associate of Applied Science from Sinclair along with a job opportunity from the sponsoring dealer.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in General Motors dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

Accreditation

The Sinclair Automotive Technology program is master certified by the NATEF (National Automotive Technicians Education Foundation). NATEF was founded as an independent, nonprofit organization with a single mission: To evaluate technician training programs against standards developed by the automotive industry. Since 1983, the NATEF process has resulted in certified automotive training programs in all 50 states at the secondary and post-secondary levels.

AUT	1102	Introduction to Automotive Service	2
AUT	1111	Automotive Management	2
AUT	1114	General Motors Electrical/Electronic Systems I	3
AUT	1115	General Motors Engine Performance I	4
AUT	1116	General Motors Steering & Suspension Systems	3
AUT	1142	General Motors Manual Transmission & Driveline	3
AUT	1146	General Motors Heating & Air Conditioning Systems	3
AUT	1165	General Motors Brake Systems	3
AUT	1170	Automotive Internship I	2
AUT	1171	Automotive Internship II	2
AUT	1172	Automotive Internship III	2
AUT	1173	Automotive Internship IV	2
AUT	2214	General Motors Electrical/Electronic Systems II	4
AUT	2215	General Motors Engine Performance II	4
AUT	2241	General Motors Automatic Transmissions	4
AUT	1108	General Motors Engine Systems	4
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Automotive Technology (Honda PACT)

Program Code: UTHA.S.AAS • Total Semester Credit Hours 69

Description

The Honda Professional Automotive Career Training program (PACT) is fully accredited by the National Automotive Technicians Education Foundation. This associate of applied science program provides training for students aspiring to become Honda/Acura dealership technicians. Students receive specific Honda technical training resulting in training, credits/certifications from the corporation. These credits/certifications help a student secure employment with a Honda/Acura dealership.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in Honda/Acura dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

Accreditation

The Honda PACT program is master certified by National Automotive Technicians Education Foundation (NATEF).

AUT	1102	Introduction to Automotive Service	2
AUT	1108	Honda Engine Systems	4
AUT	1111	Automotive Management	2
AUT	1114	Honda Electrical/Electronic Systems I	3
AUT	1115	Honda Engine Performance I	4
AUT	1116	Honda Steering & Suspension	3
AUT	1142	Honda Manual Transmission & Driveline	3
AUT	1146	Honda Heating & Air Conditioning	3
AUT	1165	Honda Brake System	3
AUT	2214	Honda Electrical/Electronics II	4
AUT	2215	Honda Engine Performance II	4
AUT	2241	Honda Automatic Transmissions	4
AUT	2250	Automotive Service Operations	7
AUT	XXXX	AUT Elective	2
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Mathematics for Technologist	3
PHY	1106	Physics for Technology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Automotive Electives

AUT	1100	Basic Automotive Systems	2
AUT	1170	Automotive Internship I	1-4
AUT	2221	High Performance Engine Blocks & Heads	7
AUT	2222	High Performance Engine Assembly & Dyno Testing	7
AUT	2224	High Performance Fuel Induction Systems	5
AUT	2226	High Performance Fabrication	4
AUT	2230	Hybrid Electric Vehicle Systems	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Aviation Maintenance Technology

Program Code: AVIAO.S.AAS • Total Semester Credit Hours 68-72

Description

This program leads to an associate of applied science in Aviation Maintenance Technology and provides the knowledge and skills required by the Federal Aviation Administration (FAA) for certification as an aviation maintenance technician. The student receives training and knowledge for General Aviation Maintenance as well as Airframe and Powerplant Aviation Maintenance through options for either or both. The student, having completed this course work, would have the background and skills and would be eligible to test for FAA certification as an aviation maintenance technician. The student can either continue towards a bachelor's degree in aviation science (or related field) or can begin a career as an aviation maintenance technician specializing in airframe maintenance, powerplant maintenance, or as an Airframe and Powerplant (A&P) maintenance technician (with the addition of the required FAA certifications).

Career Opportunities

Boeing Commercial Aircraft Company recently predicted 1,000,000 more jobs in aviation in the next 15 years. Airbus of Europe has predicted about 800,000 more jobs in the next 15-20 years. Both predictions are based on anticipated growth in aircraft production and flying passengers. Many mechanics will reach retirement age in the next three years as a result of an interruption of current certificates issued by the FAA. More jet aircraft means more need for mechanics. The general aviation sector already has a shortage of certificated mechanics.

AVT	1113	Drawings for Aviation	3
AVT	1116	Regulations for Maintenance	3
AVT	1118	Weight & Balance	3
AVT	1131	Basic Aviation Electricity	3
AVT	1135	Materials & Processes	4
AVT	1213	Corrosion	3
AVT	2143	Review & Recommendation	2
AVT	2237	Aircraft Inspections	3
AVT	XXXX	Airframe/Powerplant Elective	27-31
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3
MET	1131	Personal Computer Applications for Engineering Technology	1
PHY	1106	Physics for Technology	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Aviation Electives

AVT	1106	Airframe Safety Systems	2
AVT	1107	Fuel Systems	3
AVT	1128	Powerplant Safety Systems	3
AVT	1133	Instruments/Communications	3
AVT	1136	Sheet Metal	4
AVT	1214	Cabin Atmospheric Control	2
AVT	1218	Utility Systems	6
AVT	2121	Assembly & Rigging	3
AVT	2122	Ignition & Starting	4
AVT	2126	Reciprocating Engines	7
AVT	2129	Propellers	4
AVT	2132	Airfame Electrical Systems	4
AVT	2138	Engine Fuel & Fuel Metering	3
AVT	2139	Induction/Exhaust/Cooling	2
AVT	2219	Turbine Engines	4
AVT	2236	Non-Metallic Structures	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Aviation Technology

Program Code: AVIAT.S.AAS • Total Semester Credit Hours 62-71

Description

This program leads to an associate of applied science in Aviation Technology. The student, having completed this course work, would have the background and skills to enter the aviation industry or continue towards a bachelor's degree in aviation science (or related field).

Career Opportunities

Career opportunities are available in airline and corporate aviation, aerospace engineering and aviation management.

AVT	1105	Orientation to Aviation	2
AVT	1119	Aviation Meteorology	2
AVT	1140	Introduction to Business Aviation	2
AVT	1141	Principles of Aviation Leadership	2
AVT	1245	Aviation Law	2
AVT	2125	Developments in Aviation	2
AVT	2146	Introduction to Airline Operations	3
AVT	2240	Human Factors in Aviation	3
AVT	2242	Aircraft Accident Investigation	3
AVT	2700	Aviation Internship	2
AVT	XXXX	Aviation Lower Level Elective	1-4
AVT	XXXX	Aviation Lower Level Elective	1-4
AVT	XXXX	Aviation Lower Level Elective	1-4
AVT	XXXX	Aviation Upper Level Elective	1-3
AVT	XXXX	Aviation Upper Level Elective	1-3
AVT	XXXX	Aviation Upper Level Elective	1-3
AVT	XXXX	Aviation Upper Level Elective	1-3
AVT	XXXX	Aviation Upper Level Elective	1-3
AVT	XXXX	Aviation Upper Level Elective	1-3
COM	2206	Interpersonal Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1131	Personal Computer Applications for Engineering Technology	1
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Aviation Lower Level Electives

AVT	1101	Introduction to UAS	2
AVT	1102	Orientation to In-Flight Services	2
AVT	1110	Private Pilot Ground School	3
AVT	1124	Private Pilot Flight Lab	1
AVT	1148	AirCrew Emergency Management	4
AVT	1151	Crew Survival & Rescue Techniques	3
AVT	1170	Instrument Pilot Ground School	3
AVT	1241	Blind Flying Hazards	1
AVT	1246	Air Traffic Control Communications	1
AVT	1254	Flight Simulator Instruction	1

Aviation Upper Level Electives

AVT	2157	Aircraft Performance I	2
AVT	2158	Aircraft Performance II	2
AVT	2159	Candair Regional Jet Aircraft Systems	1
AVT	2167	Instrument Flight Rules Navigation & Planning	2
AVT	2211	Advanced Navigation Science	2
AVT	2247	Aerodynamics & Flight Mechanics	3
AVT	2250	Commercial Pilot Ground	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Aviation Technology Professional Pilot & Airway Science

Program Code: APPAO.S.AAS • Total Semester Credit Hours 65

Description

This is the primary path in the Aviation Technology program which leads to an associate of applied science in Aviation Technology. This option under the primary program is designed for students who want to pursue a career as a professional pilot. The student, having completed this course work, would have the background and skills to enter the aviation industry as a professional pilot or continue towards a bachelor's degree in aviation science (or related field).

Career Opportunities

Career opportunities are available in airline and corporate aviation.

AVT	1105	Orientation to Aviation	2
AVT	1110	Private Pilot Ground	3
AVT	1119	Aviation Meteorology	2
AVT	1141	Principles of Aviation Leadership	2
AVT	1170	Instrument Pilot Ground	3
AVT	1224	Instrument Pilot Flight Lab	1
AVT	1254	Flight Simulator Instruction	1
AVT	1241	Blind Flying Hazards	1
AVT	2146	Introduction to Airline Operations	3
AVT	2211	Advanced Navigation Science	2
AVT	2240	Human Factors in Aviation	3
AVT	2242	Aircraft Accident Investigation	3
AVT	2247	Aerodynamics & Flight Mechanics	3
AVT	2250	Commercial Pilot Ground	2
AVT	2266	Multi Engine Flight Lab	1
AVT	2269	Flight Instructor Flight Lab	1
AVT	2700	Aviation Internship	2
AVT	1124	Private Pilot Flight Lab	1
AVT	2258	Flight Instructor Ground	4
AVT	2263	Commercial Pilot Flight Lab	3
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1131	Personal Computer Applications for Engineering Technology	1
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Biotechnology

Program Code: BTN.S.AAS • Total Semester Credit Hours 64

Description

The associate of applied science in biotechnology provides a full range of courses to prepare students for entry-level positions in the biotechnology field. The academic 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.

With advances in molecular and cellular biology, the biotechnology industry has expanded in scope to include human diagnoses and therapeutics, agricultural and veterinary applications, food production and environmental cleanup.

Career Opportunities

 This degree program prepares graduates to enter the biotechnology workforce as entry-level technicians and conduct a variety of basic and advanced laboratory techniques used in biomedical research.

BIO	1107	Human Biology	3
BIO	1111	General Biology I	4
BIO	1211	General Biology II	4
BIS	1120	Computer Concepts & Applications	3
BTN	1110	Biotechnology & Bioethics	3
BTN	1120	Laboratory Safety & Regulatory Compliance	2
BTN	1130	Biological Reagents Preparation	3
BTN	1140	Cell Culture	2
BTN	1201	Biotechnology Careers	2
BTN	2210	Protein Purification & Analysis	4
BTN	2220	Microbiology & Fermentation Methods	3
BTN	2230	Molecular Biology Techniques	4
CHE	1111	Introduction to Chemistry I	4
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1470	College Algebra	4
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Business Information System

Program Code: BIS.S.AAS • Total Semester Credit Hours 62

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.

Career Opportunities

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

Accreditation

This program is fully accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Association (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1250	Desktop Publishing Software	1
BIS	1240	Presentation Software	2
BIS	1400	Customer Service	3
BIS	1300	Keyboarding & Document Formatting II	2
BIS	2170	Office Simulation	3
BIS	2270	Business Information Systems Internship	2
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1230	Spreadsheet Software	3
BIS	1260	Database Software	3
BIS	2140	Records Management	2
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Math	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts &Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Business Information Systems/Medical Office

Program Code: BIMO.S.AAS • Total Semester Credit Hours 64

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.

Career Opportunities

Employment opportunities include medical office receptionists, secretaries, billing/insurance clerks, and medical office administrators in physician's offices, urgent care centers, managed care organizations, laboratories, nursing homes and hospitals.

Accreditation

This program is fully accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Association (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1240	Presentation Software	2
BIS	1300	Keyboarding & Document Formatting II	2
BIS	1400	Customer Service	3
BIS	2180	Medical Office Simulation	3
BIS	2270	Business Informaiton Systems Internship	2
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1230	Spreadsheet Software	3
BIS	1260	Database Software	3
BIS	2140	Records Management	2
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
HIM	1101	Medical Terminology	2
HIM	1160	Medical Office Coding Concepts	1
LAW	1101	Business Law	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Math	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts &Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Business Information Systems/Personal Computer Applications
Program Code: BIPCA.S.AAS • Total Semester Credit Hours 63

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. Courses in this program will develop students' skills in computer application software, troubleshooting software and operating systems.

Career Opportunities

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

Accreditation

This program is fully accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Association (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1400	Customer Service	3
BIS	2270	Business Information Systems Internship	2
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1230	Spreadsheet Software	3
BIS	1260	Database Software	3
BIS	2140	Records Management	2
CIS	1107	Introduction to Operating Systems	3
CIS	1714	A+ Operating Systems Troubleshooting OR	
CIS	2717	A+ Certification IT Technician	3
CIS	2309	Cascading Style Sheets	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Math	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Business Management

Program Code: GBM.S.AAS • Total Semester Credit Hours 67-68

Description

This program emphasizes preparation for a wide variety of management related positions. It is designed to provide a balance in technical business education along with general education courses while providing a considerable choice of electives and alternatives. Opportunities for managers include supervision, office managers, management trainees, assistant managers and owners within a variety of settings, including small and medium-size businesses, corporations, industries, non-profit organizations and governmental agencies.

Career Opportunities

Students completing this degree can expect to be prepared to work as supervisors or entry-level managers in retail, manufacturing and medium and small businesses.

Accreditation

This program is fully accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
ENG	1131	Business Communications	3
ENG	1201	English Composition II	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MAN	1110	International Business	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MAN	2155	Management Information Systems	3
MAN	2279	Business Capstone OR	
MAN	2270	Management Internship	2-3
MAN	XXXX	Management Elective OR	
MRK	XXXX	Marketing Elective	3
MAT	1260	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Management Electives

ENT	2140	Small Business Finance	3
ENT	2160	Business Plan Development	3
MAN	1106	Introduction to Radio Frequency Identification	1
MAN	2110	Introduction to Project Management	3
MAN	2140	Human Resources Management	3
MAN	1157	Management Applications of Radio Frequency Identification Technology	2
MAN	2159	Supply Chain Management Concepts & Applications	3
MAN	2144	Negotiation Techniques	3

Marketing Electives

MRK	2220	Solutions Studio	3
MRK	2135	Digital Marketing	3
MRK	2145	Principles of Retailing	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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SINCLAIR
COMMUNITY COLLEGE

Business Management/Entrepreneurship
Program Code: ENTR.S.AAS • Total Semester Credit Hours 71

Description

This area of concentration within the management degree program prepares existing or potential entrepreneurs in a wide variety of small business functions. In addition to general education courses and traditional management courses, the following key areas are emphasized: opportunities for entrepreneurs, financial plan development, marketing plan development and complete business plan development.

Career Opportunities

Students completing this degree can expect to be prepared to begin their own businesses or to work in larger companies in an entrepreneurial role.

Accreditation

This program is fully accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
ENG	1131	Business Communications	3
ENG	1201	English Composition II	3
ENT	2140	Small Business Finance	3
ENT	2160	Business Plan Development	3
LAW	1101	Business Law	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MAN	2159	Supply Chain Management Concepts & Applications	3
MAN	1107	Foundations of Business	3
MAN	XXXX	Management Elective OR	
MRK	XXXX	Marketing Elective	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
MRK	2220	Solutions Studio	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Management Electives

MAN	1106	Introduction to Radio Frequency Identification	1
MAN	1157	Management Applications of Radio Frequency Identification Technology	2
MAN	2110	Introduction to Project Management	3
MAN	2140	Human Resources Management	3
MAN	2144	Negotiation Techniques	3

Marketing Electives

MRK	2135	Digital Marketing	3
MRK	2145	Principles of Retailing	3
MRK	2225	Sales Fundamentals	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Business Management/Supply Chain Management

Program Code: SCM.S.AAS • Total Semester Credit Hours 71-72

Description

The Business Management Supply Chain Management (SCM) concentration provides a 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-customer 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.

Career Opportunities

SCM specialists have opportunities for management positions at all levels in virtually every type of business, throughout small and medium-sized businesses, corporations, industries, nonprofit organizations and government agencies.

Accreditation

This program is fully accredited by the Accreditation Council for Collegiate Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
LAW	1101	Business Law	3
MAN	1106	Introduction to Radio Frequency Identification	1
MAN	1110	International Business	3
MAN	2110	Introduction to Project Management	3
MAN	2144	Negotiation Techniques	3
MAN	2150	Management & Organizational Behavior	3
MAN	2155	Management Information Systems	3
MAN	2159	Supply Chain Management Concepts & Applications	3
MAN	1107	Foundations of Business	3
MAN	2270	Management Internship OR	
MAN	2279	Business Capstone	2-3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
OPT	2251	Supply Chain Operations & Logistics	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Civil Engineering Technology

Program Code: CEGT.S.AAS • Total Semester Credit Hours 73

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. A strong background in basics of architectural and civil construction and in-depth study of advanced topics such as surveying, construction management and structural analysis prepares students to produce and use construction documents and perform basic design and analysis. The curriculum is designed to maximize articulation to four-year programs emphasizing civil engineering technology and construction engineering technology.

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.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700.

CAT	1101	Architectural Drafting	3
CAT	1121	Introduction to Revit	3
CAT	1201	Construction Methods & Materials	5
CAT	1211	Construction Materials Testing	2
CAT	1401	Construction Estimating	3
CAT	1501	Construction Surveying	3
CAT	2401	Engineering Technology Project Management	3
CAT	2421	Soil Mechanics	3
CAT	2501	Introduction to GIS & GPS	2
CAT	2531	Advanced Surveying & Drafting	4
CAT	2561	Advanced Construction Surveying	2
CAT	2700	Civil Architectural Technology Internship	1
CAT	2781	Civil Engineering Technology Capstone	4
COM	2211	Effective Public Speaking	3
EGV	2351	LEED Green Associate Exam Preparation	2
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	1161	Advanced Analytical Tools for Engineering Technology	1
MET	2201	Statics	3
MET	2251	Strength of Materials	3
MET	2711	Ethics for Engineering Technology Professionals	1
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Computer Aided Manufacturing/CNC Technology
Program Code: CAMCT.S.AAS • Total Semester Credit Hours 68

Description

Course work includes tool and manufacturing processes, computers in engineering technology, quality control and CNC applications. Facilities and equipment rank among the best in the nation, with more than four million dollars in conventional machining equipment and computer numerical control machines for laboratory use by students.

Career Opportunities

Careers are available for CNC Operators, Programmers and Process Improvement Specialists.

CAM	1107	Principles of Manufacturing	3
CAM	1109	Fundamentals of Tooling & Machining	3
CAM	1213	Fundamentals of Computer Numerical Control	4
CAM	1141	Shop Floor Calculations I	3
CAM	1142	Shop Floor Calculations II	3
CAM	2114	Jig & Fixture Design	3
CAM	2145	Shop Floor Programming	3
CAM	2204	Computer Numerical Control Lathe Programming	3
CAM	2212	Computer Assisted Programming	3
CAM	2225	Tool Design	3
CAM	2780	Computer Aided Manufacturing Capstone	3
CAM	2214	Advanced Computer Numerical Control	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1270	Beginning Algebra	3
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	2205	Manufacturing Processes	3
OPT	2240	Six Sigma: Green Belt	3
OPT	1100	Tooling & Machining Metrology	2
OPT	1113	Coordinate Measurement	3
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Natural & Physical Sciences Elective	3
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Computer Aided Manufacturing/Precision Machining
Program Code: CAMPM.S.AAS • Total Semester Credit Hours 73

Description

Graduates of the Project STEP II certificate program are candidates for completion of this two-year associate degree option in Computer Aided 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.

Career Opportunities

Graduates of this program will be qualified for positions as manual machine operators and computer numerical control operators.

CAM	1107	Principles of Manufacturing	3
CAM	1213	Fundamentals of Computer Numerical Control	4
CAM	1141	Shop Floor Calculations I	3
CAM	1161	Machine Operations Laboratory I	8
CAM	2114	Jig & Fixture Design	3
CAM	2145	Shop Floor Programming	3
CAM	2204	Computer Numerical Control Lathe Programming	3
CAM	2212	Computer Assisted Programming	3
CAM	2225	Tool Design	3
CAM	2780	Computer Aided Manufacturing Capstone	3
CAM	1142	Shop Floor Calculations II	3
CAM	1162	Machine Operations Laboratory II	8
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1270	Beginning Algebra	3
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	1100	Tooling & Machining Metrology	3
OPT	1101	Introduction to Operations	3
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Natural & Physical Sciences Elective	3
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Computer Information Systems/Microsoft Security Specialist

Program Code: MSSC.S.AAS • Total Semester Credit Hours 69-70

Description

Students are prepared in logical problem solving, designing and documenting programs, network administration, network and operating systems and hardware, with an emphasis on system and network security. Security concepts that are vendor independent and are applicable to all aspects of security are stressed.

Career Opportunities

Employment opportunities in IT include entry-level positions such as security specialists, security analyst and network or systems administrators.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1510	Windows Client Operating System	3
CIS	2165	Database Management	3
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3
CIS	2510	Microsoft Server Operating System	3
CIS	2515	Windows Network Infrastructure	3
CIS	2520	Windows Directory Services Administration	3
CIS	2630	Securing Windows Network Environment	3
CIS	2640	Network Security	3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Computer Information Systems/Network Engineering
Program Code: NEEN.S.AAS • Total Semester Credit Hours 66-67

Description

Students learn Cisco routing protocols, troubleshooting the routing protocols, components, methods and technologies required for network and Internet communications, operation of IP addressing services, network security threats and functions of common security appliances and applications, wireless network standards and components, basic switching concepts, operation of Cisco switches, Virtual Local Area Networks (VLANs) to create logically separate networks. Sinclair is a Regional Cisco Academy.

Career Opportunities

Employment opportunities in IT include entry-level positions such as network administrators, network security analysts and network engineers.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1411	Cisco Network Fundamentals	3
CIS	2165	Database Management	3
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3
CIS	2416	Cisco Routing Protocols & Concepts	3
CIS	2421	Cisco Switching & Wireless Routing	3
CIS	2426	Cisco Accessing the Wire Area Network (WAN)	3
CIS	2640	Network Security	3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Computer Information Systems/Network Manager
Program Code: NEMA.S.AAS • Total Semester Credit Hours 66-67

Description

Students are prepared in logical problem solving, designing and documenting programs, network administration, microcomputer and network operating systems, network security. Students learn to manage and configure computers using both client and server operating systems including Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS) and Active Directory.

Career Opportunities

Employment opportunities in IT include entry-level positions such as network administrators, network security analysts and network engineers.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1510	Windows Client Operating System	3
CIS	2165	Database Management	3
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3
CIS	2510	Microsoft Windows Server Operating System	3
CIS	2515	Windows Network Infrastructure	3
CIS	2520	Windows Directory Services Administration	3
CIS	XXXX	CIS Elective	3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Computer Information Systems Electives

CIS	2530	Windows Application Infrastructure	3
CIS	2535	Windows Server Enterprise Administrator	3
CIS	2630	Securing a Windows Network Environment	3
CIS	2635	Microsoft SQL Server Administrator	3
CIS	2640	Network Security	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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Computer Information Systems/Software Development
Program Code: SODE.S.AAS • Total Semester Credit Hours 66-67

Description

Students learn software programming and system design for entry-level software development positions. Students are prepared in logical problem solving, designing and documenting programs, network administration, microcomputer and network operating systems and business applications using current computer languages.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts and network engineers.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1202	C++ Software Development I	3
CIS	2165	Database Management	3
CIS	2170	Computer Information Services Internship OR	
CIS	2178	Computer Information Services Capstone	2-3
CIS	2207	C ++ Software Development II	3
CIS	2212	Java Software Development I	3
CIS	2217	Java Software Development II	3
CIS	2222	C# Software Development	3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Computer Information Systems/User Support
Program Code: USSU.S.AAS • Total Semester Credit Hours 66-67

Description

Students learn hardware and software troubleshooting, personal computer and system maintenance, documentation and are prepared in logical problem solving, designing and documenting programs, computer and network operating systems and business applications using current computer languages.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts and network engineers.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1510	Windows Client Operating System	3
CIS	1714	A+ Operating Systems Troubleshooting	3
CIS	2165	Database Management	3
CIS	2711	Enterprise Desktop Support Technician	3
CIS	2717	A+ Certification IT Technician	3
CIS	2560	Fundamentals of Linux Security OR	
CIS	2640	Network Security	3
CIS	2170	Computer Information Services Internship OR	
CIS	2178	Computer Information Services Capstone	2-3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Computer Information Systems/Web Development

Program Code: WEDE.S.AAS • Total Semester Credit Hours 66-67

Description

Students design and develop websites and web applications and are prepared in logical problem solving, designing and documenting programs, microcomputer and network operating systems and business applications using current computer languages.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts and network engineers.

Accreditation

This degree is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1304	Web Site Development with HTML/JavaScript	3
CIS	2165	Database Management	3
CIS	2222	C# Software Development	3
CIS	2309	Cascading Style Sheets	3
CIS	2314	Web Programming with Hypertext Preprocessor (PHP)	3
CIS	2319	Extensible Markup Language (XML)	3
CIS	2170	Computer Information Services Internship OR	
CIS	2178	Computer Information Services Capstone	2-3
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Construction Management Technology
Program Code: CMO.S.AAS • Total Semester Credit Hours 73

Description
Construction Management 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.

Career Opportunities
Graduates may find employment as craftsperson, surveyor, estimator, inspector and project manager with residential, commercial and governmental agencies.

CAT	1101	Architectural Drafting	3
CAT	1121	Introduction to Revit	3
CAT	1201	Construction Methods & Materials	5
CAT	1211	Construction Materials Testing	2
CAT	1241	Building Structural Systems	3
CAT	1401	Construction Estimating	3
CAT	1501	Construction Surveying	3
CAT	2111	Building Mechanical & Electrical Systems	3
CAT	2401	Engineering Technology Project Management	3
CAT	2411	Building Codes & Construction Law	3
CAT	2431	OSHA Construction Standards	2
CAT	2531	Advanced Surveying & Drafting	4
CAT	2700	Civil Architectural Technology Internship	2
CAT	2782	Construction Management Technology Capstone	4
CAT	XXXX	Construction Elective	2
COM	2111	Effective Public Speaking	3
EGV	2351	LEED Green Associate Exam Preparation	2
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	2711	Ethics for Engineering Technology Professionals	1
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Construction Electives

CAT	1141	Architectural Blueprint Reading	2
CAT	1701	Construction Craft Skills /Concrete	6
CAT	1721	Structural Framing Systems	6
CAT	1741	Residential Electrical Systems	3
CAT	1761	Interior & Exterior Finishes	3
CAT	1781	Construction Project	4
CAT	1810	Construction Techniques I	3
CAT	1820	Construction Techniques II	3
CAT	1830	Construction Techniques III	3
CAT	1840	Construction Techniques IV	3
CAT	2561	Advanced Construction Surveying	2
CAT	2581	Legal Principles for Surveyors	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Criminal Justice Science/Corrections

Program Code: CJCO.S.AAS • Total Semester Credit Hours 70-71

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 criminal justice 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.

Career Opportunities

Employment is available in the corrections field as correctional officers, security guards, county probation and parole officers, positions in commercial, school, and private security organizations, and correctional treatment specialists.

BIS	1120	Computer Concepts & Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1105	Criminal Law	3
CJS	1110	Interrogation, Documentation, & Testimony	3
CJS	1165	Corrections	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2145	Correctional Case Management	3
CJS	2205	Introduction to Criminal Investigations & Forensic Science	3
CJS	2295	Criminal Justice Science Seminar	4
CJS	2130	Terrorism & Counter-Terrorism	3
CJS	2200	Human Relations, Mediation, & Conflict Resolution	3
CJS	XXXX	Criminal Justice Elective	3
COM	2206	Interpersonal Communication OR	3
COM	2211	Effective Public Speaking	
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
MAT	1120	Business Math OR	3
MAT	1270	Beginning Algebra	
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
SPA	1161	Conversational Spanish for Criminal Justice	3
BIO	1107	Human Biology OR	3-4
CHE	1111	Introduction to Chemistry I OR	
PHY	1100	Introduction to Physics	
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Criminal Justice Electives

CJS	1125	Policing	3
CJS	1155	Homeland Security Issues & Administration	3
CJS	2209	Computer Crime	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Criminal Justice Science/Law Enforcement
Program Code: CJLE.S.AAS • Total Semester Credit Hours 67-68

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 skill sets and perform well on civil service exams for promotions.

Career Opportunities

Employment is available in the private detective and investigation areas, police and detectives, deputies, highway patrol, private personal protection, gaming surveillance, claims adjusters and appraisers.

BIS	1120	Computer Concepts & Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1104	Criminal Evidence & Procedure	3
CJS	1125	Policing	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2209	Computer Crime	3
CJS	2295	Criminal Justice Science Seminar	4
CJS	1105	Criminal Law	3
CJS	1110	Interrogation, Documentation & Testimony	3
CJS	2200	Human Relations, Mediation & Conflict Resolution	3
CJS	2205	Introduction to Criminal Investigations & Forensic Science	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
MAT	1120	Business Math OR	3
MAT	1270	Beginning Algebra	
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
SPA	1161	Conversational Spanish for Criminal Justice	3
BIO	1107	Human Biology OR	3-4
CHE	1111	Introduction to Chemistry I OR	
PHY	1100	Introduction to Physics	
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Cyber Investigation Technology
Program Code: CYIT.S.AAS • Total Semester Credit Hours 71

Description

The Cyber Investigation Technology degree will prepare students for careers and transfer degrees in the areas of computer network protection, managing networks and operating systems, and IT criminal investigation, which includes evidence procedures and computer forensics. The degree incorporates preparation for industry-recognized certifications, articulated credit for law enforcement and corrections entities, and transfer students for four-year degree transfer opportunities.

Career Opportunities

Job titles include but are not limited to: Intelligence Analyst, IT Specialist (Government Breakout Codes 2210), Systems Administrator, Network Engineer, Information System Security Manager, Cyber Security Incident Response Specialist and Private Investigator.

BIS	1120	Computer Concepts & Applications	3
CIS	1107	Introduction to Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	2550	Linux Operating System	3
CIS	2717	A+ Certification IT Technician	3
CIS	2808	Introduction to Computer Forensics	3
CIS	2165	Database Management	3
CIS	2640	Network Security	3
CJS	1102	Constitutional Law	3
CJS	1104	Criminal Evidence & Procedure	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2209	Computer Crime	3
CJS	2295	Criminal Justice Science Seminar	4
COM	2225	Small Group Communication	3
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
MAN	2150	Management & Organizational Behavior	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Dental Hygiene

Program Code: DEH.S.AAS • Total Semester Credit Hours 72

Description

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

This program, accredited by the Commission on Dental Accreditation, is designed to be completed in five (5) semesters on a full-time basis. The general education courses may be taken prior to admission to the program. A cumulative GPA of 2.5 is required to be considered for admission and a grade of C or higher is required in all program courses. Students can apply to the dental hygiene program by completing a Life & Health Sciences application, which can be found at: http://www.sinclair.edu/academics/lhs/index.cfm

Career Opportunities

Career options may vary according to state practice act restrictions. Dental hygienists have a variety of career opportunities in a wide range of employment settings, including private practice, hospitals, HMO's, community health programs, long-term care facilities, school systems, dental product research, marketing and sales, military bases, universities and research centers.

Accreditation

The Dental Hygiene program is fully accredited by the Commission on Dental Accreditation through the American Dental Association. American Dental Association 211 East Chicago Ave. Chicago, IL 60611-2678 (312)-440-2500.

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1141	Principles of Anatomy & Physiology I	4
BIO	1242	Principles of Anatomy & Physiology II	4
BIO	2205	Microbiology	4
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
DEH	1102	Introduction to Dental Hygiene	1
DEH	1202	Head, Neck & Dental Anatomy	3
DEH	1204	Dental Hygiene Instrumentation I	4
DEH	1206	Nutrition & Oral Health	2
DEH	1302	Dental Hygiene Instrumentation II	4
DEH	1304	Oral Histology & Embryology	1
DEH	1305	Medical Emergencies In Dental Practice	1
DEH	1306	General & Oral Pathology	3
DEH	1308	Dental Radiology	3
DEH	2402	Clinical Dental Hygiene I	1
DEH	2403	Dental Hygiene Clinic I	1
DEH	2405	Computer Applications in Dentistry	1
DEH	2502	Pharmacology & Pain Control in Dental Practice	3
DEH	2504	Dental Hygiene Research	2
DEH	2506	Dental Materials	2
DEH	2508	Clinical Dental Hygiene II	2
DEH	2509	Dental Hygiene Clinic II	3
DEH	2601	Community Dental Health	1
DEH	2602	Clinical Dental Hygiene III	1
DEH	2603	Dental Hygiene Clinic III	3
DEH	2604	Dental Hygiene Practice	1
ENG	1101	English Composition I	3
MAT	1130	Allied Health Math	3
PSY	1100	General Psychology	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Dietetic Technician

Program Code: DIT.S.AAS • Total Semester Credit Hours 72

Description

Graduates of the Dietetic Technician (DIT) program are trained food and nutrition practitioners that work under the supervision of a registered dietitian. As an integral member of the health care and foodservice management teams, they influence food choices and lifestyles to promote optimal health. The program consists of five major domains that include clinical, community, education, management and foodservice systems. The curriculum includes 470 hours of unpaid directed practice. Students are required to complete these experiences at area community, foodservice and health care facilities. The program is designed to be completed in five (5) full-time consecutive semesters. Some students elect to attend on a part-time basis, extending the length of study to three academic years. To enroll in dietetic technician classes, an individual must be accepted into the DIT program. An overall grade point average of 2.0 is a requirement of admission and must be maintained in order to continue in the program. A grade of C is required in all dietetic and mandatory general education courses. A cumulative grade point average of at least C (2.0) is required for graduation. The graduate is eligible to take the National Credentialing Exam to become a Dietetic Technician, Registered (DTR). Students must submit a Life & Health Science (LHS) application electronically. LHS applications are found at http://www.sinclair.edu/academics/lhs/index.cfm. Following LHS application submission, applicants will receive a DIT Applicant Information Packet outlines admission requirements into the DIT program.

Career Opportunities

Dietetic technicians, registered work independently or in teams with registered dietitians in a variety of employment settings, including health care (hospitals, nursing homes, retirement centers, home health care programs), foodservice (schools, day-care

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Dietetic Technician continued

centers, correctional facilities, restaurants, health care facilities, corporations and hospitals), community/public health (public health agencies, health clubs, weight management clinics and community wellness centers) and business and industry (food companies, food vending and distributing operations).

Accreditation

The DIT program is fully accredited by the Academy on Nutrition and Dietetics (AND), Accreditation Council on Education for Nutrition and Dietetics (ACEND). It is also approved by the Association of Nutrition and Food Professionals (ANFP).

ALH	1101	Introduction to Healthcare Delivery	2
CHE	1111	Introduction to Chemistry I	4
CHE	1121	Introduction to Chemistry II	4
COM	2206	Interpersonal Communication	3
DIT	1105	Introduction to Dietetics	1
DIT	1210	Medical Terminology for Dietetics	1
DIT	1525	Human Nutrition	3
DIT	1630	Nutrition in the Life Cycle	3
DIT	1635	Community Nutrition	3
DIT	2240	Education Methods & Materials	2
DIT	2305	Food, Culture, & Cuisine	3
DIT	2510	Institutional Foodservice Systems	3
DIT	2515	Foodservice Practicum I	1
DIT	2520	Laboratory for Foodservice Systems	1
DIT	2625	Medical Nutrition Therapy I	3
DIT	2630	Medical Nutrition Therapy Practicum I	3
DIT	2735	Foodservice Organization & Management	3
DIT	2740	Foodservice Practicum II	1
DIT	2845	Medical Nutrition Therapy II	3
DIT	2850	Medical Nutrition Therapy Practicum II	3
DIT	2855	Dietetics Seminar	1
DIT	XXXX	Dietetics Elective	1
ENG	1101	English Composition I	3
HMT	1101	Basic Culinary Skills	2
HMT	1107	Food Safety & Sanitation	2
HMT	1112	Food Principles & Basic Preparation	4
MAT	1130	Allied Health Math OR	
MAT	1270	Beginning Algebra	3
PSY	1100	General Psychology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Dietetics Electives

DIT	1143	Healthy Cooking	1
DIT	2101	Eating Matters for Dining Assistants	1
DIT	2860	Credentialing Exam Review	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Early Childhood Education
Program Code: ECE.S.AAS • Total Semester Credit Hours 70-71

Description

This program provides the knowledge, skills and competencies important to an entry-level teacher working with, or planning to work with, young children. The program includes the academic preparation required by the Ohio Department of Education to meet PreKindergarten Associate Teacher Licensure standards. 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, Central State University, or University of Cincinnati. Students interested in completing this degree program must have a full criminal background investigation completed before enrolling in the final practicum course.

Career Opportunities

Graduates may work as pre-kindergarten associate licensed teachers, childcare center directors, infant-toddler teachers, and paraprofessionals in public schools or as school age childcare coordinators.

COM	2211	Effective Public Speaking	3
ECE	1100	Introduction to Early Childhood Education	3
ECE	1101	Introductory Child Development	3
ECE	1200	Observation & Assessment	3
ECE	1201	Curriculum & Planning	3
ECE	2100	Language, Literacy, & Interaction with Young Children	3
ECE	2101	Creative Experiences	3
ECE	2102	Math & Science Experiences	3
ECE	2200	Families, Communities & Schools	3
ECE	2201	Guidance of Young Children	3
ECE	2202	Teaching Techniques	3
ECE	2300	Inclusion	3
ECE	2301	Early Childhood Education Practicum	4
EDU	XXXX	Education Elective	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1270	Beginning Algebra OR	
MAT	1410	Numerical Concepts for Teachers OR	
MAT	1120	Business Math	3-4
PSY	1100	General Psychology	3
SOC	1101	Introduction to Sociology	3
SOC	2215	Race & Ethnicity	3
	XXXX	Ohio Transfer Module*: Any Group	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	3
Education Electives			
EDU	1100	Introduction to Education	3
EDU	1103	Educational Technology	3
EDU	1105	Individuals with Exceptionalities	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Electronics Engineering Technology

Program Code: EET.S.AAS • Total Semester Credit Hours 71-72

Description

The Electronics Engineering Technology (EET) program provides students with exciting opportunities to put engineering concepts into practice. The curriculum balances instruction in theory with hands-on laboratory applications. A strong background in basics and in-depth study of advanced topics gives students careers in diversified areas, such as digital systems, microcomputers, programmable logic controllers, and analog systems. The program is TAC/ABET accredited and thereby assures quality education in modern state-of-the-art equipped laboratories and a highly qualified faculty. Those who wish to further their studies are well prepared for entry into the best four-year electronics engineering programs. Several articulation agreements exist between Sinclair's EET program and four-year colleges and universities.

Career Opportunities

Prepares graduates for careers in electronics technician troubleshooting with testing equipment and assisting engineers with design and fabrication.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

COM	2211	Effective Public Speaking	3
EET	1116	Electronics Schematics & Fabrication	4
EET	1131	Digital Electronics	5
EET	1150	D.C. Circuits	4
EET	1155	A.C. Circuits	4
EET	1164	PC Assembly	4
EET	2201	Electronic Devices & Circuits	5
EET	2259	Programming for Electronics Technology	4
EET	2261	Microprocessors	4
EET	2270	Electronics Engineering Technology Internship OR	
EET	XXXX	EET Elective	3-4
EET	2278	Electronics Project Capstone	4
EET	2281	Programmable Logic Controllers	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	6

Electronics Electives			EET
2157		RFID Technology	3
EET	2257	RFID Capstone	3
EET	2282	Advanced Programmable Logic Controllers	3
EET	2283	Fundamentals of Lasers	3
EET	2264	P.C. Troubleshooting & Repair	4
EET	2252	Advanced Digital Circuits	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Electronics Engineering Technology/Computer Engineering Technology

Program Code: CETT.S.AAS • Total Semester Credit Hours 71

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 prepares graduates with skills necessary to enter careers in installation, operation, application, maintenance and repair of existing computer systems and associated software. The Computer Engineering program assures quality education in state-of-the-art equipped laboratories and highly qualified faculty. Those who wish to further their studies are well prepared for entry into four-year Computer Engineering programs.

Career Opportunities

Graduates will be able to work in all areas having to do with computers from programming to engineering hardware installations, networking, troubleshooting and repair.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

CIS	1107	Introduction to Operating Systems	3
CIS	1130	Network Fundamentals	3
COM	2211	Effective Public Speaking	3
EET	1116	Electronics Schematics & Fabrication	4
EET	1131	Digital Electronics	5
EET	1150	D.C. Circuits	4
EET	1155	A.C. Circuits	4
EET	1164	PC Assembly	4
EET	2201	Electronic Devices & Circuits	5
EET	2261	Microprocessors	4
EET	2264	Advanced P.C. Troubleshooting & Repair	4
EET	2270	Electronics Engineering Technology Internship	3
EET	2278	Electronics Project Capstone	4
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
PHY	1131	Physics for Technology	3
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Emergency Medical Services

Program Code: EMSVS.S.AAS • Total Semester Credit Hours 70

Description

The Emergency Medical Services (EMS) degree is designed to augment the skills of the practicing paramedic. Paramedics are challenged with a variety of courses to increase their skill sets in areas of EMS management and out-of-hospital critical care medicine. Students will gain experience from currently practicing paramedics, fire fighters and managers. This degree allows students to capitalize on their paramedic education, positioning themselves for advancement within the fire service. Interested students should contact the EMS offices at (937) 512-5338 or contact an academic advisor.

Career Opportunities

Within the greater Miami Valley area, EMS professionals are hired by Fire departments, private EMS and hospitals. These agencies typically hire entry personnel based on the candidates state licensures / certifications – not whether the candidate is degreed. The associate degree can provide students with knowledge and skills needed to advance within an EMS career.

BIO	1107	Human Biology	3
COM	2206	Interpersonal Communication OR	3
COM	2211	Effective Public Speaking	
EMS	1150	Emergency Medical Technician: Lecture	5
EMS	1155	Laboratory for Emergency Medical Technician	2
EMS	2100	Applied Anatomy, Physiology & Pathophysiology for the EMS provider	3
EMS	2105	Paramedic 1: Lecture	2
EMS	2110	Paramedic 1: Laboratory	2
EMS	2125	Paramedic 2: Lecture	5
EMS	2130	Paramedic 2: Laboratory	2
EMS	2135	Paramedic 2: Clinical	1
EMS	2150	Paramedic 3: Lecture	5
EMS	2155	Paramedic 3: Laboratory	2
EMS	2160	Paramedic 3: Clinical	2
EMS	2175	Paramedic 4: Lecture	2
EMS	2180	Paramedic 4: Field Experience	1
EMS	2200	Paramedic 5: Integration / Refresher Lecture	2
EMS	2205	Paramedic 5: Integration / Refresher Laboratory	1
EMS	2300	Critical Care Paramedic 1	3
EMS	2305	Critical Care Paramedic 2	3
EMS	2310	EMS Management 1	3
EMS	2315	EMS Management 2	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math OR	3
MAT	1440	Excursions in Mathematics	
PED	XXXX	Physical Education Elective	1
PSY	1100	General Psychology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Physical Education Elective
Any PED Course

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Emergency Medical Services/Fire Science
Program Code: EMSFO.S.AAS • Total Semester Credit Hours 70

Description

The Emergency Medical Services (EMS) Fire Science option is designed to augment the skills of the practicing paramedic. Paramedics are challenged with a variety of courses to increase their skill sets in fire technical areas. Students will gain experience from currently practicing paramedics, fire fighters and managers. This degree allows students to capitalize on their paramedic education, positioning themselves for advancement within the fire service. Interested students should contact the EMS offices at (937) 512-5338 or contact an academic advisor.

Career Opportunities

Within the greater Miami Valley area, EMS professionals are hired by fire departments, private EMS and hospitals. These agencies typically hire entry personnel based on the candidate's state licensures/certifications—not whether the candidate is degreed. The associate degree can provide students with knowledge and skills needed to advance within an EMS career.

BIO	1107	Human Biology	3
COM	2206	Interpersonal Communication OR	3
COM	2211	Effective Public Speaking	
EMS	1150	Emergency Medical Technician: Lecture	5
EMS	1155	Laboratory for Emergency Medical Technic	2
EMS	2100	Applied Anatomy, Physiology & Pathophysiology for the EMS Provider	3
EMS	2105	Paramedic 1 Lecture	2
EMS	2110	Paramedic 1 Laboratory	2
EMS	2125	Paramedic 2: Lecture	5
EMS	2130	Paramedic 2: Laboratory	2
EMS	2135	Paramedic 2: Clinical	1
EMS	2150	Paramedic 3: Lecture	5
EMS	2155	Paramedic 3: Laboratory	2
EMS	2160	Paramedic 3: Clinical	2
EMS	2175	Paramedic 4: Lecture	2
EMS	2180	Paramedic 4: Field Experience	1
EMS	2200	Paramedic 5: Integration / Refresher Lecture	2
EMS	2205	Paramedic 5: Integration / Refresher Laboratory	1
ENG	1101	English Composition I	3
FST	1111	Fire Behavior & Combustion	3
FST	1112	Principles of Emergency Services	3
FST	1113	Fire Prevention	3
FST	2230	Principles of Fire & Emgergency Services	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math OR	
MAT	1440	Excursions in Mathematics	3
PED	XXXX	Physical Education Elective	1
PSY	1100	General Psychology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Physical Education Elective
Any PED Course

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Environmental Engineering Technology

Program Code: EVT.S.AAS • Total Semester Credit Hours 72

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.

Career Opportunities

This is an excellent career field for both men and women who are looking for nontraditional and challenging hands-on occupations. Graduates from this program can find employment opportunities around the world. Employers are governmental agencies such as OSHA and OEPA, as well as industrial firms charged with the responsibility to keep the environment clean.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

CAT	1501	Construction Surveying	3
CAT	2421	Soil Mechanics	3
CAT	2501	Introduction to GIS & GPS	2
CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
COM	2211	Effective Public Speaking	3
EGV	1501	Environmental Assessment & Analysis	3
EGV	1551	Water Treatment Analysis	3
EGV	2501	Waste Management	3
EGV	2551	Hydrology	3
EGV	2701	Environmental Engineering Technology Internship	2
EGV	2781	Environmental Engineering Technology Capstone	4
ENG	1101	English Composition I	3
FST	1555	HAZWOPER	3
HUM	1135	Environmental Ethics	3
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	1161	Advanced Analytical Tools for Engineering Technology	1
MET	2301	Fluid Mechanics	3
MET	2201	Statics	3
MET	2711	Ethics for Engineering Technology Professionals	1
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Exercise, Nutrition & Sport Sciences

Program Code: EXSC.S.AAS • Total Semester Credit Hours 70

Description

The Associate of Applied Science in Exercise Science is offered as a continuation of the Exercise Specialist certificate. This two-year degree gives students the opportunity to study in-depth principles and methods of fitness training and health promotion. Students have the opportunity to enter professional practice or transfer for completion of a baccalaureate degree.

Career Opportunities

Employment for the health fitness professional is expected to increase. Aging baby boomers, one group that is increasingly becoming concerned with staying healthy and physically fit, will be the main driver of employment growth. An additional factor is the combination of a reduction in the number of physical education programs in schools with parents' growing concern about childhood obesity. This factor will increase the need for health fitness professionals to work with children in nonschool settings, such as health clubs. Increasingly, parents also are hiring personal trainers for their children, and the number of weight-training gyms for children is expected to continue to grow. Businesses are also recognizing the benefits of health promotion and fitness programs for their employees. Health care reform and preventative medicine are other factors that are influencing growth.

Accreditation

CAAHEP (Commission on Accreditation for Allied Health Education Programs), CoAES (Committee on Accreditation for the Exercise Science). www.coaes.org, Personal Fitness.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1110	Principles of Electrocardiography	3
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
COM	2211	Effective Public Speaking	3
DIT	1111	Nutrition for Health & Fitness	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1110	First Aid & CPR	2
ENS	1116	Introduction to Exercise Science & Health Promotion	3
ENS	1118	Lifetime Physical Fitness & Wellness	3
ENS	1214	Personal & Community Health Behavior	3
ENS	2312	Basic Athletic Training	3
ENS	2316	Motor Development & Motor Learning	3
ENS	2318	Fitness Assessment & Exercise Prescription	3
ENS	2416	Certification Preparatory Course	3
ENS	2417	Methods of Teaching	3
ENS	2418	Exercise Prescription for Special Populations	3
ENS	2419	Health Promotion, Fitness & Sport Programming	3
ENS	2471	Practicum	2
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math	3
PED	1203	Strength Training	1
PED	XXXX	PED Elective	1
PSY	1100	General Psychology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Physical Education Electives
Any PED course

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Fire Engineering Technology
Program Code: FST.S.AAS • Total Semester Credit Hours 65-66

Description

This program provides a full range of courses that address fire protection engineering and safety issues. The program prepares students for careers in fire protection engineering, inspection, arson investigation, engineering design of early detection, warning and suppression systems, 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 workforce 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 or continue their education and obtain a bachelor's degree in fire engineering.

Career Opportunities

Employment is available in municipal fire protection, industrial fire safety occupations and fire safety organizations. Students also find employment in organizations that deal with fire protection systems design, fire risk assessment and fire protection equipment installation. Students can continue their education and obtain a bachelor's degree in the field of fire protection engineering technology.

CAT	1131	Introduction to Revit MEP	3
CHE	1111	Introduction to Chemistry I	4
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
FST	1111	Fire Behavior & Combustion	3
FST	1113	Fire Prevention OR	
FST	1120	Fire Safety Inspector	3-4
FST	2201	Fire Protection Hydraulics & Water Supply	3
FST	2202	Building Construction for Fire Protection	3
FST	2204	Fire Protection Systems	5
FST	2228	Human Behavior & Fire	3
FST	2260	Advance Concepts in Structural Fire Protection	3
FST	2270	Fire Science Internship	2
FST	XXXX	Fire Engineering Technology Elective	6
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1371	CAD Concepts Using AutoCAD	3
PHY	1100	Introduction to Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Fire Engineering Technology Electives

FST	1102	Firefighter I	6
FST	1103	Firefighter II Transition	5
FST	1112	Principles of Emergency Services	3
FST	1115	Fire Apparatus & Equipment	3
FST	1125	Fire Investigation I	3
FST	1126	Fire Investigation II	3
FST	1555	HAZWOPER	3
FST	2203	Hazardous Materials Chemistry	3
FST	2205	Fire Administration	3
FST	2206	Fire Strategy & Tactics	3
FST	2230	Principles of Fire &Emergency Services Safety & Survival	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Fire Science Technology/Fire Administration

Program Code: FAO.S.AAS • Total Semester Credit Hours 63-70

Description

This program provides the education and skills needed by the fire service professional to function in the emergency services field. Courses include administration, inspection, investigation, building construction, fire hydraulics and water suppression systems. Graduates are prepared to enter the workforce as firefighters, fire officers, investigators, inspectors, instructors, or continue their education in fire science or public administration.

Career Opportunities

In the next decade a majority of career fire service professionals with 25 plus years service will be retiring under the State of Ohio "Deferred Retirement Option Pension (D.R.O.P.)". Replacement employees will be needed to fill openings not only for entry-level positions, but promotions in the officer ranks as well.

Accreditation

The Firefighter I, II Fire Safety Inspector and Fire Instructor Classes are certification courses through the Ohio Department of Public Safety. Also Firefighter I and II, Fire Instructor I and Fire Officer I and II are accredited by the National Board on Fire Service Professional Qualifications.

BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
FST	1111	Fire Behavior & Combustion	3
FST	1113	Fire Prevention	3
FST	2201	Fire Protection Hydraulics & Water Supply	3
FST	2202	Building Construction for Fire Protection	3
FST	2204	Fire Protection Systems	5
FST	XXXX	FST Elective	21-28
MAN	2150	Management & Organizational Behavior	3
MAT	1270	Beginning Algebra	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Fire Engineering Technology Electives

FST	1102	Firefighter I	6
FST	1103	Firefighter II Transition	5
FST	1115	Fire Apparatus & Equipment	3
FST	1125	Fire Investigation I	3
FST	1126	Fire Investigation II	3
FST	1555	HAZWOPER	3
FST	2203	Hazardous Materials Chemistry	3
FST	2205	Fire Administration	3
FST	2206	Fire Strategy & Tactics	3
FST	2209	Fire Service Instructor	4
FST	2228	Human Behavior & Fire	3
FST	2230	Principles of Fire & Emergency Services Saftey & Survival	3
FST	2251	Fire Officer I	5
FST	2252	Fire Officer II	3
FST	2253	Fire Officer III	3
FST	2254	Fire Officer IV	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Health Information Management

Program Code: HIM.S.AAS • Total Semester Credit Hours 66

Description

Health Information Management (HIM) professionals are experts in the field of managing and protecting patient health information, administering computer information systems and coding the diagnoses and procedures for health care services provided to patients in accordance with medical, administrative, ethical, legal, accreditation and regulatory requirements of the health care delivery system. 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 curriculum includes a professional practice experience (PPE) in the last semester that provides students the opportunity to experience varying HIM environments at health care facilities. Students are expected to provide their own transportation to the PPE site and must be able to attend PPE during the day. A complete physical exam and specific immunizations are required at the student's expense prior to enrolling in the PPE course. Since many PPE sites also require a background check and/or other specific requirements, students must also complete these requirements at their own expense, if needed.

Students must submit a program-specific application to the HIM program, complete all required prerequisites and possess a grade point average (GPA) of 2.0 or above to be eligible for acceptance into the HIM program. There are two cohorts of students accepted each fall term. A limited number of students is accepted for the local cohort, which is defined as students who live in the 14-county area of Ohio/Indiana surrounding Sinclair. The HIM faculty must assign local cohort students to medical facilities for the completion of PPE. The remote cohort is defined as those students living outside of the 14-county area of Ohio/Indiana surrounding Sinclair. These students are responsible for securing appropriate medical facilities for the completion of PPE on their own with minimal assistance of the HIM faculty. Since remote

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

Health Information Management (HIM.S.AAS) continued

cohort students tend to live a far distance from Sinclair or in another state, a larger number of students is accepted into this cohort.

Several HIM courses are available prior to acceptance; however, the majority of HIM courses are only available for enrollment once students are accepted into the program. Upon acceptance to the program, it will take five consecutive terms to complete the program, no matter the number of required courses previously completed.

Students may enroll in face-to-face courses on campus or online courses available on the web or a combination of both. The face-to-face HIM courses on campus are only available during the day, Monday through Friday. All required courses in the HIM program are available online. However, students are most generally required to complete their Professional Practice Experience (clinical) during daytime business hours. An overall GPA of 2.0 must be maintained in order to continue through the program.

Upon successful completion of the HIM program, students are eligible to write the national certification exam to become a Registered Health Information Technician (RHIT). Students are responsible for the cost of the examination.

Career Opportunities

Employment prospects for health information management specialists are excellent throughout the nation. Positions are available in work place settings involved with acquisition and maintenance of patient health information. Many HIM graduates work in hospitals and clinics. Additional job opportunities include: ambulatory care centers, skilled nursing facilities, rehabilitation centers, long term care facilities, 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 and companies that market health information products and services.

Accreditation

The Health Information Management (HIM) program is fully accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

ALH	1140	Fundamentals of Disease Processes	3
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
BIS	1120	Computer Concepts & Applications	3
BIS	1221	Specialized Computer Applications for HIM	1
COM	2211	Effective Public Speaking OR	
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
HIM	1110	Health Information Processing	3
HIM	1165	Drug Classification for Coding	1
HIM	1201	Introductory Medical Office Coding	4
HIM	1204	Medicolegal & Ethics in Healthcare Records	2
HIM	1217	Alternative Health Records & Registries	3
HIM	2110	Ambulatory Coding	4
HIM	2144	Quality Improvement, Statistics & Research	3
HIM	2145	Health Information Resource Management	3
HIM	2165	Healthcare Data in Reimbursement	3
HIM	2211	Inpatient Coding	4
HIM	2233	Healthcare Information Systems	3
HIM	2252	Professional Practice Experience	2
HIM	2278	Health Information Management Capstone	1
MAT	1130	Allied Health Math OR	
MAT	1270	Beginning Algebra	3
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Heating, Ventilation, Air Conditioning & Refrigeration Engineering Technology

Program Code: HVACR.S.AAS • Total Semester Credit Hours 70

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 knowledge regarding proper system operation.

Career Opportunities

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.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

CAT	1111	Mechanical Systems Blueprint Reading	1
CAT	1131	Introduction to Revit MEP	3
COM	2211	Effective Public Speaking	3
EET	1120	Introduction to DC & AC Circuits	2
EET	1139	Electrical Machinery	3
ENG	1101	English Composition I	3
HVA	1201	Basic HVAC Systems with Cooling	3
HVA	1301	Air & Water Distribution Systems	4
HVA	1351	Building Psychrometrics & Load Calculations	4
HVA	1451	Testing, Adjusting & Balancing in HVAC Systems	3
HVA	2201	HVAC Systems	4
HVA	2251	Primary HVAC Equipment Operation & Selection	3
HVA	2301	HVAC Controls	4
HVA	2780	HVACR Engineering Technology Capstone Project	4
HVA	XXXX	HVACR Elective	6
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	2711	Ethics for Engineering Technology Professionals	1
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

HVACR Electives

EGV	1301	Architectural Energy Analysis	2
EGV	2351	LEED Green Associate Exam Preparation	2
HVA	1241	HVAC Installation Techniques & Practices	4
HVA	1401	HVAC Mechanical & Electrical Troubleshooting	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Hospitality Management & Tourism
Program Code: HMTT.S.AAS • Total Semester Credit Hours 70

Description

The Hospitality Management & Tourism program prepares students for entry-level positions in restaurants, hotels, resorts, convention and visitor centers, private clubs, meeting and event operations, catering businesses, health care foodservice operations and tourism centers and includes skills in supervision, cost controls, purchasing and human relations.

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 worldwide. 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 as front office managers, restaurant managers, convention services managers, assistant managers, meeting/event planners for corporate events, association/non-profit events, government events, suppliers, and event planning firms to name a few. Also career opportunities at car rental or travel agencies, tour operators, convention and visitors bureaus, hotels and the airline industry exist, to name a few of many types of positions in each area.

Accreditation

The program is accredited by the Accreditation Commission on Programs in Hospitality Administration (ACPHA) and is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP), both of which are specialized accreditations recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1125	Beverage Management	2
HMT	1136	Lodging Operations Management	3
HMT	1137	Hospitality Industry Computer Systems	2
HMT	1141	Destination Geography	3
HMT	1150	Meeting & Event Planning	3
HMT	2201	Food Service Equipment, Design & Maintenance	2
HMT	2215	Hospitality Cost Controls	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	2
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	3
HMT	2291	Hospitality Management & Tourism Co-op	3
HMT	2295	Hospitality Management & Tourism Capstone	3
MAT	1120	Business Math OR	
MAT	1470	College Algebra	3-4
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Foreign Language Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Language Electives
ASL	1111	Beginning American Sign Language I	3
CHN	1100	Conversational Chinese I	3
FRE	1100	Conversational French I	3
GER	1100	Conversational German I	3
JPN	1100	Conversational Japanese I	3
RUS	1100	Conversational Russian I	3
SPA	1100	Conversational Spanish I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Hospitality Management & Tourism/Culinary Arts

Program Code: CAO.S.AAS • Total Semester Credit Hours 73

Description

The culinary arts option program provides the basic knowledge the student needs to develop into a chef. The serving of good food is important to the reputation of any restaurant. Chefs and cooks are responsible for preparing meals that are pleasing to the eye and taste. Through this specialized program, students develop extensive skills and knowledge of food preparation and presentation. Students also gain an understanding of the duties and responsibilities of a chef and other culinary personnel.

Career Opportunities

Students completing the culinary concentration would find employment as a restaurant/banquet cook, short-order cook, fast food cook, private household cook, personal chef, food preparation worker, Sous chef, baker, pastry cook, pastry chef, galley cook, executive chef, executive pastry chef, research chef, corporate chef.

Accreditation

The Culinary Arts Option is accredited by the American Culinary Federation Education Foundation Accrediting Commission (ACFEFAC) and the Accreditation Council for Business Schools and Programs (ACBSP), both of which are specialized accreditations recognized by the Council on Higher Education

Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1110	Menu Planning & Table Service Practicum	3
HMT	1125	Beverage Management	2
HMT	1141	Destination Geography	3
HMT	1143	Organization of the Travel Product	3
HMT	1150	Meeting & Event Planning	3
HMT	2215	Hospitality Cost Controls	3
HMT	2225	Hospitality& Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	3
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	3
HMT	2291	Hospitality Management & Tourism Co-op	3
HMT	2295	Hospitality Management & Tourism Capstone	3
MAT	1120	Business Math OR	
MAT	1470	College Algebra	3-4
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Foreign Language Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Language Electives

ASL	1111	Beginning American Sign Language I	3
CHN	1100	Conversational Chinese I	3
FRE	1100	Conversational French I	3
GER	1100	Conversational German I	3
JPN	1100	Conversational Japanese I	3
RUS	1100	Conversational Russian I	3
SPA	1100	Conversational Spanish I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Hospitality Management & Tourism/Lodging

Program Code: HMTTL.S.AAS • Total Semester Credit Hours 70

Description

The Hospitality Management & Tourism/Lodging concentration program prepares students for entry- level positions in hotels/lodging organizations, resorts, convention and visitor centers, private clubs, meeting and event operations, catering businesses, health care foodservice operations and tourism centers and includes skills in supervision, cost controls, purchasing and human relations.

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 worldwide. 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 as front office managers, restaurant managers, convention services managers, assistant managers, meeting/event planners for corporate events, association/non-profit events, government events, suppliers, and event planning firms to name a few. Also career opportunities at car rental or travel agencies, tour operators, convention and visitors bureaus, hotels and the airline industry exist, to name a few of many types of positions in each area.

Accreditation

The program is accredited by the Accreditation Commission on Programs in Hospitality Administration (ACPHA) and is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP), both of which are specialized accreditations recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1125	Beverage Management	2
HMT	1136	Lodging Operations Management	3
HMT	1137	Hospitality Industry Computer Systems	2
HMT	1141	Destination Geography	3
HMT	1150	Meeting & Event Planning	3
HMT	2201	Food Service Equipment, Design & Maintenance	2
HMT	2215	Hospitality Cost Controls	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	2
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	3
HMT	2291	Hospitality Management & Tourism Co-op	3
HMT	2295	Hospitality Management & Tourism Capstone	3
MAT	1120	Business Math OR	
MAT	1470	College Algebra	3-4
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Foreign Language Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Language Electives

ASL	1111	Beginning American Sign Language I	3
CHN	1100	Conversational Chinese I	3
FRE	1100	Conversational French I	3
GER	1100	Conversational German I	3
JPN	1100	Conversational Japanese I	3
RUS	1100	Conversational Russian I	3
SPA	1100	Conversational Spanish I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Hospitality Management & Tourism/Meeting & Event Planning

Program Code: HMTTM.S.AAS • Total Semester Credit Hours 68

Description

The Hospitality Management & Tourism Meeting & Event Planning concentration program prepares students for entry-level positions in restaurants, hotels, resorts, convention and visitor centers, private clubs, meeting and event operations, catering businesses, health care foodservice operations and tourism centers and includes skills in event planning, supervision, cost controls, purchasing and human relations.

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 worldwide. 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 as front office managers, restaurant managers, convention services managers, assistant managers, meeting/event planners for corporate events, association/non-profit events, government events, suppliers, and event planning firms to name a few. Also career opportunities at car rental or travel agencies, tour operators, convention and visitors bureaus, hotels and the airline industry exist, to name a few of many types of positions in each area.

Accreditation

The program is accredited by the Accreditation Commission on Programs in Hospitality Administration (ACPHA) and is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP), both of which are specialized accreditations recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1110	Menu Planning & Table Service Practicum	3
HMT	1125	Beverage Management	2
HMT	1141	Destination Geography	3
HMT	1143	Organization of the Travel Product	3
HMT	1150	Meeting & Event Planning	3
HMT	2215	Hospitality Cost Controls	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	2
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	3
HMT	2291	Hospitality Management & Tourism Co-op	3
HMT	2295	Hospitality Management & Tourism Capstone	3
MAT	1120	Business Math OR	
MAT	1470	College Algebra	3-4
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Foreign Language Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Language Electives

ASL	1111	Beginning American Sign Language I	3
CHN	1100	Conversational Chinese I	3
FRE	1100	Conversational French I	3
GER	1100	Conversational German I	3
JPN	1100	Conversational Japanese I	3
RUS	1100	Conversational Russian I	3
SPA	1100	Conversational Spanish I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Hospitality Management & Tourism/Tourism
Program Code: HMTTT.S.AAS • Total Semester Credit Hours 68

Description

The Hospitality Management & Tourism/ Tourism Concentration prepares students for entry-level positions in hotels, resorts, convention and visitor centers, private clubs, meeting and event operations, convention and visitors bureaus, car rental agencies, airline and travel operators and tourism centers and includes skills in travel planning, booking travel for individuals and groups, supervision, cost controls, purchasing and human relations.

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 worldwide. 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 as front office managers, restaurant managers, convention services managers, assistant managers, meeting/event planners for corporate events, association/non-profit events, government events, suppliers, and event planning firms to name a few. Also career opportunities at car rental or travel agencies, tour operators, convention and visitors bureaus, hotels and the airline industry exist, to name a few of many types of positions in each area.

Accreditation

The program is accredited by the Accreditation Commission on Programs in Hospitality Administration (ACPHA) and is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP), both of which are specialized accreditations recognized by the Council on Higher Education Accreditation (CHEA).

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1140	Dimensions of Air Travel	3
HMT	1141	Destination Geography	3
HMT	1143	Organization of the Travel Product	3
HMT	1146	Air Travel Technology	3
HMT	1150	Meeting & Event Planning	3
HMT	2215	Hospitality Cost Controls	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	3
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	3
HMT	2291	Hospitality Management & Tourism Co-op	3
HMT	2295	Hospitality Management & Tourism Capstone	3
MAT	1120	Business Math OR	
MAT	1470	College Algebra	3-4
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Foreign Language Elective	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Science Elective	3

Language Electives

ASL	1111	Beginning American Sign Language I	3
CHN	1100	Conversational Chinese I	3
FRE	1100	Conversational French I	3
GER	1100	Conversational German I	3
JPN	1100	Conversational Japanese I	3
RUS	1100	Conversational Russian I	3
SPA	1100	Conversational Spanish I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Interior Design

Program Code: IND.S.AAS • Total Semester Credit Hours 68

Description

The program prepares students for careers in the creative, detail-oriented field of interior design. Students will develop the knowledge and technical skills necessary to design an interior. Developing floor plans and selecting and coordinating colors, floor and wall coverings are common tasks performed by interior designers. They also place furniture, fixture and cabinetry, and prepare drawings, cost estimates and contracts. Sustainability, building codes, the ADA and basic business practices are included, as well as the development of individual design portfolios.

Career Opportunities

Interior design graduates typically pursue careers as designers or consultants in design studios, architecture firms or commercial retailers. Some graduates choose to continue their education in design or a related field at a four-year institution.

Accreditation

Sinclair's Interior Design program is accredited by the National Association of Schools of Art and Design (NASAD).

ART	2230	Art History: Ancient Through Medieval Periods OR	
ART	2231	Art History: Renaissance through Contemporary Periods	3
CAT	1101	Architectural Drafting	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
GLG	1101	General Geology I OR	
PHY	1104	Sound, Light & Modern Physics	4
IND	1180	History of Interior Design	3
IND	1230	Residential Design	4
IND	1234	Materials & Textiles	3
IND	1240	Color Theory	3
IND	2130	Non-Residential Design	4
IND	2135	Rendering	3
IND	2140	Sustainable Design	4
IND	2260	Interior Design Portfolio	4
IND	XXXX	Interior Design Elective OR	3
IND	XXXX	Interior Design Internship OR	
IND	XXXX	IND Special Topics	
MAT	1120	Business Math OR	
MAT	1270	Beginning Algebra	3
MRK	2225	Sales Fundamentals OR	3
MRK	2145	Principles of Retailing	
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
VIS	1100	Design Basics	4
VIS	1110	Design Drawing	4
VIS	1140	Digital Design I	3

Interior Design Electives

ART	1101	2-D Foundations	3
ART	1102	3-D Foundations	3
ART	1106	Fine Art Sampler	3
ART	1111	Drawing I	3
ART	1141	Introduction to Ceramics	3
ART	1161	Black & White Darkroom Photography I	3
ART	2235	History of Photography	3
ART	2236	History of Women Artists	3
ART	2237	History of American Art	3
ART	2238	History of African Art	3
CAT	1121	Introduction to Revit	3
CAT	1141	Architectural Blueprint Reading	2
CAT	1201	Construction Methods & Materials	5
VIS	1180	History of Design	3
VIS	1208	Typography	4
VIS	1250	Print Production	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Mechanical Engineering Technology
Progran Code: MEGT.S.AAS • Total Semester Credit Hours 72

Description

The Mechanical Engineering Technology program provides the courses needed to begin a career as a technician in the engineering field. As a mechanical graduate, career options are open in a diverse number of fields and companies. Using state-of-the-art laboratory equipment, students will complete relevant and practical coursework taught by knowledgeable faculty.   The courses are non-calculus based, and electives can tailor the degree to an individual's needs. The Mechanical Engineering Technology degree transfers readily to four-year institutions offering Engineering Technology programs.

Career Opportunities

Graduates enter industry in entry-level positions doing conceptual design, systems engineering, manufacturing, or product research and development. Graduates who complete an ABET-accredited baccalaureate program are eligible to pursue registration as a professional engineer in many states by a process of national examination and documentation of experience.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

CAM	1109	Fundamentals of Tooling & Machining	3
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAN	2110	Introduction to Project Management	3
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1101	Introduction to Engineering Drafting	2
MET	1111	Preparatory Math for Engineering Technology	3
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	1161	Advanced Analytical Tools for Engineering Technology	1
MET	1201	Introduction to Engineering Design Using Inventor	2
MET	1241	Principles of Engineering	2
MET	1281	Engineering Design & Development	2
MET	2101	Thermodynamics	3
MET	2151	Material Science	3
MET	2201	Statics	3
MET	2251	Strength of Materials	3
MET	2301	Fluid Mechanics	3
MET	2351	Dynamics	3
MET	2401	Machine Design	3
MET	2711	Ethics for Engineering Technology Professionals	1
MET	2780	Mechanical Engineering Technology Capstone	4
MET	XXXX	MET Elective	3
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Mechanical Engineering Technology Electives

MET	1151	Guitar Manufacturing using STEM Concepts	3
MET	1301	Solidworks Basics	3
MET	1331	Unigraphics Basics	3
MET	1351	Solid Edge Basics	3
MET	1371	CAD Concepts using AutoCAD	3
MET	2700	Mechanical Engineering Technology Internship	1-4
PHY	1142	College Physics II	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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SINCLAIR
COMMUNITY COLLEGE

Medical Assistant Technology
Program Code: MAS.S.AAS • Total Semester Credit Hours 62

Description

Medical assistants are multi-skilled professionals who assist physicians with the administrative and clinical aspects of patient care. To enroll in the medical assistant technology classes, an individual must be accepted into the Medical Assistant Technology program. A grade of "C" is required in all medical assistant technology courses and the required general education courses in order 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 315 hours of unpaid practicum during their second year of the program. The graduate is eligible to take the National Certification Examination to become a Certified Medical Assistant (CMA).

Note: A complete physical examination and specific immunizations are required, at the student's expense, prior to enrolling in the practicum component of the curriculum.

Life & Health Sciences admission packets may be obtained by going online. To be accepted into the program, students must submit an application form.

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.

Accreditation

The Sinclair Community College's Medical Assistant Technology associate degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1140	Fundamentals of Disease Processes	3
ALH	2202	General Pharmacology	2
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
HIM	1201	Introductory Medical Office Coding	4
MAS	1101	Introduction to Medical Assisting	3
MAS	1102	Clinical Medical Assisting I	3
MAS	1103	Clinical Medical Assisting II	4
MAS	1110	Administrative Medical Assisting I	2
MAS	2201	Clinical Medical Assisting III	4
MAS	2202	Medical Assisting Capstone	1
MAS	2210	Medical Billing Specialist	2
MAS	2220	MAS Practicum I	2
MAS	2221	MAS Practicum II	4
MAS	XXXX	MAS Portfolio Elective	2
MAT	1130	Allied Health Math	3
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

MAS Portfolio Electives

ACC	1210	Introduction to Financial Accounting	
BIO 2205/2206		Microbiology	4
BIS	1120	Introduction to Computer Applications	1
BIS	1221	Specialized Computer Applications	1
BIS	1250	Desktop Publishing	1
BIS	2140	Records Management & Electronic Files	2
CIS	1107	Introduction to Operating Systems	3
CIS	2717	P.C. Hardware Troubleshooting	3
COM	2225	Small Group Communication	3
COM	2235	Principles of Interviewing	3
DIT	1108	Nutrition for the Culinary Professional	3
DIT	1111	Nutrition for Health and Fitness	3
DIT	1525	Human Nutrition	3
EMS	1100	Emergency Medical Responder	2
HIM	2262	Advanced Medical Office Coding	3
LAW	1101	Business Law	3
MAN	2110	Introduction to Project Management	3
MHT	1130	Introduction to Addictive Illnesses	3
PSY	1126	Stress Management	3
PSY	1180	Psychology of Gender	3
PSY	1200	Life Span Human Development	3
PSY	2205	Child Development	3
PSY	2206	Adolescent & Adult Development	3
PSY	2228	Psychology in the Workplace	3
SOC	1101	Introduction to Sociology	3
SOC	1108	Appalachian Families	3
SOC	1216	Sociology of Human Sexuality	3
SOC	1160	Sociology in Aging	3
SWK	2207	Cultural Competence in a Diverse World	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Mental Health Technology

Program Code: MHT.S.AAS • Total Semester Credit Hours 70

Description

The Mental Health Technology program prepares entry-level mental health workers as members of a professional team under clinical supervision. Duties may include client interviewing, crisis intervention and advocacy, activity therapy, group leadership and case management.

The course of studies can be completed on a full-time or part-time basis with day and evening options available. An informational interview during or after MHT 1201 and a 2.0 GPA are required for admission to the program.

The practicum portion of the curriculum provides more than 500 hours of supervised clinical experience.

Career Opportunities

Graduates are eligible for registration by the Ohio Counselor, Social Worker, Marriage and Family Therapist Board as a social work assistant.

Accreditation

Mental Health Technology has been accredited with the Council for Standards in Human Service Education since 1984.

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1120	Business Math	3
MHT	1101	Introduction to Human Services & Behavioral Health	2
MHT	1130	Introduction to Addictive Illness	3
MHT	1200	Social Casework	2
MHT	2105	Psychosocial Methods	3
MHT	2111	Group Dynamics I	3
MHT	2121	Practicum I	5
MHT	2222	Practicum II	5
MHT	2232	Community Support OR	
MHT	2239	Dual Diagnosis	2
MHT	1201	Interviewing Skills	3
MHT	1203	Professional Documentation	1
MHT	2211	Group Dynamics II	3
MHT	2245	Mental Health & the Family	3
MHT	XXXX	MHT Elective	3
PSY	1100	General Psychology	3
PSY	2217	Abnormal Psychology	3
SOC	1101	Introduction to Sociology	3
PSY	1160	African American Psychology OR	
SWK	2207	Cultural Competence in a Diverse World OR	
SOC	2215	Race & Ethnicity	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Mental Health Technology Electives

MHT	1155	Administration of Activity Programming I	4
MHT	1256	Administration of Activity Programming II	4
MHT	2250	Child & Adolescent Mental Health	3
MHT	2232	Community Support	2
MHT	2239	Dual Diagnosis	2
MHT	2138	Ethical Issues in Behavioral Healthcare	2
MHT	1236	Assessment & Diagnosis of Substance Use Disorder	3
MHT	2137	Treatment Techniques in Substance Use Disorders	3
MHT	2252	Issues in Behavioral Health	1-3
MHT	2253	Issues in Chemical Dependency	1 -3
MHT	2297	Special Topics	1 -3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Mental Health Technology/Chemical Dependency
Program Code: MHTCD.S.AAS • Total Semester Credit Hours 73

Description

The Mental Health Technology/Chemical Dependency program prepares entry-level workers for employment working on a professional team with clinical supervision in a chemical dependency treatment setting. Graduates of this program work directly with a diverse group of clients. The course of study can be completed on a full-time (five semesters) or a part-time basis with day and evening options available. Second-year practicum hours can be submitted toward partial employment requirements of the Ohio Chemical Dependency Professionals Board.

Career Opportunities

Current career opportunities are stable. For the last few years, graduates have been able to hire into entry-level positions as Certified Chemical Dependency Counselor Assistants and work on the employment requirement for licensure. Many graduates have transferred to the University of Cincinnati Addictions bachelor's degree program.

Accreditation

Curriculum accepted by the Ohio Chemical Dependency Professionals Board for educational requirement for licensure as Chemical Dependency Counselor II.

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1120	Business Math	3
MHT	1101	Introduction to Human Services & Behavioral Health	2
MHT	1130	Introduction to Addictive Illness	3
MHT	1200	Social Casework	2
MHT	1201	Interviewing Skills	3
MHT	1203	Professional Documentation	1
MHT	2105	Psychosocial Methods	3
MHT	2111	Group Dynamics I	3
MHT	2137	Treatment Techniques in Substance Use Disorders	3
MHT	2138	Ethical Issues in Behavioral Healthcare	2
MHT	2211	Group Dynamics II	3
MHT	2235	Family Dynamics in Addiction	3
MHT	1236	Assessment & Diagnosis of Substance Use Disorders	3
MHT	2121	Practicum I	5
MHT	2222	Practicum II	5
PSY	1100	General Psychology	3
PSY	2217	Abnormal Psychology	3
SOC	1101	Introduction to Sociology	3
PSY	1160	African American Psychology OR	
SOC	1160	Sociology of Aging OR	
SOC	2215	Race & Ethnicity	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Nursing

Program Code: NUR.S.AAS • Total Semester Credit Hours 73

Description

The Nursing program prepares students to meet the health needs of a diverse population in a variety of dynamic community environments. The curriculum is divided among nursing theory, nursing clinical practice, general education and the sciences, where students participate in classroom activities and clinical experiences. Graduates of the program are eligible to take the NCLEX-RN for licensure. An individual must be accepted into the Nursing program to enroll in nursing classes. The five-semester curriculum may be taken on a part-time basis, but nursing courses must be taken in sequence. General education courses may be taken before admission to the Nursing program, prior to the semester required or within the semester required. A grade point average of 2.5 is required to enter the Nursing program. 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 2.0 is required for graduation.

Advanced Placement for LPN's

Sinclair offers an advance placement into the nursing program for qualified LPN's. Licensed Practical Nurses may substitute BIO 2211 for BIO 1141 and 1242 and may receive advanced placement credit for ALH 1101, NSG 1100, 1101, and 1102 upon successful completion of NSG 1130 and NSG 1131. For more information, contact the Academic Advising Center at (937)512-3700.

Career Opportunities

Registered nurses have a variety of employment opportunities. Workplace settings may include hospitals, extended care and long-term care facilities, rehabilitation programs, physicians' offices, home health agencies and various types of clinics and outpatient services.

Accreditation

The Associate Degree Nursing (ADN) program is accredited by the National League for Nursing Accrediting Commission, 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326, (404)975-5000, and approved by the State of Ohio Board of Nursing.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	2202	General Pharmacology	2
BIO	1141	Principles of Anatomy & Physiology I	4
BIO	1242	Principles of Anatomy & Physiology II	4
BIO	2205	Microbiology	4
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1130	Allied Health Math	3
NSG	1100	Human Response Assessment	4
NSG	1101	Promoting Healthy Responses through Psychomotor Interventions	2
NSG	1102	Promoting Healthy Responses to Physiological Stressors	7
NSG	2200	Promoting Healthy Responses to Specific Stressors I	8
NSG	2201	Promoting Healthy Responses to Psychosocial Stressors	2
NSG	2202	Promoting Healthy Responses to Specific Stressors II	8
NSG	2203	Promoting Healthy Responses to Maternal/Child Stressors	2
NSG	2206	Integrated Care	2
NSG	2210	Role Transition	4
PSY	1100	General Psychology	3
PSY	2200	Lifespan Human Development	3
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Occupational Therapy Assistant

Program Code: OTA.S.AAS • Total Semester Credit Hours 73

Description

Occupational therapy assistants, under the supervision of occupational therapists, provide services to individuals whose abilities to cope with daily tasks are threatened or impaired by developmental deficits, aging, injury or illness. They help people prevent, lessen or overcome physical and mental disabilities so that they are able to function independently. The program includes extensive clinical training that must be finished within 12 months of completion of the academic course work. A grade of "C" or higher is required in all program courses to remain in the program.

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. Occupational therapy assistants work in hospitals, clinics, schools, nursing facilities, group homes, home health agencies and rehabilitation centers.

Accreditation

The program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, PO Box 31220, Bethesda, MD 20824-1220. AOTA's telephone number is (301) 652-2682.

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
BIS	1120	Computer Concepts & Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math	3
OTA	1101	Introduction to Occupational Therapy Assistant	2
OTA	1201	The Process of Development	2
OTA	1202	Functional Anatomy	3
OTA	1251	Developmental Lab	3
OTA	1261	Directed Practice I	3
OTA	1301	Disease Processes	2
OTA	1302	Cultural Competency	2
OTA	1351	Evaluation Techniques	3
OTA	1361	Directed Practice II	3
OTA	2401	Treatment Approaches	2
OTA	2451	Treatment Techniques I	3
OTA	2461	Clinical Practicum I	3
OTA	2501	OTA Capstone	2
OTA	2551	Treatment Techniques II	2
OTA	2560	Clinical Affiliation I	2
OTA	2561	Clinical Issues I	1
OTA	2662	Clinical Affiliation II	2
OTA	2663	Clinical Issues II	1
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
SOC	2215	Race & Ethnicity	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Operations Technology

Program Code: OPT.S.AAS • Total Semester Credit Hours 71

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, have an opportunity to become an ASQ Certified Quality Improvement Associate, 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 that they 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.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1280	Technical Math I	3
MET	2711	Ethics for Engineering Technology Professionals	1
OPT	1101	Introduction to Operations	3
OPT	1110	Operations Work Measurement & Ergonomics	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	1125	World Class Operations	3
OPT	1126	Supervisor, Team Leadership & Project Management	3
OPT	1130	Lean Operations	3
OPT	1198	Excel for Engineering Technology	1
OPT	2201	Statistical Process Control	3
OPT	2205	Manufacturing Processes	3
OPT	2206	Value Analysis	2
OPT	2207	Operations Systems Analysis	3
OPT	2208	Engineering Technology Economics & Cost Analysis	3
OPT	2216	Facilities Planning	3
OPT	2223	Quality Systems Auditing & Logistics	2
OPT	2240	Six Sigma: Green Belt	3
OPT	2251	Supply Chain Operations & Logistics	3
OPT	2780	Operations Technology Capstone	3
OPT	XXXX	Operations Technology Elective	3
PHY	1106	Physics for Technology	3
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

Operations Technology Electives

OPT	1136	Plastics & Composites	3
OPT	2211	Industrial Risk Management	2
OPT	2221	Quality Assurance	3
OPT	2225	Design & Process Failure Mode & Effects Analyses	1
OPT	2267	Quality Certification Review	2

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.**

Operations Technology/Industrial Engineering Technology

Program Code: OPTIO.S.AAS • Total Semester Credit Hours 73

Description

The Industrial Engineering Technology (IET) 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 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 principles, assuring that they 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.

Career Opportunities

Graduates are employed as Industrial Engineering Technicians, Quality Control Technicians, Production Supervisors, Continuous Improvement Specialists and similar positions.

Accreditation

Program is accredited by the Engineering Technology Accreditation Commission of ABET, Inc. (ETAC-ABET), 111 Market Place, Suite 1050, Baltimore, Maryland 21202, phone: (410)347-7700. www.abet.org

COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	2711	Ethics for Engineering Technology Professionals	1
OPT	1101	Introduction to Operations	3
OPT	1110	Operations Work Measurement & Ergonomics	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	1125	World Class Operations	3
OPT	1130	Lean Operations	3
OPT	1198	Excel for Engineering Technology	1
OPT	2206	Value Analysis	2
OPT	2240	Six Sigma: Green Belt	3
OPT	1126	Supervisor, Team Leadership & Project Management	3
OPT	2201	Statistical Process Control	3
OPT	2205	Manufacturing Processes	3
OPT	2207	Operations Systems Analysis	3
OPT	2208	Engineering Technology Economics & Cost Analysis	3
OPT	2216	Facilities Planning	3
OPT	2780	Operations Technology Capstone	3
PHY	1141	College Physics I	4
PHY	1142	College Physics II	4
SCC	1101	First Year Experience	1
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3
XXXX		Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Operations Technology/Manufacturing

Program Code: OPTMO.S.AAS • Total Semester Credit Hours 72

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 that they 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.

Career Opportunities

Career opportunities include Process Engineering Technologists, Quality Technicians, Manufacturing Engineering Technologists and Production Supervisors. Students are prepared to enter the job market or continue their education at the best four-year colleges and universities.

COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1371	CAD Concepts using AutoCAD	3
MET	2711	Ethics for Engineering Technology Professionals	1
OPT	1100	Tooling & Machining Metrology	2
OPT	1101	Introduction to Operations	3
OPT	1110	Operations Work Measurement & Ergonomics	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	1113	Coordinate Measurement	3
OPT	1126	Supervision, Team Leadership, & Project Management	3
OPT	1130	Lean Operations	3
OPT	1198	Excel for Engineering Technology	1
OPT	2201	Statistical Process Control	3
OPT	2205	Manufacturing Processes	3
OPT	2207	Operations Systems Analysis	3
OPT	2216	Facilities Planning	3
OPT	2240	Six Sigma: Green Belt	3
OPT	1125	World Class Operations	3
OPT	2780	Operations Technology Capstone	3
PHY	1141	Technical Physics	4
SCC	1101	First Year Experience	1
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Paralegal
Program Code: PAR.S.AAS • Total Semester Credit Hours 71

Description

The Paralegal program educates students with practical assignments in a simulated law office environment. All student work models the professional, ethical and technology concepts they will use in the legal field. Student learning is supported by experienced paralegals who serve as team teachers. All paralegal students are required to complete an attorney-supervised internship for hands-on experience using their paralegal skills.

Classes are taught in a simulated law office environment that makes current practices and technology available to students. All full-time faculty in the Paralegal program are licensed attorneys. Legal research is conducted by students both online and in professional law libraries. All students produce a personal portfolio of their legal work and benefit from an internship experience under the supervision of a licensed attorney.

Career Opportunities

Graduates may find work in large and small law firms, the business world, courts and government agencies. Under the supervision of a lawyer, a professional paralegal may perform such interesting duties as investigating cases, interviewing clients and witnesses, preparing legal documents and legal research. These responsibilities are carried out in a variety of legal fields, such as criminal law, probate, family law, litigation and real estate.

Accreditation

The Paralegal program is approved by the American Bar Association and fully accredited by the Association of Collegiate Business Schools and Programs, a specialized accreditation recognized by the Council on Higher Education Accreditation. All full-time faculty in the Paralegal program are licensed attorneys. Sinclair is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools. Programs

of study are approved by the Ohio Board of Regents.
Completion of the Paralegal program does not authorize a graduate to practice law as an attorney or to give legal advice.

ACC	1210	Introduction to Financial Accounting	3
BIS	1410	Business Software Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
ENG	1201	English Composition II	3
LAW	1101	Business Law	3
MAT	1120	Business Math	3
PAR	1101	Paralegal Principles	3
PAR	1102	Legal Technology	1
PAR	1103	Litigation	3
PAR	1201	Legal Research & Writing	3
PAR	1202	Advanced Legal Technology	1
PAR	1203	Advanced Litigation	3
PAR	1204	Real Estate Law	3
PAR	2301	Advanced Legal Research & Writing	3
PAR	2302	Family Law	3
PAR	2303	Probate Law	3
PAR	2304	Paralegal Ethics	3
PAR	2401	Paralegal Internship	3
PAR	XXXX	PAR Elective	6
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural &Physical Sciences Elective	3

Paralegal Electives

LAW	1102	Consumer Law	3
LAW	1103	Domestic Violence	2
PAR	2501	Juvenile Law	1
PAR	2502	Employment Discrimination	1
PAR	2503	Intellectual Property	1
PAR	2504	Bankruptcy Law	2
PAR	2505	Criminal Law	2
PAR	2506	Business Organizations	3
PAR	2507	Legal Interviewing Skills	1
PAR	2508	Appellate Procedure	1
PAR	2509	Estate Taxes	1
PAR	2511	Online Legal Research	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Physical Therapist Assistant

Program Code: PTA.S.AAS • Total Semester Credit Hours 71

Description

Physical Therapist Assistants (PTA), under the direction and supervision of a Physical Therapist (PT), implement treatment interventions, collect data related to the intervention and progress the treatment plan established by the PT in order to meet the goals of the patient/client. The PTA courses must be taken in sequence, and all courses in the curriculum passed with a minimum of a C to remain in the program. Completion of prerequisites with a 2.5 GPA or higher are required for admission to the program.

Career Opportunities

Graduates, once licensed by the State of Ohio, work either full or parttime under the supervision of a Physical Therapist in a variety of practice environments, such as out-patient clinics, rehabilitation units in hospitals or nursing homes, assistive living, home health or school-based programs.

Accreditation

The PTA Program is accredited by the Commission on Accreditation in Physical Therapy Education. Current program accreditation status is available at http://www.sinclair.edu/academics/lhs/departments/pta/currentaccreditation/index.cfm

ALH	1101	Introduction to Healthcare Delivery	2
ALH	2220	Pathophysiology	3
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1270	Beginning Algebra	3
PED	XXXX	Physical Education Elective	1
PHY	1106	Physics for Technology	3
PTA	1106	Introduction to Physical Therapy	1
PTA	1110	Professional Issues I	3
PTA	1112	Pathology for Physical Therapist Assistant	2
PTA	1116	Anatomy & Kinesiology	5
PTA	1124	Clinical Procedures I	4
PTA	1129	Therapeutic Exercise	3
PTA	1144	Therapeutic Foundations	3
PTA	2230	Neuromuscular Rehabilitation	4
PTA	2238	Musculoskeletal Rehabilitation	2
PTA	1115	Professional Issues II	1
PTA	2211	Clinical Practicum I	3
PTA	2212	Clinical Practicum II	3
PTA	2226	Clinical Procedures II	2
PTA	2234	Practice Management	3
SOC	1101	Introduction to Sociology OR	
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Physical Education Electives

PED	1205	Flexibility Fitness	1
PED	1207	Yoga	1
PED	1209	Pilates	1
PED	1211	Aquatic Exercise	1
PED	1217	Fitness Walking & Conditioning	1
PED	1219	Tai Chi	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Radiologic Technology

Program Code: RAT.S.AAS • Total Semester Credit Hours 70

Description

As a specialized discipline within the radiologic science profession, radiographers perform medical imaging procedures to aid the physician in the diagnosis and treatment of injury and disease. Graduates will be eligible to apply for the national credentialing examination offered by the American Registry of Radiologic Technologists (ARRT). Successful completion of the ARRT credentialing examination simultaneously satisfies the Ohio Department of Heath (ODH) Radiologic Licensure Program requirements.

The Radiologic Technology (RAT) program consists of five (5) semesters once accepted to the technical curriculum. Acceptance occurs only after completing the required program prerequisite courses and other published admission requirements. Required general education courses may be completed prior to acceptance into the RAT technical curriculum. Students choosing to complete all general education courses prior to beginning the first technical term in the Radiologic Technology program may have less than the number of credit hours required for full-time student status. For admission to the Radiologic Technology program a Life & Health Sciences application must be completed and submitted online. After college and program applications have been completed, students should schedule an appointment to meet with an academic counselor by calling (937) 512-3700 or in person in Building 11, Room 11346. To be eligible for admission to the Radiologic Technology program all admission requirements and course prerequisites must be completed by the June 1 deadline. A 2.5 grade point average is required for acceptance, in addition to completion of all prerequisite courses with a grade of C or better. All general education and RAT technical courses must be completed with a grade of C or better. For additional details regarding program admission please see the online Radiologic Technology application packet.

Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Radiologic Technology (RAT) continued

Career Opportunities

A career in Radiologic Technology can lead in many directions. Graduates may find employment in comprehensive hospitals, suburban or rural outpatient centers or physician offices. Completion of this associate degree program can also lead to additional educational opportunities such as higher degree programs in management, education, etc. and advanced imaging programs designed to prepare radiographers for specialization in imaging modalities such as Computed Tomography (CT), Magnetic Resonance Imaging (MRI), etc.

Accreditation

The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). 20 N. Wacker Drive, Suite 2850, Chicago, IL. 60606. www.jrcert.org

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1470	College Algebra	4
RAT	1101	Introduction to Radiologic Technology	2
RAT	1111	Clinical Practicum I	1
RAT	1121	Radiographic Procedures I	5
RAT	1131	Patient Care in Radiologic Technology	4
RAT	1212	Clinical Practicum II	2
RAT	1222	Radiographic Procedures II	5
RAT	1241	Radiologic Sciences I	3
RAT	2413	Clinical Practicum III	3
RAT	2415	Radiographic Pathology	3
RAT	2423	Radiographic Procedures III	3
RAT	2442	Radiologic Sciences II	4
RAT	2514	Clinical Practicum IV	3
RAT	2526	Capstone in Radiologic Technology	4
RAT	2543	Radiologic Sciences III	2
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Real Estate

Program Code: RES.S.AAS • Total Semester Credit Hours 68

Description

In the Real Estate degree program, students will acquire a variety of skills in selling, leasing, buying and managing real property. Courses are offered which are required by the Ohio Division of Real Estate for persons taking the real estate sales and brokers examinations. All degree completers will receive the Ohio Real Estate Sales Associate certificate, which qualifies an applicant to take the Ohio real estate license exam. During the program, coursework will help students learn to study property listings, interview prospective clients, show properties, discuss conditions of sale or terms of lease and negotiate loans on property.

Career Opportunities

Employment opportunities for building consultants, residential leasing agents, sales representatives, brokers, appraisers and apartment managers develop in real estate firms, developers and property management companies. Sinclair's Career Services office provides job search help to the program's graduates.

Accreditation

This program is fully accredited by the Association of Collegiate Business Schools and Programs (ACBSP), a specialized accreditation recognized by the Council on Higher Education Accreditation (CHEA). Sinclair is accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools. Programs of study are approved by the Ohio Board of Regents.

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1410	Business Software Applications	3
COM	2206	Interpersonal Communication	3
ECO	2180	Principles of Microeconomics	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communications	3
LAW	1101	Business Law	3
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Math	3
MRK	2225	Sales Fundamentals	3
PLS	1232	State & Local Government	3
PLS	1120	American Federal Government	3
PSY	1100	General Psychology	3
RES	1101	Real Estate Principles	3
RES	1102	Real Estate Abstracting	4
RES	1201	Real Estate Law	3
RES	2301	Real Estate Finance & Appraisal	3
RES	2302	Real Estate Investing & Property Management	4
RES	2401	Real Estate Capstone	3
SOC	1145	Introduction to Cultural Anthropology	3
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3
	XXXX	Ohio Transfer Module*: Natural & Physical Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Respiratory Care

Program Code: RET.S.AAS • Total Semester Credit Hours 73

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.

A 2.5 GPA is required for competitive admission to the program. A grade of C must be earned in all courses of the curriculum, and an overall grade point average of at least 2.0 is necessary for continuance in the program and graduation.

Career Opportunities

Respiratory Care is a growing profession with opportunities for graduates to work with newborn, children, adult and geriatric patients in hospitals/acute care setting, long-term facilities, home care/durable medical equipment companies and physician offices.

Accreditation

This program is accredited by The Commission on Accreditation for Respiratory Care, 1248 Harwood Road, Bedford, TX 76021-4244; 817-283-2835; Fax: 817-354-8519; Web Page: http://www.coarc.com/47.html

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
CHE	1111	Introduction to Chemistry I	4
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math	3
PSY	1100	General Psychology	3
RET	1100	Introduction to Respiratory Care	1
RET	1101	Respiratory Care Fundamentals I	5
RET	1124	Cardiopulmonary Pharmacology	2
RET	1125	Respiratory Care Sciences	4
RET	1201	Respiratory Care Fundamentals II	5
RET	1203	Respiratory Care Clinic I	3
RET	1205	Cardiopulmonary Disease Processes	3
RET	1301	Respiratory Care Fundamentals III	3
RET	1303	Respiratory Care Clinic II	1
RET	2101	Critical Care I	5
RET	2103	Respiratory Care Clinic III	3
RET	2201	Critical Care II	4
RET	2203	Respiratory Care Clinic IV	2
RET	2204	Respiratory Care Clinic V	1
RET	2220	Respiratory Care Emergency Preparedness	3
RET	2250	Pediatrics & Neonatology	2
XXXX		Ohio Transfer Module*: Arts & Humanities Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Surgical Technology

Program Code: SUT.S.AAS • Total Semester Credit Hours 71

Description

The Surgical Technology program at Sinclair Community College has been Commission on Accreditation of Allied Health Education Programs (CAAHEP) approved since 1998 and offers the opportunity to prepare for a career as a member of a surgical team.

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.

The surgical technologist helps to meet the needs of patients in the operating rooms of hospitals, ambulatory surgery centers, physician offices, diagnostic facilities and other agencies where surgery is performed.

The program includes both didactic instruction and supervised clinical practice in all areas required by CAAHEP. Supervised clinical practice in area operating rooms include participating in procedures in general surgery, obstetrics and gynecology, ophthalmology, otorhinolaryngology, plastic surgery, urology, orthopedics, neurosurgery, thoracic surgery and cardiovascular and peripheral vascular surgery.

Career Opportunities

Employment may be found in hospital operating rooms, delivery rooms, endoscopy units, emergency departments, laboratories and many other settings where invasive therapeutic or diagnostic surgical procedures are performed.

Accreditation

Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), Sinclair's surgical technology program provides students with the opportunity to work as a certified surgical technologist. In this program, students will be required to complete the academic classroom requirements, but will also have the opportunity to gain valuable supervised clinical practice. As part of the curriculum, the clinical affiliations demand students reach standard case requirements—students must achieve 125 clinical cases distributed among three levels of both core and specialty cases. In addition to meeting basic requirements of the CAAHEP, this experience allows graduates to successfully enter the field as a competent professional.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1140	Fundamentals of Disease Processes	3
ALH	2201	Survey of Drug Therapy	1
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
BIO	2205	Microbiology	4
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math	3
PSY	1100	General Psychology	3
SUT	1110	Theories & Fundamentals	5
SUT	1117	Laboratory for Theories & Fundamentals	1
SUT	1120	The Surgical Process	2
SUT	1127	Directed Practice for The Surgical Process	4
SUT	2110	Surgical Procedures I	2
SUT	2117	Directed Practice for Surgical Procedures I	4
SUT	2120	Surgical Procedures II	5
SUT	2127	Directed Practice for Surgical Procedures II	4
SUT	2200	Surgical Procedures III	5
SUT	2207	Directed Practice for Surgical Procedures III	4
SUT	XXXX	SUT Elective	2
	XXXX	Ohio Transfer Module*: Arts & Humanities Elective	3

Surgical Technology Electives

ALH	1102	Introduction to Basic Healthcare Practice	1
ALH	1110	Principles of Electrocardiography	3
ALH	1113	Clinical Phlebotomy	2
ALH	1115	Specimen Processing	2
ALH	1120	Nurse Aide Training	4
SUT	2297	Special Topics	1-4

*Please see your Academic Advisor for information on Ohio Transfer Module and other 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 their program.

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Visual Communications

Program Code: VIS.S.AAS • Total Semester Credit Hours 71-72

Description

The program prepares students for careers in visual communication which is creative, fast paced and in demand by most businesses. Students will develop the knowledge and technical skills necessary to create both printed and digital design work. This includes the design of stationery, brochures, magazines, advertising, packaging, signage, web pages, interactive media and other pieces. Creativity, problem solving and the design process are stressed. Advanced computer skills, portfolio development and job-seeking strategies are also incorporated into the curriculum.

Career Opportunities

Visual Communications graduates typically pursue careers as graphic designers (also called commercial artists) in design studios, advertising agencies, magazine and book publishing companies, printing companies or corporate design departments. Some graduates choose to continue their education in design or a related field at a four-year institution.

Accreditation

Sinclair's Visual Communications program is accredited by the National Association of Schools of Art and Design (NASAD).

ART	1161	Black & White Darkroom Photography I	3
ART	2230	Art History: Ancient Through Medieval Periods OR	
ART	2231	Art History: Renaissance through Contemporary Periods	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
GLG	1101	General Geology I OR	4
PHY	1104	Sound, Light & Modern Physics	
MAT	1120	Business Math OR	
MAT	1270	Beginning Algebra	3
MRK	2102	Principles of Advertising	3
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
VIS	1100	Design Basics	4
VIS	1110	Design Drawing	4
VIS	1140	Digital Design I	3
VIS	1180	History of Design	3
VIS	1208	Typography	4
VIS	1218	Digital Design II	4
VIS	1250	Print Production	4
VIS	2110	Design Principles	4
VIS	2120	Design Applications I	4
VIS	2160	Design Applications II	4
VIS	2260	Visual Communications Portfolio	4
VIS	XXXX	Visual Communications Elective OR	
VIS	2270	Design Internship OR	
VIS	2297	Special Topics	3-4

Visual Communications Electives

ART	1101	2-D Foundations	3
ART	1102	3-D Foundations	3
ART	1106	Fine Art Sampler	3
ART	1111	Drawing I	3
ART	1141	Introduction to Ceramics	3
ART	2235	History of Photography	3
ART	2236	History of Women Artists	3
ART	2237	History of American Art	3
ART	2238	History of African Art	3
IND	1180	History of Interior Design	3
IND	1230	Residential Design	4
IND	1240	Color Theory	3
IND	2135	Rendering	3
MRK	2145	Principles of Retailing	3
MRK	2220	Solutions Studio	3
MRK	2225	Sales Fundamentals	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Certificates

Certificate programs are academic programs of study designed to prepare students for a particular career area, but not at the level required for an associate degree. There are general certificate programs and short term technical certificates. The technical certificates are much more industry-focused and designed for workforce preparation.

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Airframe Aviation Maintenance

Program Code: AAM.S.CRT • Total Semester Credit Hours 31

Description

The Airframe Aviation Maintenance certificate provides the knowledge and skill required by the Federal Aviation Administration (FAA) for the airframe maintenance technician student. Students will learn to apply the knowledge and skills covering the required sections of training for the Airframe certificate as required by the Federal Aviation Administration under Part 147 Appendix C. Those subjects include assembling and rigging, metallic and non-metallic structures, fuel systems, electrical power production and distribution, instruments, communication/navigation systems, cabin atmospheric control systems, landing gear, hydraulics and pneumatics, fire protection systems, aircraft finishing, ice protection systems and welding inspections.

Career Opportunities

Boeing Commercial Aircraft Company recently predicted 1,000,000 more jobs in aviation in the next 15 years. Airbus of Europe has predicted about 800,000 more jobs in the next 15-20 years. Both predictions are based on anticipated growth in aircraft production and flying passengers. Many mechanics will reach retirement age in the next three years as a result of an interruption of current certificates issued by the FAA. More jet aircraft means more need for mechanics. The general aviation sector already has a shortage of certificated mechanics.

AVT	1106	Airframe Safety Systems	2
AVT	1107	Fuel Systems	3
AVT	1133	Instruments/Communications	3
AVT	1136	Sheet Metal	4
AVT	1214	Cabin Atmospheric Control	2
AVT	1218	Utility Systems	6
AVT	2121	Assembly & Rigging	3
AVT	2132	Airframe Electrical Systems	4
AVT	2236	Non Metallic Structures	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Automotive Technology

Program Code: AUT.S.CRT • Total Semester Credit Hours 37

Description

The Automotive Certificate program is designed for students who want to become automotive technicians without pursuing an associate degree. Students will expand their knowledge of the automotive service industry and secure employment with dealerships, independent service shops, machine shops and other corporate service jobs.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

AUT	1102	Introduction to Automotive Service	2
AUT	1108	Automotive Engine Systems	4
AUT	1114	Automotive Electrical/Electronic Systems I	3
AUT	1115	Automotive Engine Performance I	4
AUT	1116	Automotive Steering & Suspension Systems	3
AUT	1142	Automotive Manual Transmission & Driveline	3
AUT	1146	Automotive Heating Ventilation & Air Conditioning Systems	3
AUT	1165	Automotive Brake Systems	3
AUT	2214	Automotive Electrical/Electronic Systems II	4
AUT	2215	Automotive Engine Performance II	4
AUT	2241	Automatic Transmission Systems	4

Automotive Technology (Honda PACT)

Program Code: AUTHO.S.CRT • Total Semester Credit Hours 37

Description

The Honda Automotive Certificate program is designed to train students to become Honda automotive technicians without pursuing an associate degree. Students will expand their knowledge of the automotive Honda service industry and secure employment with a Honda/Acura dealership.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in Honda/Acura dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

AUT	1102	Introduction to Automotive Service	2
AUT	1108	Automotive Engine Systems	4
AUT	1114	Automotive Electrical/Electronic Systems I	3
AUT	1115	Automotive Engine Performance I	4
AUT	1116	Automotive Steering & Suspension Sysemtems	3
AUT	1142	Automotive Manual Transmission & Driveline	3
AUT	1146	Automotive Heating Ventilation & Air Conditioning Systems	3
AUT	1165	Automotive Brake Systems	3
AUT	2214	Automotive Electrical/Electronic Systems II	4
AUT	2215	Automotive Engine Performance II	4
AUT	2241	Automatic Transmission Systems	4

Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Business Information Systems/Information Processing

Program Code: BUIP.S.CRT • Total Semester Credit Hours 37

Description

This one-year certificate is intended to provide specialized training necessary to work with personal computers and end-user software applications. Students master the basics of customer service, workplace technology and electronic files management to provide administrative support in a variety of entry-level office positions.

Career Opportunities

Employment opportunities are available in many types of businesses, including banks, insurance offices, advertising agencies, manufacturing companies, small to large businesses and educational facilities.

ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Computer Concepts & Applications	3
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1220	Word Processing Software	3
BIS	1240	Presentation Software	2
BIS	1300	Keyboarding & Document Formatting II	2
BIS	1400	Customer Service	3
BIS	2140	Records Management	2
BIS	1230	Spreadsheet Software	3
BIS	1260	Database Software	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
MAT	1120	Business Math	3

Business Information Systems/Medical Office Specialist

Program Code: BUMS.S.CRT • Total Semester Credit Hours 36

Description

In this one-year certificate, students receive specialized training necessary to work with personal computers and end-user software applications in a medical office environment.

Career Opportunities

Employment opportunities include medical office receptionists, secretaries, billing/insurance clerks, and medical office administrators in physician's offices, urgent care centers, managed care organizations, laboratories, nursing homes and hospitals.

BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1260	Database Software	3
BIS	1400	Customer Service	3
BIS	2180	Medical Office Simulation	3
BIS	1200	Keyboarding & Document Formatting I	2
BIS	2140	Records Management	2
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
HIM	1101	Medical Terminology	2
HIM	1160	Medical Office Coding Concepts	1
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Math	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Business Information Systems/Personal Computers in Business

Program Code: PCB.S.CRT • Total Semester Credit Hours 35

Description

This one-year certificate is intended for those with higher education and/or skills who want to update their knowledge with personal computer techniques. Students will learn how to use personal computers for business administration, decision support and financial applications.

Career Opportunities

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

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1240	Presentation Software	2
BIS	1230	Spreadsheet Software	3
BIS	1260	Database Software	3
CIS	1107	Introduction to Operating Systems	3
CIS	1714	A+ Operating Systems Troubleshooting OR	3
CIS	2717	A+ Certification IT Technician	3
CIS	2309	Cascading Style Sheets	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
ENG	1101	English Composition I	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3

Business Management

Program Code: BM.S.CRT • Total Semester Credit Hours 34

Description

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.

Career Opportunities

Students completing this certificate can expect to be prepared to work as supervisors or entry-level managers in retail, manufacturing or medium and small businesses.

BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2180	Principles of Microeconomics	3
ENG	1131	Business Communication	3
MAN	1110	International Business	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MAN	2159	Supply Chain Management Concepts & Applications	3
MAN	1107	Foundations of Business	3
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Computer Aided Manufacturing/Project STEP II

Program Code: CAMPS.S.CRT • Total Semester Credit Hours 36

Description

A nine-month intensive training program offered by Sinclair Community College in cooperation with the Dayton Region Manufacturing Association, the Computer Aided Manufacturing certificate completion prepares a graduate for employment in the machining industry as well as career advancement. To enroll for the certificate beginning in August and finishing in May, a student must meet with and be approved by the STEP II program coordinator. The student who is accepted into the program will receive 25-30 hours of classroom and laboratory instruction per week as well as producing for personal-use tools valued at approximately $1,500. Classes are available evenings to accommodate students who are unable to attend during the day.

Career Opportunities

Project STEP II prepares individuals for enter-level jobs in the tool-and-die industry and machining applications.

CAM	1107	Principles of Manufacturing	3
CAM	1141	Shop Floor Calculations I	3
CAM	1142	Shop Floor Calculations II	3
CAM	1161	Machine Operations Laboratory I	8
CAM	1162	Machine Operations Laboratory II	8
CAM	1213	Fundamentals of Computer Numerical Control	4
CAM	2145	Shop Floor Programming	3
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	1100	Tooling & Machining Metrology	2
SCC	1101	First Year Experience	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

![SINCLAIR COMMUNITY COLLEGE]

Cyber Investigation

Program Code: CYSEC.S.CRT • Total Semester Credit Hours 37

Description

Students will learn computer network protection, maintenance and usage of computer hardware and software, management of networks and operating systems, and criminal and constitutional law and IT criminal investigation, which includes evidence procedures and computer forensics.

Career Opportunities

The Cyber Investigation Certificate will prepare students for careers in the areas of computer network protection, managing networks and operating systems and IT criminal investigation, which includes evidence procedures and computer forensics. Job titles include but are not limited to: Intelligence Analyst, IT Specialist (Government Breakout Codes 2210), Systems Administrator, Network Engineer, Information System Security Manager, Cyber Security Incident Response Specialist and Private Investigator.

BIS	1260	Database Software	3
CIS	1107	Introduction to Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	2550	Linux Operating System	3
CIS	2717	A+ Certification IT Technician	3
CIS	2808	Introduction to Computer Forensics	3
CIS	2640	Network Security	3
CJS	1102	Constitutional Law	3
CJS	1104	Criminal Evidence & Procedure	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2209	Computer Crime	3
CJS	2295	Criminal Justice Science Seminar	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Data Analytics

Program Code: DA.S.CRT • Total Semester Credit Hours 31

Description

This certificate prepares students for entry-level data analytics positions requiring knowledge, setup and usage of business intelligence and data analysis solutions. Data analytics is expanding in businesses, government agencies and not-for-profit organizations, enabling them to make better decisions utilizing appropriate data and information. Students will have the ability to structure data and prepare reports in a way that is meaningful to business, government agency and not-for-profit organization users. Course work will include database concepts, data modeling, SQL, data analysis, data mining tools, mathematical and statistical techniques, project management and systems analysis. Emphasis is placed on strong communication skills necessary to interact with key users and understand their requirements.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts and network engineers.

BIS	1120	Computer Concepts & Applications	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1140	Information Systems Analysis & Design	3
CIS	2165	Database Management	3
CIS	2170	Computer Information Systems Internship	2
CIS	2268	Introduction to Oracle	3
CIS	2269	Data Analytics Theory & Solutions	3
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MAT	2180	Business Statistics II	3

Entrepreneurship

Program Code: ENT.S.CRT • Total Semester Credit Hours 33

Description

This certificate prepares existing or potential entrepreneurs in a wide variety of small business functions. In addition to traditional management courses, the following key areas are emphasized for entrepreneurs: financial plan development, marketing plan development and business plan development.

Career Opportunities

Students completing this certificate can expect to be prepared to begin their own businesses or to work in larger companies in an entrepreneurial role.

BIS	1120	Computer Concepts & Applications	3
COM	2211	Effective Public Speaking	3
ECO	2180	Principles of Microeconomics	3
ENG	1131	Business Communication	3
ENT	2140	Small Business Finance	3
ENT	2160	Business Plan Development	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MAN	2150	Management & Organizational Behavior	3
MRK	2101	Principles of Marketing Management	3
MRK	2220	Solutions Studio	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Food Service Management

Program Code: FSM.S.CRT • Total Semester Credit Hours 34

Description

The Food Service Management certificate program combines classroom instruction and laboratory experience in food preparation and service for the restaurant and hotel/lodging industry. Certificates earned in this program are awarded by the college upon successful completion of the program and can be applied toward the Hospitality Management degree program.

Career Opportunities

The Food Service Management certificate program is designed to provide the initial knowledge for a student to begin at a management trainee level within a corporate or franchise food service operation. With further training and experience, the student should be able to accept more responsibility at a store manager's level.

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Computer Concepts & Applications	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communication	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1112	Food Principles & Basic Preparation	4
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	3
HMT	1101	Basic Culinary Skills	2
HMT	1107	Sanitation & Safety	2
HMT	1110	Menu Planning & Customer Service Practicum	3
MAT	1120	Business Math OR	
MAT	1270	Beginning Algebra	3
SOC	1145	Introduction to Cultural Anthropology	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Paramedic

Program Code: EPST.S.CRT • Total Semester Credit Hours 30

Description

Paramedics are essential members of the health care team who provide time-sensitive care to patients. These individuals take the emergency department to people's homes, to highways and to other remote locations. Paramedics bring life-saving equipment and knowledge to bear in an effort to reduce patient's suffering and to save lives. Students will use lecture, laboratory and real-world exposure to emergencies to learn the skills needed to care for the sick and injured in the out-of-hospital environment. The program is offered to provide students with variability and flexibility in scheduling. For more information, contact the EMS department at (937) 512-5338 for an entrance application packet.

Note: A federal and state background check of a student's past legal history will be evaluated. Ohio Division of EMS Accreditation Number 326.

Career Opportunities

Within the greater Miami Valley area, EMS professionals are hired by fire departments, private EMS and hospitals. These agencies typically hire entry personnel based on the candidates state licensures/certifications – not whether the candidate is degreed. When local departments are hiring full-time employees, many of them are looking for paramedic/firefighters.

EMS	2100	Applied Anatomy, Physiology & Pathophysiology for the EMS Provider	3
EMS	2105	Paramedic 1: Lecture	2
EMS	2110	Paramedic 1: Laboratory	2
EMS	2125	Paramedic 2: Lecture	5
EMS	2130	Paramedic 2: Laboratory	2
EMS	2135	Paramedic 2: Clinical	1
EMS	2150	Paramedic 3: Lecture	5
EMS	2155	Paramedic 3: Laboratory	2
EMS	2160	Paramedic 3: Clinical	2
EMS	2175	Paramedic 4: Lecture	2
EMS	2180	Paramedic 4: Field Experience	1
EMS	2200	Paramedic 5: Integration / Refresher Lecture	2
EMS	2205	Paramedic 5: Integration / Refresher Laboratory	1

Quality Control Technology

Program Code: QCT.S.CRT • Total Semester Credit Hours 32

Description

This certificate prepares students to apply the basic tools of quality, physics and mechanics to the testing and inspection of mechanical and electronic systems and to take the ASQ CQT exam.

Career Opportunities

This certificate is geared both to students who desire an entry-level position in the area of mechanical inspection or to skilled workers desiring upgraded training.

CAM	1107	Principles of Manufacturing	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1280	Technical Mathematics I	4
OPT	1198	Excel for Engineering Technology	1
OPT	2201	Statistical Process Control	3
OPT	1100	Tooling & Machining Metrology	2
OPT	1101	Introduction to Operations	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	1113	Coordinate Measurement	3
OPT	2223	Quality Systems & Auditing	2
OPT	2225	Design & Process Failure Mode & Effects Analysis	1
OPT	2240	Six Sigma: Green Belt	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Supply Chain Management

Program Code: SCMC.S.CRT • Total Semester Credit Hours 34-35

Description

Students gain a basic understanding of supply chain management processes to prepare them for a new position or to update the skills of those currently employed in a supply chain management (SCM) role.

Career Opportunities

SCM specialists have opportunities for management positions at all levels in virtually every type of business, throughout small and medium-sized businesses, corporations, industries, nonprofit organizations and government agencies.

COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENG	1131	Business Communication	3
MAN	1106	Introduction to Radio Frequency Identification (RFID)	1
MAN	1157	Management Applications of Radio Frequency Identification (RFID)	2
MAN	2144	Negotiation Techniques	3
MAN	2155	Management Information Systems	3
MAN	2159	Supply Chain Management Concepts & Applications	3
OPT	2251	Supply Chain Operations & Logistics OR	
MAN	2247	DoD Systems Acquisition Management &	
MAN	2248	DoD Acquisition Logistics Fundamentals	3-4
MAN	2150	Management & Organizational Behavior	3
MAT	2170	Business Statistics I	4

Surveying

Program Code: SUR.S.CRT • Total Semester Credit Hours 36

Description

This certificate develops the skills needed to become employed as technicians for surveying or civil engineering firms.

Career Opportunities

Surveying technicians assist professional surveyors in surveying for construction and land transfer activities.

CAT	1101	Architectural Drafting	3
CAT	1501	Construction Surveying	3
CAT	2431	OSHA Construction Standards	2
CAT	2501	Introduction to GIS & GPS	2
CAT	2531	Advanced Surveying & Drafting	4
CAT	2581	Legal Principles for Surveyors	3
CAT	1121	Introduction to Revit	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	2711	Ethics for Engineering Technology Professionals	1
MET	1131	Personal Computer Applications for Engineering Technology	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Short Term Technical Certificates

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Activity Programming

Program Code: ACP.S.STC • Total Semester Credit Hours 8

Description

Provides basic skills and knowledge for activity programming professionals who work in services for the aging population including long-term care facilities.

Career Opportunities

Facilities that serve the aging populations hire persons with MHT Activity Director Certification, and Activity Professionals are preferred when promotions or special projects become available.

MHT	1155	Administration of Activity Professionals I	4
MHT	1256	Administration of Activity Professionals II	4

Advanced Technical Intelligence

Program Code: ATI.S.STC • Total Semester Credit Hours 18

Description

Advanced Technical Intelligence is an upcoming field to impart special skills needed to work in the defense industry. Only U.S. citizens who can qualify and obtain secret clearance need apply. This is in partnership with ATIC (Advanced Technical Intelligence Center for Human Capital Development). Courses are offered at ATIC's secure facility as an evening program.

Career Opportunities

This short-term certificate provides opportunities to work in the intelligence field either for the military or homeland security.

EGR	1121	Introduction to Intelligence Community	3
EGR	1122	Fundamentals of Remote Sensing in Intelligence	3
EGR	1201	Introduction to Spectral Sensing with Applications in Intelligence	3
EGR	1202	Introduction to Radar	3
EGR	1211	Introduction to Large Area Surveillance	3
EGR	1212	Measurement & Signal Intelligence	3

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.**

African American Studies

Program Code: AFRE.S.STC • Total Semester Credit Hours 15

Description

Designed for students who are planning on using African American studies to enhance their careers in social work, public education, urban planning, etc. The student who pursues this short term technical certificate would plan to use this to supplement their professional development or to strengthen a major for which African American Studies is a strong base.

Career Opportunities

This certificate enhances careers in Social Work, Public Education, Urban Planning and related fields.

AFR	1100	African American Studies	3
AFR	1121	Basic Swahili OR	
LIT	2234	Literature of Africa, Asia & Latin America	3
HIS	1105	African American History	3
HIS	2215	Survey of African History	3
PSY	1160	African American Psychology	3

Aircraft Dispatcher

Program Code: ADSP.S.STC • Total Semester Credit Hours 20

Description

The aircraft dispatcher certificate provides students with the theory and operating knowledge necessary to understand the policies, procedures and means of compliance with the applicable Federal Aviation Regulations (FARs) leading to Federal Aviation Administration (FAA) Aircraft Dispatcher Certification. The program develops the knowledge and skills required to enter a career in the aviation industry as an aircraft dispatcher. To that end, students explore aircraft performance, meteorology, crew resource management, air traffic control, advanced navigation, airline operations and FAA knowledge, oral, and practical exams.

Career Opportunities

Career opportunities are available in airline and corporate aviation.

AVT	1110	Private Pilot Ground	3
AVT	1119	Aviation Meteorology	2
AVT	1246	Air Traffic Control Communications	1
AVT	2146	Introduction to Airline Operations	3
AVT	2157	Aircraft Performance I	2
AVT	2158	Aircraft Performance II	2
AVT	2159	Canadair Regional Jet (CRJ) Aircraft Systems	1
AVT	2166	Practical Dispatch Applications	3
AVT	2167	Instrument Flight Rules (IFR) Navigation & Planning	2
AVT	2168	Dispatcher Oral Preparation	1

Airline Flight Attendant

Program Code: AFAS.S.STC • Total Semester Credit Hours 12

Description

The airline flight attendant certificate provides students with the basic theory of airline travel with an understanding of the policies, procedures and means of compliance with Federal Aviation Regulations. Students explore the business of air commerce and develop the skills of a travel professional. Includes exploration of communications, safety and security, air travel, customer service, airline operations and crew resource management. This program develops the knowledge and skills required to serve as a flight attendant and to enter a career in the aviation industry.

Career Opportunities

Career opportunities are available in airline and corporate aviation.

AVT	1102	Orientation to In-Flight Services	2
AVT	1148	Aircrew Emergency Management	4
AVT	1151	Crew Survival & Rescue Techniques	3
AVT	2146	Introduction to Airline Operations	3

Automotive High Performance

Program Code: AHPC.S.STC • Total Semester Credit Hours 25

Description

This short term certificate provides in-depth, hands-on experiences in various areas of high-performance engines, an ideal choice to supplement a degree-seeking student wishing to specialize in the engine and fuel induction areas. The program is 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. Fuel systems for performance engines are covered as well.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

AUT	1108	Automotive Engine Systems	4
AUT	1115	Automotive Engine Performance I	4
AUT	2221	High Performance Engine Blocks & Heads	6
AUT	2222	High Performance Engine Assembly & Dyno Testing	6
AUT	2224	High Performance Fuel Induction Systems	5

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Bakery Specialist

Program Code: BPSE.S.STC • Total Semester Credit Hours 17

Description

The bakery specialist short term certificate is designed to provide students the knowledge and skills necessary to be employed in a commercial retail bakery after completion.

A certificate earned in this program is awarded by the college upon successful completion and can be applied toward the Hospitality Management degree/Culinary Arts Option degree program.

Career Opportunities

A student completing this short term certificate will be eligible for a position as a baker in retail grocery baking departments or as a baker in an independent bakery.

HMT	1107	Sanitation & Safety	2
HMT	1102	Kitchen Chemistry	3
HMT	1126	Baking I	4
HMT	2128	Cake Production & Decoration	4
HMT	2218	Advanced Pastry Skills	4

Basic Drawing

Program Code: DRWG.S.STC • Total Semester Credit Hours 9

Description

This short term certificate provides 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.

Career Opportunities

The art department strives to provide students with high-quality education experiences in the visual arts, and the short term certificate in Basic Drawing prepares students to enhance their freehand drawing skills —especially professionals working in the fields of graphic design or freelance illustration.

ART	1111	Drawing I	3
ART	1112	Drawing II	3
ART	1121	Beginning Painting I OR	
ART	2111	Intermediate Drawing I OR	
ART	2221	Intermediate Painting—Observation & Concept OR	
ART	2222	Intermediate Painting—The Figure OR	
ART	2216	Life Drawing & Anatomy I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Business Operations Systems Support
Program Code: BOSS.S.STC • Total Semester Credit Hours 18

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 small, medium or large companies. These skills apply equally well to an entry-level help desk support position. Technical course work emphasizes operating systems and troubleshooting skills.

Career Opportunities

Employment opportunities in IT include entry-level positions such as help desk support, PC network technicians, IT technicians, Enterprise network technicians and Network Administrators.

CIS	1107	Introduction to Operating Systems	3
ENG	1101	English Composition I OR	
ENG	1131	Business Communication	3
CIS	1130	Network Fundamentals	3
COM	2206	Interpersonal Communication	3
CIS	2550	Linux Operating System OR	
CIS	1510	Windows Client Operating System	3
CIS	2711	Enterprise Desktop Support Technician OR	
CIS	1714	A+ Operating Systems Troubleshooting	3

Chemical Dependency Counseling
Program Code: CDC.S.STC • Total Semester Credit Hours 17

Description

This series of courses meets the 270 clock hour chemical dependency specific education required by the Ohio Professional Chemical Dependency Professionals Board. It is only for individuals who have previously earned a degree in behavioral science.

Career Opportunities

According to the Department of Labor, all human service areas are going to be growing; currently the seventh fastest growing profession in the occupational outlook data.

MHT	1130	Introduction to Addictive Illnesses	3
MHT	1236	Assessment & Diagnosis Substance Use Disorders	3
MHT	2137	Treatment Techniques of Substance Use Disorders	3
MHT	2138	Ethics in Behavioral Health Care	2
MHT	2235	Family Dynamics of Addiction	3
MHT	2253	Issues in Chemical Dependency	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Clinical Phlebotomy

Program Code: CPST.S.STC • Total Semester Credit Hours 4

Description

This certificate is intended to provide entry-level competency to students seeking employment in the area of phlebotomy in health care settings. This certificate is also intended to provide expanded competencies and proficiences to practicing health care professionals and students enrolled in health science programs. The students will be required to complete 105 hours of unpaid clinicals during ALH 1114, Clinical Phlebotomy Practice. Students who complete this course will receive a certificate of completion.

Career Opportunities

Completers will be able to obtain positions as phlebotomists in hospital laboratories, outpatient clinics and private medical laboratories.

ALH	1113	Clinical Phlebotomy	2
ALH	1114	Clinical Phlebotomy Practice	2

Coaching

Program Code: COA.S.STC • Total Semester Credit Hours: 6

Description

The short term certificate in Coaching is designed to provide the foundational knowledge that is essential for coaching any sport. Coaches help athletes master new skills, enjoy competing with others and develop self-esteem. The certificate includes topics in coaching and leadership, sportsmanship, coaching diverse athletes, behavior management, sport first aid, drugs in sport, and the games approach to coaching.

Career Opportunities

Students with a Coaching certificate will find career opportunities in the school and community setting including youth organizations, recreation centers, YMCAs and city parks and recreation organizations.

ENS	2414	Foundations of Coaching	3
ENS	2415	Coaching and Leadership	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Computer Numerical Control Technology
Program Code: CNC.S.STC • Total Semester Credit Hours 26

Description

The Computer Numerical Control (CNC) Technology short-term certificate program is designed for individuals who are looking to upgrade their current manufacturing skills along with students who are interested in pursuing entry-level careers in the area of CNC machining. Coursework is focused primarily in the area of CNC lathe and mill operation, setup and programming. The courses included in this short-term certificate apply directly to the associate degree in Computer Aided Manufacturing, CNC Technology option.

Career Opportunities
Entry-level jobs in CNC Machining Operations.

CAM	1107	Principles of Manufacturing	3
CAM	1109	Fundamentals of Tooling & Machining	3
CAM	1141	Shop Floor Calculations I	3
CAM	1142	Shop Floor Calculations II	3
CAM	1213	Fundamentals of Computer Numerical Control	4
CAM	2145	Shop Floor Programming	3
CAM	2204	Computer Numerical Control Lathe Programming	3
CAM	2212	Computer Assisted Programming	3
MET	1131	Personal Computer Applications for Engineering Technology	1

Construction Supervisor
Program Code: CNTS.S.STC • Total Semester Credit Hours 29

Description

This program is designed for experienced crafts-people of the construction industry to improve their supervisory and leadership skills. Students will receive training to help them understand the building construction industry from a management perspective, including an understanding of building materials and components, the financial aspects of building construction and the management skills necessary to deal with the diverse population of the industry. Heavy emphasis will be placed on safety requirements.

Career Opportunities
Upon completing this program, crafts-people will be qualified to move into management positions within the construction industry.

CAT	1111	Mechanical Systems Blueprint Reading	1
CAT	1141	Architectural Blueprint Reading	2
CAT	1201	Construction Methods & Materials	5
CAT	1211	Construction Materials Testing	2
CAT	1401	Construction Estimating	3
CAT	1501	Construction Surveying	3
CAT	2401	Engineering Technology Project Management	3
CAT	2411	Building Codes & Construction Law	3
CAT	2431	OSHA Construction Standards	2
COM	2206	Interpersonal Communication	3
MET	1131	Personal Computer Applications for Engineering Technology	1
MET	2711	Ethics for Engineering Technology Professionals	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Construction Technician

Program Code: CNTC.S.STC • Total Semester Credit Hours 24

Description

The purpose of this certificate is to develop knowledgeable construction workers with basic skills in construction. 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.

Career Opportunities

Entry-level construction workers are in continuous demand for residential and commercial construction.

CAT	1701	Construction Craft Skills/Concrete	6
CAT	1721	Structural Framing Systems	6
CAT	1741	Residential Electrical Systems	3
CAT	1761	Interior & Exterior Finishes	3
CAT	1781	Construction Project	4
CAT	2700	Civil Architectural Technology Internship	2

Continuous Process Improvement

Program Code: CTIM.S.STC • Total Semester Credit Hours 12

Description

This short term certificate promotes technical communication skills and teamwork, project management skills, lean manufacturing and continuous improvement skills, application of quality principles, statistics and probability theories, and problem-solving skills as they relate to process improvement. This program reflects the underlying skills necessary for the successful application of six sigma methodologies and 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.

Career Opportunities

This program reflects the underlying skills necessary for the successful application of six sigma and lean methodologies. A typical title for an employee with these skills is Process Improvement Specialist.

OPT	1101	Introduction to Operations	3
OPT	1130	Lean Operations	3
OPT	2201	Statistical Process Control	3
OPT	2240	Six Sigma: Green Belt	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Corrections

Program Code: COR.STC • Total Semester Credit Hours 29

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.

Career Opportunities

There are openings in local and state correctional facilities, local nonprofit agencies providing correctional services, as well as employment through private prison corporations.

CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1105	Criminal Law	3
CJS	1110	Interrogation, Documentation, & Testimony	3
CJS	1165	Corrections	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2200	Human Relations, Mediation, & Conflict Resolution	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
SPA	1161	Conversational Spanish for Criminal Justice	3
BIS	1120	Computer Concepts & Applications	3

Crime Mapping

Program Code: CJCM.S.STC • Total Semester Credit Hours 21

Description

This short term certificate will give students knowledge of the use of Geographic Information Systems(GIS) within the area of criminal justice and homeland security. Students will be able to add this credential to their portfolio as they pursue additional educational opportunities or elect to work in the field of criminal justice.

Career Opportunities

Career opportunities include but are not limited to private security agencies, retail and banking security agencies, Federal Emergency Management Administration (FEMA), state emergency management agencies, law enforcement agencies and other first responder agencies.

BIS	1120	Computer Concepts & Applications	3
CJS	1155	Homeland Security Issues & Administration	3
CJS	2130	Terrorism & Counter—Terrorism	3
CJS	2209	Computer Crime	3
CJS	2295	Criminal Justice Science Seminar	4
GEO	1107	Introduction to Geographic Information Systems (GIS)	5

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Dietary Manager

Program Code: DMST.S.STC • Total Semester Credit Hours 17

Description

Graduates of the Dietary Managers (DM) Program are trained foodservice professionals in health care delivery systems. They understand basic nutritional needs of clients and work in partnership with dietitians, who offer specialized nutritional expertise. Approved by the Association of Nutrition and Food Professionals (ANFP), the curriculum includes 200 hours of management and clinical directed practice. Students are required to complete these experiences at area community, foodservice and health care facilities. The program is designed to be completed in two (2) part-time consecutive terms. As an integral member of the health care and foodservice management teams, dietary managers are responsible for maintaining cost/profit objectives, purchasing goods and services for the department and supervising staff. Completion of the DM Program and a national credentialing exam will enable graduates to become Certified Dietary Managers, Certified Food Protection Professionals (CDM, CFPPs). Students must submit a Life & Health Science (LHS) application electronically. LHS applications are found at http://www.sinclair.edu/academics/lhs/index.cfm. Following LHS application submission, applicants will receive a DM Applicant Information Packet that outlines admission requirements into the DM Program.

Career Opportunities

Graduates of Sinclair's Dietary Managers program can find employment in dietary departments in hospitals, long-term care facilities, day care centers, school foodservice systems, correctional institutions and other noncommercial foodservice settings. Dietary managers may work as food service directors, assistant foodservice directors, supervisors, clinical care professionals, multi-department managers, high-level administrators in large service organizations, consultants or entrepreneurs.

DIT	2510	Institutional Foodservice Systems	3
DIT	2515	Foodservice Practicum I	1
DIT	2520	Lab for Foodservice Systems	1
DIT	2740	Foodservice Practicum II	1
DIT	2735	Foodservice Organization & Management	3
HMT	1107	Sanitation & Safety	2
DIT	2180	Medical Nutrition Therapy for Dietary Managers OR	
DIT	2625	Medical Nutrition Therapy I	3
DIT	2101	Eating Matters for Dining Assistants AND	1
DIT	2190	Dietary Managers Nutrition Practicum OR	2
DIT	2630	Medical Nutrition Therapy Practicum I	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Digital Systems
Program Code: DS.S.STC • Total Semester Credit Hours 13

Description

This short term certificate offers knowledge and basic skills to work in the 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 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 high school algebra; (2) basic computer literacy; (3) Sinclair placement test results DEV 0010, Fundamentals of Reading and MAT 1270, Beginning Algebra; and (4) at least a 2.0 cumulative grade-point average (ongoing students taking the online courses).

Career Opportunities
Provides opportunity to work as a support technician in the digital electronic field.

EET	1150	D.C. Circuits	4
EET	1131	Digital Electronics	5
EET	2261	Microprocessors	4

Drafting & Design
Program Code: DD.S.STC • Total Semester Credit Hours 28-29

Description

Introduction to the industrial design process and computer-aided drafting and design. Students are exposed to the latest version of AutoCAD and other design software. Students select courses in either a mechanical or architectural drafting track.

Career Opportunities
Professionals with CAD design skills are in demand by both mechanical and architectural design firms.

COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MET	1131	Personal Computer Applications for Engineering Technology	1
Mechanical			
MET	1101	Introduction to Engineering Drafting	2
MET	1201	Introduction to Engineering Design using Inventor	2
MET	1301	Solidworks Basics	3
MET	1331	Unigraphics Basics	3
MET	1351	SolidEdge Basics	3
MET	1371	CAD Concepts using AutoCAD	3
MET	1281	Engineering Design & Development	2
Architectural			
CAT	1101	Architectural Drafting	3
CAT	1121	Introduction to Revit	3
CAT	1131	Introduction to Revit MEP	3
CAT	2101	CAD Design in Revit	5
CAT	2111	Building Mechanical & Electrical Systems	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Electrical Construction

Program Code: EETEC.S.STC • Total Semester Credit Hours 24

Description

This short-term certificate will fulfill the needs of the electrical construction industry for educating and training electricians in the Dayton and Cincinnati area. (Each course is taken twice for a total of 6 credit hours.)

Career Opportunities

Completion of the Electrical Construction certificate prepares the student for work as an electrician.

EET	1181	Electrical Construction I	3
EET	1182	Electrical Construction II	3
EET	1183	Electrical Construction III	3
EET	1184	Electrical Construction IV	3

Electrocardiography

Program Code: ELST.S.STC • Total Semester Credit Hours 3

Description

This program is intended to provide expanded skills among health care professionals as well as current Life & Health Sciences students to increase marketability for employment. The students will be required to complete 25 hours of unpaid clinical during ALH 1110, Principles of Electrocardiography. Students who complete this program will receive a short term technical certificate in electrocardiography.

Career Opportunities

Electrocardiography Technician

ALH	1110	Principles of Electrocardiography	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Emergency Medical Technician

Program Code: EBST.S.STC • Total Semester Credit Hours 7

Description

Emergency Medical Technicians (EMTs) are essential members of the health care team who provide time sensitive care to patients. These individuals take the emergency department to people's homes, to highways and to other remote locations. EMTs bring life-saving equipment and knowledge to bear in an effort to reduce patient's suffering and to save lives. Students will use lecture, laboratory and real world exposure to emergencies to learn the skills needed to care for the sick and injured in the out-of-hospital environment. The program is offered to provide students with variability and flexibility in scheduling. For more information, contact the EMS department at (937) 512-5338 for an entrance application packet.

Note: A federal and state background check of a student's past legal history may be evaluated. Ohio Division of EMS Accreditation Number 326

Career Opportunities

Within the greater Miami Valley area, EMS professionals are hired by fire departments, private EMS and hospitals. These agencies typically hire entry personnel based on the candidates state licensures/certifications, not whether the candidate is degreed. When local departments are hiring full-time employees, many of them are looking for paramedic/firefighters.

EMS	1150	Emergency Medical Technician: Lecture	5
EMS	1155	Laboratory for Emergency Medical Technician	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Emergency Medical Responder

Program Code: EMR.S.STC • Total Semester Credit Hours: 2

Description

Emergency Medical Responders (EMR's) are personnel, typically not found within the healthcare setting, who as part of their job have to care for the sick and injured before an ambulance arrives. These individuals are educated to stabilize patients using very limited amounts of medical equipment. Police officers, safety officers, and others who would be expected to arrive at the scene of an injury or illness before the ambulance could benefit from this education. Students will use lecture and laboratory environments to learn the skills needed to care for patients. For more information, contact the EMS department for an entrance application packet. Ohio Division of EMS Number 326

Career Opportunities

EMR's education can be used as within firefighting, police or safety officer roles. Most companies / departments will not hire a person who is solely an EMR. The purpose of this education is to augment the skills of those who may need to care for the sick and injured before the ambulance arrives.

EMS	1100	Emergency Medical Responder Lecture & Laboratory	2

Energy Technology

Program Code: ENRGY.S.STC • Total Semester Credit Hours 27-28

Description

This program is intended for students who are interested in an entry-level position in the field of energy services. This program consists of HVAC, energy analysis and management, energy services and renewable energies courses.

Career Opportunities

Energy technicians who can perform energy audits and test structures for energy efficient characteristics are in increasing demand.

CAT	1111	Mechanical Systems Blueprint Reading	1
EET	1120	Introduction to D.C. & A.C. Circuits	2
EGV	1101	Alternate & Renewable Energy Sources	2
EGV	1201	Weatherization Training	2
EGV	1251	Introduction to Energy Management Principles	3
EGV	1301	Architectural Energy Analysis	2
EGV	1101	Alternate & Renewable Energy Sources	2
HVA	1201	Basic HVAC Systems with Cooling	3
HVA	1221	Heating Systems	3
HVA	1261	HVAC Loads & Distribution for Small Buildings	3
MET	1131	Personal Computer Applications for Engineering Technology	1
PHY	1100	Introduction to Physics OR	
PHY	1131	Technical Physics	3-4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Exercise Specialist

Program Code: ESS.S.STC • Total Semester Credit Hours 29

Description

The 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.

Career Opportunities

Students completing the certificate program will find careers in many types of fitness centers (YMCA, Recreation Centers, local fitness facilities and corporate fitness) and will be employed as fitness staff, personal trainers and group fitness instructors.

BIO	1121	Human Anatomy & Physiology I	3
COM	2211	Effective Public Speaking	3
DIT	1111	Nutrition for Health & Fitness	3
ENG	1101	English Composition I	3
ENS	1110	First Aid & CPR	2
ENS	1116	Introduction to Exercise Science & Health Promotion	3
ENS	1118	Lifetime Physical Fitness & Wellness	3
ENS	2318	Fitness Assessment & Exercise Prescription	3
ENS	2416	Certification Preparatory Course	3
ENS	2417	Methods of Teaching	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Expanded Functions for Dental Auxiliaries

Program Code: EFDA.S.STC • Total Semester Credit Hours 13

Description

The Expanded Functions Dental Auxiliary (EFDA) Certificate is designed to prepare graduates for positions in private practice dental offices, dental clinics, federal, state and municipal health facilities. The Ohio State Dental Board allows Certified Dental Assistants and Registered Dental Hygienists to enroll in this training. Emphasis is placed on sealants, amalgam restorations, composite restorations and temporary restorations. Students will receive instruction and hands-on experience in restorative dentistry as it relates to expanded functions in Ohio. Once the training is complete, the student must take a state written and practical exam to demonstrate proficiency in placement of dental restorations.

Career Opportunities

The Expanded Functions Dental Auxiliary Profession offers opportunities with excellent income and flexible scheduling. While most EFDAs work in general and specialty dental offices, alternative career opportunities are available. These include public health departments, community programs and clinics, teaching institutions, consumer advocate and consulting.

EFD	1102	Dental Anatomy for Dental Auxiliaries	1
EFD	1202	Expanded Functions for Dental Auxiliaries I	6
EFD	1302	Expanded Functions for Dental Auxiliaries II	6

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Facilities Management

Program Code: FCMG.S.STC • Total Semester Credit Hours 29

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, safety, security and sustainability. A facility manager must have a broad-based education in technical, business and management-related courses. Possible employers include schools, hospitals, manufacturing plants and government offices.

Career Opportunities

Students can work in various facility management roles for a variety of industries and government agencies.

CAT	1121	Introduction to Revit	3
CAT	2111	Building Mechanical & Electrical Systems	3
CAT	2411	Building Codes & Construction Law	3
CJS	1155	Homeland Security Issues & Administration	3
EGV	1251	Introduction to Energy Management Principles	3
FST	1120	Fire Safety Inspector	4
MAN	2110	Introduction to Project Management	3
MAN	2150	Management & Organizational Behavior	3
MET	1131	Personal Computer Applications for Engineering Technology	1
	XXXX	Facilities Management Elective	3

Facilities Management Electives

CAT	1111	Mechanical Systems Blueprint Reading	1
CAT	1141	Architectural Blueprint Reading	2
EGV	1301	Architectural Energy Analysis	2
EMS	1100	Emergency Medical Responder Lecture & Laboratory	2
FST	2202	Building Construction for Fire Protection	3
HVA	1201	Basic HVAC Systems with Cooling	3
MAN	2155	Management Information Systems	3

Family Advocate

Program Code: FAMA.S.STC • Total Semester Credit Hours 18

Description

A short term certificate competency based, task-specific training for Head Start Family Specialists, Family Service Specialists and Family Workers whose job it is to provide the support services which are needed by families to enhance the quality of their family life. Courses in this curriculum will 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; aid in the development of beginning computer skills.

Career Opportunities

This certificate enhances career opportunities in agencies and organizations that provide a wide variety of social services.

BIS	1120	Computer Concepts & Applications	3
SOC	1101	Introduction to Sociology	3
SOC	1115	Sociology of Marriage & Family	3
SWK	1206	Introduction to Social Work	3
SWK	1213	Introduction to Social Welfare	3
SWK	2207	Cultural Competence in a Diverse World	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Fast Track Programming
Program Code: FTPA1.S.STC • Total Semester Credit Hours 21

Description

This certificate assures that individuals are equipped with current software development skills. It is intended either for experienced programmers looking to update their skill set or for people wishing to make a career change into the Information Technology field. The certificate focuses on the latest software development languages and approaches, object-oriented concepts and database theory.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts, and network engineers. According the Bureau of Labor and Statistics: "Overall, employment of computer software engineers and computer programmers is projected to increase by 21 percent from 2008 to 2018, much faster than the average for all occupations." *Retrieved August 26, 2010 http://www.bls.gov/oco/ocos305.htm*

CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1140	Information Systems Analysis & Design	3
CIS	1202	C++ Software Development I	3
CIS	2165	Database Management	3
CIS	2207	C++ Software Development II	3
CIS	2212	Java Software Development I	3
CIS	2217	Java Software Development II	3

Fire Department Company Officer
Program Code: FCO.S.STC • Total Semester Credit Hours 8

Description

Develop management, supervision and leadership skills that company-grade officers need to manage and command multi-company fire situations. This certificate meets the objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Level II.

Career Opportunities

It is believed that many more communities will be requiring minimum training and education requirements for promotion.

FST	2251	Fire Officer I	5
FST	2252	Fire Officer II	3

Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Fire Department Executive Officer

Program Code: FEO.S.STC • Total Semester Credit Hours 6

Description

Develop management, supervision and leadership skills required by upper-level executive-grade officers. These skills are needed to effectively manage fire protection and emergency services in today's complex fire service environment and command complex multi-company and multi-jurisdictional emergency incidents. This certificate meets objectives of the National Fire Protection Association (NFPA) Standard 1021, Fire Officer Professional Qualifications Levels III and IV.

FST	2253	Fire Officer III	3
FST	2254	Fire Officer IV	3

Ford Maintenance & Light Repair

Program Code: FMLR.S.STC • Total Semester Credit Hours 14

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, without loss of credits, by completing the requirements for the associate degree in the comprehensive automotive technology program.

Career Opportunities

Career opportunities are available in positions for automotive service technicians in Ford dealerships, independent shops and automotive machine shops. In addition, graduates are also employed as service managers, shop foremen, parts managers, sales representatives or automotive instructors. Graduates with practical experience, education, willingness to work and a high degree of professionalism may expect to find jobs in middle management or research occupations within major automotive corporations.

AUT	1114	Ford Electrical/Electronic Systems I	3
AUT	1102	Introduction to Automotive Service	2
AUT	1165	Automotive Brake Systems	3
AUT	1116	Automotive Steering & Suspension Systems	3
AUT	1146	Automotive Heating Ventilation & Air Conditioning Systems	3

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.**

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General Aviation Maintenance

Program Code: GAM.S.STC • Total Semester Credit Hours 24

Description

The General Aviation Maintenance certificate provides the knowledge and skills required by the Federal Aviation Administration (FAA) for the airframe and powerplant maintenance technician student. Students will learn to apply mathematics and physics, read and interpret aircraft drawings, conduct ground operations and servicing of aircraft, interpret maintenance publications, interpret FAA regulations, make correct and legal aircraft record entries, perform weight and balance calculations, understand basic electricity, understand makeup of materials used in aircraft manufacture, understand aircraft fasteners, inspect welds, inspect for aircraft deterioration (corrosion) and understand and perform aircraft repair methods.

Career Opportunities

Boeing Commercial Aircraft Company recently predicted 1,000,000 more jobs in aviation in the next 15 years. Airbus of Europe has predicted about 800,000 more jobs in the next 15-20 years. Both predictions are based on anticipated growth in aircraft production and flying passengers. Many mechanics will reach retirement age in the next three years as a result of an interruption of current certificates issued by the FAA. More jet aircraft means more need for mechanics. The general aviation sector already has a shortage of certificated mechanics.

AVT	1113	Drawings for Aviation	3
AVT	1116	Regulations for Maintenance	3
AVT	1118	Weight & Balance	3
AVT	1131	Basic Aviation Electricity	3
AVT	1135	Materials & Processes	4
AVT	1213	Corrosion	3
AVT	2143	Review & Recommendation	2
AVT	2237	Aircraft Inspections	3

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.**

Geographic Information Systems

Program Code: GEOIS.S.STC • Total Semester Credit Hours: 20

Description

The Geographic Information Systems (GIS) short-term certificate will provide students with both theoretical and practical applications of GIS. The certificate will cover the foundational concepts in GIS, including the principles of cartography and GIS, database management and analysis, data acquisition, and manipulation of georeferencing and geocoding

Career Opportunities

Students completing this certificate may obtain an entry level position with state and local government, business, non-profit organizations and the Defense Industry.

CIS	2165	Database Management	3
GEO	1107	Introduction to Geographic Information Systems (GIS)	5
GEO	1209	Introduction to Cartography	4
GEO	2210	Advanced Spatial Analysis	4
MAT	1450	Introductory Statistics	4

Geospatial Technology Programming Specialist

Program Code: GST.S.STC • Total Semester Credit Hours 23

Description

Students learn advanced applications in geographical information system software, ArcGIS; C++ software programming skills; how to design and implement websites for internet delivery of data; design and administer relational databases; query databases using SQL.

Career Opportunities

Graduates of this degree will be able to build upon already existing programming skills to find employment in government and within private industry employing computer programmers with general GIS skills and knowledge. Possible positions include: Database Developer & Software Applications Programmer.

According to the Bureau of Labor and Statistics (www.bls.gov), "As a result of rapid employment growth over the 2008 to 2018 decade, job prospects for computer software engineers should be excellent."

CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1202	C++ Software Development I	3
CIS	1304	Web Site Development with HTML/JavaScript	3
CIS	2165	Database Management	3
CIS	2207	C++ Software Development II	3
CIS	2268	Introduction to Oracle	3
GEO	1107	Introduction to Geographic Information Systems (GIS)	5

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Homeland Security

Program Code: CJHS.S.STC • Total Semester Credit Hours 29

Description

This short term certificate will provide students with an overview of homeland security practices, policies and programs in homeland security.

Career Opportunities

Career opportunities include but are not limited to private security agencies, retail and banking security agencies, Federal Emergency Management Administration (FEMA), state emergency management agencies and other first responder agencies.

BIS	1120	Computer Concepts & Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2130	Terrorism & Counter-Terrorism	3
CJS	2205	Introduction to Criminal Investigation & Forensic Science	3
CJS	1110	Interrogation, Documentation & Testimony	3
CJS	1155	Homeland Security Issues & Administration	3
EMS	1100	Emergency Medical Responder Lecture & Laboratory	2
OPT	2211	Industrial Risk Management	2
SCC	1101	First Year Experience	1

Human Resource Management

Program Code: HRMT.S.STC • Total Semester Credit Hours 18

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 business as well as employee motivation. Also addresses human resource applications in strategic human resource management, workforce planning and employment, human resource development, total compensation and rewards, employee and labor relations and risk management. Contemporary approach to human resource management using a diagnostic model of internal and external influences.

Career Opportunities

Students completing this certificate will be qualified to apply for Human Resource Specialist positions, in some cases, or will be prepared to further their studies in the human resources area within a four-year institution.

COM	2206	Interpersonal Communication	3
FIN	9260	Employee Benefits	3
MAN	2140	Human Resource Management	3
MAN	2155	Management Information Systems	3
MAN	2144	Negotiation Techniques	3
MAN	2150	Management & Organizational Behavior	3

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.**

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HVAC Light Commercial & Residential Service

Program Code: LCHS.S.STC • Total Semester Credit Hours 27

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 HVAC systems. The hands-on component uses the types of equipment installed in the field.

Career Opportunities

Students find work as service technicians or performing installation work for commercial and residential contractors.

CAT	1111	Mechanical Systems Blueprint Reading	1
EET	1120	Introduction to D.C. & A.C. Circuits	2
EET	1139	Electrical Machinery	3
HVA	1201	Basic HVAC Systems with Cooling	3
HVA	1221	Heating Systems	3
HVA	1261	HVAC Loads & Distribution for Small Buildings	3
HVA	1241	HVAC Installation Techniques & Practices	4
HVA	1451	Testing, Adjusting & Balancing in HVAC Systems	3
HVA	1401	HVAC Mechanical & Electrical Troubleshooting	4
MET	1131	Personal Computer Applications for Engineering Technology	1

Industrial Fire Protection Technician

Program Code: IFPT.S.STC • Total Semester Credit Hours 14

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. This certificate prepares the student to take the National Institute for Certification in Engineering Technologies Level I, Fire Protection Examination.

Career Opportunities

More and more states are moving to National Institute of Certification of Engineering Technologies standards for employment in the fire protection systems field.

FST	1111	Fire Behavior & Combustion	3
FST	1113	Fire Prevention	3
FST	2201	Fire Protection Hydraulics & Water Supply	3
FST	2204	Fire Protection Systems	5

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Industrial Maintenance Technician

Program Code: INDMT.S.STC • Total Semester Credit Hours 27

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.

Career Opportunities

This certificate will provide the necessary background to perform industrial maintenance operations on a wide range of electro-mechanical equipment.

EET	1120	Introduction to D.C. & A.C. Circuits	2
EET	1139	Electrical Machinery	3
EET	1166	Industrial Machine Wiring	2
EET	2281	Programmable Logic Controllers	3
EGR	1100	Fundamental Mechnical & Electrical Skills	3
EGR	1128	Robotics in Computer Integrated Manufacturing Systems	3
EGR	1144	Sensor & Vision Systems	4
EGR	1217	Fluid Power & Control	2
EGR	2231	Troubleshooting of Automated Systems	3
MET	1101	Introduction to Engineering Drafting	2

Information Systems Security

Program Code: ISSC.S.STC • Total Semester Credit Hours 18

Description

This certificate will help prepare students and working professionals to perform effectively in the Information Assurance area of Information Technology. The courses required for this certificate have been reviewed and validated by the Committee on National Security Systems (CNSS), an agency of the United States Government, to fully meet the CNSS 4011 standard. Students completing the courses outlined here will receive the 4011 Certificate jointly issued by Sinclair Community College and the CNSS.

Because the specified content in these six courses has been approved, course credit earned by articulated or proficiency cannot be accepted.

CIS	1107	Introduction to Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	2717	A+ Certification IT Technician	3
CIS	2510	Microsoft Windows Server Operating System	3
CIS	2640	Network Security	3
CIS	2630	Securing a Windows Network Environment	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Law Enforcement

Program Code: CJLES.S.STC • Total Semester Credit Hours 29

Description

This short term certificate prepares the learner for future training and education in the field of law enforcement. The certificate enhances law enforcement professional skills and knowledge. It may assist the student in performing well in future civil service examinations for employment or promotion.

Career Opportunities

There are openings in local and state law enforcement agencies as well as private investigation and personal protection agencies.

BIS	1120	Computer Concepts & Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1105	Criminal Law	3
CJS	1110	Interrogation, Documentation, & Testimony	3
CJS	1125	Policing	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	1104	Criminal Justice Evidence & Procedure	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
SPA	1161	Conversational Spanish for Criminal Justice	3

Linux Security & Network Essentials

Program Code: LSNE.S.STC • Total Semester Credit Hours 12

Description

The Linux Security and Network Essentials short term certificate is an information technology certificate concentrating on teaching specific skills pertaining to the fundamentals of the Linux operating system, Linux security and network and data communications.

Career Opportunities

Opportunities include Linux administrators and Linux consultants.

CIS	1107	Introduction to Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	2550	Linux Operating System	3
CIS	2560	Fundamentals of Linux Security	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Manufacturing Management

Program Code: MM.S.STC • Total Semester Credit Hours 19

Description

This short term 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 his/her individual needs and interests.

Career Opportunities

The purpose of this certificate 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.

OPT	1101	Introduction to Operations	3
OPT	1125	World Class Operations	3
OPT	1126	Supervision , Team Leadership & Project Management	3
OPT	1198	Excel for Engineering Technology	1
OPT	2208	Engineering Technology Economics & Cost Analysis	3
OPT	2251	Supply Chain Operations & Logistics	3
OPT	XXXX	Technical Elective	3

Technical Electives

OPT	1136	Plastics & Composites	3
OPT	2211	Industrial Risk Management	2
OPT	2221	Quality Assurance	3
OPT	2225	Design & Process Failure Mode & Effects Analyses	1

Measurement & Calibration

Program Code: MTCAL.S.STC • Total Semester Credit Hours 24

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. The courses in this short term certificate apply directly to the Operations Technology degree.

Career Opportunities

This certificate provides sufficient background to pass the ASQ Certified Calibration Technician exam and prepares individuals for jobs in that field.

CAM	1107	Principles of Manufacturing	3
OPT	1113	Coordinate Measurement	3
OPT	1198	Excel for Engineering Technology	1
OPT	2225	Design & Process Failure Mode & Effects Analyses	2
OPT	2267	Quality Certification Review	3
OPT	1100	Tooling & Machining Metrology	2
OPT	1101	Introduction to Operations	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	2201	Statistical Process Control	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

SINCLAIR
COMMUNITY COLLEGE

Medical Coding & Billing Specialist
Program Code: MCBS.S.STC • Total Semester Credit Hours 23

Description

The Medical Coding and Billing Specialist certificate prepares students for entry-level coding and billing positions in physician medical offices, medical insurance companies and outpatient billing services.

Students will develop skills to accurately determine diagnostic and procedural code number assignments that impact medical reimbursement. Skill sets include application of ICD-9-CM or ICD-10-CMs; CPT and HCPCS coding systems; medical terminology; anatomy and physiology and disease processes; processing insurance claims and reimbursement practices.

The Medical Billing and Coding Specialist certificate can be completed in the traditional classroom setting or completely online or a combination of both delivery systems.

Students must receive a grade of C or higher in all courses in the MCBS.STC and have a GPA of 2.0 to receive the certificate.

Career Opportunities

Employment prospects for medical coding and billing specialists are excellent throughout the nation. Career opportunities include: physician medical offices, medical insurance companies and outpatient billing services.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1140	Fundamentals of Disease Processes	3
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
HIM	1101	Medical Terminology	2
HIM	1165	Drug Classification for Coding	1
HIM	1201	Introductory Medical Office Coding	4
HIM	2262	Advanced Medical Office Coding	3
MAS	2210	Medical Billing Specialist	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Medical Office Receptionist

Program Code: MOR.S.STC • Total Semester Credit Hours 16

Description

The Medical Office Receptionist certificate prepares students for entry-level employment in the medical office environment performing scheduling, monitoring patient appointments, out-patient procedures, medical and office equipment maintenance, storing supplies and pharmaceuticals. The program is designed to develop knowledge and understanding of medical language and documentation.

Career Opportunities

Options for those who complete the certificate include: urgent care, surgicare and ambulatory care centers, as well as health maintenance organizations (HMO's), multi-physician group practices and medical specialty clinics.

ALH	1101	Introduction to Healthcare Delivery	2
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAS	1101	Introduction to Medical Assisting	3
MAS	1110	Administrative Medical Assisting I	2
SCC	1101	First Year Experience	1

Network Engineering Associate

Program Code: NEA.S.STC • Total Semester Credit Hours 18

Description

This certificate program will provide the student with state-of-the-art networking skills taught via the Cisco Networking Academy curriculum. The curriculum includes 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, configuration and troubleshooting corporate network infrastructure. Included in this program are networking theory, Open Systems Interconnection (OSI) model, networking media, physical and logical design, maintaining networking equipment, designing and implementing internet protocol schemas, the basics of all current internal routing protocols, beginning security information and safety.

Career Opportunities

Employment opportunities in IT include entry-level positions such as network security analyst, network architect and network engineer.

CIS	1107	Introduction to Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	1411	Cisco Network Fundamentals	3
CIS	2416	Cisco Routing Protocols & Concepts	3
CIS	2421	Cisco Switching & Wireless Routing	3
CIS	2426	Cisco Accessing the WAN	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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SINCLAIR
COMMUNITY COLLEGE

Nurse Aide Training

Program Code: NAST.S.STC • Total Semester Credit Hours 4

Description

Provide education to individuals in the basic skills necessary to provide personal care services and activities under the delegation and supervision of a registered or licensed practical nurse to residents in a long-term care facility.

Career Opportunities

Possible positions include: Nurse Aides, Home Health Care Aides & Patient Care Assistants.

ALH	1120	Nurse Aide Training	4

Ohio Real Estate Sales Associate

Program Code: RESS.S.STC • Total Semester Credit Hours 9

Description

This certificate program is designed for the person who is interested in a career in real estate sales. All of the successful completers will receive the Ohio Real Estate Sales Associate Certificate.

Career Opportunities

The U.S. Bureau of Labor Statistics says: "Employment of real estate brokers and sales agents is expected to grow 14 percent during the 2008-18 decade, faster than average for all occupations" (Occupational Outlook Handbook, 2010-11). According to the Ohio Department of Jobs & Family Services in 2010, the statewide average annual wage for real estate sales agents is over $58,000. Employment opportunities for sales representatives are available in real estate firms. Sinclair's office of Career Services provides job search help to the program's graduates.

RES	1101	Real Estate Principles	3
RES	1201	Real Estate Law	3
RES	2301	Real Estate Finance & Appraisal	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Pharmacy Technician

Program Code: PHT.S.STC • Total Semester Credit Hours 26-27

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 record keeping. A portion of this program will involve 75 hours of simulated directed practice. Upon completion of the program students may take the Pharmacy Technician Board Examination I.

Career Opportunities

Pharmacy Technician in retail and mail-order settings, hospital pharmacies, nursing homes and home health care sites.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1122	Pharmacy Technician I	5
ALH	1123	Pharmacy Technician II	5
ALH	1140	Fundamentals of Disease Processes	3
BIO	1107	Human Biology OR	
BIO	1121	Human Anatomy & Physiology I OR	
BIO	1141	Principles of Anatomy & Physiology I	3-4
ENG	1101	English Composition I OR	
ENG	1131	Business Communication	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math OR	
MAT	1270	Beginning Algebra	3

Photographic Technology

Program Code: PHOT.S.STC • Total Semester Credit Hours 29

Description

This short term certificate is designed for the serious photographer or student desiring a job in the photographic studio/photographic processing industry. The certificate ensures proficiency in composing a good photograph in the studio or field and developing and printing photographs in black and white and color. The student will learn studio technique and how to operate both manual 35 mm and digital cameras. Basic computer imaging techniques will also be covered. The completion of the certificate will ensure the student has a well rounded knowledge of photographic technique and applications.

Career Opportunities

The Art department strives to provide students with high-quality education experiences in the visual arts and the short term certificate in Photographic Technology prepares students to enhance their skills as photographers and, if desired, to enter the photographic studio/photographic processing industry.

ART	1161	Black & White Darkroom Photography I	3
ART	1162	Black & White Darkroom Photography II	3
ART	1170	Non-Silver Photography	3
ART	1171	Studio Photography	3
ART	1175	Computer Photography	3
ART	2235	History of Photography	3
ART	2265	Digital Color Photography I	3
ART	2294	Photography Portfolio Development	1
CHE	1311	College to Chemistry I	4
MAT	1120	Business Math OR	
MAT	1440	Excursions in Mathematics	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Powerplant Aviation Maintenance

Program Code: PPAM.S.STC • Total Semester Credit Hours 27

Description

The Powerplant Aviation Maintenance certificate provides the knowledge and skills required by the Federal Aviation Administration (FAA) for the powerplant maintenance technician student. Students will learn to apply all the knowledge and skills in the lab portion.

Career Opportunities

Boeing Commercial Aircraft Company recently predicted 1,000,000 more jobs in aviation in the next 15 years. Airbus of Europe has predicted about 800,000 more jobs in the next 15-20 years. Both predictions are based on anticipated growth in aircraft production and flying passengers. Many mechanics will reach retirement age in the next three years as a result of an interruption of current certificates issued by the FAA. More jet aircraft means more need for mechanics. The general aviation sector already has a shortage of certificated mechanics.

AVT	1128	Powerplant Safety Systems	3
AVT	2122	Ignition & Starting	4
AVT	2126	Reciprocating Engines	7
AVT	2129	Propellers	4
AVT	2138	Engine Fuel & Fuel Metering	3
AVT	2139	Induction/Exhaust/Cooling	2
AVT	2219	Turbine Engines	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Professional Communication

Program Code: COM.S.STC • Total Semester Credit Hours 27

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 in a variety of professional settings. The results of a 2011 survey by the National Association of Colleges and Employers showed verbal communication skills as the number one soft skill that employers sought in new college graduates looking to join their organizations.

Career Opportunities

A Professional Communication Certificate can provide opportunities in journalism, speech education, business, industry, government, broadcast media, law, ministry, social services, public relations, or provide valuable communication skills to enrich any career. Enhancing communication skills provides invaluable benefits for all students, regardless of major or career path.

COM	2201	Introduction to Mass Communication	3
COM	2211	Effective Public Speaking	3
COM	2220	Introduction to Communication Theory	3
COM	2225	Small Group Communication	3
COM	2230	Non-verbal Communication	3
COM	2245	Intercultural Communication	3
COM	2206	Interpersonal Communication	3
COM	2235	Principles of Interviewing OR	
COM	2287	Effective Listening	3
COM	2286	Public Relations Principles OR	
COM	2290	Introduction to Broadcasting	3

Professional Firefighter

Program Code: PFC.S.STC • Total Semester Credit Hours 11

Description

Provides training for full-time, part-time and volunteer firefighters to obtain the certifications necessary to meet the requirements of the National Fire Protection Association Standard 1001, Firefighter I and II.

Career Opportunities

Professional firefighter in the State of Ohio.

FST	1102	Firefighter I	6
FST	1103	Firefighter II Transition	5

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Radio Frequency Identification (RFID)

Program Code: RFID.S.STC • Total Semester Credit Hours 6-8

Description

This program is an introduction to the basics of Radio Frequency Identification (RFID) principles with a business or engineering technology orientation. Various RFID technologies, RFID project planning and implementation of basic business solutions or RFID hardware setup, maintenance and troubleshooting will be covered. Emphasis is on a team approach to management and technology aspects of design and implementation of a basic system.

Career Opportunities

There is an ever-increasing use and adaptation of RFID technology in business, manufacturing and the defense industry.

EET	2257	Radio Frequency Identification (RFID) Capstone	3
EET	2157	Radio Frequency Identification (RFID) Technology OR	
MAN	1106	Introduction to Radio Frequency Identification (RFID)	1-3
MAN	1157	Management Applications of Radio Frequency Identification (RFID)	2

Social Service

Program Code: SOCS.S.STC • Total Semester Credit Hours 27

Description

The Social Service short term certificate is designed to provide the tools needed for employees and volunteer leaders related to human service agencies and nonprofit organizations 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.

Career Opportunities

This certificate enhances careers in sociology, social work, education, government, health care, public safety, human services, nonprofit organizations and related fields.

CJS	2145	Correctional Case Management	3
COM	2206	Interpersonal Communication	3
MHT	2250	Child & Adolescent Mental Health	3
SOC	1101	Introduction to Sociology	3
SOC	2130	Sociology of Family Violence	3
SOC	2205	Social Problems	3
SWK	1206	Introduction to Social Work	3
SWK	1213	Introduction to Social Welfare	3
SWK	2207	Cultural Competence in a Diverse World	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Software Application for the Professional

Program Code: SA.S.STC • Total Semester Credit Hours 15

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.

Career Opportunities

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

BIS	1120	Computer Concepts & Applications	3
BIS	1220	Word Processing Software	3
BIS	1230	Spreadsheet Software	3
BIS	1240	Presentation Software	2
BIS	1250	Desktop Publishing Software	1
BIS	1260	Database Software	3

Special Medical Imaging

Program Code: RAT.S.STC • Total Semester Credit Hours 13-25

Description

The short term certificate in special medical imaging is designed to provide radiographers certified by the American Registry of Radiologic Technologists (ARRT) with didactic and clinical education in Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and Mammography. Didactic courses focus on current CT, MRI and Mammography principles while clinical courses provide students with real-life experience and development of hands-on skills needed to pursue employment opportunities in CT, MRI and Mammography.

Career Opportunities

Completion of this short-term certificate program can lead to employment in comprehensive hospitals, suburban or rural outpatient centers or physician offices as Computed Tomography Technologists, Magnetic Resonance Imaging Technologists and Mammographers.

RAT	2640	Computed Tomography Practicum	1-4
RAT	2641	Principles of Computed Tomography	2
RAT	2643	Principles of Magnetic Resonance Imaging	2
RAT	2644	Applications of Magnetic Resonance Imaging	2
RAT	2645	Magnetic Resonance Imaging Practicum	1-4
RAT	2647	Principles of Mammography	3
RAT	2649	Mammography Practicum	2-8

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Specimen Processing

Program Code: SP.S.STC • Total Semester Credit Hours 18

Description

The Specimen Processing certificate prepares students for entry-level employment in the clinical laboratory setting performing specimen collection, quality assurance and other techniques fundamental to specimen processing. The program is designed to develop knowledge and understanding of medical terminology, lab rules and regulations, and universal precautions for a clinical laboratory.

Career Opportunities

Employment opportunities exist for certificate completers in hospital laboratories, research laboratories, pharmaceutical companies and biotechnology companies.

ALH	1101	Introduction To Healthcare Delivery	2
ALH	1113	Clinical Phlebotomy	2
ALH	1114	Clinical Phlebotomy Practice	2
ALH	1115	Specimen Processing	2
BIO	1107	Human Biology	3
BTN	1120	Laboratory Safety & Regulatory Compliance	2
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
HIM	1101	Medical Terminology	2

Tax Practitioner

Program Code: TAXP.S.STC • Total Semester Credit Hours 15

Description

The Tax Practitioner certificate prepares students for work in the tax preparation field. As tax law changes and grows more complex, more people seek professional tax preparation assistance. The Tax Practitioner certificate covers federal, state and local tax law. The Tax Practitioner certificate will prepare students for the Registered Tax Preparer Exam that the Internal Revenue Service is instituting with the 2012 tax season.

Career Opportunities

Tax preparers may work as employees for companies or work as an independent tax preparer.

ACC	1210	Introduction to Financial Accounting	3
ACC	2321	Federal Taxation	3
ACC	1220	Introduction to Managerial Accounting	3
ACC	2322	Advanced Taxation	3
ACC	1510	Computerized Accounting Systems	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Tissue Banking Technology
Program Code: TBT.S.STC • Total Semester Credit Hours 20

Description

The Tissue Banking Technology 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 in this program will gain basic knowledge of human anatomy, medical terminology, sterile techniques, surgical recovery and processing techniques, ethics and regulatory standards. Students will also be eligible to take the national Certified Tissue Banking Specialist (CTBS) exam upon program completion.

Career Opportunities

Careers in tissue banking technology are growing both locally and nationally, as interest in new graft technology continues to rise. Locally, CBCCTS is expanding operations and opening a new processing facility that will increase current processing capacity by 40%.

BIO	1107	Human Biology	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Math	3
SUT	1101	Tissue Banking I	4
SUT	1107	Laboratory for Tissue Banking I	1
SUT	2101	Tissue Banking II	2
SUT	2107	Practicum for Tissue Banking II	2

Unmanned Aerial Systems
Program Code: UAS.S.STC • Total Semester Credit Hours: 24-25

Description

The Unmanned Aerial Systems Short Term Certificate prepares students for entry level positions as technicians in the Unmanned Aerial Systems (UAS) industry by providing foundational knowledge and skill in UAS mission planning, decision making and data management.

Career Opportunities

The demand for Unmanned Aerial Systems is increasing at a phenomenal rate. Trained professionals are needed to operate and maintain them. A shift in military strategies and the demand for use in the private sector as well as other government agencies has fueled an industry which is estimated to explode to over $20 billion in the next decade. With Wright Patterson Air Force Base nearby and other area companies vying to participate, the Dayton region is poised to take advantage of this explosion.

AVT	1101	Introduction to Unmanned Aerial Systems	2
AVT	1110	Private Pilot Ground School	3
AVT	1119	Aviation Meteorology	2
AVT	1246	Air Traffic Control Communication	1
AVT	2143	Review & Recommendation	2
AVT	2700	Aviation Internship OR	
AVT	2279	Unmanned Aerial Systems Project	2-3
EET	1120	Introduction to D.C. & A.C. Circuits	2
EET	1158	Satellite Tool Kit	2
EET	1164	PC Assembly	4
EET	2220	Avionics & UAS Sensors	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Web Programming

Program Code: WW1.S.STC • Total Semester Credit Hours 21

Description

The Web Programming certificate is designed to provide an individual with current web development skills. It focuses on techniques for developing web-based distributed applications using standard languages and protocols such as HTML, JavaScript, CSS, XML, PHP and ASP. NET. It is designed for experienced software developers to update their skills and for individuals wishing to make a career change into the Information Technology field. The certificate focuses on web application development in a client/server networked environment.

Career Opportunities

Employment opportunities in IT include entry-level positions such as software developers, web developers, help desk analysts, network administrators, user support specialists, network security analysts and network engineers. According the Bureau of Labor and Statistics: "Overall, employment of computer software engineers and computer programmers is projected to increase by 21 percent from 2008 to 2018, much faster than the average for all occupations."
Retrieved August 26, 2010 http://www.bls.gov/oco/ocos305.htm

CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1202	C++ Software Development I	3
CIS	1304	Web Site Development with HTML/JavaScript	3
CIS	2222	C# Software Development	3
CIS	2309	Cascading Style Sheets	3
CIS	2314	Web Programming With Hypertext Preprocesses	3
CIS	2319	Extensible Markup Language (XML)	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Individualized Programs

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Advanced Technical Intelligence

Program Code: ATI.S.ATS • Total Semester Credit Hours 65

Description

The Advanced Technical Intelligence degree prepares graduates to work in the defense-related industry with background in Advanced Geospatial Intelligence (AGI) and Measurement and Signature Intelligence (MASINT). It is also designed to meet the needs of individuals desiring to change career paths within the industry and government as intelligence analysts. Only U.S. citizens who can qualify for and obtain secret clearance can enroll in the program.

Career Opportunities

Opportunities to work in the intelligence field either for the military or homeland security.

CHE	1211	General Chemistry I	5
COM	2211	Effective Public Speaking	3
EET	1158	Satellite Tool Kit	2
EGR	1121	Introduction to the Intelligence Community	3
EGR	1122	Fundamentals of Remote Sensing in Intelligence	3
EGR	1201	Introduction to Spectral Sensing with Applications in Intelligence	3
EGR	1202	Introduction to Radar	3
EGR	1211	Introduction to Large Area Surveillance	3
ERG	1212	Measurement & Signal Intelligence	3
EGR	2270	Automation & Control Internship	3
ENG	1101	English Composition I	3
GEO	1107	Introduction to GIS	5
HIS	2219	Survey of Middle East	3
MAT	1280	Technical Mathematics I	4
MAT	1290	Technical Mathematics II	4
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	1198	EXCEL for Engineering Technology	1
PHI	2207	Logic	3
PHY	1104	Sound, Light & Modern Physics	4
PHY	1131	Technical Physics	3
PLS	2220	International Relations	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Associate of Individualized Study

Program Code: AIS • Total Semester Credit Hours 63

Description

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 an AIS Program Advisor and/or faculty representing the various areas of study incorporated into the degree are consulted. Interested students should request information at plaprograms@sinclair.edu.

Interdisciplinary Component—A minimum of 30 semester hours from two distinct areas of study.

General Education: A minimum of 18 semester hours.

English	First of sequence	3
Communication	Elective	3
Mathematics	100 level or above	3
Social & Behavioral Science	Elective	3
Arts & Humanities	Elective	3
Natural & Physical Science	Elective	3

Prior Learning Assessment —A minimum of 3 semester hours

PRL	1130	ATS/AIS Degree Development	1
PRL	2278	ATS/AIS Capstone	2

Related Electives—A minimum of 12 semester hours
A minimum of 63 total hours required to earn the AIS degree

Associate of Technical Study

Program Code: ATS • Total Semester Credit Hours 63

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 request information at plaprograms@sinclair.edu.

Technical Education - A minimum of 30 semester hours incorporating articulated credit or combining no more than two distinct areas of study.

General Education—A minimum of 18 semester hours.

English	First of sequence	3
Communication	Elective	3
Mathematics	100 level or above	3
Social & Behavioral Science	Elective	3
Arts & Humanities	Elective	3
Natural & Physical Science	Elective	3

Prior Learning Assessment – A minimum of 3 semester hours

PRL	1130	ATS/AIS Degree Development	1
PRL	2278	ATS/AIS Capstone	2

Related Electives - minimum of 12 semester hours
A minimum of 63 total hours required to earn the ATS degree

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

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Please see your Academic Advisor for information on Ohio Transfer Module and other electives.

Course Descriptions

Courses are listed alphabetically by course number and then by course title followed by credit hours each course offers.

There is a brief description of each course followed by any prerequisite requirements (italicized at end of description). If there are no prerequisites listed, none are required for the course.

Lab information is usually noted. An "R" indicates the course may be repeated for additional credit.

Accounting (ACC)

1210 Introduction to Financial Accounting
Credit Hour(s) 3
An introduction to preparation and use of accounting reports for business entities; focus on uses of accounting for external reporting, emphasizing accounting as a provider of financial information.
DEV 0012 and DEV 0020

1220 Introduction to Managerial Accounting
Credit Hour(s) 3
An introduction to the use of accounting information by managers. Topics include the use of accounting information for planning and control, performance evaluation, decision-making and the statement of cash flows, along with financial statement analysis.
ACC 1210

1510 Computerized Accounting Systems
Credit Hour(s) 3
This course uses general ledger software and spreadsheets to record, report and analyze accounting information.
ACC 1210 and BIS 1410

2101 Intermediate Accounting I
Credit Hour(s) 3
Development of accounting standards, conceptual framework of financial accounting. Review of the accounting cycle, preparation of income statement, statement of owner's equity, balance sheet, statement of cash flows and additional reporting issues. Time value of money, current asset accounting and reporting.
ACC 1220 and ACC 1510

2102 Intermediate Accounting II
Credit Hour(s) 3
Transaction analysis and financial reporting for long-term assets, long-term liabilities and stockholder's equity.
ACC 2101

2211 Cost Accounting
Credit Hour(s) 3
Application of cost accounting concepts and techniques to complex problems in manufacturing accounting and service firms.
ACC 1220 and ACC 1510

2212 Managerial Accounting & Finance
Credit Hour(s) 3
This course uses accounting and finance concepts to effectively analyze and manage business finances.
ACC 1220

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2321 Federal Taxation
Credit Hour(s) 3
Introductory course including the basic tax model, personal gross income, personal deductions and credits, property transactions, special tax computations and introduction to corporate taxation.

2322 Advanced Taxation
Credit Hour(s) 3
Course covers tax research, federal, state and local business income tax returns and preparation of information returns, tax filings for trusts, estates and nonprofit organizations, and the reporting of advanced tax compliance issues for individual and business tax returns.
ACC 2321

2435 Auditing
Credit Hour(s) 3
Review of accounting information systems and an overview of auditing. Covers internal controls and system documentation, transaction processing and databases, professional standard and ethics. Review of legal liability, audit evidence, risk evaluation and audit planning, audit procedures and audit reports.
ACC 2101

2510 Advanced Accounting
Credit Hour(s) 3
Review of different accounting areas, including investment accounting, consolidation accounting, governmental accounting and partnership accounting. Review of International Accounting Financial Standards.
ACC 2102

African-American Studies (AFR)

1100 African-American Studies
Credit Hour(s) 3
Practical introduction to origins, relevance and scope of African-American Studies. Topics include African-American history, religion, sociology, political organization, economics and arts within a multicultural context.

1121 Basic Swahili
Credit Hour(s) 3
Introduction to Swahili with emphasis on developing basic listening, reading and writing skills, as well as conversation on everyday topics and familiarity with Swahili culture.

1122 Intermediate Swahili
Credit Hour(s) 3
Continuation of basic Swahili, incorporating more advanced work to further develop listening, reading and writing skills, emphasizing conversation on everyday topics and familiarity with Swahili culture.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Allied Health (ALH)

1101 Introduction to Healthcare Delivery
Credit Hour(s) 2
Orientation to the health care delivery system, including history, economics, medical/legal issues, professionalism, ethics, sociological aspects and wellness concepts. Orientation to the use of technology in the health care system will also be provided, including user interfaces, telecommunications and networks. The development of health care team skills, including critical thinking and problem-solving strategies and multicultural health care perspectives, will be presented. One classroom, three lab hours per week.

1102 Introduction to Basic Healthcare Practice
Credit Hour(s) 1
Orientation to safe and effective basic health care practice including patient assessment and documentation, infection control, body mechanics, oxygen delivery and environmental safety considerations. Three lab hours per week.

1110 Principles of Electrocardiography
Credit Hour(s) 3
Principles of electrocardiography, including equipment operation, recording and troubleshooting, as well as fundamental principles of the cardiovascular physiology and basic ECG interpretation. One classroom, three lab hours per week. A 30 hour unpaid clinical rotation will be completed during the course.

1113 Clinical Phlebotomy
Credit Hour(s) 2
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. One classroom, three lab hours per week.

1114 Clinical Phlebotomy Practice
Credit Hour(s) 2
Introduction to the phlebotomy clinical setting involving structured observation and participation in the blood collection aspects of patient care under the supervision of a phlebotomist; performing venipunctures and microcollection techniques on adult and pediatric patients. One hour seminar on main campus and 105 hours unpaid practicum per week. Prerequisite includes current physical form and immunization documentation.
ALH 1113 and the following completed paperwork (physical; immunizations; student information forms)

1115 Specimen Processing
Credit Hour(s) 2
Theory and application of lab safety, universal precautions, specimen collection, quality assurance and other techniques fundamental to specimen processing for a clinical laboratory. One classroom, three lab hours per week.
BIO 1107

1120 Nurse Aide Training
Credit Hour(s) 4
Provide education to individuals in the basic skills necessary to provide personal care services and activities, under the delegation and supervision of a registered or licensed practical nurse, to residents in a long-term care facility. Three classroom, three clinical lab hours per week.
DEV 0012 and DEV 0022 and DEV 0030 and Approval of Division Advisor

1122 Pharmacy Technician I
Credit Hour(s) 5
This course is the first of two core courses in the Pharmacy Technician Program and will help prepare students for the Pharmacy Technician Certification Board Exam. Course content includes the duties and responsibilities of the pharmacy technician, as well as the mathematical components and the pharmacology foundation necessary to become a successful pharmacy technician. Scope of pharmacy practice including handling of infectious and hazardous waste, interpersonal skills and beginning pharmacology and dose calculations.
DEV 0022

1123 Pharmacy Technician II
Credit Hour(s) 5
This course is the second of two core courses in the Pharmacy Technician program and will continue to help prepare students for the Pharmacy Technician Certification Board Exam. Course content will continue to include the duties and responsibilities of the pharmacy technician, as well as the mathematical components and the pharmacology foundations necessary to become a successful pharmacy technician. Additional skills learned will include sterile compounding, nonsterile compounding and inventory control. This course also includes 75 hours of unpaid directed practice.
ALH 1122 with a grade of C or better or Permission of Instructor if repeating ALH 1123

1130 Basic Life Support Training
Credit Hour(s) 1
Theory and techniques of Basic Life Support (BLS) as established by the American Heart Association.

1131 Emergency Cardiac Care
Credit Hour(s) 1
Management of cardiovascular emergencies including the American Heart Association's curriculum in Advanced Cardiac Life Support. Three lab hours per week.
Open only to LHS students in their final semester of training or licensed healthcare professionals and completion of ALH 1130 or current BLS certification at healthcare provider level or Approval of Department

1132 American Heart Association Heartsaver First Aid
Credit Hour(s) 1
The American Heart Association (AHA) Heartsaver First Aid with Cardiopulmonary Resuscitation (CPR) and Automated or Automatic External Defibrillator (AED) course provides first responders with training in basic first aid procedures, including the first aid skills recommended by OSHA, CPR and AED. Students who complete the course qualify for the AHA Heartsaver First Aid with CPR and AED course completion card.

1140 Fundamentals of Disease Processes
Credit Hour(s) 3
Pathological changes associated with the most commonly occurring diseases of each body system. Correlates changes with patient's response, diagnostic studies and treatment modalities.
BIO 1107 or BIO 1222 or BIO 1242

2201 Survey of Drug Therapy
Credit Hour(s) 1
Overview of conventional drug classes presenting only the more commonly prescribed preparations primarily emphasizing common effects and indications for use.
BIO 1107

2202 General Pharmacology
Credit Hour(s) 2
General principles of drug absorption, distribution, metabolism, actions and effects presented according to conventional drug classification with emphasis on the prototype of each class; for registered nursing and medical assistant technology students but may be of interest to other allied health students or general studies students majoring in biological sciences.
BIO 1121 or BIO 1141

2220 Pathophysiology
Credit Hour(s) 3
Study of human disease using a system approach emphasizing abnormal physiological processes that result in the signs and symptoms of each disorder.
BIO 1107 or BIO 1121 or BIO 1141 or BIO 2211

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Art (ART)

1101　2-D Foundations
Credit Hour(s) 3
The study of composition/visual elements with color theory applied to utilizing design principles and color psychology emphasizing the Josef Albers color theories in a studio setting with emphasis on hands-on learning. Six studio hours per week.

1102　3-D Foundations
Credit Hour(s) 3
Basic foundation studio course dealing with methods, materials, principles of organization and elements of design applied to the third dimension. Six studio hours per week.

1106　Fine Art Sampler
Credit Hour(s) 3
Creativity enhancement for the non-art major. Studio experience in drawing, design fundamentals and three-dimensional processes, including clay. Six studio hours per week.

1107　Beginning Photoshop
Credit Hour(s 3
An introductory course in the Photoshop imaging program. Basic introduction to scanning, capturing and altering images for the art major or non-art major. Six studio hours per week.

1110　Art Appreciation— Introduction to Art & Art Media
Credit Hour(s) 3
Emphasis on the language of art, exposure to many different art forms, formulative ideas about what is viewed and exploration of specific media.

1111　Drawing I
Credit Hour(s) 3
Studio drawing develops visual skills relative to the drawing process, with emphasis on traditional as well as contemporary problems on representation and composition. Six studio hours per week.
ART 1101 can be taken concurrently

1112　Drawing II
Credit Hour(s) 3
Personal expression developed through a variety of two-dimensional media, cubistic techniques, gestural and figure studies. Six studio hours per week.
ART 1111

1121　Beginning Painting I
Credit Hour(s) 3
Studio painting with an emphasis on color, form and space in compositional design. Introduction to personal expression and modern applications. Six studio hours per week.
ART 1111

1122　Beginning Painting II
Credit Hour(s) 3
Personal expression with instruction in 20th-century techniques and concepts. Complex problems in color and composition. Six studio hours per week.
ART 1121

1131　Introduction to Sculpture
Credit Hour(s) 3
Introduces basic principles of sculpture and expands personal definitions and interpretations of contemporary three-dimensional art. Introduces methods of sculpture with clay, wood, plaster and other materials for constructing three-dimensional art work. Six studio hours per week.
ART 1102

1132　Intermediate Sculpture
Credit Hour(s) 3
Develop complex visual principles of sculpture and develop a personal expression of individual style in interpretations of contemporary three-dimensional art. Six studio hours per week.
ART 1131

1133　Figurative Sculpture
Credit Hour(s) 3
Study of the human anatomy of the head and figure as applied to three-dimensional form. Six studio hours per week.
ART 1131

1141　Introduction to Ceramics
Credit Hour(s) 3
Materials and processes of ceramic art for the beginning student; handbuilding and wheel-throwing and glazing demonstrated through a variety of functional and sculptural projects. Six studio hours per week.

1142　Intermediate Ceramics
Credit Hour(s) 3
Materials and processes of ceramic art for the intermediate student; intermediate skills of wheel throwing and glazing are demonstrated through a variety of functional and sculptural projects. Six studio hours per week.
ART 1141

1161　Black & White Darkroom Photography I
Credit Hour(s) 3
An introduction to the art and technique of black and white photography. Photographic shooting, processing and printing are stressed. Students to supply their own adjustable camera, (35mm or 120) film and print paper. Six studio hours per week.

1162　Black & White Darkroom Photography II
Credit Hour(s) 3
Intermediate course in black and white photography. Further introduction and application of the tools/techniques of photographic art with emphasis on artistic portfolio development. Students shoot a minimum of 15 rolls of film to satisfy the portfolio project. Film and correct contact sheets must be included in the working portfolio. Six studio hours per week.
ART 1161

1170　Non-Silver Photography
Credit Hour(s) 3
Principles and theories of nonsilver chemical processes used for print production including gum, cyanotype, Van Dyke Brown, palladium, salt printing and wet-plate collodion process. Six studio hours per week.
ART 1161

1171　Studio Photography
Credit Hour(s) 3
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 and digital media. Six studio hours per week.
ART 1161

1175　Computer Photography
Credit Hour(s) 3
Techniques for transforming photographic images through use of computers and digital cameras. Use of a computer to create fine art digital images. Advanced PhotoShop techniques including layers, color correction, masking and special effects. Students will be challenged to address learning outcomes in their work to demonstrate creative process and critical thinking. Six studio hours per week.
ART 1161

2111　Intermediate Drawing I
Credit Hour(s) 3
Definition of a personal expression through the drawing process; traditional and modern approaches to drawing the figure, still life, and other contemporary subjects. Six studio hours per week.
ART 1111

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2112 Intermediate Drawing II
Credit Hour(s) 3
Emphasis on the technical process and the language of drawing; a variety of media and techniques focusing on personal expression. Six studio hours per week.
ART 2111

2141 Advanced Ceramics
Credit Hour(s) 3
Materials and processes of ceramic art for the advanced student; advanced skills of wheel throwing and glazing are demonstrated through a variety of functional and sculptural projects. Six studio hours per week.
ART 1141

2216 Life Drawing & Anatomy I
Credit Hour(s) 3
Figure drawing with a foundation in anatomical study. Emphasis on proportion as well as design with an application toward mood and expression. Six studio hours per week.
ART 1111

2217 Life Drawing & Anatomy II
Credit Hour(s)   3
Advanced figure drawing with a foundation in anatomical study. Development of mood and content through form and topic. Six studio hours per week.
ART 2216

2221 Intermediate Painting—Observation & Concept
Credit Hour(s) 3
Art as a means of communication through content and expression. Incorporation of contemporary concepts and styles of art. Six studio hours per week.
ART 1122

2222 Intermediate Painting—The Figure
Credit Hour(s) 3
The figure as the subject of study and how it has been used academically and expressively. Six studio hours per week.
ART 1122

2230 Art History: Ancient through Medieval Periods
Credit Hour(s) 3
Art history from early cave paintings through the Medieval period of Western civilization.

2231 Art History: Renaissance through Contemporary Periods
Credit Hour(s) 3
Art history from the early Italian Renaissance through the contemporary period.

2235 History of Photography
Credit Hour(s) 3
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.

2236 History of Women Artists
Credit Hour(s) 3
A history of women artists from the Middle Ages to the present day, with emphases on the history of style and on women's historical roles.

2237 History of American Art
Credit Hour(s) 3
Art history of the United States from the pre-colonial to contemporary periods.

2238 History of African Art
Credit Hour(s) 3
History of African art from ancient to contemporary periods.

2265 Digital Color Photography
Credit Hour(s) 3
An introduction to the technique of digital color photography, printing techniques and the presentation of digital prints; various camera and computer techniques will be employed to enhance the print. Student will supply own digital Single-lens Reflex (SLR) camera and pigment-based photographic printer. Six studio hours per week.
ART 1161

2266 Digital Color Photography II
Credit Hour(s) 3
An advanced digital color photographic course focusing on creative computer and camera techniques. Student to supply own Single-lens Reflex (SLR) digital camera and pigment-based printer. Six studio hours per week.
ART 2265

2269 Introduction to Printmaking
Credit Hour(s) 3
Examines the philosophy, history and techniques of multiple image preparation including woodcut and intaglio processes. Six studio hours per week.
ART 1111

2270 Fine Art Internship
Credit Hour(s) 1
Practicum providing student with experience in organizing and hanging art exhibits, assisting in studios or working in arts administration. Seven practicum hours per week.

2294 Photography Portfolio Development
Credit Hour(s) 1   R
One-on-one instruction regarding the student's final graduating photography portfolio. Instructor will meet with the student during final term of study to help the student compose his or her final graduating portfolio. Student may repeat course up to three times to achieve a passing grade. Failure to satisfactorily complete this course will make the student ineligible for the Photographic Technology Short-Term Certificate.
Restricted to majors and the student must complete 28 semester hours of coursework prior to enrolling in ART 2294. Course should be completed during the final terms of study.

2295 Graduation Portfolio Development & Exhibition
Credit Hour(s) 1
The student will write an artist statement and an art-related resume, attend lectures and demonstrations on professional presentation of artwork, take quality promotional images of his/her artwork and select a portfolio of his/her original artwork for graduation exhibition.
50 credit hours earned; 24 of which must be in ART

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

American Sign Language (ASL)

1101 Orientation to Deafness
Credit Hour(s) 2
Study the culture of the American deaf community. Issues raised include the relationship between language and culture, the history of deaf education, the Deaf President Now revolution and the collective goals and values of the deaf community. Gain an understanding the effects of hearing loss by way of basic audiology, speech pathology and the anatomy of the ear.

1102 Interpreting Theory & Best Practices
Credit Hour(s) 3
An in-depth examination of the multiple facets that constitute effective interpreting. These include communication theory, cognitive processing skills, cultural adjustments,

contextual and situational factors, expansion techniques, controlling legislation and ethics and best practices. Various interpreting settings are examined, with special emphasis on educational interpreting, interpreter licensure and the national interpreting evaluation process.
ASL 1101 and ASL 1228

1111 Beginning American Sign Language I
Credit Hour(s) 3
This course provides a foundation for nonsigners to study American Sign Language (ASL) and learn about deaf culture. It includes principles, methods and techniques for communicating with deaf individuals who sign. Focusing on development of receptive and expressive sign skills, manual alphabet, numbers, sign vocabulary, syntax, grammar and culture.
DEV 0032

1112 Beginning American Sign Language II
Credit Hour(s) 3
Continue to study American Sign Language (ASL) grammatical structure, vocabulary, fingerspelling, use of signing space, conversational regulators and introductory aspects of deaf culture.
ASL 1111 and ENG 1101

1116 Community Resources for the Deaf
Credit Hour(s) 2
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.
ASL 1101 and ASL 1111

1228 Intermediate American Sign Language I
Credit Hour(s) 3
Express abstract concepts in ASL using appropriate grammatical structure, signing space, vocabulary, fingerspelling and nonmanual markers. The course also features continued development of conversational regulators and aspects of deaf culture.

1229 Intermediate American Sign Language II
Credit Hour(s) 3
Expands ability to express abstract concepts in American Sign Language (ASL), further

develops vocabulary and receptive and expressive fluency. Read and discuss topics related to deaf culture. Development of basic interpreting skills through classroom activities. Deaf community interaction required.

2201 Interpreting I
Credit Hour(s) 3
Development and competency demonstration of the basic principles, techniques and cognitive processing skills necessary for accurate and efficient interpreting between English and American Sign Language (ASL). Specific focus upon interpreting on the proposition level, adjustments for cultural differences and accommodating linguistic variation. Team interpreting techniques are introduced.
ASL 1101 and ASL 1229

2202 Interpreting II
Credit Hour(s) 3
Students further develop and demonstrate mastery of advanced interpreting principles and techniques. Classroom activities include platform interpreting, team interpreting and application of the Registry of Interpreters for the Deaf (RID) Code of Professional Responsibility to a variety of interpreting situations.
ASL 2201 and ENG 1201

2207 Role of the Interpreter
Credit Hour(s) 2
This course will address how setting, register and preferred language mode of client(s) impacts the role of the interpreter. During weekly in-class role plays, students will employ interpreting techniques learned in other advanced interpreting courses as well as elements of the Demand-Control Schema.

2212 Specialized Interpreting
Credit Hour(s) 3
A study of interpreting in medical, mental health, substance abuse, sexual health, educational, employment and legal settings and terminology/signs unique to each. Practice and performance of the vocabulary used in these settings designed to increase student's comfort and skills for interpreting in these specialized settings.

2231 Advanced American Sign Language I
Credit Hour(s) 3
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.

2232 Advanced American Sign Language II
Credit Hour(s) 3
The second advanced course in the study of American Sign Language (ASL). The course focuses on receptive and productive mastery of syntax, spatial mapping, narrative and explanatory discourse, targeted vocabulary and incorporation into sign production the necessary adjustments for register, emoti and cultural background.

2236 Transliterating & Signing Modalities
Credit Hour(s) 3
Course includes practice in Signing Exact English II (SEE II), transliterating and various signing modalities used in special settings or by various special populations such as deaf-blind or individuals with other disabilities. Students will focus on transliterating signed/spoken English in educational and technical situations and develop specialized vocabulary in areas typically utilizing transliterators.
Restricted to Majors

2261 Practicum I
Credit Hour(s) 3
Students are required to complete 150 hours of socialization in the deaf community, interpreting and observation at an off-campus setting under the supervision of a mentor. Weekly seminar provides opportunities to synthesize on-site experiences with instructor and peers. Two classroom, seven practicum hours per week.
ASL 2207 and Restricted to Majors

2262 Practicum II
Credit Hour(s) 3
Students are required to attend weekly seminar class and complete 150 hours of interpreting/observation and socialization at off-campus settings under the supervision of a mentor(s). Two classroom, seven practicum hours per week.
ASL 2261 and Restricted to Majors

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2300 Educational Interpreting
Credit Hour(s) 3

This course presents an overview of educational interpreting with a focus on the K-12 setting. Topics include: the role of the educational interpreter, deafness and other disabilities, the Individualized Educational Plan (IEP) process and the Ohio Department of Education's (ODE) Educational Interpreter Guidelines and licensure process.
Restricted to Majors

Astronomy (AST)

1111 The Solar System
Credit Hour(s) 3

Patterns and movements of celestial objects; history of astronomy; gravity, light, and matter; various types of telescopes; origins of the solar system; properties of planets and their moons; asteroids, comets, meteoroids and space exploration. Students must sign up for concurrent lab (AST 1117) sections.
DEV 0024

1112 Stars, Galaxies & the Universe
Credit Hour(s) 3

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. Students must sign up for concurrent lab (AST 1118) sections.
DEV 0024

1117 Lab for the Solar System
Credit Hour(s) 1

Laboratory and field activities to supplement The Solar System. Three lab hours per week.

1118 Lab for Stars, Galaxies & the Universe
Credit Hour(s) 1

Lab and field activities to supplement Stars, Galaxies & the Universe. Three lab hours per week.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

Automotive Technology (AUT)

1100 Basic Automotive Systems
Credit Hour(s) 2

Language of automotive systems and functions. Students will perform a series of activities related to vehicle maintenance such as oil change, chassis lubrication, safety inspections, ignition tune-up, cooling system testing, brake inspections and evaluation of a used vehicle. Basic hands tools are required. One classroom, three lab hours per week.

1102 Introduction to Automotive Service
Credit Hour(s) 2

Work assignment practices that are necessary for beginning automotive service technicians. Hand tool usage, correcting wind noise and water leaks, oil changes, tire rotations and balancing, new vehicle prep, used car inspection. Eye protection and hand tools are required. One classroom, three lab hours per week.

1108 Automotive Engine Systems
Credit Hour(s) 4

Engine operation, nomenclature, measurements and tolerances, including service and overhaul procedures. Cooling, lubrication and valve train systems are discussed. Basic engine machining practices are covered. Basic hand tools are required for the course.

1111 Automotive Management
Credit Hour(s) 2

Introduction to service department as it pertains to management, service consultant, service manager and business ownership. Skill development for operating an automotive business. Become familiar with federal, state and local regulations for operating a service department.

1114 Automotive Electrical/ Electronic Systems I
Credit Hour(s) 3

Comprehension of Ohm's law, basic electrical circuits, digital meter usage, batteries, starting and charging system operation. Diagnosis of wire harness repair procedures and service. One classroom, six lab hours per week.

1115 Automotive Engine Performance I
Credit Hour(s) 4

Operation and service of fuel injection systems. Testing and evaluation of emission controls, on-board diagnostic systems and engine condition. Basic hand tools required. Two classroom, six lab hours per week

1116 Automotive Steering & Suspension Systems
Credit Hour(s) 3

Steering system diagnosis and service including front and rear suspension components, wheel and tire and front and rear wheel alignment. Basic hand tools are required. One classroom, six lab hours per week.
Approval of Department

1142 Automotive Manual Transmission & Driveline
Credit Hour(s) 3

Theory and operation of clutch, manual transmission and transaxle, rear axle, limited slip differential, drive shaft, universal joint, four- wheel drive/all-wheel drive, diagnosis and repair. Basic hand tools required. One classroom, six lab hours per week.

1146 Automotive Heating Ventilation & Air Conditioning Systems
Credit Hour(s) 3

Theory and operation of automotive heating and air-conditioning systems. Includes lab activity in diagnosis, service and repair procedures. Basic hand tools required. One classroom, six lab hours per week.

1165 Automotive Brake Systems
Credit Hour(s) 3

Theory and operation of hydraulic braking systems, drum brake, disc brake and power assist diagnosis and service. One classroom, six lab hours per week.

1170 Automotive Internship I
Credit Hour(s) 2   R

Students work in the field at an approved automotive service business. The credit that is earned for the internship is applied toward degree requirements. Students prepare and submit reports online and are evaluated by the course instructor as well as their on-site supervisor.
Approval of Department

1171 Automotive Internship II
Credit Hour(s) 2   R

Students work in the field at an approved automotive service business. The credit that is earned for the internship is applied toward degree requirements. Students prepare and submit reports online and are evaluated by the course instructor as well as their on-site supervisor. Students will practice service

procedures on steering and suspension, electrical systems and engines following their second semester. Twenty co-op hours per week.
Approval of Department

1172   Automotive Internship III
Credit Hour(s) 2   R
Students work in the field at an approved automotive service business. The credit that is earned for the internship is applied toward degree requirements. Students prepare and submit reports online and are evaluated by the course instructor as well as their on-site supervisor. Students will practice service procedures on engine performance, manual transmissions and axles following their third semester. Twenty co-op hours per week.
Approval of Department

1173   Automotive Internship IV
Credit Hour(s) 2   R
Students work in the field at an approved automotive service business. The credit that is earned for the internship is applied toward degree requirements. Students prepare and submit reports online and are evaluated by the course instructor as well as their on-site supervisor. Students will practice service procedures on automatic transmissions and air-conditioning systems following their fourth semester. Twenty co-op hours per week.
Approval of Department

2214   Automotive Electrical/ Electronic Systems II
Credit Hour(s) 4
Advanced electrical/electronic system diagnosis and troubleshooting of starting and charging systems, lighting systems, dashboard instrumentation, body control and accessory circuits. SRS system operation, testing and diagnosis. AC and DC motor theory, operation and diagnosis. Schematic utilization. Diagnose serial data bus communication and module systems. Two classroom, six lab hours per week.
AUT 1114

2215   Automotive Engine Performance II
Credit Hour(s) 4
Advanced diagnosis and repair of computer controlled fuel delivery, fuel injection, ignition, emission systems and proper use of advanced engine performance diagnostic equipment. Basic hand tools required. Three classroom, six lab hours per week.
AUT 1115

2221   High Performance Engine Blocks & Heads
Credit Hour(s) 6
High-performance engine building plan development. Disassembly, cleaning and inspection of components. Reconditioning/modification of components. Preparation of components prior to final/trial assembly. Three classroom, nine lab hours per week.
AUT 1108 or Approval of Department

2222   High Performance Engine Assembly & Dyno Testing
Credit Hour(s) 6
High-performance engine block and cylinder head final assembly. Finished engine assembly is dynamometer tested for performance output. Three classroom, nine lab hours per week.
AUT 1108 or Approval of Department

2224   High Performance Fuel Induction Systems
Credit Hour(s) 5
Performance rebuilding and tuning of carburetors. Operation and performance application of electronic fuel injection. Introduction to superchargers, turbochargers and nitrous oxide. Engine performance evaluation and tuning utilizing engine and chassis dynamometers. Basic hand tools required. Three classroom, six lab hours per week.
AUT 1115

2226   High Performance Fabrication
Credit Hour(s) 4
Basic chassis design and construction for high-performance racing applications. Suspension design, types and fabrication. Interior and exterior sheet-metal design and fabrication. Two classroom, six lab hours per week.

2230   Hybrid Electric Vehicle Systems
Credit Hour(s) 2
Hybrid vehicle safety, theory and operation of automotive hybrid high voltage systems, batteries, charging systems, drivetrain components and emission systems. One classroom, three lab hours per week.
AUT 2214

2241   Automatic Transmission Systems
Credit Hour(s) 4
Theory and operation of automotive transmissions and transaxle systems. Lab experience in the overhaul and service of automatic transmissions and transaxles

including mechanical, hydraulic and electronic systems diagnostics and testing. Three classroom, six lab hours per week.

2250   Automotive Service Operations
Credit Hour(s) 7
Actual experience in the laboratory with diagnosis, repair, use of manuals, customer relations, safety, communications, supervision and delegation of work. Automotive service facility and operation consideration. Basic hand tools required. Three classroom, twelve lab hours per week.
AUT 1108 and AUT 1114 and AUT 1115 and AUT 1116 and AUT 1146 and AUT 1165 or Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2304   GM Noise Vibration & Harshness
Credit Hour(s) 0.5
This course covers the theory of vibration, including basic to advanced vibration diagnosis. Specific topics include usage of the Electronic Vibration Analyzer (EVA), tools used to measure runout and driveline working angles and other current tools.

2306   GM Rear Axle & Propeller Shaft Service
Credit Hour(s) 1
This class focuses on diagnostic and repair skills required to service GM rear axle (including Getrag) and propeller shaft components.

2309   GM Braking Systems
Credit Hour(s) 0.5
This course provides system operation and diagnostic information on various base and antilock brake systems and their related components. Topics also include master cylinder operation, quick take-up valve operation, disc/drum operation and hydraulic system fundamentals.

2325   GM Automatic Transmission Transaxle Theory, Operation & Diagnostics
Credit Hour(s) 1
This course will develop the knowledge and skills needed to properly diagnose transmission faults related to hydraulic, mechanical and electrical systems that affect transmission

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operation. Specifics covered in this course include transmission operation, diagnostic procedures and service procedures.

2333 GM Electrical Electronics Terminals & Connectors
Credit Hour(s) 0.5

This course covers connector system identification, terminal, connector and wire harness repair, service information navigation and circuit diagnostics.

2336 GM Entertainment Systems
Credit Hour(s) 1

This course covers methods of operation and procedures for diagnosis of both GM audio and video entertainment systems. Systems covered include AM/FM/XM antennas, lead-in cables, integral receivers, remote components including receivers, control heads, tape players, CD, DVD, and VHS video players, and Steering Wheel Controls (SWC). Diagnosis and correction of audio systems, noise conditions and video system malfunction are also covered.

2337 GM Supplemental Restraint Systems
Credit Hour(s) 0.5

This course focuses on design, operations, servicing and handling procedures of air bag systems. Technicians will gain skill and knowledge concerning air bag components. Diagnostic tests are introduced utilizing the Tech 2 scan tool, SIR Driver / Passenger Load Tool and Digital MultiMeter.

2338 GM Waterleak & Windnoise Management
Credit Hour(s) 0.5

This course consists of proven diagnostic procedures, test equipment and methods for waterleak and windnoise diagnosis and the tools for adjustment and sealing operations.

2345 GM HVAC Systems & Operation
Credit Hour(s) 0.5

This course focuses on HVAC system diagnostics, with additional emphasis placed on electrical and control systems. Specific topics include manual and automatic A/C, dual zone A/C, and rear A/C systems, system control circuits. Additional topics include the engine cooling system and the air distribution through the passenger compartment.

2348 GM Powertrain Performance
Credit Hour(s) 1

This course focuses on engine control subsystems and proper diagnosis of

performance-related conditions. Specific topics include driveability, diagnosis, fuel-injection systems, ignition systems, emission controls, PCM functions and Tech 2 scan tool usage.

2359 GM Chassis Control Systems
Credit Hour(s) 0.5

This course will cover suspension component identification, operation and diagnosis of various chassis systems such as independent and non-independent, tire pressure monitoring systems, level control systems, active suspension systems and serial data communications.

2360 GM Engine Mechanical Diagnosis & Measurement
Credit Hour(s) 1

This course covers the proper techniques and fundamental knowledge necessary to correctly isolate and diagnose abnormal engine mechanical conditions. Topics include recommended diagnostic, measurement and overhaul/repair procedures for GM engines.

2371 GM Manual Gearbox Service
Credit Hour(s) 1

This course provides an in-depth unit repair of front and rear wheel drive manual gearboxes. The internal components will be described and also identified for the technician. There will also be an introduction to special tools and usage to perform repairs efficiently.

2372 GM Moveable Roof Systems
Credit Hour(s) 1

This hands-on component begins with pre-planned workstations related to the location, diagnosis and repair of GM moveable roof systems that are performed by students working in groups.

2373 GM Global Diagnostic System / Multiple Diagnostic Interface
Credit Hour(s) 0.5

This course is designed to provide the technician with the skills necessary to properly diagnose current and future vehicle platforms, using GDS (Global Diagnostic System) and the MDI (Multiple Diagnostic Interface) vehicle data acquisition systems.

2374 GM Six-Speed Automatic Transmission/Transaxle Mechanical Service
Credit Hour(s) 1

This course provides an introduction to the 6T70/75 six-speed front- wheel drive Hydramatic transaxle and the 6L80/90 six-speed rear- wheel drive Hydramatic

transmission. One full day will be spent on each unit performing a complete teardown and reassembly. All special tools will be introduced and available for use. Bearing preload procedures and clutch pack travel measurements will be performed by participants.

2375 GM Global Electrical Systems
Credit Hour(s) 1

This hands-on component is designed to enhance the service technician's abilities and understanding on the new global format of service diagnostic procedures, including the common circuit types and functions used in GM electrical architecture. This component also covers diagnostics of serial data communication systems. Upon completion of this component technicians will be able to diagnose and/or test the types of voltage and ground circuits, as well as the types of signal circuit inputs and control circuit outputs.

2376 Strategies for Efficient Diagnosis
Credit Hour(s) 0.5

This course presents General Motors diagnostic strategy for proper, efficient diagnosis of vehicle concerns including an in-depth review with the instructor of Strategy Based Diagnosis and Diagnostic System Checks. Special attention will be focused on known vehicle concerns that are resulting in high warranty costs and high "No Trouble Found" results for returned parts, by introducing new tools, discussing GM warranty policies and reviewing additional training opportunities.

Aviation Technology (AVT)

1101 Introduction to Unmanned Aerial Systems
Credit Hour(s) 2
Foundations of unmanned aerial systems, including history, UAV systems, payloads, data links, ground support equipment, classes of UAV systems, categories, applications, mission planning and control and recovery systems.

1102 Orientation to Inflight Services
Credit Hour(s) 2
Provides students with the knowledge of the duties and responsibilities of flight attendants, inflight service procedures, safety briefing announcements, customer service skills, airline terminology, airline schedules, airport identifiers and airline flight attendant interview techniques.

1105 Orientation to Aviation
Credit Hour(s) 2
Overview of aviation career specialties required for successful entry into aviation industry-related fields. 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.
DEV 0012

1106 Airframe Safety Systems
Credit Hour(s) 2
Aircraft safety systems will cover the following: chemical and electric/pneumatic ice and rain protection systems, fire warning and extinguishing systems, landing gear and throttle safety warning systems, aural warning systems and troubleshooting and repair of wiring for these systems. One classroom, two lab hours per week.

1107 Fuel Systems
Credit Hour(s) 3
Inspection, operational checkout and repair of fuel systems and components to include tanks, transfer pumps, indicating systems and fuel heating; leak detection, identification and repair; proper servicing and regulatory compliance. Two classroom, three lab hours per week.

1110 Private Pilot Ground School
Credit Hour(s) 3
Prepares students with the knowledge necessary to successfully complete the Federal Aviation Administration (FAA) Private Pilot knowledge exam. Topics include pilot training, aerodynamic principles, safety of flight, air traffic control procedures, weather theory, weather hazards and conditions, federal aviation regulations, aircraft performance, weight and balance principles and navigation procedures.

1113 Drawings for Aviation
Credit Hour(s) 3
Knowledge and skill development in using and making aircraft drawings, graphs and wiring diagrams; drawing symbols, electrical schematics, drawing repairs and alterations to industry and Federal Aviation Administration (FAA) standards; aviation performance charts and graphs, aviation gas laws, force and motion, work and power, energy and weight, mass and matter that affect aircraft performance. Two classroom, three lab hours per week.

1116 Regulations for Maintenance
Credit Hour(s) 3
This course provides the aviation mechanic with critical knowledge in the following areas: FAA regulations, airworthiness directives, mechanics' privileges, legal aircraft record entries, maintenance publications, repair manuals, wiring diagrams, structural repair manuals, Air Transport Association (ATA) numbering system and human factors. Two classroom, two lab hours per week.

1118 Weight & Balance
Credit Hour(s) 3
This course covers aviation maintenance performance calculations to include theory of aircraft weight and balance encompassing documentation, weighing the aircraft, locating the center of gravity, adverse center of gravity checks, large aircraft weight and balance computations and determination of ballast requirements. Two classroom, three lab hours per week.

1119 Aviation Meteorology
Credit Hour(s) 2
Prepares students with the knowledge necessary to comprehend the fundamentals of meteorology, analyze weather factors, hazards and in-flight weather conditions using aviation meteorology charts and internet weather resources.

1124 Private Pilot Flight Lab
Credit Hour(s) 1
Prepares students with the knowledge necessary to successfully obtain the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Private Pilot Certificate with an Airplane Category and Single Engine Land Class rating. Topics include familiarization with the training aircraft, flight maneuvers, maximum performance takeoff and landing procedures, attitude control by instrument reference, solo flight, night flying, cross country operations and navigation procedures. Three lab hours per week.
AVT 1110 and Approval of Department

1128 Powerplant Safety Systems
Credit Hour(s) 3
Troubleshooting of electrical wiring and connections on instruments, legal repairs allowed on instruments by Airframe and Powerplant (A&P) mechanics, different types of fire protection systems, different extinguishing agents used, Auxiliary Power Unit (APU) use, inspection, operation, removal, and replacement of APUs requiring servicing and troubleshooting and unducted fan engines. Two classroom, two lab hours per week.

1131 Basic Aviation Electricity
Credit Hour(s) 3
Basic electrical principles to include the following: alternating and direct current (A/C and D/C) circuits, production of electricity, batteries, Ohm's law, capacitance, load analysis, electrical load circuits, integrated circuits, parallel, series, and compound circuits, and A/C and D/C motors. Two classroom, three lab hours per week.

1133 Instruments Communications
Credit Hour(s) 3
Inspection, removal and installation of flight instruments and controls to include gyroscopic and magnetic instruments, pitot-static lines, wiring and legal repairs by mechanics. Communications equipment operation, inspection, removal and installation of radios, antennas, coax cables, wave guides and next generation of combination instrument/communication equipment to include GPS/satellite communication. Two classroom, three lab hours per week.

1135 Materials & Processes
Credit Hour(s) 4
Selection and proper use of nondestructive inspection techniques and equipment; basic heat treatments, identification and selection of correct aircraft hardware. Inspection of welds and precision measurements. Tube

bending, cutting and flaring, high-pressure (MS) flareless fittings, repair of rigid lines, identification of fluid lines, fabrication of high and low pressure hose lines, bulkhead fittings. Two classroom, six lab hours per week.

1136 Sheet Metal
Credit Hour(s) 4
Identification and selection of sheet metal types; inspection, cleaning, preparation, forming, layout, bending, cutting, dimpling, countersinking, drilling, installing special fasteners and rivets in sheet metal. Fabrication of sheet metal projects is required. Two classroom, six lab hours per week.

1140 Introduction to Business Aviation
Credit Hour(s) 2
Overview of International Civil Aviation Organization (ICAO) definitions of aviation activities; definition of business and private aviation, reasons for using business aviation, the actual costs of use versus airlines and other modes of transportation, differences from job opportunities in other areas of aviation, opportunities for specific kinds of jobs from architect to aero engineering, discussions with professionals from the field.

1141 Principles of Aviation Leadership
Credit Hour(s) 2
Strategic planning in business aviation operations, relationship among management, flight crews, corporate business aviation flight department employees and those external to the flight department, including fixed based operators (FBOs); team building, decision making, communication with the corporate business aviation flight department.

1148 Aircrew Emergency Management
Credit Hour(s) 4
Provide students with the knowledge of the duties and responsibilities of airline crew during emergency operations which will include smoke/fire, first aid, evacuations/ditchings, decompressions, security and hazardous materials.

1151 Crew Survival & Rescue Techniques
Credit Hour(s) 3
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.

1170 Instrument Pilot Ground School
Credit Hour(s) 3
Basic nonvisual cockpit instrument reference education, including principles of basic attitude instrument flight and limitations of flight instruments, instrument flight procedures for departure, en-route and arrival operations, federal aviation regulations, weather factors and emergency situations. The lab component includes all of these areas in practice on the Elite Personal Computer Aviation Training Device (PCATD).
AVT 1110 and Approval of Department

1213 Corrosion
Credit Hour(s) 3
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 windshields and windows and paint removal and protection of bare surfaces. Two classroom, two lab hours per week.

1214 Cabin Atmospheric Control
Credit Hour(s) 2
Inspection, operation, troubleshooting, repair and service of the following items: heating, cooling, air conditioning, pressurization, air cycle machines and gaseous oxygen systems. One classroom, two lab hours per week.

1218 Utility Systems
Credit Hour(s) 6
Hydraulic and pneumatic aircraft systems, introduction to landing gear systems, development of repair and inspection skills, critical thinking and development of analysis used in troubleshooting and repair of hydraulic and pneumatic systems and landing gear. Three classroom, nine lab hours per week.

1224 Instrument Pilot Flight Lab
Credit Hour(s) 1
Prepares students with the skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Instrument Pilot Certificate. Topics include attitude instrument flying, instrument navigation, holding patterns, instrument approaches and instrument cross-country flight including instrument flight rules en-route procedures.
AVT 1110 and AVT 1124 and Approval of Department

1241 Blind Flying Hazards
Credit Hour(s) 1
Provides pilots with an understanding of spatial disorientation, its causes and prevention and techniques for safe recovery. Two lab hours per week.
DEV 0012 and DEV 0022

1245 Aviation Law
Credit Hour(s) 2
Prepares students with knowledge of the origins of aviation law and terminology and a general understanding of aviation industry laws, legislation and court decisions affecting the aviation community.

1246 Air Traffic Control Communications
Credit Hour(s) 1
Overview of the history of air traffic control, air traffic control tower procedures, radar systems, radar separation, radio communications and techniques, flight plan clearances, traffic management and emergency procedures and priority handling.

1254 Flight Simulator Instruction
Credit Hour(s) 1
Prepares students with the knowledge and practice necessary to successfully control an aircraft solely by reference to flight instruments. Topics include full and partial panel reference, accuracy and proficiency in flying holding patterns and instrument approach procedures and recovery from unusual attitudes and spatial disorientation scenarios.
AVT 1170 and Approval of Department and $350 Lab Fee

2121 Assembly & Rigging
Credit Hour(s) 3
This course covers proper adjustment of cables and torque tubes, proper alignment of primary and secondary control surfaces, proper inspection and alignment of landing gear components and associated controls, correct alignment of all structures in both fixed wing and rotary wing aircraft. Two classroom, three lab hours per week.

2122 Ignition & Starting
Credit Hour(s) 4
This course covers magneto removal, inspection, repair and installation; internal and external magneto timing; inspection,

repair and installation of powerplant wiring and ignition harnesses. One classroom, six lab hours per week.

2125 Developments in Aviation
Credit Hour(s) 2
Provides pilots and other aviation professionals with an in-depth understanding of how aviation technology has evolved, from the earliest balloon flights to the invention of the airplane, to today's sophisticated jet aircraft and their equally sophisticated flight systems and to the developments of space flight and travel.
DEV 0012 and DEV 0022

2126 Reciprocating Engines
Credit Hour(s) 7
This course covers reciprocating engine removal, engine configurations, firing order, inspections, critical parts measurement, use of overhaul manual, powerplant troubleshooting, installation and repair. One classroom, eighteen lab hours per week.

2129 Propellers
Credit Hour(s) 4
Removal, inspection, repair, dressing and installation of propellers. Propeller pitch, angle of attack and forces. Metal, wood and composite propellers. Variable pitch propellers including constant speed, reversing, feathering and ground adjustable propellers. Propeller systems including governors, ice control and auxiliary systems. Propeller storage and return to service. Propeller certificate data. Two classroom, six lab hours per week.

2132 Airframe Electrical Systems
Credit Hour(s) 4
Electrical distribution, controls, switches, transformers and solid-state devices. Use of electrical measuring devices in troubleshooting and testing circuits. Repair of wiring and terminal ends. Use of electrical schematics and wiring diagrams to troubleshoot systems and trace electrical signals. Two classroom, six lab hours per week.

2138 Engine Fuel & Fuel Metering
Credit Hour(s) 3
Fuel system components for turbine and reciprocating engines, carburetor adjustment and overhaul, installation and removal of carburetors, repair of fuel metering components, repair and installation of fuel system components, inspection, adjustment and servicing of engine fuel metering system components. Two classroom, three lab hours per week.

2139 Induction/Exhaust/Cooling
Credit Hour(s) 2
Powerplant ice protection, reciprocating engine induction system, superchargers, turbochargers, heat exchangers, turbine engine inlet designs, exhaust system inspection, repair, removal, and installation, and thrust reversers. One classroom, three lab hours per week.

2143 Review & Recommendation
Credit Hour(s) 2
This course provides the aviation mechanic with critical review for the required Federal Aviation Administration (FAA) knowledge exams in the following areas under Part 147 Appendixes B, C and D: General, Airframe, and Powerplant aviation maintenance subjects with hands-on review in preparation for oral and practical exams.
Approval of Department

2146 Introduction to Airline Operations
Credit Hour(s) 3
An introduction to the structure of an airline, including the functions of the operational control center, airline marketing, maintenance control, fleet planning and scheduling, dispatch release, airline operating certificates and specifications, Part 121 Federal Aviation Regulations and an understanding of the principles and concepts of crew and dispatcher resource management (CRM) through interactive discussion and scenario analysis as it relates to aircraft dispatchers and airline flight crews.

2157 Aircraft Performance I
Credit Hour(s) 2
Principles of advanced aerodynamics, high-speed flight, takeoff, enroute and landing jet aircraft performance. Operational factors affecting aircraft performance in aircraft dispatch.
AVT 1119

2158 Aircraft Performance II
Credit Hour(s) 2
Prepares students with the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Aircraft Dispatcher Certificate. Topics include DC-9, B-727, B-737 and BE-1900 weight and balance and advanced transport category aircraft performance calculations.
AVT 1119

2159 Canadair Regional Jet (CRJ) Aircraft Systems
Credit Hour(s) 1
Prepares students with the knowledge necessary to successfully complete the Federal Aviation Administration (FAA) Aircraft Dispatcher Practical exam. Topics include theory of Canadair Regional Jet (CRJ) aircraft systems, including minimum equipment and configuration deviation list items and their application to aircraft dispatch applications.
Approval of Department

2166 Practical Dispatch Applications
Credit Hour(s) 3
In-depth coverage of joint Aircraft Dispatcher/Pilot responsibilities and dispatch functions including communications, operational control, fuel planning, flight planning, aircraft weight and balance, abnormal and emergency situations, weather, NOTAMs (Notices to Airmen) and airport facilities as they relate to flight planning.
AVT 1119 and AVT 1246 and AVT 2146 and AVT 2157 and AVT 2158 and AVT 2167 and Approval of Department

2167 Instrument Flight Rules (IFR) Navigation & Planning
Credit Hour(s) 2
Principles of aeronautical charts, national airspace system, aircraft navigation instruments, navigational systems and global differences in navigational operations.
AVT 1119 and AVT 1246

2168 Dispatcher Oral Preparation
Credit Hour(s) 1
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.
AVT 1119 and AVT 1246 and AVT 2146 and AVT 2157 and AVT 2158 and AVT 2167 and Approval of Department

2211 Advanced Navigation Science
Credit Hour(s) 2
Study of advanced navigational systems used in commercial and corporate flight

operations. Global Positioning Systems (GPS), Flight Management Systems (FMS) and automated flight planning programs will be demonstrated and practiced. Study of long range navigational procedures.

2219   Turbine Engines
Credit Hour(s) 4
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/trimming of engines. Two classroom, six lab hours per week.

2236   Non-Metallic Structures
Credit Hour(s) 4
This course covers composites, different types of composite glass, wood structures, types of wood used in aircraft, defects in wood, proper repair of fabric and wood structures, types of fabrics used to cover aircraft structures, sewing, lacing and finishing, and the required inspection of fabrics on aircraft. Two classroom, six lab hours per week.

2237   Aircraft Inspections
Credit Hour(s) 3
Conduct an annual/100-hour inspection for a complete aircraft including the airframe, engine and related components. Perform necessary servicing related to an annual inspection and check for airworthiness directives, service bulletins and compliance with manufacturer's directives. Operation, servicing, hand communications, aircraft movement and airport operations safety. Two classroom, three lab hours per week.

2240   Human Factors in Aviation
Credit Hour(s) 3
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 human errors, fatigue, diet, motivation and learning, training principles, human sensory capabilities and limitations, supervisory control and Crew Resource Management (CRM) are among the topics this course will address.
DEV 0012

2242   Aircraft Accident Investigation
Credit Hour(s) 3
Provides pilots and other aviation professionals with an understanding of techniques used by investigators to identify causes of accidents and how to make recommendations to reduce the likelihood of recurrence and reduce the consequences.
DEV 0012

2247   Aerodynamics & Flight Mechanics
Credit Hour(s) 3
Properties of the Standard Atmosphere. Applies basic physics conservation concepts to incompressible, low-speed aerodynamics to develop analytical equations for lift and drag. Develops methods for basic aircraft performance analysis to include maximum angle and rate of climb, cruise and gliding flight. Discusses basic static and dynamic stability requirements.
PHY 1141

2250   Commercial Pilot Ground
Credit Hour(s) 2
Prepares students with the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Commercial Pilot Certificate with an Airplane Category and Single Engine Land Class Rating. Topics include federal aviation regulations applicable to commercial pilot operations, airspace, flight information, meteorology, aeronautical decision making, Visual Flight Rules (VFR) cross-country flight planning and navigation.
AVT 1110 and AVT 1170 and FAA Exam

2258   Flight Instructor Ground
Credit Hour(s) 4
Prepares students with the knowledge necessary to complete the Federal Aviation Administration (FAA) Fundamentals of Instruction and Certified Flight Instructor knowledge exams. Topics include foundations of learning, communication process, the fundamentals of instruction, flight instructor responsibilities and professionalism, development of lesson plans and evaluations, logbook endorsements and review of private and commercial pilot aeronautical knowledge areas as it pertains to the FAA Certified Flight Instructor.
AVT 1110 and AVT 1170 and AVT 2250 and Approval of Department

2263   Commercial Pilot Flight Lab
Credit Hour(s) 3
Prepares students with the aeronautical knowledge, skills and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Commercial Pilot Certificate with an Airplane Category

and Single Engine Land Class rating. Topics include familiarization with the complex training aircraft, commercial flight maneuvers, simulated emergency procedures, maximum performance takeoff and landing procedures and extended cross-country flight operations. Nine lab hours per week.
AVT 1110 and AVT 1170 and Approval of Department

2266   Multi Engine Flight Lab
Credit Hour(s) 1
Prepares students with the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Commercial Pilot Certificate with an Airplane Category and Multi Engine Land Class rating. Topics include multi-engine aircraft systems, aerodynamics, flight maneuvers, single-engine operations, maximum performance takeoff and landing procedures, attitude control by instrument reference during single engine operations and single engine emergency procedures. Two lab hours per week.
AVT 1224 and AVT 2263 and Approval of Department

2269   Flight Instructor Flight Lab
Credit Hour(s) 1
Prepares students with the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Certified Flight Instructor Pilot Certificate with an Airplane Category and Single Engine Land Class Rating. Topics include the fundamentals of instruction as it pertains to the training aircraft, flight maneuvers, maximum performance takeoff and landing procedures, attitude control by instrument reference, solo flight, night flying, cross-country operations and navigation procedures. Two lab hours per week.
AVT 2258 and Approval of Department

2275   Instrument Flight Instructor Ground
Credit Hour(s) 1
Prepares students with the knowledge necessary to complete the Federal Aviation Administration (FAA) Certified Flight Instructor Instrument knowledge exam. Topics include flight instructor responsibilities and professionalism, development of instrument flight lesson plans and evaluations, instrument pilot logbook endorsements and review of

instrument pilot aeronautical knowledge areas as it pertains to the FAA Certified Flight Instructor Instrument certificate.

AVT 1110 and AVT 1170 and AVT 2250 and AVT 2258 and Approval of Department

2277   Instrument Flight Instructor Flight Lab

Credit Hour(s) 1

Prepares students with aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Certified Flight Instructor Instrument Pilot Certificate with an Airplane Category and Single Engine Land Class Rating. Topics include the fundamentals of instruction as it pertains to the instrument pilot certificate, instrument flight maneuvers, instrument scanning techniques, instrument flying fundamentals, attitude control by instrument reference, instrument flying cross-country operations and instrument approach procedures. Two lab hours per week.

AVT 2275 and Approval of Department

2279   Unmanned Aerial Systems Project

Credit Hour(s) 3

Demonstration of command and control simulations of Unmanned Aerial Systems (UAS) operations, including mission planning, decision making, data management, avionics, sensors, communications, and situational awareness during UAS operations. One classroom, four lab hours per week.

Approval of Department

2286   Multi Engine Flight Instructor Flight Lab

Credit Hour(s) 1

Prepares students with the aeronautical knowledge, skill and experience necessary to meet the requirements for a Federal Aviation Administration (FAA) Certified Multi Engine Flight Instructor Pilot Certificate with an Airplane Category and Multi Engine Land Class Rating. Topics include the fundamentals of instruction as it pertains to the multi-engine training aircraft, aircraft systems, aerodynamics, flight maneuvers, maximum performance takeoff and landing procedures, attitude control during single-engine precision instrument approaches and single-engine emergency procedures. Two lab hours per week.

AVT 2266 and Approval of Department

2297   Special Topics

Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

2700   Aviation Internship

Credit Hour(s) 2

Supervised work experience related to the students' major or career program to develop new skills and professional work experience which will enhance marketability and networking. Twenty co-op hours per week.

Approval of Co-op and 2.0 GPA or higher

Biology (BIO)

1101   Body Structure & Function

Credit Hour(s) 3

Basic anatomy and physiology background for medical personnel emphasizing basic principles of body structure and function.

1104   HIV/AIDS

Credit Hour(s) 2

Basic understanding and function of the human immune system and the effects of viruses (HIV/AIDS) on the human immune system.

1107   Human Biology

Credit Hour(s) 3

The survey course studying the structure and function of the human body. Topics include introductory terminology, cytology, the integumentary system, the skeletal system, the muscular system, the nervous system, the endocrine system, the cardiovascular system, (blood, heart and blood vessels), the lymphatic system, the respiratory system, the digestive system, the urinary system and the reproductive system. Two classroom, two lab (BIO 1108) hours per week.

DEV 0022

1108   Lab for Human Biology

Credit Hour(s) 0

The lab component of a survey course that studies the structure and function of the human body. Lab work topics include histology, cytology and the anatomy of the skeleton, muscles, nervous system structures, blood components, the heart, blood vessels and structures within the respiratory, digestive, urinary and male and female reproductive systems. Summarization is achieved through the dissection of a preserved fetal pig.

1111   General Biology I

Credit Hour(s) 4

This course is designed as the first in a series of two general education science courses. Covers basic chemistry and biochemistry; cellular and molecular biology. Three classroom, two lab (BIO 1117) hours per week.

DEV 0012 and DEV 0026 and DEV 0030

1117   Lab for General Biology I

Credit Hour(s) 0

The lab for this course is the first in a series of two general education science courses. Covers laboratory exercises relevant to basic chemistry and biochemistry; cellular and molecular biology.

1121   Human Anatomy & Physiology I

Credit Hour(s) 3

The first course in a two-semester sequence studying the structure and function of the human body. Topics include introductory terminology, biochemistry, cytology, the integumentary system, the skeletal system, the muscular system, the nervous system and the endocrine system. Two classroom, two lab hours per week.

DEV 0012 and DEV 0022 and DEV 0030

1141   Principles of Anatomy & Physiology I

Credit Hour(s) 4

The first course in a two-semester sequence studying the structure and function of the human body. Topics include introductory terminology, biochemistry, cells, the integumentary system, the skeletal system, the muscular system, the nervous system and the endocrine system. Three classroom, two lab (BIO 1147) hours per week.

DEV 0012 and DEV 0026 and DEV 0030

1147   Lab for Principles of Anatomy & Physiology I

Credit Hour(s) 0

Lab for the first course in a two semester sequence studying the structure and function of the human body.

1171   Principles of Biology I

Credit Hour(s) 5

The first course of a two-semester university-parallel sequence for biology and science majors. Topics include scientific method; chemical and biochemical foundations; cell structure, function and reproduction; cellular respiration, photosynthesis, Mendelian genetics, chromosomal genetics, molecular genetics, protein synthesis, gene regulation, genomes, viruses and biotechnology. Three classroom, six lab hours per week.

DEV 0012 and DEV 0026 and DEV 0030

1211   General Biology II
Credit Hour(s) 4
This course is designed as the second in a series of two general education science courses. Covers evolution, biodiversity and ecology. Three classroom, two lab (BIO 1217) hours per week.
BIO 1111

1217   Lab for General Biology II
Credit Hour(s) 0
This second lab is in a series of two general education science courses. Covers laboratory exercises relevant to evolution, biodiversity and ecology.

1222   Human Anatomy & Physiology II
Credit Hour(s) 3
The second course in a two-semester sequence studying the structure and function of the human body. Topics include the cardiovascular system, the lymphoid system, immunity, the digestive system, the urinary system and the reproductive system. Two classroom, two lab hours per week.
BIO 1121

1242   Principles of Anatomy & Physiology II
Credit Hour(s) 4
The second course in a two-semester sequence studying the structure and function of the human body. Topics include the cardiovascular system, the respiratory system, the digestive system, metabolism, the urinary system, fluid and electrolyte balance, acid-base balance and the reproductive system. Three classroom, two lab (BIO 1248) hours per week.
BIO 1141

1248   Lab for Principles of Anatomy & Physiology II
Credit Hour(s) 0
Lab for the second course in a two semester sequence studying the structure and function of the human body.

1272   Principles of Biology II
Credit Hour(s) 5
The second course of a two-semester university-parallel sequence for biology and science majors. Topics include Darwinian evolution, evolution of populations, origin of species, history of life on Earth, phylogeny and systematics, prokaryotes, protists, plants, fungi, animals and ecology. Three classroom, six lab hours per week.
BIO 1171

2212   Lab for Human Physiology
Credit Hour(s) 0

2205   Microbiology
Credit Hour(s) 4
Morphology and physiology of microorganisms and selected human parasites, mechanisms of disease production, host responses, spread of infectious diseases. Three classroom, three lab hours per week.
BIO 1107 or BIO 1111 or BIO 1141

2206   Lab for Microbiology
Credit Hour(s) 0
Students carry out asceptic techniques; simple and special staining procedures; methods utilized for culturing, isolation and identification of bacteria (known and unknown); molecular genetic and immunological methods dealing with microbes. Also, exercises involving eukaryotic microbes (fungi, protozoa and helminths) are conducted.

2211   Human Physiology
Credit Hour(s) 4
Essentials of human physiology for students who have previous course work in human anatomy and physiology. Topics include biochemistry, cell physiology and physiology of the major organ systems. Three classroom, three lab hours per week.
BIO 1107 or BIO 1111 or BIO 1141 or CHE 1111 or LPN Diploma

2222   Evolution
Credit Hour(s) 3
Emphasis on Charles Darwin, speciation, fossils, radiometric dating, natural selection, mutations, macroevolution, mass extinctions, coevolution, sexual reproduction, human evolution and religious issues.

2225   Ecology
Credit Hour(s) 4
General concepts in ecology and application to current environmental issues. Focus on evolutionary ecology, populations, communities, ecosystems and global ecology. Field experiences and lab techniques emphasizing data collection, analysis and interpretation. Three classroom, three lab hours per week.

2235   Genetics
Credit Hour(s) 4
Fundamental principles, concepts and techniques of genetics. Lab work includes basic methods of genetic research and analysis. Three classroom, two lab (BIO 2236) hours per week.
BIO 1111

2236   Lab for Genetics
Credit Hour(s) 0
Fundamental principles, concepts, and techniques of genetics. Lab work includes basic methods of genetic research and analysis.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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.

Business Information Systems (BIS)

1100   Introduction to Computers & Keyboarding
Credit Hour(s) 2
Students will learn: computer terminology and basic computer skills (such as file management), understand basic operating system terminology and learn the graphical user interface; students will learn the development of "touch" keyboarding, including the ten-key numeric keypad. (By the end of the course, student must perform keyboard speed and accuracy on three-minute timed writings at a minimum of 20 wpm with three or fewer errors.)

1120   Computer Concepts & Applications
Credit Hour(s) 3
Introduces students to personal computer concepts including hardware, system software, application software and the Internet. Learn the components of computer systems and develop a broad understanding of computer hardware and emerging technologies. Utilize productivity software such as word processing, spreadsheet, presentation and database. Learn Internet concepts that will allow them to use email systems and currently popular Web browsers to work with websites and Internet applications.

1200   Keyboarding & Document Formatting I
Credit Hour(s) 2
Students will learn word processing software and continue development of personal computer skills; format and produce reports, letters, memos, multiple-column tables and other business documents. (By the end of the course, student must perform keyboard speed and accuracy on five-minute timed writings of 35 wpm with five or fewer errors.)
BIS 1100

SINCLAIR
COMMUNITY COLLEGE

1220 Word Processing Software
Credit Hour(s) 3
Beginning to advanced word processing software concepts including editing, formatting, desktop publishing design and editing techniques, document control and automation.
BIS 1120

1221   Specialized Computer Applications for Health Information Management
Credit Hour(s) 1
Specific features of Microsoft Office applications for medical reports, narrating presentations, Autofilters, form creation and software integration.
BIS 1120

1230   Spreadsheet Software
Credit Hour(s) 3
Students will learn techniques to properly manage large and multi-sheet spreadsheets, use spreadsheets to arrange and manage data, develop advanced spreadsheet formulas and functions, perform "What-If" analysis using spreadsheet tools and design and create end-user spreadsheet applications.
BIS 1120

BIS 1240   Presentation Software
Credit Hour(s) 2
Beginning to advanced presentation software techniques including editing and formatting presentations, fundamentals of effective presentations, transitions, animations, multimedia content, advanced navigation tools and master and template modification.
BIS 1120

1250   Desktop Publishing Software
Credit Hour(s) 1
Desktop publishing for office applications using Microsoft Publisher software for creation of proposals, flyers, newsletters and web pages using styles and other special features.

1260   Database Software
Credit Hour(s) 3
Students will learn to design and manage databases using the relational model, use database objects to manage data including data integrity, data analysis and reporting, learn to derive useful information from raw data using functions and querying techniques, and create end-user database applications.
BIS 1120

1300   Keyboarding & Document Formatting II
Credit Hour(s) 2
Students will use word processing software to produce correctly formatted letters and memos, complicated tables, reports and other business documents; and continue development of personal computer keyboarding speed and accuracy skills. (By the end of the course, student must perform keyboard speed and accuracy on five-minute timed writings of 50 wpm with five or fewer errors.)
BIS 1200

1400   Customer Service
Credit Hour(s) 3
Introduction to concepts of customer service. Topics to include: face-to-face and phone-based communication with customers, professionalism and workplace behavior, decision making, problem solving, conflict resolution and negotiation skills, use of emerging technologies, role-play scenarios, case studies and preparation for career advancement.

1410   Business Software Applications
Credit Hour(s) 3
Use word processing, spreadsheet, database and presentation software applications to create reports, spreadsheets, databases and presentations for business applications.

2140   Records Management
Credit Hour(s) 2
Alphabetic, numeric and other classification systems will be covered. Records life cycle, equipment and supplies, safety and security and disaster recovery programs; emerging technologies within electronic records management will also be examined.

2170   Office Simulation
Credit Hour(s) 3
Analyze business problems and apply critical-thinking skills and software knowledge and communication skills learned in previous classes to solve problems and perform work-related tasks.
BIS 1220 and BIS 1230 and BIS 1240 and BIS 1250 and BIS 1260 and BIS 1300

2180   Medical Office Simulation
Credit Hour(s) 3
Basic principles of office support, bookkeeping, record-keeping and reporting responsibilities pertinent to the medical office and health care agencies.

BIS 1120 and BIS 1200 and BIS 2140 and HIM 1101 and HIM 1160

2270   Business Information Systems Internship
Credit Hour(s) 2
Students earn credits toward degree requirements for work learning experience. Students establish learning outcomes and prepare related reports and/or projects each term. Twenty co-op hours per week.
BIS 1220 and BIS 1230 and BIS 1240 and BIS 1250 and BIS 1260 and BIS 2140 and Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Biotechnology (BTN)
1110   Biotechnology & Bioethics
Credit Hour(s) 3
Introduction to the major fields in biotechnology and the basic science involved in understanding those fields.
Restricted to Majors

1120   Laboratory Safety & Regulatory Compliance
Credit Hour(s) 2
Introduction to lab safety culture, precautionary labels, Material Safety Data Sheets, using personal protective equipment, handling lab equipment safely, handling , storing and disposing of chemicals safely, using emergency equipment as well as safety planning.
Restricted to Majors

1130   Biological Reagents Preparation
Credit Hour(s) 3
Basic understanding and overview of chemical grades of reagents used in biological research with an emphasis on chemical formulas and preparation of biological media and reagents. Two classroom, three lab (BTN 1131) hours per week.
CHE 1111 or CHE 1211 and Restricted to Majors

1131   Lab for Biological Reagents Preparation
Credit Hour(s) 0
Basic understanding and overview of chemical reagents.

1140   Cell Culture
Credit Hour(s) 2
Introduction to cell culturing techniques. One classroom, two lab (BTN 1141) hours per week.
BIO 1111 and CHE 1111 and BTN 1130 and Restricted to Majors

1141   Lab for Cell Culture
Credit Hour(s) 0
Introduction to cell culturing techniques.

1201   Biotechnology Careers
Credit Hour(s) 2
To discover career opportunities, develop a resume/cover letter and increase interviewing skills for the biotechnology industry.
BTN 1110 and Restricted to Majors

2210   Protein Purification & Analysis
Credit Hour(s) 4
Introduction to protein purification, isolation quantification and analysis. Two classroom, four lab (BTN 2211) hours per week.
BIO 1111 and CHE 1111 and BTN 1130 and Restricted to Majors

2211   Lab for Protein Purification & Analysis
Credit Hour(s) 0
Fundamental principles, concepts, and techniques of protein purification techniques. Lab work includes basic methods of protein research and analysis.

2220   Microbiology & Fermentation Methods
Credit Hour(s) 3
Introduction to fermentation and microbial metabolism. Two classroom, three lab hours per week.
BIO 1111 and CHE 1111 and BTN 1130 and Restricted to Majors

2221   Lab for Microbiology & Fermentation Methods
Credit Hour(s) 0
Introduction into fermentation and microbial metabolism within the laboratory setting.

2230   Molecular Biology Techniques
Credit Hour(s) 4
Structure and function of macromolecules and their interactions in DNA replication, DNA cloning and genetic engineering techniques analysis, introduction to public domain DNA and protein sequence databases, use of software and internet resources for database searching. Two classroom, four lab (BTN

2231) hours per week.
BIO 1111 and CHE 1111 and BTN 1130 and Restricted to Majors

2231   Lab for Molecular Biology Techniques
Credit Hour(s) 0
Structure and function of protein and nucleic acids, DNA replication mechanisms, DNA cloning, genetic engineering techniques, use of plasmids, nucleic acid analysis by electrophoresis, Southern hybridization, DNA amplification and sequencing, introduction to public domain DNA and protein sequence databases, use of software and internet resources for database searching.
Restricted to Majors

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Computer Aided Manufacturing (CAM)

1107   Principles of Manufacturing
Credit Hour(s) 3
The study of manufactured products from the perspective of design, tooling, processing, communication, computer numerical control, machine elements, tool design and specifications. The course also examines problem solving and critical thinking in product development using both standard and automated communication methods.
MET 1131

1109   Fundamentals of Tooling & Machining
Credit Hour(s) 3
An introduction to the manufacturing processes used in the tooling and machining industry. Safety, mechanical hardware, hand tools, metrology, engine lathe, milling and grinding will be the major focus of this course. Two classroom, two lab hours per week.

1141   Shop Floor Calculations I
Credit Hour(s) 3
This course applies the principles of arithmetic, algebra and geometry to situations encountered in the machining industry. Two classroom, two lab hours per week.
DEV 0022

1142   Shop Floor Calculations II
Credit Hour(s) 3
This course applies the principles of geometry and trigonometry and the computing of compound angles to situations encountered in the machining industry. It also gives a brief introduction to the calculations required in computer numerical control programming. Two classroom, two lab hours per week.
CAM 1141

1161   Machine Operations Laboratory I
Credit Hour(s) 8
An introduction to the manufacturing processes used in the tooling and machining industry. Safety, hand tools, metrology, engine lathe, milling, sawing and grinding will be the major focus of this course. Two classroom, eighteen lab hours per week.

1162   Machine Operations Laboratory II
Credit Hour(s) 8
Students will advance their proficiency in the use of manually operated machine shop equipment. Emphasis will be on precision grinding, fitting parts for assembly, increasing independence developing process plans and setting up machinery. Two classroom, eighteen lab hours per week.
CAM 1161 and Approval of Department

1213   Fundamentals of Computer Numerical Control
Credit Hour(s) 4
Development of Computer Numerical Control (CNC) programs for three axis CNC milling machines including linear and circular interpolation, drilling and tapping and G&M codes. Setup and operation of milling machines. Adjusting tool offsets to hold part tolerance. Three classroom, two lab hours per week.
CAM 1109 and CAM 1161 and MET 1131

2114   Jig & Fixture Design
Credit Hour(s) 3
Theory, principles and drawing techniques for the design of jigs and fixtures. Two classroom, two lab hours per week.
CAM 1109 and CAM 1107

2145 Shop Floor Programming
Credit Hour(s) 3
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 classroom, two lab hours per week.
Approval of Department

2204 Computer Numerical Control Lathe Programming
Credit Hour(s) 3
Development of Computer Numerical Control (CNC) programs for three axis CNC milling machines including linear and circular interpolation, drilling and tapping and G&M codes. Setup and operation of milling machines. Adjusting tool offsets to hold part tolerance. Three classroom, two lab hours per week.
CAM 1213

2212 Computer Assisted Programming
Credit Hour(s) 3
An introductory course in the use of Computer Aided Design (CAD)/Computer Aided Manufacturing (CAM) software as applied to computer numerical control vertical machining centers and computer numerical control turning centers. Two classroom, two lab hours per week.

2214 Advanced Computer Numerical Control (CNC) Applications
Credit Hour(s) 3
Course covering the programming, setup and operation of 3, 4 and 5 axis vertical machining centers. Two classroom, two lab hours per week.
CAM 1213 and CAM 2204 with a grade of C or higher

2225 Tool Design
Credit Hour(s) 3
Design theory, principles and drawing techniques for the tool design industry. Two classroom, two lab hours per week.
CAM 2114

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2700 Computer Aided Manufacturing Internship
Credit Hour(s) 1 to 4
Students earn credits toward degree requirements for work learning experience, especially related to a co-op experience. Ten co-op hours per credit hour per week.
Approval of Department

2780 Computer Aided Manufacturing Capstone
Credit Hour(s) 3
Assessment of achievement by Computer Aided Manufacturing students in attaining program-related outcomes by completing a project demonstrating principles and practices of the major. One classroom, four lab hours per week.
CAM 2212 and CAM 2204

Civil Architectural Technology (CAT)

1101 Architectural Drafting
Credit Hour(s) 3
Develop proficiency with manual and computer drafting techniques, developing architectural drawings and coordinating a set of construction documents. Includes developing 3D visualization and architectural problem solving skills. Two classroom, two lab hours per week.

1111 Mechanical Systems Blueprint Reading
Credit Hour(s) 1
Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC and fire protection systems. One half classroom, one and one half lab hours per week.
DEV 0010 and DEV 0024 and DEV 0032

1121 Introduction to Revit
Credit Hour(s) 3
Develop proficiency with Revit Architecture modeling software including: user interface, modeling techniques, proper modeling workflow and document generation. Learn rendering and animation communication techniques. Two classroom, two lab hours per week.
CAT 1101

1131 Introduction to Revit MEP
Credit Hour(s) 3
Study and application of advanced drawing using AutoDesk Revit. Major emphasis on building information modeling (BIM) theory along with construction of Mechanical, Electrical and Plumbing (MEP) systems. Two

classroom, two lab hours per week.
CAT 1101 or CAT 1111 or CAT 1121

1141 Architectural Blueprint Reading
Credit Hour(s) 2
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. One classroom, two lab hours per week.
DEV 0024 and DEV 0032

1201 Construction Methods & Materials
Credit Hour(s) 5
Construction methods of materials for both residential and commercial structures. Emphasis on processes and techniques. Understanding of blueprint reading of architectural and civil drawings. Hands-on exercises of residential and commercial applications. Three classroom, four lab hours per week.

1211 Construction Materials Testing
Credit Hour(s) 2
This course presents some of the basics of testing materials (concrete, steel, wood, etc.) used in the construction industry. Emphasis on how properties of materials affect their use in the construction process. Utilizes American Society for Testing and Materials (ASTM) Standards. One classroom, three lab hours per week.
DEV 0024

1241 Building Structural Systems
Credit Hour(s) 3
Basic structural engineering principles for designing residential and commercial structures using wood, steel and concrete. Research appropriate building codes and apply knowledge to solve engineering challenges. Two classroom, two lab hours per week.
CAT 1101 or CAT 1201

1401 Construction Estimating
Credit Hour(s) 3
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 classroom, two lab hours per week.
MET 1101 or CAT 1101 or CAT 1201

1501   Construction Surveying
Credit Hour(s) 3

This course uses civil blueprints, surveying equipment and appropriate mathematical concepts to solve construction related problems. Two classroom, three lab hours per week.

CAT 1101 and MAT 1270 or MAT 1280 or MAT 1470 or MAT 2270 or Appropriate Math placement test score

1701   Construction Craft Skills/Concrete
Credit Hour(s) 6

An orientation to construction trades and working with concrete with strong emphasis on hands-on learning exercises. Includes Occupational Safety & Health Administration (OSHA) 10-hour construction safety. Two classroom, eight lab hours per week.

1721   Structural Framing Systems
Credit Hour(s) 6

Advanced technical training in wood and light-gauge steel framing systems, including exterior wall finishing and roof construction. Two classroom, eight lab hours per week.

1741   Residential Electrical Systems
Credit Hour(s) 3

Basic safety procedures, use of power and hand tools, electrical circuit theory and basics of residential wiring observing the National Electric Code (NEC). One classroom, four lab hours per week.

1761   Interior & Exterior Finishes
Credit Hour(s) 3

An orientation to interior and exterior finishes on frame construction. One classroom, four lab hours per week.

1781   Construction Project
Credit Hour(s) 4

Students will work on a significant construction project such as a home for Habitat for Humanity. This course gives students hands-on experience in all phases of a construction project. Most class sessions will be at a construction site in the Greater Dayton Metropolitan area. One classroom, six lab hours per week.

CAT 1701 or CAT 2431

1810   Construction Techniques I
Credit Hour(s) 3   R

Basic safety, hand and power tools, wood building materials and fasteners and framing systems. May be taken for two semesters. One classroom, four lab hours per week.

Approval of Department

1820   Construction Techniques II
Credit Hour(s) 3   R

Construction of concrete structures including forming, placing and finishing. May be taken for two semesters. Two classroom, four lab hours per week.

CAT 1810 and Approval of Department

1830   Construction Techniques III
Credit Hour(s) 3   R

Exterior and interior finishing of frame structures including roofing materials, siding, drywall, stairs, doors and trim. May be taken for two semesters. One classroom, four lab hours per week.

CAT 1820 and Approval of Department

1840   Construction Techniques IV
Credit Hour(s) 3   R

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. May be taken for two semesters. One classroom, four lab hours per week.

CAT 1830 and Approval of Department

2101   CAD Design in Revit
Credit Hour(s) 5

Develop proficiency with Revit design techniques, developing architectural models and coordinating a set of construction documents. Includes architectural and Mechanical, Electrical and Plumbing (MEP) problem-solving skills. Two classroom, six lab hours per week.

CAT 1101 and CAT 1121 and CAT 1201

2111   Building Mechanical & Electrical Systems
Credit Hour(s) 3

Basic mechanical and electrical system design principles for residential and commercial structures. Research appropriate methodologies and apply knowledge to solve design challenges. Two classroom, two lab hours per week.

CAT 1121 or CAT 1131

2201   Revit Integration
Credit Hour(s) 1

Learn the philosophy of building information modeling and how Revit and other computer-based modeling software can assist in the design, analysis and documentation of buildings. One-half classroom, one and one-half lab hours per week.

CAT 1121 or CAT 1131

2297   Special Topics
Credit Hour(s) 0.5 to 9R

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 nontraditional format.

2401   Engineering Technology Project Management
Credit Hour(s) 3

Practical planning and control of construction and engineering-based projects. Interrelationships and operations of project management and skills required for success in the current engineering environment. Theory, nomenclature and practical application of engineering management using computer software. Two classroom, two lab hours per week.

CAT 1401

2411   Building Codes & Construction Law
Credit Hour(s) 3

Building code history, development, application and review processes. Analysis of existing building to determine code status, form recommendations and make presentation. Examine Ohio law impacting various codes, safety, contracting and personnel issues with regard to built environment professions. Develop sample contract documents. Two classroom, two lab hours per week.

CAT 1201

2421   Soil Mechanics
Credit Hour(s) 3

Theories of soil mechanics including soil classifications, sampling and testing methods, stress distribution, shearing resistance and strength of soils. Two classroom, two lab hours per week.

CAT 1211 and MET 1131 and MET 2201 or MEE 2101

2431   OSHA Construction Standards
Credit Hour(s) 2

Rules, interpretations, record keeping and standards required by Occupational Safety & Health Administration (OSHA) (29CFR Part 1926) for the construction industry to ensure employees a safe, healthful workplace. Successful completion of the course provides the 30 hour OSHA Construction Safety Card.

2501   Introduction to Geographic Information Systems (GIS) & Global Positioning Systems (GPS)
Credit Hour(s) 2
An introduction to geographic information systems (GIS) used in the land and utility record-keeping systems using global positioning systems (GPS) to gather data. One classroom, three lab hours per week.
CAT 1501

2531   Advanced Surveying & Drafting
Credit Hour(s) 4
Utilization of surveying equipment and Computer Aided Drafting (CAD) software to perform field data collection and produce civil engineering drawings. Two classroom, six lab hours per week.
CAT 1501 and MAT 1290 or MAT 1470 or MAT 2270

2561   Advanced Construction Surveying
Credit Hour(s) 2
Solving complex surveying problems for construction layout of buildings, sites and roads using appropriate mathematical calculations and surveying equipment. One classroom, two lab hours per week.
CAT 2531 and MAT 1140 or MAT 1290 or MAT 1470 or MAT 2270

2581   Legal Principles for Surveyors
Credit Hour(s) 3
Legal principles of surveying. Field investigation and case studies are used to understand the elements that govern establishment of real property boundaries.

2700   Civil Architectural Technology Internship
Credit Hour(s) 1 to 4   R
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 term. Ten work hours per week per credit hour.

2741   Current Topics in Architecture
Credit Hour(s) 2
Explore recent developments in the architectural profession, especially as related to the architectural technology curriculum. Topics to include environment, green building, energy conservation, building technology, etc. One classroom, two lab hours per week.
CAT 1101 and CAT 1201

2780   Architectural Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Architectural Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
CAT 2401 and CAT 2101 and CAT 2411 and CAT 2111 and CAT 2201 and EGV 1301 and EGV 2351 and Approval of Department

2781   Civil Engineering Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Civil Engineering Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
MET 2201 and CAT 2501 and CAT 2531 and CAT 2401 and Approval of Department

2782   Construction Management Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Construction Management Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
CAT 2401 and CAT 2411 and CAT 2531 and Approval of Department

Chemistry (CHE)

1111   Introduction to Chemistry I
Credit Hour(s) 4
An introductory survey course for students pursuing health science degrees or who have not previously taken high school chemistry. Topics include matter and measurement, atoms and molecules, chemical reactions, energy changes, atomic structure and bonding, acid/base chemistry, chemical kinetics, nuclear chemistry and organic chemistry. Three classroom hours, two lab (CHE 1151) hours per week.
DEV 0022

1121   Introduction to Chemistry II
Credit Hour(s) 4
The second half of an introductory survey course for students pursuing health science degrees or biotechnology. Topics include organic functional groups, biomolecules, enzymes, body fluids and the metabolism of carbohydrates, proteins and lipids. Three classroom, three lab (CHE 1161) hours per week.
CHE 1111

1151   Lab for Introduction to Chemistry I
Credit Hour(s) 0

1161   Lab for Introduction to Chemistry II
Credit Hour(s) 0

1211   General Chemistry I
Credit Hour(s) 5
A university-parallel course in chemistry for the science major. The first half of a comprehensive first-year survey of chemistry. Topics include the basics of matter, atoms and molecules, chemical reactions, bonding, organic chemistry and biochemistry. Students registering for this course should have previously taken high school chemistry or equivalent. Four classroom hours, three lab (CHE 1251) hours per week.
MAT 1280 or MAT 1370

1221   General Chemistry II
Credit Hour(s) 5
The second half of a university-parallel course in chemistry for the science or engineering major. Topics include states of matter, solutions, chemical reaction kinetics, chemical equilibrium, acid/base chemistry and nuclear chemistry. Four classroom hours, three lab (CHE 1261) hours per week.
CHE 1211 and MAT 1290 or MAT 1470

1251   Lab for General Chemistry I
Credit Hour(s) 0
A university-parallel course in chemistry for the science major. The first half of a comprehensive first-year survey of chemistry. Topics include the basics of matter, atoms and molecules, chemical reactions, bonding, organic chemistry and biochemistry. Students registering for this course should have previously taken high school chemistry or equivalent.

1261   Lab for General Chemistry II
Credit Hour(s) 0
The second half of a university-parallel course in chemistry for the science or engineering major. Topics include states of matter, solutions, chemical reaction kinetics, chemical equilibrium, acid/base chemistry and nuclear chemistry.

1311   College Chemistry I
Credit Hour(s) 4
A university-parallel course in chemistry for the nonscience major. Atomic theory, periodic law, chemical bonds, chemical reactions, states of matter, solutions, acids and bases and the impact of chemistry upon the world and the environment. Three classroom, two lab (CHE 1351) hours per week.
DEV 0022

1321   College Chemistry II
Credit Hour(s) 4
A university-parallel course in chemistry for the nonscience major. A continuation of College Chemistry I. Oxidation/reduction reactions, nuclear reactions, organic chemistry, polymers, energy, structure of biomolecules and biochemistry, nutrition, medicines, chemistry of useful materials. Three classroom, two lab (CHE 1361) hours per week.
CHE 1111 or CHE 1211 or CHE 1311

1351   Lab for College Chemistry I
Credit Hour(s) 0

1361   Lab for College Chemistry II
Credit Hour(s) 0

2111   Organic Chemistry I
Credit Hour(s) 5
The study of alkanes, stereochemistry, alkyl halides, organometallic compounds, alcohols, ethers, epoxides, alkenes, alkynes, aromatic hydrocarbons and spectroscopic methods of organic analysis. Four classroom, three lab (CHE 2151) hours per week.
CHE 1221

2121   Organic Chemistry II
Credit Hour(s) 5
The study of aldehydes, ketones, carboxylic acids, derivatives of carboxylic acids, enolates, carbanions, amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, polymers, composite materials and biochemistry. Four classroom, three lab (CHE 1261) hours per week.
CHE 2111

2151   Lab for Organic Chemistry I
Credit Hour(s) 0
The study of alkanes, stereochemistry, alkyl halides, organometallic compounds, alcohols, ethers, and epoxides, alkenes, alkynes, aromatic hydrocarbons, and spectroscopic methods of organic analysis.

2161   Lab for Organic Chemistry II
Credit Hour(s) 0
Aldehydes, ketones, carboxylic acids, derivatives of carboxylic acids, enolates, carbanions, amines, polycyclic and heterocyclic aromatic compounds, pericyclic reactions, polymers, composite materials and biochemistry.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Chinese (CHN)

1100   Conversational Chinese I
Credit Hour(s) 3
A foundation for gaining knowledge about Chinese culture and basic phrases related to simple spoken Chinese, including travel situations.

1105   Conversational Chinese II
Credit Hour(s) 3
Develops the conversational skills to a greater degree of complexity and covering more situations. Promotes free expression in Chinese within more specific and complex cultural contents.
CHN 1100

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Computer Information Systems (CIS)

1107   Introduction To Operating Systems
Credit Hour(s) 3
Introduction to operating systems and their concepts. Both the command line interface, with commonly used instructions, and a graphical interface will be used to manage and administer the current Microsoft Windows and Linux operating systems.

1111   Introduction to Problem Solving & Computer Programming
Credit Hour(s) 3
Introduction to problem solving techniques used in programming. Students learn to use tools such as flowcharts and pseudocode to plan solutions. Students design, code and test programs using the basic structures of sequence, selection and iteration.
MAT 1270

1130   Network Fundamentals
Credit Hour(s) 3
Introduction to computer networking. Topics include network standards and the Open Source Interconnection (OSI) model, topologies and Ethernet standards, network hardware, remote connectivity, wireless networking, in-depth TCP/IP, network security, network troubleshooting and network management.

1140   Information Systems Analysis & Design
Credit Hour(s) 3
Introduction to the systems development life cycle and the four-phase model (planning, analysis, design and implementation). Emphasis on requirements gathering, methodology, modeling and skills related to specifications, design and documentation. Discussion of business processes, law, legal issues and ethics for IT professionals.
CIS 1111

1202   C++ Software Development I
Credit Hour(s) 3
Introduction to C++ software development building on prior software development studies. Topics include C++ syntax and constructs, data types, logic structures of sequence, selection and iteration, processing calculations, arrays, searching and sorting, pointers, characters and strings, structures, file

operations, problem analysis and C++ software solution design, coding and testing.
CIS 1111

1304 Web Site Development with HTML/JavaScript
Credit Hour(s) 3
Web site development using intermediate to advanced Hyper Text Markup Language (HTML) and JavaScript. Topics include principles of page layout and design, language syntax, logic structures, lists, tables, multimedia, interactive forms, links, images, selector definitions, JavaScript, HTML, XHTML, Cascading Style Sheets, scripting, debugging, and website publishing and maintenance.

1411 Cisco Network Fundamentals
Credit Hour(s) 3
Introduction to the architecture, structure and models of the Internet and other computer networks. Principles and structure of Internet Protocol (IP) addressing and fundamentals of Ethernet concepts and operations are explored. Application of basic principles of cabling and configuration of network devices such as routers and switches.
CIS 1107 and CIS 1130

1510 Windows Client Operating System
Credit Hour(s) 3
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.
CIS 1107 and CIS 1130 or CIS 1411

1714 A+ Operating Systems Troubleshooting
Credit Hour(s) 3
Introduction to theoretical and practical concepts related to modern personal computer operating systems. Includes functions and characteristics of current operating systems as well as troubleshooting steps and tools in common use.
CIS 1107

2165 Database Management
Credit Hour(s) 3
Introduction to database management systems. Discussion of database environments, design, planning, implementation and administration 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.
CIS 1111

2170 Computer Information Systems Internship
Credit Hour(s) 2   R
Students earn credits toward degree requirements for work learning experience. Students establish learning outcomes and prepare related reports and/or projects each term. Students already working may apply to use that experience to meet internship requirements. Twenty co-op hours per week.
CIS 1107 or CIS 1111 or CIS 1411 or CIS 2510 and Approval of Department

2178 Computer Information Systems Capstone
Credit Hour(s) 3
Assessment of skills and competencies of Computer Information Systems 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 term prior to graduation.
CIS 2515 and CIS 2520 or CIS 2416 and CIS 2421 or CIS 2207 and CIS 2212 or CIS 2309 an CIS 2314

2207 C++ Software Development II
Credit Hour(s) 3
This course builds on prior C++ studies and includes C++ classes, inheritance, polymorphism, virtual functions, exceptions, templates, the Standard Template Library (STL), abstract data structures such as linked lists, stacks and queues, recursion, binary trees, analysis of algorithms, and problem analysis and C++ software solution design, coding and testing.
CIS 1202

2212 Java Software Development I
Credit Hour(s) 3
Introduction to Java software development. Topics include object orientation, Java syntax, data types, logic structures of sequence, selection and iteration, processing calculations, files, methods, classes and objects, graphical user interface (GUI) applications, arrays and the ArrayList class, problem analysis and Java software solution design, coding and testing.
CIS 1111

2217 Java Software Development II
Credit Hour(s) 3
This course builds on prior Java studies and includes classes and objects, text processing, wrapper classes, returning objects from methods, aggregation, inheritance, polymorphism, exception handling, advanced file input/output, JList component, JComboBox component, applets, recursion, Java Servlets, JavaServer Pages, Java Beans, problem analysis and Java software solution design, coding and testing.
CIS 2212

2222 C# Software Development
Credit Hour(s) 3
Introduction to C# software development building on prior software development studies. Topics include C# syntax and coding conventions, graphical user interfaces, Microsoft's ASP.net web application framework, interaction of ASP.net with relational databases, caching, Microsoft's Visual Studio Integrated Development Environment (IDE), problem analysis and C# software solution design, coding and testing.
CIS 1202

2268 Introduction to Oracle
Credit Hour(s) 3
Introduction to Oracle database management system in a client/server environment. The course covers Structured Query Language (SQL) and Oracle development tools. Students are taught to create and maintain database objects and to store, retrieve and manipulate data, and create blocks of application code that can be shared by multiple forms, reports and data management applications.
CIS 2165

2269 Data Analytics Theory & Solutions
Credit Hour(s) 3
An introduction to business intelligence, data analysis, data warehousing, data mining theory and tools, and how to structure the data and prepare reports in a way that is meaningful to business users. Emphasis is placed upon understanding business intelligence techniques to construct and use business intelligence solutions for decision support.
CIS 2165 and MAT 2170

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2309   Cascading Style Sheets
Credit Hour(s) 3
This course provides in-depth coverage of Cascading Style Sheets, Hyper Text Markup Language (HTML) and Extensible Hyper Text Markup Language (XHTML). Emphasis is on formatting across multiple pages, exploring presentation and layouts and creating tables and forms.

2314   Web Programming with Hypertext Preprocessor (php)
Credit Hour(s) 3
Web programming using introductory to intermediate Hyper Text Markup Language (HTML) and Hypertext Preprocessor (php). Including operators, logic structures, functions, php programming standards, simple Web interfaces, Web forms, accessing databases, Web Authoring Tools, scripting, debugging, maintenance, 3-tier Web applications using php and MySQL, files on a file server and Cascading Style Sheets.
CIS 1304 and CIS 2165

2319   Extensible Markup Language (XML)
Credit Hour(s) 3
An introduction and overview of extensible markup language (XML). Topics include writing well formed and valid XML, use of Document Type Definitions, XML schema, Cascading Style Sheets, XPath and XSL for formatting.
CIS 1304 and CIS 2165

2416   Cisco Routing Protocols & Concepts
Credit Hour(s) 3
This course will cover the role that routers play in enabling communications across multiple networks. The functions, characteristics and operations of dynamic routing protocols. Purpose of static and default routes. Troubleshooting routing processes.
CIS 1411

2421   Cisco Switching & Wireless Routing
Credit Hour(s) 3
Investigate basic switching concepts and the operation of Cisco switches. Examine the use of Virtual Local Area Networks (VLANs) to create logically separate networks. Describe wireless network standards and components.
CIS 1411

2426   Cisco Accessing the Wire Area Network (WAN)
Credit Hour(s) 3
Components, methods and technologies required for network and Internet communications. Troubleshooting network problems using a layered model approach. Operation of Internet Protocol (IP) addressing services. Network security threats and functions of common security appliances and applications.
CIS 2416 and CIS 2421

2510   Microsoft Windows Server Operating System
Credit Hour(s) 3
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 administration of a client server network and in-depth knowledge of the current Windows Server operating system.
CIS 1107 and CIS 1130 or CIS 1411

2515   Windows Network Infrastructure
Credit Hour(s) 3
Aspects of the administration and support functions of a Windows network infrastructure using the current Windows Server operating system. Focus is on the ability to install, manage, monitor, configure and troubleshoot name resolution, Internet Protocol addressing and services, network access, file and print services, network protocols and IP routing.
CIS 1510 and CIS 2510

2520   Windows Directory Services Administration
Credit Hour(s) 3
Successfully plan, implement and troubleshoot a Microsoft Windows Active Directory® infrastructure. The course focuses on a Windows directory service environment, including forest and domain structure, Domain Name System, site topology and replication, trusts, organizational unit structure and delegation of administration, Group Policy and user, group and computer account strategies.
CIS 1510 and CIS 2510

2530   Windows Application Infrastructure
Credit Hour(s) 3
This course will consider the critical aspects of the administration of an application infrastructure in a Windows network including the deployment and maintenance of servers to provide highly available storage, images for future installations and virtual environments for hardware efficiency. Managing servers, providing terminal services, load balancing and a robust network infrastructure for file, mail, web and other services will be considered. Emphasis will be given to providing appropriate levels of security and authentication throughout this environment.
CIS 2515 and CIS 2520

2535   Windows Server Enterprise Administrator
Credit Hour(s) 3
This course prepares a student to manage a Windows Server network in a large enterprise environment and to prepare for the current Microsoft certification exam on this topic. Specific areas addressed in this course include planning network and application services; designing identity and access management components; and designing for business continuity and high-availability services.
CIS 2515 and CIS 2520

2550   Linux Operating System
Credit Hour(s) 3
Linux operating system installation, management, administration, troubleshooting techniques, writing and debugging shell procedures, pipes and interprocess communications, command lists and network configuration for beginning and intermediate students. This course prepares students for the CompTIA Linux + exam.
CIS 1107 and CIS 1130 or CIS 1411

2560   Fundamentals of Linux Security
Credit Hour(s) 3
This course is designed for existing and prospective Linux system administrators as well as IT administrators interested in learning the fundamentals of Linux security.
CIS 2550

2630   Securing a Windows Network Environment
Credit Hour(s) 3
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; monitoring and responding to security incidents.
CIS 1510 and CIS 2510

2635   Microsoft SQL Server Administration
Credit Hour(s) 3
This course provides students with the skills and resources needed to install, configure and administer the current version of Microsoft SQL Server. This will include installation and setup of MS SQL Server; setup and administration of a client server database and knowledge of the MS SQL Server Database Application.
CIS 2165 and CIS 2510

2640   Network Security
Credit Hour(s) 3
Intermediate computing and network security fundamentals. Topics include network vulnerabilities and attacks, network defenses, wireless network security, access control, network assessment and auditing, cryptography and organizational security. Preparation will also be given for the CompTIA Security + exam.
CIS 1107 and CIS 1130 or CIS 1411

2711   Enterprise Desktop Support Technician
Credit Hour(s) 3
Introduction to troubleshooting and problem solving techniques for Windows desktop network applications. Review the major network configuration components of the operating system. Configure and problem solve operating system functions as used in a real-world network desktop work station.
CIS 1107 and CIS 1510 and CIS 1714

2717   A+ Certification IT Technician
Credit Hour(s) 3
Installing, configuring, upgrading and troubleshooting microcomputer hardware and software including CPU, storage devices, add-in boards and adapters, video displays and communication devices. This course will prepare students for the CompTIA A+ Certification Exam.
CIS 1107

2808   Introduction to Computer Forensics
Credit Hour(s) 3
Computer forensics is the study of obtaining and analyzing evidence/information for use as evidence in civil, criminal or administrative cases.
CIS 1130 and CIS 2640 and CIS 2717 and a criminal records check must be completed prior to enrolling in CIS 2808; no exceptions.

Criminal Justice Science (CJS)

1101   Introduction to Criminal Justice Science
Credit Hour(s) 3
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.
DEV 0010 and DEV 0030

1102   Constitutional Law
Credit Hour(s) 3
Survey of Federal Constitutional Law. Emphasis on the Bill of Rights with particular attention to the Fourth, Fifth, Sixth, Eighth and Fourteenth Amendments. Federal and state statutes relevant to Constitutional Law are reviewed, analyzed and interpreted. Particular emphasis is placed on due process, equal protection, search and seizure, arrest and interrogation.
DEV 0012 and DEV 0032

1104   Criminal Evidence & Procedure
Credit Hour(s) 3
Overview of state and federal court systems. Study, analysis and application of the Rules of Evidence and Rules of Criminal Procedure from investigation to arrest and through trial and the appellate process. Ethical guidelines for criminal justice professionals in the detection of crime, apprehension and prosecution of the accused and constitutional restrictions on government actions.
DEV 0012 and DEV 0032

1105   Criminal Law
Credit Hour(s) 3
Basic concepts of Criminal Law and analysis of state and federal criminal statutes. Elements of crimes, criminal liability, jurisdiction over criminal offenses and criminal defenses and

criminal responsibility will be examined. Additionally, crimes against property, crimes against persons and alcohol and drug crimes will be covered.
DEV 0012 and DEV 0032

1106   Transition Skills
Credit Hour(s) 3
Engage students in the process of building a personal portfolio that includes career and financial goals, a professional resume, job search process, a personal budget, a savings and investment plan and access to community resource information. This course will address the process of community re-entry from a personal, social and occupational perspective.

1110   Interrogation, Documentation & Testimony
Credit Hour(s) 3
Development of communication skills applicable to criminal justice professionals. Emphasis on interviewing, interrogation, documentation of evidence in various documents, forms, reports and oral testimony.
ENG 1101 and CJS 1101

1125   Policing
Credit Hour(s) 3
Management and leadership of law enforcement agencies, including investigations, patrol, internal affairs, traffic enforcement and an 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. Principles of organization, staffing, budgeting, controlling, training and planning.
DEV 0012 and DEV 0032

1155   Homeland Security Issues & Administration
Credit Hour(s) 3
Overview of homeland security threats, statutes, resources and the role of law enforcement as first responders with the emphasis on inter-agency cooperation. Examination of contemporary security issues in public and private spaces including risk analysis, critical incident management, inter-agency collaboration, specialized security fields, intelligence gathering and litigation. Exploration of the career opportunities in homeland security.
DEV 0012 and DEV 0030

1165 Corrections
Credit Hour(s) 3
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. Examination of best practices in the field of corrections, including state and federal programs for institutional and community settings.
DEV 0012 and DEV 0032

1181 Private Security Training Academy
Credit Hour(s) 3
Academic and physical skills training (105 hours classroom, 50 hours psychomotor - including 20 (optional) hours of firearms training) required by the State of Ohio to successfully complete the program and receive certificate of completion from the Attorney General. Open to the general student population. Course completion enhances credentials for employment in private sector security and provides Ohio Carrying Concealed Weapon (CCW) privileges.
Bureau of Criminal Identification fingerprint check required if taking optional firearms component.

2111 Ethics & Professionalism in Criminal Justice
Credit Hour(s) 3
Examination and analysis of legal and ethical obligations of criminal justice professionals in law enforcement, corrections and the courts. Study and assessment of policy and actions of individuals and organizations within the criminal justice system regarding conformity to accepted ethical and legal standards.
DEV 0012 and DEV 0032

2130 Terrorism & Counter-Terrorism
Credit Hour(s) 3
Awareness and exploration of the reasons the United States is a target for terrorists. Examination of various domestic and international terrorist group ideologies from historical and current perspectives. Identification of elements of a terrorist crime scene, including weapons of mass destruction, chemical, biological, nuclear and cyber-terrorism, and planning involving threat assessments.

2145 Correctional Case Management
Credit Hour(s) 3
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.
DEV 0012 and DEV 0032

2200 Human Relations, Mediation & Conflict Resolution
Credit Hour(s) 3
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. Strategies for mediation, conflict resolution and critical incident management for law enforcement and corrections personnel, including hostage negotiation.
DEV 0012 and DEV 0030

2205 Introduction to Criminal Investigation & Forensic Science
Credit Hour(s) 3
Survey of 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 and criminalistics (current terminology for forensics). Skills necessary to investigate crimes and obtain legally admissible evidence. Basic science of physical, chemical and biological evidence.
DEV 0012 and DEV 0032

2209 Computer Crime
Credit Hour(s) 3
Overview of criminal investigation of crimes committed in conjunction with computer technology. Types of crimes, prosecution and prevention strategies.
DEV 0012 and DEV 0030

2270 Criminal Justice Science Internship
Credit Hour(s) 3
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. Thirty-six hours field experience per week.
DEV 0012 and DEV 0032 and Approval of Department

2280 Basic Peace Officer Training I
Credit Hour(s) 14
First half of the mandated Ohio Attorney General/Ohio Peace Officer Training Academy training for individuals to attain certification as peace officers in Ohio law enforcement agencies. Consists of mandated cognitive and psychomotor skills training for entry level Ohio law enforcement officers.
Federal Bureau of Investigation and Bureau of Criminal Identification fingerprint checks required as well as permission and signature of the Sinclair Community College Training Academy Coordinator.

2281 Basic Peace Officer Training II
Credit Hour(s) 12
Second half of the mandated Ohio Attorney General/Ohio Peace Officer Training Academy training for individuals to attain certification as peace officers in Ohio law enforcement agencies. Consists of mandated cognitive and psychomotor skills training for entry level Ohio law enforcement officers.
CJS 2280 with a grade of C or better

2295 Criminal Justice Science Seminar
Credit Hour(s) 4
Capstone experience for Criminal Justice Science students that focuses on the integration of learning throughout the program through case study analysis, research and service learning. Additionally, attention will be given to the preparation for employment in the field of criminal justice. Three classroom, two lab hours per week.
Approval of Department

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Communication (COM)

2201 Introduction to Mass Communication
Credit Hour(s) 3
An extensive examination of media theory and social effects. Topics covered include history, practices and functions of the press, television, radio, film, advertising, digital media and public relations. Course investigates mass media's influence on modern society.
DEV 0012 and DEV 0032 or any other college-level English course

2206 Interpersonal Communication
Credit Hour(s) 3
Exploration of the development, maintenance and termination of interpersonal relationships. The focus is on effective verbal and nonverbal interactions between two people, highlighting methods of initiating and maintaining effective communication with, and understanding of, others through learning and applying interpersonal communication theory.
DEV 0012 and DEV 0032 or any other college-level English course

2211 Effective Public Speaking
Credit Hour(s) 3
Designed to improve speaking and listening skills through the study and application of public speaking structure, content and style.
DEV 0012 and DEV 0032 or any other college-level English course

2220 Introduction to Communication Theory
Credit Hour(s) 3
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 and the media, as well as culture and diversity.
DEV 0012 and DEV 0032 or any other college-level English course

2225 Small Group Communication
Credit Hour(s) 3
Focusing on development of effective small group decision-making and leadership skills, stressing better methods of expressing oneself and understanding others through learning group communication, theory and participating in small group decision-making experiences.
DEV 0012 and DEV 0032 or any other college level English course

2230 Nonverbal Communication
Credit Hour(s) 3
Development of effective nonverbal skills for the successful communicator, stressing better methods of expressing oneself and understanding others through the learning of nonverbal theory and Impression Management.
COM 2206 or COM 2225

2235 Principles of Interviewing
Credit Hour(s) 3
Development of theoretical understanding and effective skills in the interviewing process, as both interviewer and interviewee. Practical experience in key types of interviews including informational, employment, appraisal and survey interviews.
DEV 0012 and DEV 0032 and any other college-level English course

2245 Intercultural Communication
Credit Hour(s) 3
Analysis of issues associated with communicating across cultures, including the study of communication norms, communication characteristics of major contemporary cultures and effective cross-cultural communication in interpersonal and organizational contexts.
DEV 0012 and DEV 0032 or any other college-level English course

2270 Communication Internship
Credit Hour(s) 1 to 4   R
Students earn credit 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 term, detailing how the experience allowed for the application of communication theory and/or skills. Seven work hours per credit hour each week.
Approval of Department and 12 hrs COM or JOU

2278 Communication Capstone
Credit Hour(s) 1
Demonstration of communication skills and competencies through the development of a communication portfolio; independent study under the direction of a Communication faculty member. Five directed practice hours per week.
COM 2201 and COM 2206 and COM 2211 and COM 2220 and COM 2225 and One additional COM or JOU course

2286 Public Relations Principles
Credit Hour(s) 3
Theories, principles and skills of public relations in organizations and in society, integrating organizational communication and management practices.

2287 Effective Listening
Credit Hour(s) 3
Development of effective listening skills. Practical experience in comprehensive, empathic, critical and appreciative listening. Solid foundation in relevant listening theory.
DEV 0012 and DEV 0032 or any other college-level English course

2290 Introduction to Broadcasting
Credit Hour(s) 3
Survey the history, current issues and trends of commercial and public broadcasting, including government regulations, and philosophy, structure and general operation of the broadcasting industry.
COM 2201

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Dance (DAN)

1105 Beginning Dance
Credit Hour(s) 1   R
Basic movement classes for students with no previous dance experience. Class work consists of placement exercises, combinations to improve flexibility and movements common to ballet and modern dance. Two lab hours per week.

1107 Jazz Workout
Credit Hour(s) 1   R
This course is designed to use jazz dance techniques as a foundation for increased physical activity. Two lab hours per week.

1146   Middle Eastern Dance Performance
Credit Hour(s) 1   R
Performance opportunity for students of Middle Eastern Dance. Students learn and develop their own choreographies and perform as an ensemble in a public performance.
DAN 2262

1155   Dance History
Credit Hour(s) 3
Historical development of dance from the earliest beginnings to the Renaissance birth of ballet to the twentieth-century emergence of modern dance.

1157   Dance Appreciation
Credit Hour(s) 3
Introduction to dance from a nonperforming perspective focusing on its many artistic, theatrical and social forms relating to culture and other arts and humanities.

1162   Beginning Middle Eastern Dance
Credit Hour(s) 1   R
Middle Eastern dance for beginning students. Class work consists of hip work, isolations, rhythm, history and cultural comparisons.

1172   Ballet I
Credit Hour(s) 3   R
Basic fundamentals and theory of classical ballet for beginning students. Class work consists of barre work, center combinations and steps. Two classroom, two lab hours per week.

1173   Modern Dance I
Credit Hour(s) 3   R
Basic fundamentals and theory of Modern Dance for beginning students. Two classroom, two lab hours per week.

1174   Jazz Dance I
Credit Hour(s) 3   R
Introduction of the fundamentals of Jazz dance technique for the beginning student. Two classroom, two lab hours per week.

1175   Tap Dance I
Credit Hour(s) 3   R
Basic fundamentals of Tap Dance technique for the beginning student. Two classroom, two lab hours per week.

2262   Intermediate Middle Eastern Dance
Credit Hour(s) 1   R
Combinations and layering of Middle Eastern Dance technique. Class work consists of floor work, veil work, combining movements with rhythm and movement across the space.
DAN 1162

2272   Ballet II
Credit Hour(s) 3   R
Intermediate ballet level. Working knowledge of basic barre and center work required.
DAN 1172

2273   Modern Dance II
Credit Hour(s) 3   R
Intermediate Modern Dance technique building upon a working knowledge of elementary Modern Dance technique. Two classroom, two lab hours per week.
DAN 1173

2274   Jazz Dance II
Credit Hour(s) 3   R
Intermediate Jazz Dance level stressing techniques and styles needed for performance. Two classroom, two lab hours per week.
DAN 1174 and Approval of Department

2275   Tap Dance II
Credit Hour(s) 3   R
Intermediate Tap Dance techniques stressing advanced technical proficiency needed for performance. Two classroom, two lab hours per week.
DAN 1175

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Dental Hygiene (DEH)

1102   Introduction to Dental Hygiene
Credit Hour(s) 1
Orientation to terms related specifically to the science of dentistry to prepare students for the dental hygiene program. Includes dental terminology application along with definitions and relationships of words to other similar dental terms, the use of root words, prefixes and suffixes related to dentistry. Introduction to the profession of dental hygiene and the ethics, laws and rules. Students are strongly encouraged to take SCC 1101 prior to this course.

1202   Head, Neck & Dental Anatomy
Credit Hour(s) 3
Gross anatomy of the head and neck region including the oral cavity. Morphology and function of permanent and primary dentition. Two classroom, two lab (DEH 1203) hours per week.
BIO 1141 and BIO 1242 and Restricted to Majors

1203   Lab for Head, Neck & Dental Anatomy
Credit Hour(s) 0

1204   Dental Hygiene Instrumentation I
Credit Hour(s) 4
Scientific principles of dental hygiene practice with emphasis on preventive dental health concepts, promotion of dental health, exposure control, data collection, patient assessment, oral health education and basic dental hygiene instrumentation. Two classroom, six lab (DEH 1205) hours per week.
ALH 1101 and BIO 1242 and DEH 1102 and Restricted to Majors

1205   Lab for Dental Hygiene Instrumentation I
Credit Hour(s) 0ß

1206   Nutrition & Oral Health
Credit Hour(s) 2
An introduction to biochemistry and basic fundamentals of the science of nutrition, the role of nutrition in oral health and disease, nutrition standards and guidelines, nutrition and oral structures, nutrition through the life cycle, dietary analysis and nutritional counseling.
Restricted to Majors

1302   Dental Hygiene Instrumentation II
Credit Hour(s) 4
Scientific principles of dental hygiene practice with emphasis on preventive dental health concepts, pedodontic care, promotion of dental health, care planning, patient referral and dental specialties, periodontal instrumentation, care of the removable prosthesis and oral health education. Two classroom, six lab (DEH 1303) hours per week.
DEH 1204 and DEH 1206 and Restricted to Majors

1303 Lab for Dental Hygiene Instrumentation II
Credit Hour(s) 0

1304 Oral Histology & Embryology
Credit Hour(s) 1
Microscopic anatomy of the human cell and tissues. Embryologic development of the head and neck. Histology of tooth development.
DEH 1202 and Restricted to Majors

1305 Medical Emergencies in Dental Practice
Credit Hour(s) 1
Principles of general first aid and managing medical emergencies in dental practice. Two lab hours per week.
DEH 1202 and DEH 1203 and American Heart Association Health Care Provider BLS

1306 General & Oral Pathology
Credit Hour(s) 3
Study of human disease processes and their physiological manifestations with emphasis on the etiology, signs and symptoms of pathological conditions within the oral cavity and associated structures. Two classroom, two lab (DEH 1307) hours per week.
DEH 1202 and Restricted to Majors

1307 Lab for General & Oral Pathology
Credit Hour(s) 0

1308 Dental Radiology
Credit Hour(s) 3
Scientific principles of radiation, radiographic production and patient management in dental practice. Two classroom, two lab (DHE 1309) hours per week.
DEH 1202 and DEH 1203 and Restricted to Majors

1309 Lab for Dental Radiology
Credit Hour(s) 0

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2402 Clinical Dental Hygiene I
Credit Hour(s) 1
Foundations of periodontics with emphasis on periodontal disease progression and classification, etiology of periodontal diseases including gingival disease and periodontitis, assessment for clinical decision making, nonsurgical periodontal therapy. Three

classroom hours per week for five weeks.
DEH 1302 and Restricted to Majors

2403 Dental Hygiene Clinic I
Credit Hour(s) 1
Clinical dental hygiene practice with emphasis on the process of dental hygiene care, exposure control, dental imaging and diagnostic assessment procedures, care planning and education, prophylaxis and preventive procedures, pedodontic patient care and management, utilization of practice management technology. Twenty-one practicum hours per week for five weeks.
DEH 1302 and Restricted to Majors

2405 Computer Applications in Dentistry
Credit Hour(s) 1
This hands-on class introduces the use of Eaglesoft Dental Software and CAESY educational software applications. Introduction to the use of managing all electronic patient business, financial and clinical information. Two lab hours per week.
ALH 1101 and Restricted to Majors

2502 Pharmacology & Pain Control in Dental Practice
Credit Hour(s) 3
Pharmacology in dental practice with didactic and clinical training in the administration of local anesthesia and nitrous oxide sedation. Two classroom, two lab (DEH 2503) hours per week.
DEH 2402 and DEH 2403 and Restricted to Majors

2503 Lab for Pharmacology & Pain Control in Dental Practice
Credit Hour(s) 0
Laboratory and clinical training in the administration of local anesthesia and nitrous oxide sedation.

2504 Dental Hygiene Research
Credit Hour(s) 2
Overview of statistical terminology needed to evaluate research literature and prepare and present dental hygiene research papers.
Restricted to Majors

2506 Dental Materials
Credit Hour(s) 2
General knowledge and use of various dental materials commonly used in the dental practice setting. Introduces the physical and chemical properties, structures, uses and manipulation of materials. One classroom, three lab (DEH 2507) hours per week.
DEH 2403 and Restricted to Majors

2507 Lab for Dental Materials
Credit Hour(s) 0
Laboratory and clinical training in Dental Materials. Laboratory sessions give the student skill development for correctly using dental materials with an emphasis on safety and infection control.

2508 Clinical Dental Hygiene II
Credit Hour(s) 2
A continuation of the dental hygiene process of care, powered instrumentation, child abuse and neglect, risk assessment, medically compromised and special needs patient care, periodontal maintenance, adjunctive therapies, periodontal surgical concepts, dental implant maintenance and periodontal emergencies.
DEH 2402 and Restricted to Majors

2509 Dental Hygiene Clinic II
Credit Hour(s) 3
Clinical dental hygiene practice with emphasis on diagnostic procedures and assessment, care planning and education, preventive and therapeutic procedures, nonsurgical periodontal therapy, periodontal maintenance, medically compromised and special needs patient care, professional communication and case presentation. Twenty-one practicum hours per week.
DEH 2403 and Restricted to Majors

2601 Community Dental Health
Credit Hour(s) 1
Introduction to community and public health concepts and community health education. Two lab hours per week.
Restricted to Majors

2602 Clinical Dental Hygiene III
Credit Hour(s) 1
A continuation of the dental hygiene process of care, advanced instrumentation and procedures, dietary assessment and counseling, tobacco education and cessation, emerging trends and special topics, professional philosophy and life-long learning.
DEH 2508 and Restricted to Majors

2603 Dental Hygiene Clinic III
Credit Hour(s) 3
Clinical dental hygiene practice with emphasis on advanced instrumentation and procedures, adjunctive therapies, dietary assessment and nutritional counseling, tobacco education and cessation strategies, risk assessment, coding strategies, pain control, evaluation of dental hygiene care and prognosis. Twenty-one practicum hours per week.
DEH 2509 and Restricted to Majors

2604 Dental Hygiene Practice
Credit Hour(s) 1
Examines current trends in dental hygiene including resume and interviewing strategies, practice setting selection, legal and ethical issues, business of dental hygiene, professional development and organized dental hygiene.
DEH 2509 and Restricted to Majors

Academic Foundationss (DEV)

0010 Fundamentals of Reading
Credit Hour(s) 3
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.
Placement Test Score

0012 Academic Reading
Credit Hour(s) 3
Through individual and collaborative activities, course will prepare students for college-level reading and will introduce basic critical thinking strategies and a variety of study skills that promote student development and achievement.
DEV 0010 or Placement Test Score

0020 Basic Mathematics Part I
Credit Hour(s) 2
Course provides instruction in basic arithmetic for whole numbers and fractions with the goal of developing computational skills, number sense and problem-solving skills. Course prepares students for further study in mathematics by employing effective study strategies and a variety of teaching/learning experiences.
Placement Test Score

0022 Basic Mathematics Part II
Credit Hour(s) 2
Course provides review of basic arithmetic skills in fractions. Course provides instruction into the meaning and use of signed numbers, decimals and percentages with an emphasis on problem-solving situations.
DEV 0020 or Placement Test Score

0024 Introduction to Algebra Part I
Credit Hour(s) 2
Course provides an introduction to beginning algebra concepts including operations with rational numbers, identifying and combining like terms, solving simple one-variable linear equations and proportions. Included will be a brief review of basic arithmetic involving signed numbers, fractions and decimals.
DEV 0022 or Placement Test Score

0026 Introduction to Algebra Part II
Credit Hour(s) 2
Course provides an introduction of beginning algebra concepts including solving complex linear equations and basic geometric formulas. Included will be a brief review of signed numbers, fractions and solving simple one-variable equations.
DEV 0024 or Placement Test Score

0030 Foundations of Paragraph Writing
Credit Hour(s) 3
Introduction to basic paragraph writing (topic sentence, body sentences, concluding sentence) and the principles of correct grammar, usage, punctuation and mechanics.
Placement Test Score

0032 Foundations of Essay Writing
Credit Hour(s) 3
Introduction to the fundamentals of essay writing, including the stages of the composing process; review of the grammatical principles governing correctness and effectiveness of expression.
DEV 0030 or Placement Test Score

0044 Advanced Developmental Reading & Writing
Credit Hour(s) 5
A combined developmental reading/writing course which prepares students for college level reading, introduces basic critical reading and thinking skills, as well presents the fundamentals of essay writing, including the stages of the composing process and review of the grammatical principles governing correctness and effectiveness of expression.
DEV 0010 and DEV 0030 or Placement Test Score

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Dietetics Technology (DIT)

1105 Introduction to Dietetics
Credit Hour(s) 1
Exploration of the dietetics profession. Introduces the professional organization and structure. Covers credentialing and the Academy of Nutrition and Dietetics Code of Ethics. Clarifies the roles and requirements of different nutrition professionals. Investigates areas of employment. Includes one or two field trips.

1108 Nutrition for the Culinary Professional
Credit Hour(s) 3
Introduction to general nutrition principles emphasizing foundations of healthy cooking. Explores how to gauge customers needs/wants while developing and implementing healthy menu options. Includes National Restaurant Association Education Foundation ManageFirst Nutrition Exam. Successful completion of exam fulfills requirements toward American Culinary Federation (ACF) certification.
DEV 0012 and DEV 0022 and DEV 0032

1111 Nutrition for Health & Fitness
Credit Hour(s) 3
Overview of general nutrition principles focusing on healthy food choices, disease prevention and sports nutrition. Explores fad diets, herb/supplements and use of ergogenic aids. Incorporates effective use of nutrition information from reliable sources as well as personal responsibility in a professional setting.
DEV 0012 and DEV 0022 and DEV 0032

1143 Healthy Cooking
Credit Hour(s) 1   R
An exploration of the basic principles of nutrition, food selection, meal preparation and recipe modifications/substitutions that promote healthy eating and disease prevention. Menu planning and sanitation principles will be incorporated. Two lab hours per week.

1210 Medical Terminology for Dietetics
Credit Hour(s) 1
The use of root words, combining forms, prefixes and suffixes related to pathology, diagnosis and treatment of body systems pertaining to the practice of dietetics. Exposure to research journal articles and medical terminology application.

1525 Human Nutrition
Credit Hour(s) 3
This is an in-depth study of the principles of nutrition with emphasis on the functions of the nutrients, their digestion, absorption, metabolism, inter-relationships and nutrition requirements. Incorporates assessment of nutritional health risks, health promotion and disease prevention theories. Explores the influence of socioeconomic, cultural, psychological and environmental factors on food and nutritional behavior.

1630 Nutrition in the Lifecycle
Credit Hour(s) 3
Nutritional needs of individuals from conception to maturity, including physiological, psychological, environmental and sociological factors affecting nutrition. The Nutrition Care Process is introduced. Incorporates weekly sessions on weight management strategies with a client. Examines nutrition concerns for special health conditions. Two classroom, two clinical hours per week.
DIT 1525

1635 Community Nutrition
Credit Hour(s) 3
Addresses community food/nutrition issues and federal/nongovernmental programs designed to meet needs of at-risk populations. Focuses on tools, strategies and resources to evaluate effectiveness of community programs. Students participate with community agencies providing nutrition programs and education. Two classroom, three clinical lab hours per week.

2101 Eating Matters for Dining Assistants
Credit Hour(s) 1
Practical skill development in feeding techniques for the elderly. Ensures understanding of nutritional needs of residents, communication and interactions between residents/staff, behavior challenges and safety procedures. Students receive a Dining Assistant Certificate from Ohio Department of Health upon completion.

2180 Medical Nutrition Therapy for Dietary Managers
Credit Hour(s) 3
Introductory course for nutrition care personnel in health care institutions. Overview of nutrition principles, medical nutrition therapy and menu planning. Exploration of diseases/health conditions that require nutrition intervention. Addresses multidisciplinary team approach to resident care. Nutrition Care Process introduced with basic nutrition-related calculations. Must be taken with DIT 2190.
DEV 0012 and DEV 0020

2190 Dietary Managers Nutrition Clinical
Credit Hour(s) 2
Hands-on experiences in health care institutions. Incorporates the Nutrition Care Process with emphasis on screening/documentation of client information. Utilizes basic nutrition principles for menu planning, medical nutrition therapy while providing quality care. Requires Registered, Licensed Dietitian preceptor for a portion of the four clinical lab hours per week.
Must be taken with DIT 2190.

2240 Education Methods & Materials
Credit Hour(s) 2
Explore teaching methods/materials to maximize educator effectiveness while accommodating different learning styles and diverse audiences. Evaluation of learning is included. Use of media/education resources and equipment materials addressed. Research design methods are introduced and analyzed. Service Learning projects are incorporated into course activities.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2305 Food, Culture & Cuisine
Credit Hour(s) 3
Discuss relationships between food and culture. Explore cuisines of Asia, Middle East, Africa, Europe, Mediterranean and the Americas. The laboratory component will address ingredients and flavor profiles of international cuisine. Preparation techniques will be demonstrated and utilized. One classroom, two clinical and two lab hours per week.
HMT 1112

2510 Institutional Foodservice Systems
Credit Hour(s) 3
This course incorporates food delivery and production systems, facility and materials management, menu planning, food and nonfood procurement, cost and quality control methods. Food safety and sanitation principles will be applied.
Must be taken with DIT 2515. HMT 1112

2515 Foodservice Practicum I
Credit Hour(s) 1
Hands-on experience completed in an institutional foodservice kitchen. Covers menu development including modified diets, recipe scaling, forecasting and food production, equipment care and use, kitchen layout and design, safety and sanitation. Five hours per week at assigned practicum site.
Must be taken with DIT 2510.

2520 Laboratory for Foodservice Systems
Credit Hour(s) 1
This laboratory component of DIT 2510 course addresses food science principles for the functions of ingredients in modified textured and therapeutic recipe preparation. This is a continuation of quantity cooking principles, sensory evaluation of food, recipe standardization, kitchen equipment and food safety and sanitation. Hazard analysis critical control point standards are reinforced. Two lab hours per week.

2625 Medical Nutrition Therapy I
Credit Hour(s) 3
Medical nutrition therapy for physiologic stress, diabetes mellitus, cardiovascular disease and disorders of the upper gastrointestinal tract. Content includes modified texture/therapeutic feeding strategies, dietary interventions for swallowing difficulties and enteral/parenteral/IV feeding routes. Incorporates the nutrition care process with emphasis on nutritional assessments, minimum data sets, care assessment triggers and care plans.
Must be taken with DIT 2630. DIT 1630 and MAT 1270 and CHE 1151

2630 Medical Nutrition Therapy Clinical I
Credit Hour(s) 3
Clinical component of medical nutrition therapy I series: for physiologic stress, diabetes mellitus, cardiovascular disease and disorders of the upper gastrointestinal tract. Menu writing for therapeutic interventions; feeding routes for enteral, parenteral and IV therapy; patient interviews, nutrition screening and nutrition care process. Ohio Department of Health Dining Assistant certification is embedded in this course. Nine clinical lab hours per week.

2735 Foodservice Organization & Management
Credit Hour(s) 3
Describe functions of management and identify a variety of tools used to assist with organizational performance. Application of marketing concepts, financial reports/budget, quality improvement and current trends/regulations.
Must be taken with DIT 2740. DIT 2510 and DIT 2515 and DIT 2520

2740 Foodservice Practicum II
Credit Hour(s) 1
Hands-on experience completed in an institutional foodservice setting. Covers five major aspects of human resource management: planning, organizing, directing, control/evaluating and the tools used to assist with organizational performance. Includes marketing of services, budget concerns and cost control measures while maintaining quality service within regulatory guidelines. Five hours per week at assigned practicum site.

2845 Medical Nutrition Therapy II
Credit Hour(s) 3
Capstone course for the medical nutrition therapy series. Course content includes medical nutrition therapy for cancer, AIDS, disorders of the lower gastrointestinal tract, gallbladder, liver and renal disease. Incorporates review modules, case studies, critical thinking exercises and the nutrition care process addressing feeding routes and diseases.
Must be taken with DIT 2850. DIT 2625 and Restricted to Majors

2850 Medical Nutrition Therapy Clinical II
Credit Hour(s) 3
Clinical component covering topics in Medical Nutrition Therapy II: cancer, childhood obesity, disorders of the lower gastrointestinal tract, gallbladder, liver, renal disease. Practicum includes: menu writing for modified texture/therapeutic interventions; feeding routes; patient interviews, nutrition screening/education and the nutrition care process from admission to discharge. Nine clinical lab hours per week.
DIT 2630 and Restricted to Majors

2855 Dietetics Seminar
Credit Hour(s) 1
Capstone course prepares students for national credentialing dietetic technician examination/employment. Reviews Food and Nutrition, Foodservice Systems and Sanitation, Education Methods and Management domains. Includes job interviewing skills and resume writing. Reviews professional ethics, including life-long learning and the Academy of Nutrition and Dietetics Professional Portfolio.
Restricted to Majors

2860 Credentialing Exam Review
Credit Hour(s) 1
This course reviews medical nutrition therapy, food safety and sanitation, food service systems and human resource management. It will prepare students planning to sit for the Academy of Nutrition and Dietetics on Registration as well as the Association of Nutrition and Food Professionals credentialing examinations. This course is offered in two eight-hour days.
Restricted to Majors

Early Childhood Education (ECE)

1100 Introduction to Early Childhood Education
Credit Hour(s) 3
Professional issues in the field of Early Childhood Education. Review of related historical and current trends. Types of programs of early education and care. Center observation required.
DEV 0012 and DEV 0030

1101 Introductory Child Development
Credit Hour(s) 3
Theories and principles of child development. Promoting positive growth from prenatal through age eight. Impact of the environment including the family, educational experiences, peer relationships, community and culture on each child's development.
DEV 0012 and DEV 0030

1200 Observation & Assessment
Credit Hour(s) 3
Observing, documenting and assessing young children in programs of early education and care. Center observations required.
ECE 1100 and ECE 1101 and ENG 1101

1201 Curriculum & Planning
Credit Hour(s) 3
Current curriculum standards recognized in the field of Early Childhood Education.

Planning high-quality developmentally appropriate learning experiences and environments for young children. Integrating social studies into the early childhood curriculum.
ECE 1100 and ECE 1101 and ENG 1101

2100 Language, Literacy & Interaction with Young Children
Credit Hour(s) 3
Language and literacy development in children birth through age five. Supporting family literacy, assessing language and literacy development, professional resources and planning curriculum to facilitate development of language and literacy in each child. Interaction techniques to support physical, social, emotional, aesthetic, language and cognitive development. Center observation required.
ECE 1200 and ECE 1201 and ENG 1201

2101 Creative Experiences
Credit Hour(s) 3
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.

2102 Math & Science Experiences
Credit Hour(s) 3
Creation of a developmentally appropriate math and science curriculum for preschool children following guidelines and standards established by the major professional organizations and the Ohio Department of Education Early Learning Content Standards for Mathematics and Science.
ECE 1200 and ECE 1201 and MAT 1120 or MAT 1270 or MAT 1410

2200 Families, Communities & Schools
Credit Hour(s) 3
Family and community characteristics, supporting and empowering families and communities through respectful, reciprocal relationships and involving families and communities in the development and learning of children.
ECE 2100 and ECE 2101 and ECE 2102 and SOC 2215

2201 Guidance of Young Children
Credit Hour(s) 3
Guidance and behavioral intervention strategies used by early childhood professionals to help develop positive social and emotional

skills in children birth through age five. Practical application of guidance, problem-solving techniques and collaboration with families. Center observation required.

2202 Teaching Techniques
Credit Hour(s) 3
Directed practice experience in the Sinclair Community College Early Childhood Education Centers. One classroom, ten directed practice hours per week.
ECE 2100 and ECE 2101

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2300 Inclusion
Credit Hour(s) 3
Philosophical, historical and legal foundations. Inclusion of learners with special needs. Learning characteristics, instructional and behavioral strategies. Team members, collaboration with family and professionals.
ECE 2200 and ECE 2201 and ECE 2202

2301 Early Childhood Education Practicum
Credit Hour(s) 4
Coordinated practicum experience in an assigned program of early education and care. Weekly seminar. Written application required one semester in advance. One classroom, fourteen practicum hours per week.
ECE 2202 and Restricted to Majors

Economics (ECO)

2160 Principles of Macroeconomics
Credit Hour(s) 3
Basic economic principles with macro sequence. Interrelationship of households, business and government with an examination of Keynesian theory, fiscal policy and monetary policy.
DEV 0012 and DEV 0020

2180 Principles of Microeconomics
Credit Hour(s) 3
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.
DEV 0012 and DEV 0020

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Education (EDU)

1100 Introduction to Education
Credit Hour(s) 3
Introduction to the teaching profession. A variety of experiences to facilitate exploration of the role of school and its relationship to society. The knowledge, skills, dispositions and performances necessary for an individual to become an effective teacher.

1103 Educational Technology
Credit Hour(s) 3
This is a required course for all preservice teachers. It encompasses effective identification, location, evaluation, design, preparation and efficient usage of technology as an instructional resource in the classroom. Candidates will develop increased classroom communication abilities through lectures, discussions, modeling, laboratory experiences and completion of a comprehensive project.

1105 Individuals with Exceptionalities
Credit Hour(s) 3
Introduction to the identification, developmental characteristics, foundations, theory, legal issues and intervention strategies for exceptional children and youth across educational and community settings.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Electronics Engineering (EET)

1116 Electronics Schematics & Fabrication
Credit Hour(s) 4
Draw circuits using Multisim. Compose directories using Windows commands. Identify schematic symbols and components. Produce a technical document with text, graphs and schematics. Assembly of circuits. Three classroom, three lab hours per week.

1120 Introduction to DC & AC Circuits
Credit Hour(s) 2
Introduction to direct and alternating current circuits, power, three phase and test equipment. One classroom, two lab hours per week.
DEV 0024

1131 Digital Electronics
Credit Hour(s) 5
Number systems, operations and codes, logic gates, Boolean algebra, DeMorgan's theorem and logic simplification, combination logic circuits, encoders/decoders, multiplexers/demultiplexers, adders, subtractors and ALUs, flip-flops and related devices, counters, shift registers, memory and storage, integrated circuit technologies. Four classroom, three lab hours per week.
EET 1116

1139 Electrical Machinery
Credit Hour(s) 3
Basic principle, theory, operation and characteristics of common D.C. and A. C. machinery. Two classroom, two lab hours per week.
EET 1120

1150 D.C. Circuits
Credit Hour(s) 4
Electrical components and quantities, voltage, current and resistance, Ohm's law; analysis of series, parallel and series-parallel circuits, circuit theorems, capacitors and inductors, transient response of capacitive and inductive circuits. Three classroom, three lab hours per week.
MAT 1270

1155 A. C. Circuits
Credit Hour(s) 4
Sinusoidal wave properties, complex numbers and phasors, behavior of transformers, steady-state behavior of RC circuits under A.C. conditions, steady-state behavior of RL circuits under A.C. conditions, steady-state behavior of RLC circuits under A.C. conditions, analysis of basic filter circuits, A.C. network theorems such as superposition, Thevenin's and Norton's theorems, three phase and polyphase power and power factor analysis. Three classroom, two lab hours per week.
EET 1150

1158   Satellite Tool Kit
Credit Hour(s) 2
This course provides a basic overview of remote sensing, highlights the need for space astronomy, describes the composition of the space environment, principles of black/white and color photography, highlights the importance and different aspects of aerial photography and videography, aerial ground control and land mapping, visual image interpretation, thermal radiation principles associated with thermal sensing, remote sensing history from space as well as the U.S. Landsat program operations and contribution, digital image processing and classification, and microwave sensing principles and applications. One classroom, two lab hours per week.
Approval of Department

1164   PC Assembly
Credit Hour(s) 4
Course is an introduction to internal and external PC hardware components. Students learn to identify and install major hardware components. Perform PC setup and basic input/output system. Three classroom, three lab hours per week.

1166   Industrial Machine Wiring
Credit Hour(s) 2
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 classroom, two lab hours per week.
EET 1120

1181   Electrical Construction I
Credit Hour(s) 3   R
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 (NEC). One classroom, six lab hours per week

1182   Electrical Construction II
Credit Hour(s) 3   R
Alternating current theory, motors, grounding, conduit bending, conductor installation, National Electric Code (NEC) for cables, terminations and splices, electrical single and three phase installation, circuit breakers and fuses, contactors and relays. One classroom, six lab hours per week.
EET 1181

1183   Electrical Construction III
Credit Hour(s) 3   R
Load calculations for branch circuits, overcurrent protection, wiring devices, distribution equipment, transformers, calculations for motor circuits: motor maintenance and controls and basics of HVAC systems. One classroom, six lab hours per week.
EET 1182

1184   Electrical Construction IV
Credit Hour(s) 3   R
Calculation procedures for residential, commercial and farming applications, various wiring systems, stand-by and emergency systems, basic electronics, fire alarms, special transformers, solid-state controls, welding techniques, heat and freeze protection and high-voltage termination. One classroom, six lab hours per week.
EET 1183

1198   Digital Technology
Credit Hour(s) 2
Electrical fundamentals, introduction to basics of digital logic and circuits, digital systems and basic digital circuit design. One classroom, two lab hours per week.

2157   Radio Frequency Identification (RFID) Technology
Credit Hour(s) 3
Review of basic radio frequency identification (RFID) terminology, emerging electronic product code (EPCglobal) standards, tag design and applications; interrogators configuration, installation and maintenance of common peripherals, various hardware and software components of a complete system, hands-on lab experience and basic RFID applications. Two classroom and two lab hours per week.
EET 1131 or MAN 1106

2201   Electronic Devices & Circuits
Credit Hour(s) 5
Semiconductor properties, diode applications, special-purpose diodes, bipolar junction transistors (BJTs), BJT biasing circuits and stability, BJT amplifier circuits, multistage amplifier design, power amplifiers, field effect transistors (FETs), JFET and MOSFET biasing circuits, FET amplifier circuits, frequency analysis, thyristors and applications, negative and positive feedback concepts, oscillators, Op-Amp circuits and applications,

and electronically regulated power supplies. Four classroom, three lab hours per week.
EET 1155

2220   Avionics & Unmanned Aerial Systems Sensors
Credit Hour(s) 4
Emphasis on avionics as applied to the control of Unmanned Aerial Systems (UAS). Course will cover control of unmanned aircraft and transmission of data using radio frequencies. Covers major topics related to the operation of Radio Controlled (RC) aircraft including electromagnetic waves, amplitude, frequency and pulse code modulation, basic transmission and reception of radio waves, antennas and wave propagation, data links and basic electro-optics, networks, radar, sonar, GPS, cables and connectors, UAV sensors, applying principles in these areas to set up, troubleshoot and repair UAS aircraft. Civilian applications of UAS will also be covered. Three classroom, three lab hours per week.

2252   Advanced Digital Circuits
Credit Hour(s) 3
Parallel and serial input-output devices, analog-to-digital converters, digital-to-analog converters, communication protocols, programmable logic devices and hardware description languages. Two classroom, two lab hours per week.
EET 1131

2257   Radio Frequency Identification (RFID) Capstone
Credit Hour(s) 3
Initiating best analysis, design and implementation of a Radio Frequency Identification (RFID) solution. Configuration and troubleshooting exercises designed to illustrate the power of today's RFID readers and their interaction with input/output, practical, in-depth instruction and hands-on guidance for leveraging RFID in the real world. Two classroom, two lab hours per week.
EET 2157

2259   Programming for Electronics Technology
Credit Hour(s) 4
Computer solutions of engineering technology problems using LabVIEW. Covers the LabVIEW programming environment and virtual instruments, datatypes, debugging, sub-virtual instruments, programming structures, arrays, graphical presentation and analysis,

file input/output, instrument control, data acquisition and applications to electronic circuits. Three classroom, two lab hours per week.
EET 2201 and EET 1131

2261   Microprocessors
Credit Hour(s) 4
Microprocessor architecture, assembly language programming, bus structures and timing diagrams, memory technologies and interfacing, input/output interface and systems, interrupt-processed input/output, direct memory access (DMA), microcontroller applications and microprocessor-based communications. Three classroom, three lab hours per week.
EET 1131

2264   PC Troubleshooting & Repair
Credit Hour(s) 4
Familiarization of circuits, components, malfunctions and systematic troubleshooting of personal computers, installation of basic computer operating systems (OS), network topologies, including hands-on experience with software and hardware diagnostic tools and equipment. Three classroom, three lab hours per week.
EET 1164

2270   Electronics Engineering Technology Internship
Credit Hour(s) 1 to 4
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 semester. Ten co-op hours per week per credit hour.

2278   Electronics Project Capstone
Credit Hour(s) 4
Review of electronic circuits, analog and digital electronics, microcontrollers, design and layout of printed circuit board, fabricate-assemble-test-troubleshoot working prototype, write report. Two classroom, four lab hours per week.
EET 2201 and EET 2261

2281   Programmable Logic Controllers
Credit Hour(s) 3
Provides history of control systems and PLCs, use of number systems, ladder logic programming devices, Control I/O modules, relays, contacts, coils, and timers, counters and sequencers, fundamental PLC programming and data transfer. Two classroom, two lab hours per week.
EET 1120 or EET 1131

2282   Advanced Programmable Logic Controllers
Credit Hour(s) 3
Demonstrate the use of control and set analog I/O, bit and project-based programming, control servos with analog and High Speed Counter (HSC) cards, the use of ethernet network for programmable logic controllers (PLCs), the interaction between PLCs and sensors, installation and repair. Two classroom, two lab hours per week.
EET 2281

2283   Fundamentals of Lasers
Credit Hour(s) 3
Prepares student for career in photonics as an electronics laser technician. Define dual nature of light, the electromagnetic spectrum, properties of electromagnetic waves, reflection, refraction, index of refraction, diffraction and interference and laser safety. Two classroom, two lab hours per week.
Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Expanded Functions for Dental (EFD)

1102   Dental Anatomy for Dental Auxiliaries
Credit Hour(s) 1
A study of form and function of the human dentition. This course is designed to provide an overview of the terminology and characteristics of all teeth in the adult and primary dentition. Includes identification of all anatomical tooth structures, eruption schedule and occlusion.
Acceptance into EFDA program

1202   Expanded Functions for Dental Auxiliaries I
Credit Hour(s) 6
Lecture and clinical course designed to teach more extensively the concepts of dental materials and their use in restorative techniques. The principles of the manipulation and placement of dental materials used in delegated intra-oral functions for the expanded function dental auxiliary in Ohio are taught. Three classroom, four lab hours per week plus ten hours of co-op experience per week in the dental office.
EFD 1102 and Restricted to Majors

1203   Lab for Expanded Functions for Dental Auxiliaries I
Credit Hour(s) 0
Laboratory experiences in advanced remediable intra-oral dental tasks and/or procedures involved in the art and placement of restorative materials including amalgam and nonmetallic restorative materials including resin restorations.
Restricted to Majors

1302   Expanded Functions for Dental Auxiliaries II
Credit Hour(s) 6
This course is the third in a three-part series for the Expanded Functions Dental Auxiliary Program. Greater emphasis on topics covered in EFD 1202 is examined. Detailed concepts with regards to amalgam, esthetic and preventive resins are discussed. Concepts involving Class IV resin restorations and dental sealants are introduced. Mock boards are included. Three classroom, four lab hours per week, plus ten hours of co-op experience per week in a dental office.
EFD 1202 and Restricted to Majors

1303   Lab for Expanded Functions for Dental Auxiliaries II
Credit Hour(s) 0
Laboratory experiences in advanced remediable intra-oral dental tasks and/or procedures involved in the art and placement of preventive or restorative materials including amalgam, dental sealants and nonmetallic restorative materials including resin restorations.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Engineering (EGR)

1100 Fundamental Mechanical & Electrical Skills
Credit Hour(s) 3
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. Elementary industrial machine wiring principles; schematics, panel layouts, assembly and wiring techniques. One classroom, four lab hours per week.
EET 1120

1101 Introductory Mathematics for Engineering Applications
Credit Hour(s) 4
An overview of math topics used in engineering courses: algebra, trigonometry, vectors, complex numbers, sinusoids, systems of equations, matrices, differentiation, integration, differential equations. All math topics are presented within the context of engineering applications, reinforced through examples from engineering courses. Also introduces the engineering analysis software MATLAB. Three classroom, two lab hours per week.
MAT 1290 or MAT 1570

1121 Introduction to the Intelligence Community
Credit Hour(s) 3
Presents an overview of the Intelligence Community (IC), the origin and purpose of the IC, its current structure and the diverse roles and missions of its members. Students will study the intelligence cycle, the heart of the IC, by examining the entire process used for creating intelligence: identifying requirements; tasking appropriate agencies and systems to collect data; the processing, exploiting and analyzing of the data and the production and delivery of timely, accurate and relevant intelligence products. This course will also introduce students to operations and communications security, counterintelligence and covert action, homeland security, intelligence oversight and ethics. Two classroom, two lab hours per week.
Approval of Department

1122 Fundamentals of Remote Sensing in Intelligence
Credit Hour(s) 3

This course emphasizes the science, technology and applications of remote sensing, bringing together related information in materials science, physics, optics, electronics, computer processing and other disciplines. Students completing this course will be equipped to approach problems ranging from environmental to social to industrial data gathering and interpretation. Two classroom, two lab hours per week.
MAT 1280 and Approval of Department

1128 Robotics in Computer Integrated Manufacturing (CIM) Systems
Credit Hour(s) 3
This course serves as an introduction to automated systems. The basics of sensors, logic control systems, motion control systems, robotics and flexible manufacturing systems will be covered. The course will be taught using demonstration and discussion combined with individual and team centered project-based learning. One classroom, four lab hours per week.

1144 Sensors & Vision Systems
Credit Hour(s) 4
Introduction to basic sensors used in Computer Integrated Manufacturing (CIM) systems. Theory of operation, wiring, installation, testing and troubleshooting sensors and circuits. The analysis of various methods of utilizing vision systems in industrial applications using camera, lighting and software. Three classroom, three lab hours per week.
EET 1120 and EGR 1128

1201 Introduction to Spectral Sensing with Applications in Intelligence
Credit Hour(s) 3
Concepts of spectral remote sensing as they are applied to military / intelligence applications with special emphasis on commercial sensors and solutions. Advantages and disadvantages of special remote sensors. Content will cover available unclassified spectral instruments (both hyper-spectral and multi-spectral sensors), their characteristics and how to best employ them. Topics include Basic Spectral Phenomenology, the Spectral Signature, Sensor Analysis, Data Products and Data Fusion. Two classroom, two lab hours per week.
EGR 1121 and Approval of Department

1202 Introduction to Radar
Credit Hour(s) 3
Capabilities and limitations of radar, the performance and implementation of its critical sub-systems and the requirements particular radars must meet in order to perform common Measurement and Signature Intelligence (MASINT) and Advanced Geospatial Intelligence (AGI) missions (e.g. Synthetic Aperture Radar (SAR), Line of Sight and Over the Horizon). Students will become conversant in Radar and able to exploit its use in a variety of potential intelligence tasks with a basic knowledge enabling them to predict the expected performance of a radar system. Two classroom, two lab hours per week.
EGR 1122 and MAT 1280 Approval of Department

1211 Introduction to Large Area Surveillance
Credit Hour(s) 3
This course is designed to familiarize the student with the concepts of electro-optical remote sensing of important objects that can appear anywhere in the world without warning for a limited period of time. Some of these objects can also be rapidly moving. Such objects include missiles and aircraft in powered flight, nuclear and conventional explosions, fires and other military activity. Discussion includes the unique object signature and sensor characteristics that make detection of these objects possible while continuously monitoring large areas. Two classroom, two lab hours per week.
EGR 1202 and Approval of Department and Secret Clearance

1212 Measurement & Signal Intelligence
Credit Hour(s) 3
Overview of Measurement and Signature Intelligence (MASINT) and Advanced Geospatial Intelligence (AGI) disciplines including the science behind geophysical signatures such as Chemical, Biological, Radiological and Nuclear Weapons. MASINT as it relates to Seismic and Acoustic phenomena, Geophysical Materials and Radio Frequency Spectrum. Different technologies used in lethal and nonlethal Directed Energy Weapons identifying strengths and vulnerabilities of electromagnetic and chemically powered artillery. Students will apply MASINT/AGI collection and processing techniques and capabilities to develop a

collection and analysis plan targeting one of today's challenging intelligence problems. Two classroom, two lab hours per week.
EGR 1202 and Approval of Department and Secret Clearance

1217   Fluid Power & Control
Credit Hour(s) 2
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. Basic electrical and Programmable Logic Control (PLC) of fluid power components. One classroom, three lab hours per week.

2215   Control Systems
Credit Hour(s) 3
Modern control theory as applied to industrial robotics mechanical unit positioning, accuracy, repeatability, control techniques, with initial focus on three phase motors, utilizing various forms of positioning and speed control; pulse width modulation; feedback systems; control techniques for variable speed motors and drives; analysis techniques using Laplace transforms; and troubleshooting techniques. Two classroom, two lab hours per week.
EET 1198 and EET 1139

2231   Troubleshooting of Automated Systems
Credit Hour(s) 3
Concept of troubleshooting and its importance in manufacturing systems. Troubleshooting philosophies, flowchart examination, electrical and mechanical troubleshooting. Techniques for troubleshooting systems containing sensors, PLCs, Robots, HMIs and other common automation equipment. Fault determination using software to monitor the performance of small automated systems. Two classroom, three lab hours per week.
EGR 1100 and EGR 1128 and EET 2281

2244   Automation & Control Devices
Credit Hour(s) 3
Integrate automation and control devices such as message displays, touch screen I/O devices, barcode readers, sensors, visual and audio devices, etc. Operate and repair work cell, interface network devices via ethernet, solve communication problems. One classroom, four lab hours per week.
EET 2281 and EGR 1144

2250   Electromechanical Repair
Credit Hour(s) 4
Teaches the student theory of controller operation, function of power inputs and supply units, command and feedback loops. Also, troubleshooting, diagnostics and repair including removal and replacement of belts, pulleys, bearings and gears. Finalizing with alignment and recalibration through the computer controller. Three classroom, three lab hours per week.
EGR 2252

2252   Teach Pendant Robot Programming
Credit Hour(s) 2
Introduction to Teach Pendant Programming (TPP) for robots, including TPP program development on the teach pendant and through offline programming software. Programs, tested using Fanuc robots, will be written for motion control, input/output activation and palletizing. One classroom, two lab hours per week.
EGR 1128

2256   Automated Data Acquisition Systems
Credit Hour(s) 3
Data acquisition technologies with the use of bar coding, image recognition, optical character recognition, Charge Coupled Device (CCD) camera images, laser scanning, voice recognition, radio frequency and microwave transponder. Two classroom, two lab hours per week.
EET 1198 and EGR 2252 and EGR 2261

2261   Engineering Problem Solving using C & C++
Credit Hour(s) 4
Solve representative engineering problems with a focus on writing in object-oriented style, computer control of input/output port control, stand-alone executable code and library linking. 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 classroom, three lab hours per week.
MAT 1280

2270   Automation & Control Internship
Credit Hour(s) 1 to 4   R
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 semester. Ten hours work per week per credit hour.

2278   Automation & Control Capstone
Credit Hour(s) 3
Project-based review of robotic 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, work processing, analytical and simulation tools, assembly, testing, troubleshooting and repair of a functional robot workcell. One classroom, four lab hours per week.
EGR 2231 and EGR 2252 and EET 2282

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Environmental Engineering Technology (EGV)

1101   Alternate & Renewable Energy Sources
Credit Hour(s) 2
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. One classroom, two lab hours per week.

1201   Weatherization Training
Credit Hour(s) 2
This course will give the student the in-depth knowledge necessary to perform energy assessments of single or multifamily dwellings by identifying weatherization issues. The course covers the operation of equipment; blower door, duct blaster, infrared camera, combustion analyzer and heat transfer principles and fundamental building science

theories. Consists of classroom lectures and laboratory projects. One classroom, two lab hours per week.

1251 Introduction to Energy Management Principles
Credit Hour(s) 3
The course introduces the principles of energy management and provides an overview of the energy industry. The history of energy production and costs, the dynamics of worldwide energy consumption and growth, the principle methods by which energy is used, and its environmental and financial impacts and consequences are covered. Objectives and components of an effective energy management program are discussed. Two classroom, two lab hours per week.

1301 Architectural Energy Analysis
Credit Hour(s) 2
Critical examination of energy consumption in building, both residential and commercial, for the purpose of identifying energy conservation opportunities. One classroom, two lab hours per week.

1351 Building Performance Training
Credit Hour(s) 2
This course covers residential energy auditing procedures and methods to reduce residential energy consumption and required infiltration and/or mechanical ventilation for indoor air quality. Designed to prepare the student for the Building Performance Institute written and field exams. One classroom, two lab hours per week.

1501 Environmental Assessment & Analysis
Credit Hour(s) 3
Sampling and analysis techniques for site characterization and assessment. Sampling methods and protocols are presented in detail with respect to environmental liability, compliance and property transfer. Environmental monitoring is explained with emphasis on air quality, surface water and groundwater. Two classroom, three lab hours per week.

1551 Water Treatment Analysis
Credit Hour(s) 3
Examination of the basic concepts of water distribution and treatment from the hydrologic cycle, hydrogeology, aquifers and surface waters through treatment and distribution practices. Two classroom, three

lab hours per week.
DEV 0032 AND MET 1131 AND EGV 1501 AND MAT 1280 AND CHE 1211 OR CHE 1311

2101 Solar Photovoltaic Design & Installation
Credit Hour(s) 3
This course covers components of solar PV systems and components and the sizing of PV systems and components. Designed to prepare the student to take the NABCEP PV Entry Level Exam. Two classroom, two lab hours per week.

2151 Solar Thermal Systems
Credit Hour(s) 3
This course covers some of the basic cognitive materials needed to install and maintain solar thermal systems. Designed to help individuals better prepare for the North American Board of Certified Energy Practitioner (NABCEP) Solar Thermal Installer examination but does not provide all of the materials needed to complete the certification examination. Two classroom, two lab hours per week.

2201 Electrical Lighting & Motors
Credit Hour(s) 2
This course covers components of lighting systems, control strategies, current technologies and electric motors. Energy efficiency opportunities and environmental impacts are identified and analyzed. One classroom, two lab hours per week.
EET 1120 and EGV 1251 and PHY 1100 or PHY 1131 or PHY 1141 or PHY 2201

2251 Energy Control Strategies
Credit Hour(s) 2
The course examines different control strategies used to regulate or control energy consuming equipment in buildings; including heating, cooling, ventilating and lighting systems. One classroom, two lab hours per week.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2301 Commercial & Industrial Assessment
Credit Hour(s) 3
This course covers methods of collecting data (utility, envelope, mechanical system, and operational procedures) for both commercial

and industrial facilities and analyzing the data with statistical procedures and simulation software to develop energy-saving management plans. Two classroom, two lab hours per week.

2351 LEED Green Associate Exam Preparation
Credit Hour(s) 2
This course helps prepare the student for the first of the LEED Green Associate Exams and meets the requirement of the student having involvement on a LEED- registered project, or employment in a sustainable field of work or completion of an education program that addresses green building principles in LEED, to qualify to take the LEED Green Associate Exam. One classroom, two lab hours per week.

2501 Waste Management
Credit Hour(s) 3
Develop a working knowledge of present waste-management practices including minimization, storage, transportation, treatment and disposal of various waste related to the life cycle of a given activity and corrective actions related to contamination. Two classroom, three lab hours per week.

2551 Hydrology
Credit Hour(s) 3
Hydrology and the distribution and availability of water resources; natural and anthropogenic processes that influence flood and water quality. Two classroom, two lab hours per week.
EGV 1551

2700 Energy Management Technology Internship
Credit Hour(s) 1 to 4
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 term. Ten co-op hours per week per credit hour.

2701 Environmental Engineering Technology Internship
Credit Hour(s) 1 to 4
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 term. Ten co-op hours per week per credit hour.

2780   Energy Management Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Energy Management Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
Approval of Department

2781   Environmental Engineering Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Environmental Engineering Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
Approval of Department

Emergency Medical Services (EMS)

1100   Emergency Medical Responder Lecture & Laboratory
Credit Hour(s) 2
Emergency medical responders provide initial care for the sick and injured prior to the arrival of the ambulance. This education can be valuable to safety officers working in industry, police officers and some rural fire departments. This course will meet a total of 16 lecture hours and 32 laboratory hours.
Must be at least 18 years of age

1150   Emergency Medical Technician: Lecture
Credit Hour(s) 5
The Emergency Medical Technician Lecture provides students with the didactic information needed to understand the care of the sick and injured at the emergency medical technician level. Must be taken with EMS 1155.
DEV 0012 and DEV 0030 and Approval of Division Advisor and 18 years of age

1155   Laboratory for Emergency Medical Technician
Credit Hour(s) 2
The Emergency Medical Technician Laboratory provides students with the psychomotor information needed to understand the care of the sick and injured at the emergency medical technician level.

Student will attend a total of 64 hours of laboratory time.

1175   Emergency Medical Technician Refresher
Credit Hour(s) 2
This course meets or exceeds the national standard curriculum for EMT refresher. Designed to meet the needs of two types of emergency medical services providers: 1) Students who are recertifying their state licensure cards can use this course to complete their state requirements. 2) Students who need to remediate on material before taking their national registry examination can use this course to meet those needs. One classroom, two lab hours per week.

2100   Applied Anatomy, Physiology & Pathophysiology for Emergency Medical Services Provider
Credit Hour(s) 3
This course provides the fundamental anatomy, physiology and pathophysiology information necessary to understand the care of the sick and injured at the paramedic level.
Approval of Department

2105   Paramedic 1: Lecture
Credit Hour(s) 2
The paramedic student is introduced to the fundamental concepts of patient assessment, airway management and pharmacology. These concepts are reinforced within the laboratory setting of EMS 2110. Successful students will then be prepared to begin applying this knowledge within the clinical setting. Clinical activity begins in the second semester of the paramedic program.
Approval of Department

2110   Paramedic 1: Laboratory
Credit Hour(s) 2
This is the introductory laboratory experience within the paramedic program. Skills will be reviewed and retested from the Emergency Medical Technician level. CPR will be retested. New skills will involve patient assessment, airway management and pharmacology, including drug math. Four lab hours per week.
Approval of Department

2125   Paramedic 2: Lecture
Credit Hour(s) 5
The paramedic student will explore cardiology, pulmonology and pediatrics. This course covers ECG acquisition, interpretation and appropriate patient management, cardiovascular pathology and management,

respiratory pathology and management and care for the pediatric patient.
Approval of Department

2130   Paramedic 2: Laboratory
Credit Hour(s) 2
This course covers the assessment and management of patients with cardiac/respiratory disease. Also covered will be care of the pediatric patient. Specific skills covered include ECG, cardiac monitor use, CPR, advanced cardiac life support (adult and pediatric) and management of respiratory emergencies. Four lab hours per week.
Approval of Department

2135   Paramedic 2: Clinical
Credit Hour(s) 1
The paramedic student is introduced to the hospital clinical setting where he/she will apply knowledge learned from the lecture and laboratory setting in the direct supervised care of patients. Seven practicum hours per week.
EMS 2100 and EMS 2105 and EMS 2110 and Approval of Department

2150   Paramedic 3: Lecture
Credit Hour(s) 5
The paramedic student will explore management of the trauma patient and an in-depth discussion of the medical patient including assessment and management.
Approval of Department

2155   Paramedic 3: Laboratory
Credit Hour(s) 2
This course covers the assessment and management of patients suffering from traumatic injuries, basic rescue techniques, obstetrical emergencies and medical emergencies. Specific skills covered include managing patients in vehicles, traumatic airway management, neonatal care and differential diagnosis. Four lab hours per week.
Approval of Department

2160   Paramedic 3: Clinical
Credit Hour(s) 2
This course is divided into two settings: hospital and out-of-hospital. Within the hospital clinical setting, the student will work to master knowledge learned related to the direct supervised care of patients. Once mastery is demonstrated, the student will be cleared to apply his/her education in the out-of-hospital setting. Fourteen practicum hours per week.
EMS 2125 and EMS 2130 and EMS 2135 and Approval of Division Advisor

2175   Paramedic 4: Lecture
Credit Hour(s) 2
This course covers the assessment and management of patients suffering from exposure to hazardous materials, geriatric patients and infection disease. At the conclusion, students will focus on integrating all knowledge and skills obtained throughout the paramedic program. Four classroom hours per week for eight weeks.
Approval of Department

2180   Paramedic 4: Field Experience
Credit Hour(s) 1
Under direct supervision, students work to integrate lecture, laboratory and hospital clinical knowledge to treat patients in the out-of-hospital setting. The goal is to establish mastery of patient care skills as they apply to the out-of-hospital care setting. Seven practicum hours per week.
EMS 2150 and EMS 2155 and EMS 2160 and Approval of Department

2200   Paramedic 5: Integration / Refresher Lecture
Credit Hour(s) 2
This course reviews all materials from the entire paramedic program. Its goals are to integrate past knowledge and skills into a comprehensive approach to out-of-hospital patient care. Four classroom hours per week for eight weeks.
Approval of Department

2205   Paramedic 5: Integration / Refresher Laboratory
Credit Hour(s) 1
This course will review all psychomotor skills covered within the paramedic program as students are prepared for the comprehensive practical examination. Students will also have applied knowledge evaluated within the field setting. Students will discuss appropriate patient care with the medical director of the EMS program. Four lab hours per week for eight weeks.
Approval of Department

2250   Paramedic Refresher
Credit Hour(s) 3
This course meets or exceeds the national standard curriculum for paramedic refresher. Designed to meet the needs of two types of emergency medical services providers: 1) Students who are recertifying their state licensure cards can use this course to complete their state requirements. 2) Students who need to remediate on material before taking their

national registry examination can use this course to meet those needs. Two classroom, two lab hours per week.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2300   Critical Care Paramedic 1
Credit Hour(s) 3
This course explores the technologically challenging area of critical care medicine. The use of advanced diagnostics such as arterial lines and swan ganz catheters and patient management skills such as ventilators, LVADs and advanced pharmacology will be explored.
Paramedic

2305   Critical Care Paramedic 2
Credit Hour(s) 3
This course explores the technologically challenging area of critical care medicine. The use of advanced diagnostics such as laboratory results, x-rays and ultrasounds and the management of patients with trauma, shock and various medical conditions will be explored.
BIO 1141 and EMS 2100 and Approval of Department and Paramedic

2310   EMS Management 1
Credit Hour(s) 3
This course is for Emergency Medical Services (EMS) personnel who need to understand the roles and responsibilities of EMS managers. Various aspects of management, including finance, injury prevention, communication, public access and EMS system management will be discussed.
ENG 1101

2315   EMS Management 2
Credit Hour(s) 3
This course is for Emergency Medical Services (EMS) personnel who need to understand the roles and responsibilities of EMS managers. Various aspects of management, including EMS law, quality assurance, customer service and the evaluation of specific mass casualties will be addressed.
ENG 1101

English (ENG)

1101   English Composition I
Credit Hour(s) 3
In English Composition I students learn reflective, analytical and argumentative writing strategies, incorporating sources and personal experience. Students will negotiate between public and private rhetorical situations and purposes to achieve academic literacy. They will write multiple drafts using a recursive writing process as they work toward fluency in style and mechanics.
DEV 0032 or Placement Test Score

1131   Business Communications
Credit Hour(s) 3
Using audience analysis, a writing process and grammatical and formatting skills in an electronic environment, students write letters and messages for both internal and external business situations; they conduct business research and write and document short, informal research business reports, incorporating graphics and oral presentation.
DEV 0032 or Placement Test Score

1160   Advanced Vocabulary
Credit Hour(s) 3
Advanced Vocabulary builds vocabulary through the study of component parts in words, namely Latin and Greek roots, prefixes and suffixes. Emphasis is placed on words commonly encountered in higher education and on legal, medical and scientific terminology.
ENG 1201

1199   Textual Editing
Credit Hour(s) 3
Strategies to achieve a clear, concise, cohesive and emphatic writing style; sentence structure; contemporary grammar and usage.
ENG 1201

1201   English Composition II
Credit Hour(s) 3
English Composition II, building on the skills in English Composition I, develops rhetorical literacy through research, critical reading and multigenre writing tasks. Through major and minor, cumulative and stand-alone assignments, students construct arguments and analyses, ethically incorporating academic sources while developing their own voices as writers and citizens.
ENG 1101

2245   Introduction to Linguistics
Credit Hour(s) 3
The study of language, how it is described, acquired and used, including the structure of language and its sociocultural impact.
ENG 1201 and Approval of Department

2255   Creative Writing: Poetry
Credit Hour(s) 3
Writing and critical reading of poetry. Manuscript form, publication and market information.

2256   Creative Writing Fiction
Credit Hour(s) 3
Traditional elements of short stories (character, scene, conflict, exposition, dialogue, plot and point of view) will be studied, involving student practice in a workshop setting. In addition to extensive student practice, students will read and analyze the work of published writers, learn how to submit their own work for publication and extensively study and write in one or more literary genres. Students will also study alternative or experimental fiction writing techniques.
ENG 1101 and Approval of Department

2257   Freelance Writing
Credit Hour(s) 3
Freelance writing covers magazine, newspaper and Internet article writing. It emphasizes generating, researching and developing nonfiction prose.
ENG 1101 and Approval of Department

2259   Novel Writing
Credit Hour(s) 3
Novel writing covers advanced study of traditional novel elements in a workshop setting, including the mechanics of manuscript submission.
ENG 2256 and Approval of Department

2260   Memoir Writing
Credit Hour(s) 3
Writing and reading of autobiographical essays in a workshop setting. Integrating photos into text. Editing and publishing selected essays in a class book.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2500   Advanced Composition
Credit Hour(s) 3
Advanced Composition focuses on sophisticated techniques of expository writing and the refinement of style.
ENG 1201

Exercise, Nurtrition & Sports Science (ENS)

1110   First Aid & CPR
Credit Hour(s) 2   R
This course provides comprehensive study of Cardiopulmonary Resuscitation and first aid techniques and procedures used in emergency response and treatment along with blood-bourne pathogens and sport safety training. Successful completion of this course will result in national certification.

1112   Introduction to Physical Education
Credit Hour(s) 3
Historical and philosophical foundations of physical education, including an emphasis on licensure, professional and national standards.
DEV 0012 and DEV 0022 and DEV 0032

1114   Introduction to Sport & Recreation Management
Credit Hour(s) 3
Historical, sociological and philosophical foundations of sport, including an emphasis on professional opportunities, application of management and organizational concepts.
DEV 0012 and DEV 0022 and DEV 0032

1116   Introduction to Exercise Science & Health Promotion
Credit Hour(s) 3
Historical, theoretical, ethical and philosophical foundations of exercise science and health promotion, including an emphasis on role, responsibilities, work settings and future direction of the profession.
DEV 0012 and DEV 0022 and DEV 0032

1118   Lifetime Physical Fitness & Wellness
Credit Hour(s) 3
This course provides an overview of the concepts of physical fitness, conditioning principles and appropriate exercise and health practices with application to lifelong fitness and wellness. Course includes lecture and physical fitness testing.
DEV 0012 and DEV 0022 and DEV 0032

1119   Concepts of Fitness for Criminal Justice
Credit Hour(s) 2
This course will provide the student an opportunity to learn and experience behaviors that will result in a healthy lifestyle. Principles of fitness and evaluation methods, as well as steps to take to achieve a healthy lifestyle will be explored.
Restricted to Criminal Justice Science majors

1212   Fundraising & Sport Budgeting
Credit Hour(s) 3
Students will learn to apply fundraising and budgeting concepts in the world of sport. Students will develop an understanding of fundraising and budgeting plans and how they are applied to different sports teams and sport environments. The topic of finance will support course discussions.
DEV 0012 and DEV 0022 and DEV 0032

1214   Personal & Community Health Behavior
Credit Hour(s) 3
This course enables the student to build a philosophy of health and health behaviors. Basic health principles and theories are applied to both personal and community health issues, including an emphasis on behavioral change and health and wellness education interventions.
DEV 0012 and DEV 0022 and DEV 0032

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2312   Basic Athletic Training
Credit Hour(s) 3
This course will focus on prevention and immediate care of athletic injuries and illnesses including taping and wrapping. Analysis of mechanics and movements of the human body will be examined.
BIO 1121

2314   Sport Promotions
Credit Hour(s) 3
Sport Promotions introduces a wide range of promotional and marketing strategies within the sport environment. Students will gain an understanding of the history of sport marketing and discover how contemporary efforts attract and increase fan base. Legal issues will also be discussed.

2316 Motor Development & Motor Learning
Credit Hour(s) 3
Explore motor development and motor skills across the lifespan. Awareness of body systems, their development and cycle of physical growth and maturation. Exploration of principles of motor learning and performance, including examination of elements that facilitate or prohibit the control, achievement and retention of motor skills.
DEV 0012 and DEV 0022 and DEV 0032

2318 Fitness Assessment & Exercise Prescription
Credit Hour(s) 3
Students learn and experience the process of risk stratification, fitness assessment in the five components of fitness and exercise testing for low- to moderate-risk individuals. Integration and analysis of results and norms to design individualized exercise prescription.
BIO 1121

2412 Integration of Physical Education for Elementary Educators
Credit Hour(s) 3
An introduction to the theory and practice of conducting a physical education program, as well as integrating movement education into the teaching of all elementary disciplines. Students will become proficient in methods and skills necessary for effective teaching.
DEV 0012 and DEV 0022 and DEV 0032

2414 Foundations of Coaching
Credit Hour(s) 3
Foundations of Coaching will cover many aspects of coaching in today's sport-rich society. Topics include youth, collegiate and professional sport, coaching models, training, coaching networking and professional growth. Other discussions will cover sport-specific topics.
Must be taken with ENS 2415.

2415 Coaching & Leadership
Credit Hour(s) 3
Coaching and Leadership introduces students to the principles of coaching and the qualities necessary to lead a sport organization. Topics focus on discovering an individual coaching and leadership style, contemporary coaching issues, leadership models and an investigation into the great leaders of the past.

2416 Certification Preparatory Course
Credit Hour(s) 3
This course will help prepare the student for a nationally recognized certification exam. Current national standards issued by the United States Department of Labor will be implemented.

2417 Methods of Teaching
Credit Hour(s) 3
This course will look at the practical application of teaching. Best practices for training and teaching in the industry will be explored. The student will have hands-on exposure and experience instructing a variety of modalities.

2418 Exercise Prescription for Special Populations
Credit Hour(s) 3
Integration of risk stratification, fitness assessments, exercise testing, interpretation and exercise prescription skills. Application of knowledge and skills for special populations and medical conditions through case studies and simulations.
ENS 2318

2419 Health Promotion, Fitness & Sport Programming
Credit Hour(s) 3
This course provides organizational techniques, administrative procedures and principles of managing health promotion, fitness and sport programs, including facility design and operational standards and guidelines.
ENS 1118

2471 Exercise, Nutrition & Sports Science Practicum
Credit Hour(s) 2
This course is the capstone course. It is an on- or off-campus work experience integrated with academic instructions, coordinated by a faculty member. The course is completed in the last semester of the degree program. Fourteen practicum hours per week.
Approval of Department

Entrepreneurship (ENT)

2140 Small Business Finance
Credit Hour(s) 3
For the student/entrepreneur with no background in finance and accounting. Students will gain a foundation in small business finance: financial and economic concepts; financial terminology; understanding, preparing, analyzing and presenting financial statements; and financial forecasting and budgeting techniques.
MAN 2150

2160 Business Plan Development
Credit Hour(s) 3
Upon successfully completing the course, students will understand the business plan development process and will have developed a business plan. Extensive research, writing and oral presentations are required. Students will address: business concept evaluation; business plan development; presentation; evaluation of business plans; identification and evaluation of funding sources for new or existing enterprises.
MAN 1107 and MAN 2101 and MRK 2220 and ENT 2140

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

English as a Second Language (ESL)

0130 ESL Reading & Writing I
Credit Hour(s) 4
This class focuses on developing reading and writing skills at the sentence and paragraph level. The class also includes vocabulary development and intensive grammar review.
Approval of Department and Placement Test Score

0135 ESL Reading & Writing II
Credit Hour(s) 4
This class develops reading skills in both fluency and comprehension. Writing skills at the paragraph level and short essay. Advanced vocabulary development and grammar usage are included.
ESL 0130 and ESL 0150 and Approval of Department and Placement Test Score

0140   ESL Listening & Speaking I
Credit Hour(s) 4
Through individual and collaborative activities, this course will introduce basic to intermediate conversational skills to promote student development and achievement of listening and speaking skills needed for communication in the English language.
Approval of Department and Placement Test Score

0145   ESL Listening & Speaking II
Credit Hour(s) 4
Through individual and collaborative activities, this course will introduce high-intermediate to advanced conversational skills to promote student development and achievement of listening and speaking skills needed for communication in the English language.
ESL 0130 and ESL 0140 and Approval of Department and Placement Test Score

0150   ESL Basic
Credit Hour(s) 4
This basic integrated skills course will provide opportunities for listening, speaking, reading and writing. The goal is to build student confidence in using English skills to communicate in everyday life, at work and in school.
Approval of Department and Placement Test Score

0170   ESL Intermediate
Credit Hour(s) 4
This intermediate integrated skills course will provide opportunities for listening, speaking, reading and writing. The goal is to build student confidence in using English skills for academic purposes.
ESL 0150 and Approval of Department or Placement Test Score

0190   ESL Advanced
Credit Hour(s) 4
This advanced integrated skills course will provide opportunities for listening, speaking, reading and writing. The goal is to build student confidence in using English skills for academic purposes.
ESL 0130 and ESL 0140 and ESL 0170 and Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

French (FRE)

1100   Conversational French
Credit Hour(s) 3
A foundation for gaining knowledge about French culture and basic phrases related to simple spoken French and travel situations.

1101   Elementary French I
Credit Hour(s) 4
A foundation for gaining basic knowledge of French grammar, speaking, writing, reading and cultural knowledge.

1102   Elementary French II
Credit Hour(s) 4
Continuing French grammar skills, verbs in the future conditional and subjunctive tenses, speaking, writing, reading and cultural knowledge.
FRE 1101

2201   Intermediate French I
Credit Hour(s) 3
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
FRE 1102

2202   Intermediate French II
Credit Hour(s) 3
Continue to review and extend basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
FRE 2201

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Fire Science Technology (FST)

1100   Volunteer Firefighter
Credit Hour(s) 2
Basic instruction in fire suppression, fire chemistry and behavior rescue, firefighting tools, appliances and equipment, and firefighter safety and survival. One classroom, two lab hours per week.

1101   Firefighter I Transition
Credit Hour(s) 5
Intermediate instruction in fire suppression, fire chemistry and behavior, rescue, firefighting tools, appliances and equipment, fire protection systems and firefighter safety and survival. Two classroom, six lab hours per week.
FST 1100 and Approval of Fire Coordinator

1102   Firefighter I
Credit Hour(s) 6
Basic and intermediate instruction in fire suppression, fire chemistry and behavior, rescue, firefighting tools, appliances, equipment, built-in fire suppression systems and firefighting safety and survival. Two classroom, eight lab hours per week.
Approval of Fire Coordinator

1103   Firefighter II Transition
Credit Hour(s) 5
Advanced instruction in fire-suppression operations, fire chemistry and behavior, rescue, firefighting tools, appliances, equipment, built-in fire suppression systems and firefighting safety and survival. Two classroom, six lab hours per week.
FST 1101 or FST 1102 and Approval of Department

1104   Firefighter II
Credit Hour(s) 11
Basic, intermediate and advanced instruction in fire-suppression operations, fire chemistry and behavior, rescue, firefighting tools, appliances, equipment, built-in fire protection systems and firefighting safety and survival. Four classroom, fourteen lab hours per week.
Approval of Department

1111   Fire Behavior & Combustion
Credit Hour(s) 3
This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

1112   Principles of Emergency Services
Credit Hour(s) 3
Overview of fire protection and emergency services; culture and history of emergency services organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service.

1113   Fire Prevention
Credit Hour(s) 3
This course provides fundamental knowledge relating to the field of fire prevention.

1115   Fire Apparatus & Equipment

Credit Hour(s) 3

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

1120 Fire Safety Inspector
Credit Hour(s) 4

This course prepares the student to identify, abate and document fire safety hazards and meets the requirements for those qualified students to take the state certification examination for Fire Safety Inspector. Two classroom, four lab hours per week.
Approval of Department

1125 Fire Investigation I
Credit Hour(s) 3

The fundamentals and technical knowledge needed for proper fire scene investigations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter and types of fire causes.

1126 Fire Investigation II
Credit Hour(s) 3

Advanced technical knowledge on the rule of law as it applies to fire investigation, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and courtroom testimony.
FST 1125 and Approval of Department

1555 Hazardous Waste Operations & Emergency Response (HAZWOPER)
Credit Hour(s) 3

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. Two classroom, two lab hours per week.

2201 Fire Protection Hydraulics & Water Supply
Credit Hour(s) 3

This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Two classroom, two lab hours per week.

2202 Building Construction for Fire Protection
Credit Hour(s) 3

This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations and operating at emergencies.

2203 Hazardous Materials Chemistry
Credit Hour(s) 3

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity and health hazards encountered by emergency services.

2204 Fire Protection Systems
Credit Hour(s) 5

Provides information on the design, installation, maintenance and common problems associated with fire alarms, water-based and special hazards fire protection systems and portable fire extinguishers. Three classroom, four lab hours per week.

2205 Fire Administration
Credit Hour(s) 3

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service delivery functions, ethics and leadership from various perspectives ranging from the company officer to command level.
Approval of Department

2206 Fire Strategy & Tactics
Credit Hour(s) 3

This course provides the principles of fire ground control through utilization of personnel, equipment, various extinguishing agents and application of command procedures such as the National Incident Emergency Management Systems (NIEMS).
FST 1101 and Approval of Department

2209 Fire Service Instructor
Credit Hour(s) 4

This course covers the 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 the National Fire Protection Association Standard 1041. Two classroom, four lab hours per week.
FST 1101 and Approval of Department

2228 Human Behavior & Fire
Credit Hour(s) 3

This course provides fundamental information on human behavior as it relates to fire and mass casualties. Two classroom, two lab hours per week.

2230 Principles of Fire & Emergency Services Safety & Survival
Credit Hour(s) 3

Introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

FST 2251 Fire Officer I
Credit Hour(s) 5

Management, supervision and leadership of the fire company. This course meets the requirements of National Fire Protection Association 1021, Fire Officer I.
FST 1101 and minimum of three years as an active duty firefighter

2252 Fire Officer II
Credit Hour(s) 3

Management, supervision, leadership and command of multi-company operations. This course meets the requirements of National Fire Protection Association 1021, Fire Officer II.
FST 2251

2253 Fire Officer III
Credit Hour(s) 3

Administration of fire department operations and the management of programs, facilities and resources to provide a fire protection delivery system. This course meets the requirements of National Fire Protection Association Standard 1021, Fire Officer III.
FST 2252

2254 Fire Officer IV
Credit Hour(s) 3

Assessing the public fire protection needs of a community and the strategic planning and development of various components of the fire protection delivery system. This course meets the needs of National Fire Protection Association 1021, Fire Officer IV.
FST 2253

2260 Advanced Concepts in Structural Fire Protection
Credit Hour(s) 3

This course examines the principles and concepts of structural fire protection involving

both fire resistance and the behavior (thermal strain, stress and fatigue) of structural components during fire conditions.

2270   Fire Science Internship
Credit Hour(s) 2   R
Students earn credits toward degree requirements for work learning experience. Students already working may apply to use that experience to meet internship requirements. Twenty co-op hours per week.
Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Geography (GEO)

1101   Human Geography
Credit Hour(s) 3
This course will analyze the spatial patterns of human activities including settlement patterns, population, distribution of languages and religions and their interactions with the environment.

1102   Physical Geography
Credit Hour(s) 4
Analysis of the principle spheres of earth: atmosphere, lithosphere, hydrosphere and biosphere; an explanation of processes involved in shaping the earth's physical environment. Three classroom, two lab hours per week.

1107   Introduction to Geographic Information Systems (GIS)
Credit Hour(s) 5
Introduction to the basic theoretical as well as practical concepts of Geographic Information Systems (GIS). Students will learn the basics of ArcMap and ArcCatalog and explore how these applications interrelate in a complete GIS software system. Through computer lab tutorials and homework assignments, students will learn to use ArcGIS. Four classroom, two lab hours per week.

1201   World Regional Geography
Credit Hour(s) 3
This course examines the different regions of the world based on their human and physical characteristics, and their economic and political organizations.

1206   Appalachian Environment
Credit Hour(s) 3
Overview of the various geographic aspects of the rural and urban Appalachian region, including physiography and geology; migration and settlement patterns; historical development and cultural diffusion; and population characteristics and economy.

1208   Geography of the Middle East
Credit Hour(s) 3
This course takes a spatial look at the Middle East and expands the global perspective by providing knowledge and insight into one of the most significant regions of the world.

1209   Introduction to Cartography
Credit Hour(s) 4
This course is an introduction to the science and art of map making. From the history and principles of thematic map compilation and design, basics of map projections, data sources and processing, map color, symbolization and topography to common types and styles of thematic maps. Three classroom, two lab hours per week.

2210   Advanced Spatial Analysis
Credit Hour(s) 4
This course will focus on GIS extensions to apply more complex functions and tools of ArcGIS. Students will learn how to utilize ArcGIS Network Analyst and Spatial Analyst tools to create, query and analyze data sets. Students will also learn to use GPS technology to collect data, build databases and prepare data for analysis using more advanced geodatabase tools. Three classroom, two lab hours per week.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Germany (GER)

1100   Conversational German
Credit Hour(s) 3
A foundation for gaining knowledge about Germanic culture and basic phrases related to simple spoken German, including travel situations.

1101   Elementary German I
Credit Hour(s) 4
Foundation for understanding, speaking, reading, and writing German. Work outside of class and/or in the language laboratory is required.

1102   Elementary German II
Credit Hour(s) 4
Continued understanding, speaking, reading and writing German beyond the discourse level. Work outside of class and/or in the language laboratory is required.
GER 1101

2201   Intermediate German I
Credit Hour(s) 3
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
GER 1102

2202   Intermediate German II
Credit Hour(s) 3
Intermediate-level composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
GER 2201

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Geology (GLG)

1101   General Geology I
Credit Hour(s) 4
Surface processes of wind, water and ice in changing Earth's surface, plate tectonics; interior forces that cause earthquakes, volcanoes, mountain building. Use and misuse of natural resources; hazardous environments; pollution problems; human impact. Laboratory component stresses introduction to and use of basic scientific method and problem solving. Three classroom, two lab (GLG 1111) hours per week.

1111   Lab for General Geology I
Credit Hour(s) 0

1201   General Geology II
Credit Hour(s) 4
The Earth in space, physical evolution of the oceans, atmosphere and continents, origin of life and its evolution, physical and biological development of the North American continent. Lab component stresses further

application of scientific method and problem solving. Three classroom, two lab (GLG 1211) hours per week.
GLG 1101

1211   Lab for General Geology II
Credit Hour(s) 0

1301   Geologic Field Trips
Credit Hour(s) 4
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. Use of on-site observations to interpret and understand the building of the Appalachian Mountains and the geological development of Ohio. Three classroom, two lab hours per week.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Health Information Management (HIM)

1101   Medical Terminology
Credit Hour(s) 2
Basic prefixes, roots and suffixes; terminology including anatomic, diagnostic, symptomatic, procedural, eponymic terms and standard abbreviations required for a working knowledge and understanding of the language of medicine.
DEV 0012 or Equivalent

1110   Health Information Processing
Credit Hour(s) 3
Foundations of health information management, the Health Information Management profession, including health care systems and organization of HIM functions, data quality, access and retention, patient and healthcare data and data collection methodologies. Discussion of classification systems, clinical vocabularies and nomenclatures. Two classroom, two lab hours per week.
Approval of Department

1160   Medical Office Coding Concepts
Credit Hour(s) 1
Introduction to principles and conventions for assigning ICD-9-CM or ICD-10 and CPT codes to patient encounter for billing physician services. Students should possess

proficiency in basic medical terminology.
HIM 1101

1165   Drug Classification for Coding
Credit Hour(s) 1
An overview of the major drug classifications, common drugs in each class, conditions for which drugs are administered and their general effects to assist medical coders in analyzing health care documentation for coding and reimbursement applications.
HIM 1101 and BIO 1107 or BIO 1121 or BIO 1141

1201   Introductory Medical Office Coding
Credit Hour(s) 4
Introduction to principles, guidelines and conventions for assigning ICD-9-CM or ICD-10-CM diagnostic codes and CPT procedure codes to patient encounters for physician services. Additional out-of-class assignments are required.
HIM 1101 and BIO 1121

1204   Medicolegal & Ethics in Healthcare Records
Credit Hour(s) 2
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 the judicial system; health care fraud and abuse and Health Insurance Portability and Accountability Act (HIPAA) regulations. Ethical issues in health care settings addressed. One classroom, two lab hours per week.
DEV 0012

1217   Alternative Health Records & Registries
Credit Hour(s) 3
Organization and operation of a hospital cancer program emphasizing registry case finding, accession, indexing, abstracting and follow-up of cancer data. Purposes, uses and handling of health information, departmental and facility administration, licensing and accreditation requirements and introduction to payment systems in long-term care and home health care.
HIM 1110 and Restricted to Majors

2110   Ambulatory Coding
Credit Hour(s) 4
Introduction to principles, guidelines and conventions for assigning ICD-9-CM or ICD-10-CM diagnostic codes and CPT procedure

codes to patient encounters for outpatient facility services. Students should possess proficiency in basic medical terminology and human anatomy and physiology. Additional out-of-class assignments are required. Three classroom, two lab hours per week.
HIM 1201 and Restricted to Majors

2144   Quality Improvement, Statistics & Research
Credit Hour(s) 3
Organization and analysis of data in health care quality programs including quality assessment and monitoring, utilization and risk management and medical staff credentialing. Theory and application of health care statistics including data definitions, computation of formulae and research principles. Two classroom, two lab hours per week.
HIM 1110 and BIS 1120 and MAT 1130 or MAT 1270 and Restricted to Majors

2145   Health Information Resource Management
Credit Hour(s) 3
Planning, organizing, staffing, budgeting and analysis of management systems along with job standards and performance evaluations emphasizing development of supervisory management, leadership and communication skills. Two classroom, two lab hours per week.
HIM 1110 and BIS 1120

2165   Healthcare Data in Reimbursement
Credit Hour(s) 3
Organization of health care delivery system including managed care and capitation. Theory and use of reimbursement systems such as Diagnostic Related Groups, Ambulatory Payment Classifications, Resource-based Relative Value Scale. Discussion of data flow from admission to billing and analysis of casemix. In addition, other external forces, such as Health Insurance Portability and Accountability Act and Recovery Audit Contractors, will be discussed. Two classroom, two lab hours per week.
HIM 1110 and HIM 1201 and Restricted to Majors

2211   Inpatient Coding
Credit Hour(s) 4
Introduction to principles and coding conventions for using ICD-9-CM and/or ICD-10-CM and ICD-10-PCS for coding inpatient records. Students should possess proficiency in medical terminology and human anatomy and physiology. Additional

out-of-class assignments are required. Three classroom, two lab hours per week.
HIM 2110 and Restricted to Majors

2233   Healthcare Information Systems
Credit Hour(s) 3
An in-depth look at the use of information systems technology in the health care delivery system. Includes information security, electronic clinical systems and health records. Two classroom, two lab hours per week.
HIM 1110 and Restricted to Majors

2252   Professional Practice Experience
Credit Hour(s) 2
Practical application of health information management processes, including health information retrieval, qualitative and quantitative analysis of health data, record completion by practioners, release of health information, document scanning, revenue cycle functions, coding, statistical reporting, hospital-wide and HIM department quality improvement and various other registries and department functions utilizing medical data. Ten directed practice hours per week at an approved off-site location.
Approval of Department

2262   Advanced Medical Office Coding
Credit Hour(s) 3
ICD-9-CM or ICD-10-CM diagnosis and CPT procedure coding for the physician's office and other ambulatory facilities. Two classroom, two lab hours per week.
HIM 1201 and BIO 1222

2278   Health Information Management Capstone
Credit Hour(s) 1
A variety of specially designed projects, student oral presentations, case studies, simulations, interviewing, resumes and two mock accreditation exams. Two lab hours per week.
HIM 2145 and Restricted to Majors

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

History (HIS)

1101   United States History I
Credit Hour(s) 3
Development of the people of the United States in political, social, economic and cultural areas from pre-Columbian America through Reconstruction.

1102   United States History II
Credit Hour(s) 3
Development of the people of the United States in political, social, economic and cultural areas from Reconstruction to the present.

1105   African-American History
Credit Hour(s) 3
Contributions of African-Americans to the institutions and culture of the United States from 1619 to the present.

1111   Western Civilization I
Credit Hour(s) 3
Major trends in the development of Western culture, emphasizing political, economic, social and cultural achievements, from prehistory to the seventeenth century.

1112   Western Civilization II
Credit Hour(s) 3
Major trends in the development of Western culture, emphasizing political, economic, social and cultural achievements from the seventeenth century to the present.

2215   Survey of African History
Credit Hour(s) 3
Overview of the history of Africa from prehistoric times to the present; special emphasis on modern challenges the continent faces.

2216   Survey of Latin American History
Credit Hour(s) 3
A survey of Latin America from pre-colonial times to the present, tracing colonial influences, 20th century revolutions, dictatorships and democratic alternatives and the evolution of global economics, U.S. and Organization of American States policies.

2217   Survey of East Asian History
Credit Hour(s) 3
Survey of eastern Asia from earliest times to the present, including economic, political, religious and colonial influences on modern nations of Asia, with special emphasis on twentieth- and twenty-first- century issues and problems.

2218   History of Ohio
Credit Hour(s) 3
A 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.

2219   Survey of the Middle East
Credit Hour(s) 3
A survey of the Middle East, beginning with an overview of early history and the rise of Islam, and then concentrating on historical developments since the 19th 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.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Hospitality Management Technology (HMT)

1101   Basic Culinary Skills
Credit Hour(s) 2
Knowledge and skill development of commercial kitchen operations. Through lecture and demonstration modules, students will attain skill in mise en place and stocks, soups and sauces. One classroom, two lab hours per week.
DEV 0012 and DEV 0022 and DEV 0032

1102   Kitchen Chemistry
Credit Hour(s) 3
An introduction to applied chemistry of food and food preparation. Lecture and demonstrations will be used to illustrate course principles. One classroom, four lab hours per week.

1105   Introduction to the Hospitality & Tourism Industry
Credit Hour(s) 2
This course will provide an overview of the Hospitality and Tourism Industry. The topics for this course will include in-depth views of the entire restaurant and culinary industry, lodging industry, meeting and events, casinos, cruiselines and more.
DEV 0012 and DEV 0022 and DEV 0032

1107   Sanitation & Safety
Credit Hour(s) 2
Sanitation and safety involves key concepts such as harmful micro-organisms,

contamination and foodborne illnesses, the nine steps within the flow of food from supplier to service, food safety management systems, sanitary facilities and pest management control. Students must successfully pass a national sanitation exam to pass the course.
DEV 0012 and DEV 0032

1108   Pastry & Confectionery Basics
Credit Hour(s) 4

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 and application to classical dessert making. One classroom, six lab hours per week.
HMT 1112

1110   Menu Planning & Table Service Practicum
Credit Hour(s) 3

Menu design and development, standardizing recipes, cost controls and pricing. Practical applications in varieties of table service, catered events and customer service processes. Two classroom, seven practicum hours per week.
DEV 0012 and DEV 0022 and DEV 0032

1112   Food Principles & Basic Preparation
Credit Hour(s) 4

Introduces the scientific principles involved in food production, including ingredient function, terminology, preparation and culinary techniques of soups, sauces, vegetables, fruits, grains, salads, meats, game, poultry, fish and seafood. Includes recipe conversion, product evaluation and maintenance of a safe, sanitary kitchen. One classroom, six lab hours per week.
HMT 1101 and HMT 1107

1125   Beverage Management
Credit Hour(s) 2

The history and process of different wines, ales and spirits, including pronunciation and selection of wines with food and identifying the required glassware for all drinks. Mixology, establishing a par stock and reorder point, discussion of Ohio's drinking laws and bartender's legal and social responsibilities, and bar design and layout.
HMT 1105

1126   Baking I
Credit Hour(s) 4

Practical application of basic baking ingredients, weights and measures, terminology and formula calculations. Use of mixes and frozen bakery products to create commercial-grade finished products. One classroom, six lab hours per week.
HMT 1102

1136   Lodging Operations Management
Credit Hour(s) 3

This course will examine relationships between all hotel and lodging departments, with a concentrated focus on general management of a full-service property, front office operations and housekeeping management. Other topics will include service-oriented systems, budgeting complexities and room standardization.
HMT 1105

1137   Hospitality Industry Computer Systems
Credit Hour(s) 2

Students will learn about computer-based property management systems, involving both front- and back-of-the-house operations. The course is designed to show the inter-related computer functions of an entire full-service lodging property with departments such as food and beverage service outlets, sales, front office, etc.
HMT 1105 and BIS 1120

1140   Dimensions of Air Travel
Credit Hour(s) 3

Study of airline industry terminology, rules and ethics, aircraft types, location and city codes of major airports worldwide. Thorough study of transportation security, passport regulations and foreign documentation requirements.
HMT 1105 or Approval of Department

1141   Destination Geography
Credit Hour(s) 3

Study of important tourism destinations around the world. The course discusses recreational, cultural, economic and social significance.

1143   Organization of the Travel Product
Credit Hour(s) 3

Study of travel/tourism industry products and procedures, including cruises, rail, motorcoach, tours, car rentals, resort and hotel features and travel insurance.
HMT 1105

1146   Airline Travel Technology
Credit Hour(s) 3

Computer-based training using airline and travel technology to develop knowledge and skills to complete the fundamental elements of a travel reservation. Elements include searching, confirming and pricing for airline, car and hotel reservations in a Passenger Name Record. Two classroom, two lab hour per week.
HMT 1140

1150   Meeting & Event Planning
Credit Hour(s) 3

Detailed study of meeting and event planning from pre-sale to completion, including marketing, sales strategies and on-site post-function techniques.

2118   Artisan Breads
Credit Hour(s) 4

Techniques for professional development and introduction to artisan yeast-raised bread products. One classroom, six lab hours per week.
HMT 1108

2128   Cake Production & Decoration
Credit Hour(s) 4

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. One classroom, six lab hours per week.
HMT 1108

2201   Food Service Equipment, Design & Maintenance
Credit Hour(s) 2

Types of equipment used in the hospitality industry and the maintenance performed. Layout of equipment in terms of efficiency and cost.
HMT 1105

2206   Garde Manger
Credit Hour(s) 4

Preparation of hors d'oeurves and canapes, forcemeats, sausages, pates, terrines, galantines, mousse, roulades and pate en croute, as well as cold sauces like aspics and chaud friod; development of skills necessary to produce a cold buffet utilizing vegetable carvings, ice carvings, platter layout, display and design. One classroom, six lab hours per week.
HMT 1112

2209 Advanced Culinary Skills
Credit Hour(s) 3

This capstone course is designed to test the knowledge and skills of the cook by planning, coordinating and cooking advanced menus. Six lab hours per week.
HMT 1108 and HMT 2206 and Restricted to Majors

2215 Hospitality Cost Controls
Credit Hour(s) 3

In-depth analysis of financial costs associated with hospitality operations. Although the primary focus will be on restaurants, other operational costs from lodging, meeting and events, etc. will be introduced. Topics include financial statement interpretations, breakeven calculations, butcher test computations, inventory systems and in-depth labor cost control function.
HMT 1105 and ACC 1210

2218 Advanced Pastry Skills
Credit Hour(s) 4

Advanced pastry and confectionery techniques, including laminated doughs, candy making, plate and platter displays and an introduction of sugar work. One classroom, six lab hours per week.
HMT 1108

2225 Hospitality & Tourism Supervision
Credit Hour(s) 3

This course is designed to provide students with the principles of supervision in the hospitality and tourism industry and the associated responsibilities. Topics include managing resources, team building, productivity cost formulas and the unique supervision techniques used in restaurants, lodging, meeting and events, with an emphasis on leadership.
HMT 1105

2226 Hospitality Purchasing & Negotiations
Credit Hour(s) 3

Food service functions regarding negotiations, laws, buying, science, packaging, distribution, ingredient process, storage, organization, cost controls and security.
HMT 1105

2227 Hospitality Marketing
Credit Hour(s) 2

Organization of the marketing concepts in the hospitality and tourism industry, utilizing all aspects necessary to build a marketing plan.
HMT 1105

2230 Risk & Prevention Management
Credit Hour(s) 3

This course will cover the broad task of protecting guests, nonguests, employees and assets. Topics will include security, property access, perimeter control, alarm systems, communication systems, closed circuit television, computer security, employment screening, emergency procedures and general safety procedures.
HMT 1105

2291 Hospitality Management & Tourism Cooperative Work Experience
Credit Hour(s) 3

Students earn credit toward degree requirements for work experience. Students already working may apply to use that experience to meet co-op requirements. Students establish outcomes and prepare related reports and/or projects each term. Thirty co-op hours per week in a related worksite
Approval of Department and minimum of 20 semester credits hours completed prior to registration for course

2292 Culinary Arts Option Cooperative Work Experience
Credit Hour(s) 4

Students earn credits toward degree requirements for work experience. Students already working may apply to use that experience to meet co-op requirements. Students establish outcomes and prepare related reports and/or projects. This course is for Culinary Arts option majors or Pastry concentration students only. Forty hours per week in a related worksite.
Approval of Department and minimum of 20 semester credits hours completed prior to registration for course

2295 Hospitality Management & Tourism Capstone
Credit Hour(s) 3

Application of previously learned hospitality management and tourism concepts through case study, readings and discussion of contemporary issues.
HMT 2225 and HMT 2291

2297 Special Topics
Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

Humanities (HUM)

1125 Introduction to the Humanities
Credit Hour(s) 3

Explores the nature and content of the humanities by examining and analyzing 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.

1130 Humanity & the Challenge of Technology
Credit Hour(s) 3

This course examines the role of technology in the modern society. It explores the opportunities and dangers faced by humankind in the evolution of new technologies. It inquires into such questions as whether the human quest for mastery of nature has made us masters or slaves of the machine.

1131 The Search for Utopia
Credit Hour(s) 3

The Search for Utopia is a survey of humanity's search for the ideal society from ancient times to the modern age. It examines various utopian ideas and practices that have changed world communities and compares Western utopian traditions with Eastern perceptions of the perfect society.

1135 Environmental Ethics
Credit Hour(s) 3

Overview of philosophical and ethical dimensions of the environmental crisis, such as environmental politics, animal rights and nonwestern views.

1140 Appalachian Folkways
Credit Hour(s) 3

Overview of the facets of folkways and folklore in the Appalachian region of the United States, including folk customs, language, material culture, performing folk arts and literary themes of selected contemporary writers.

1141 Appalachian History & Culture
Credit Hour(s) 3

An examination of various facets of life in Appalachia, including history, culture, economics, politics, education and religion.

1142   Native American History
Credit Hour(s) 3
Survey of the political, social, economic, and cultural development of Native Americans, from prehistoric times to the present, with specific emphasis on Native Americans of Ohio and the Appalachian region.

1195   Leadership Development
Credit Hour(s) 3
An exploration and study of the concept of leadership in the context of community and global issues. Includes Service Learning and applying leadership skills in the community.

2236   International Studies
Credit Hour(s) 1 to 3
Under the supervision of Sinclair faculty, students visit another country and work on study and/or service learning activities related to specific academic majors or topics.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Heating, Ventilation, Air Conditioning & Refrigeration (HVA)

1201   Basic HVAC Systems with Cooling
Credit Hour(s) 3
Basic concepts and theory of heating, ventilating, air conditioning and refrigeration systems. Foundations in the applications of cooling principles in light commercial equipment. Major components include refrigerant flow through equipment, applications of equipment to the refrigeration cycle, heat transfer fundamentals and preparation for the Environmental Protection Agency (EPA) refrigerant handler's certification exam. Two classroom, two lab hours per week.

1221   Heating Systems
Credit Hour(s) 3
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, heat pumps, packaged low-pressure boiler systems, and packaged unitary heaters. Includes low-pressure hot water steam generation, including the fundamentals of heat generation in water-based heating systems. Two classroom, two lab hours per week.

1241   HVAC Installation Techniques & Practices
Credit Hour(s) 4
Basic practices required for new installation and replacement of HVAC equipment including an introduction to sheet metal skills, and copper and black pipe plumbing. Hands-on skills and code requirements will be stressed along with good safety practices. Includes installation of a complete residential HVACR system. Note: this course is scheduled to coincide with work on homes for Habitat for Humanity and requires 4-6 Saturday build days off-campus in the local metropolitan area. Two classroom, six lab hours per week.
HVA 1201

1261   HVAC Loads & Distribution for Small Buildings
Credit Hour(s) 3
A discussion and demonstration of the importance of proper air distribution systems and principles of balanced heat distribution, including design considerations for light commercial applications. Loads will be calculated using commercially available software. Two classroom, two lab hours per week.

1301   Air & Water Distribution Systems
Credit Hour(s) 4
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; select hands-on laboratory studies reinforce basic principles; proper installation practices are also included. Three classroom, three lab hours per week.

1351   Building Psychrometrics & Load Calculations
Credit Hour(s) 4
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 calculation and use of computer-based design and analysis tools. Selected hands-on laboratory studies reinforce basic principles.

Three classroom, three lab hours per week.
MET 1131 and HVA 1201 and MAT 1270

1401   HVAC Mechanical & Electrical Troubleshooting
Credit Hour(s) 4
Diagnostic methods of mechanical, electrical and control system problems in heating and cooling systems. Other topics include common faults and how to avoid repair failures. Three classroom, three lab hours per week.
HVA 1201 and HVA 1221 and EET 1120

1451   Testing, Adjusting & Balancing in HVAC Systems
Credit Hour(s) 3
Theory and practice of testing, adjusting and balancing air and water in HVAC systems. Includes practices, procedures, data collection and report preparation as may be required by client. Course includes hands-on balancing using currently available equipment. Two classroom, two lab hours per week.
HVA 1201 and HVA 1301 or HVA 1261

2201   HVAC Systems
Credit Hour(s) 4
Theory and techniques for troubleshooting, commissioning and design of heating, ventilating and air conditioning distribution systems for commercial and industrial buildings. Emphasis is on energy efficiency and indoor environmental quality as directed by current standards for commercial and industrial HVAC systems. Three classroom, three lab hours per week.
HVA 1301 and HVA 1351

2251   Primary HVAC Equipment Operation & Selection
Credit Hour(s) 3
Student will learn how to do refrigeration cycle analysis, how to select condensers, evaporators, compressors, boilers, chillers and cooling towers from a manufacturer's catalog for a specific application, how to apply manufacturer's literature to the troubleshooting process and proper installation and equipment room piping practices. Two classroom, two lab hours per week.
HVA 1201

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2301 HVAC Controls
Credit Hour(s) 4
Basic control theory, tuning, programming and commissioning. Includes a major installation and commissioning project using state-of-the-art equipment. Three classroom, three lab hours per week.
HVA 1301 and EET 1120 and MET 1131

2700 HVACR Engineering Technology Internship
Credit Hour(s) 1 to 4
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 term. Ten work hours per week per credit hour.

2780 HVACR Engineering Technology Capstone Project
Credit Hour(s) 4
Assessment of achievement by HVACR Engineering Technology students in attaining program outcomes by completing a project demonstrating principles and practices of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
HVA 2201 and HVA 2301

Interior Design (IND)

1180 History of Interior Design
Credit Hour(s) 3
Examination of the stylistic development of interior design, domestic furniture and furnishings from classical times to the present.
DEV 0032

1230 Residential Design
Credit Hour(s) 4
Introduction to Interior Design includes exploring the profession, the principles, elements and design processes; residential space planning, kitchen design and furniture arrangement fundamentals with emphasis on design drawings and professional presentation form. Two classroom, four lab hours per week.
VIS 1100 and VIS 1110

1234 Materials & Textiles
Credit Hour(s) 3
Overview of specifications, relative costs, performance properties and installation methods of materials, including textiles used in interior design.

1240 Color Theory
Credit Hour(s) 3
Course will cover Josef Albers color theory, the effect of light on color and color psychology, including forecasting and trends.

2130 Non-Residential Design
Credit Hour(s) 4
Students investigate the design of health care, institutional, hospitality, retail and office environments and identify basic historical exterior styles. Design projects will integrate corporate culture, building codes, Americans with Disabilities Act (ADA) compliance, aesthetic, social and psychological factors. Advanced oral and visual presentation skills. Two classroom, four lab hours per week.
CAT 1101 and IND 1230 and IND 1234

2135 Rendering
Credit Hour(s) 3
Drawing and computer-aided drawing technique development to aid in the visualization of materials, color and lighting of a three-dimensional interior space.
VIS 1110 and VIS 1140

2140 Sustainable Design
Credit Hour(s) 4
Course includes discussions of environmental movements, designer responsibility, legislation, LEED certification selection and application of lighting fixtures. Students will integrate sustainable strategies to develop design solutions for a variety of small-scale projects. Two classroom, four lab hours per week.
CAT 1101

2260 Interior Design Portfolio
Credit Hour(s) 4
Interior design business practices; including cost estimating, contract writing, sales and communication techniques. Development of a portfolio from previous course work, work experience, freelance, etc. Two classroom, four lab hours per week.
IND 2130 and IND 2135 and IND 2140

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Journalism (JOU)

2101 Introduction to Journalism
Credit Hour(s) 3
The principles and functions of newspapers, including current changes and challenges.

Students will learn basic and advanced reporting skills, including how to interview, gather information and write news stories. Computer skills are required.
ENG 1101

2203 Reporting & Writing for Media
Credit Hour(s) 3
Students will utilize and build upon basic journalistic principles from JOU 2101, including ethics and the changes and challenges today's journalists encounter. Report and write news stories for print and online news. Learn the basic skills for creating multimedia stories.
JOU 2101

2270 Journalism Internship
Credit Hour(s) 1 to 4   R
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 term. Seven work hours per credit hour each week.
Approval of Department

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Japanese (JPN)

1100 Conversational Japanese I
Credit Hour(s) 3
A foundation for gaining knowledge about Japanese culture and basic phrases related to simple spoken Japanese, including travel situations.

1105 Conversational Japanese II
Credit Hour(s) 3
Develops the conversational skills to a greater degree of complexity and covering more situations. Promotes free expression in Japanese within more specific and complex cultural contents.
JPN 1100

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Law (LAW)

1101   Business Law
Credit Hour(s) 3
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, contracts, property, employment law, agency, partnerships and corporations.

1102   Consumer Law
Credit Hour(s) 3
This course develops student skills in application of state and federal consumer laws and regulations including privacy, warranties, credit and purchasing assets issues.

1103   Domestic Violence
Credit Hour(s) 2
This course covers domestic violence dynamics for those working with victims and perpetrators of family violence, Ohio Civil Protection Order (CPO) law, preparation of CPO court documents and the enforcement of CPOs by law enforcement agencies and courts.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Literature (LIT)

2201   British Literature I
Credit Hour(s) 3
A chronological survey of major writers of English poetry, drama and prose from the beginnings through the eighteenth century (1785).

2202   British Literature II
Credit Hour(s) 3
A chronological survey of major writers of English poetry, drama and prose from 1785 to the present.

2205   Modern Short Story
Credit Hour(s) 3
Analysis and synthesis of short stories, including plot, dialogue, theme, setting and characterization. Reading diverse, global authors demonstrates the interaction between literature and various cultural domains (e.g. social, technological, political and economic) as well as historic context. Assessments demonstrate understanding of literary devices (e.g. irony, satire and allegory).
ENG 1101 and Approval of Department

2211   American Literature I
Credit Hour(s) 3
A chronological survey of major writers of American poetry, drama and prose from the Colonial Period through the Civil War (1865).

2212   American Literature II
Credit Hour(s) 3
A chronological survey of major writers of American poetry, drama and prose from the Civil War through the present.

2217   Images of Women in Literature
Credit Hour(s) 3
Major images of women in literature, with emphasis on contemporary literature's role in both reflecting and shaping society's views of women.

2220   Introduction to Literature
Credit Hour(s) 3
Introduction to Literature introduces students to the major literary genres of literature, including narrative fiction, poetry, and drama. Emphasis is placed on literary terminology and interpretation. Upon completion, students should be able to analyze and respond to literature. Students will effectively and ethically argue their interpretations of literary works using textual evidence and Modern Language Association (MLA) documentation.
ENG 1101

2230   Great Books of the Western World
Credit Hour(s) 3
A chronological survey of the major literary works of periods of Western culture beginning with the Greeks and progressing through the Middle Ages, the Renaissance, Neo-Classicism and Enlightenment, Romanticism, Realism and Modernism.
ENG 1201

2234   Literature of Africa, Asia, & Latin America
Credit Hour(s) 3
Selected thematic study of major literary works of Africa, Asia and Latin America, emphasizing universal values and the commonality of experience.

2236   African-American Literature
Credit Hour(s) 3
This course provides an overview of the African-American literary tradition with emphasis on early slave narratives, the Harlem Renaissance, the Black Revolution and Arts Movement and contemporary social expression.

2259   Imaginative Literature
Credit Hour(s) 3
A study of the themes, techniques and styles of science fiction, fantasy and horror fiction.
ENG 1101

2267   Mythology in Literature
Credit Hour(s) 3
Mythology in Literature emphasizes analysis of the relationship between myths and literature to show how religion, culture and folktales intertwine.

2270   Introduction to Shakespeare
Credit Hour(s) 3
Close readings of selected Shakespeare plays and poems to explore story line, characterization, symbolism, cultural issues and historical context. Plays include samples from three major Shakespearean genres: histories, comedies and tragedies. Characterization and motivation, structural elements, symbolism associated with cultural and political meaning in the plays as well as relevance for contemporary audiences will be addressed.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2400   Children's & Adolescent Literature
Credit Hour(s) 3
Children's and Adolescents' Literature focuses on reading, analyzing and evaluating various literary genres for children and adolescents. Students will examine the literary elements and values presented in classic and modern picture books, fiction, fairy tales and poetry. Children's books that have won the Newbery and Caldecott Awards will be studied and discussed.

Management (MAN)

1106   Introduction to Radio Frequency Identification
Credit Hour(s) 1
Overview of the technology of Radio Frequency Identification (RFID). Applications, terminology. Introduction of global standards and case studies discussed.

1107 Foundations of Business
Credit Hour(s) 3
The American business system and basic principles of the free market system. Includes introduction of business concepts, entrepreneurship, management, marketing, economics, accounting and other important business principles.

1110 International Business
Credit Hour(s) 3
Global dimensions of business, overview of theories and institutions of trade, investment and management, emphasizing the managerial perspective on issues arising from international business and global operations.

1157 Management Applications of Radio Frequency Identification Technology
Credit Hour(s) 2
This course will introduce students to the management applications of Radio Frequency Identification (RFID) technology, which enables automated gathering and sending of asset information. Case studies and hands-on activities will allow students the opportunity to experience RFID from a business perspective, linking cost, price, customer satisfaction and product performance measures to business application outcomes.
MAN 1106

2101 Introduction to Supervision
Credit Hour(s) 3
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 supervision.

2110 Introduction to Project Management
Credit Hour(s) 3
Introduction to basic project management concepts, including how to scope, plan, launch, monitor, control and close a project. The course includes the Project Management Institute's (PMI) basic knowledge areas: Integration, Scope, Time, Cost, Quality, Human Resources, Communication, Risk and Procurement.

2140 Human Resource Management
Credit Hour(s) 3
Introduction through application of Human Resource Management concepts. Emphasis on Strategic Human Resource Management,

Workforce Planning and Employment, Human Resource Development, Total Compensation and Rewards, Employee and Labor Relations and Risk Management.
MAN 2150

2144 Negotiation Techniques
Credit Hour(s) 3
This course addresses the application of basic principles of negotiation through the introduction and analysis of the negotiation process, case studies and simulations. It focuses on accurately identifying requirements specifications, analyzing proposals and conducting purchasing and contracting negotiations ethically and legally, but is also relevant to compromise and agreement in other business and personal life situations.

2150 Management & Organizational Behavior
Credit Hour(s) 3
Introduction to fundamental concepts necessary for understanding management, motivation and behavior in organizational settings. Emphasis on planning, organizing, influencing and controlling to continually improve effective management skills.

2155 Management Information Systems
Credit Hour(s) 3
The exploration of the use and management of information systems and technology to continually improve organizations by providing efficiencies and effectiveness for operations, customer service, marketing, finance and other critical organizational processes.
MAN 2150

2159 Supply Chain Management Concepts & Applications
Credit Hour(s) 3
This course provides an in-depth study of Supply Chain Management (SCM) functions and the application of effective SCM strategies and practices to achieve improved operations in manufacturing and service organizations. It focuses on analysis of real-world SCM challenges, strategies and techniques.
MAN 2150 and MAT 1470

2247 Department of Defense Systems Acquisition Management
Credit Hour(s) 2
Course provides an overview of the Department of Defense (DoD) Systems Acquisition Management process, covering all phases of acquisition. It introduces the Joint Capabilities Integration and Development

System; the planning, programming, budgeting and execution process; DoD 5000-Series policy documents; and current issues in systems acquisition management.

2248 Department of Defense (DoD) Acquisition Logistics Fundamentals
Credit Hour(s) 2
Course provides an overview of the Department of Defense (DoD) Logistics process in systems acquisition life cycle and system engineering processes. Logistics includes relevant aspects of requirements planning, life cycle costing, integrated product and process development, sustainment and supportability analysis, product support and contractor support.
MAN 2247

2270 Management Internship
Credit Hour(s) 2
Students earn credit 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 term. Twenty hours per week in the workplace.
BIS 1120 and MAN 2150 and MRK 2101 and MAT 2170 and additional nine hours of MAN/ MRK courses

2279 Business Management Capstone
Credit Hour(s) 3
Assessment of achievement by Business Management degree students in attaining program outcomes by employing reflective learning through demonstration of management-related principles and practices.
BIS 1120 and MAN 2150 and MRK 2101 and MAT 2170 and additional nine hours of MAN/ MRK courses

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Medical Assistant Technology (MAS)

1101 Introduction to Medical Assisting
Credit Hour(s) 3
Overview of the role of a medical assistant within the health care industry and different work environments, as well as the fundamentals of medical ethics and law in the medical office setting.
ALH 1101 and SCC 1101

1102 Clinical Medical Assisting I
Credit Hour(s) 3
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, pediatric health fair, theory and techniques of Basic Life Support as established by the American Heart Association. Two classroom, three lab hours per week.
BIO 1121 and Approval of Department

1103 Clinical Medical Assisting II
Credit Hour(s) 4
Intermediate-level clinical procedures performed in a family practice setting such as medical microbiology, minor office surgery, administering therapeutic modalities, preparing and administering medications, electrocardiography, techniques required for patient assessment and treatment during medical office emergencies and the role of the medical assistant in urgent situations with the physician present and also during the physician's absence. Two classroom, six lab hours per week.
MAS 1102 and MAT 1130 or MAT 1270 and Restricted to Majors

1110 Administrative Medical Assisting I
Credit Hour(s) 2
Administrative duties in a physician's office, including monitoring patient appointments, outpatient procedures, hospital admissions, medical and office equipment maintenance, storing supplies and pharmaceuticals, hiring, evaluating and managing personnel. One classroom, three lab hours per week.
MAS 1101 and ENG 1101

2201 Clinical Medical Assisting III
Credit Hour(s) 4
Techniques required to perform advanced/ specialized procedures such as assisting with sigmoidoscopy, basic respiratory procedures, OB/GYN procedures, physical agents to promote tissue healing, basic nutrition and laboratory procedures. Two classroom, six lab hours per week.
MAS 1103 and ALH 1140 and ALH 2202 and Restricted to Majors

2202 Medical Assisting Capstone
Credit Hour(s) 1
Discussion of directed practice experience, preparation for the American Association of Medical Assistants (AAMA) National Certification Examination through student presentations, mock exam, skills practicals and discussion topics relative to the medical assisting profession. Three lab hours per week.
MAS 2201 and MAS 2202 and MAS 2210 and Restricted to Majors

2210 Medical Billing Specialist
Credit Hour(s) 2
This course is designed to introduce the student to the practice of medical billing within the medical office, including the use of computerized medical billing software. It is also designed to introduce the student to the principles of bookkeeping, automated and manual patient financial accounting, collection techniques, employee payroll and banking procedures. One classroom, three lab hours per week.
HIM 1201

2220 MAS Practicum I
Credit Hour(s) 2
Introduction to the ambulatory care clinical setting involving structured observation and unpaid 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 examination, scheduling appointments, bookkeeping tasks. One classroom, seven practicum hours per week.
MAS 1103 and MAS 1110 and Restricted to Majors

2221 MAS Practicum II
Credit Hour(s) 4
Advanced experience in a physician's office, involving structured observations and unpaid 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 classroom, twenty-one practicum hours per week.
MAS 2201 and MAS 2210 and MAS 2220

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Mathematics (MAT)

1110 Math for Technologists
Credit Hour(s) 3
Compute with fractions, decimals, percentages and proportions to solve applications in technology; geometry; convert within and between metric and English systems of measurement; read and interpret measurement tools and gauges; simplify algebraic expressions, solve linear equations and graph linear equations.
DEV 0024 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1120 Business Math
Credit Hour(s) 3
Review of arithmetic, mathematics of finance, mathematics of trade, payroll, taxes, insurance, elementary statistics.
DEV 0024 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1130 Allied Health Math
Credit Hour(s) 3
Compute with fractions, decimals, percentages and proportions to solve allied health applications; convert within and between metric, household and apothecary systems; read and interpret allied health graphs, labels and forms; calculate and apply statistical concepts; solve problems involving scientific notation.
DEV 0024 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1270 Beginning Algebra
Credit Hour(s) 3
Brief review of pre-algebra skills; simplifying algebraic expressions; solving first-degree equations and applied problems; introduction to graphing and graphing lines; systems of linear equations in two and three variables and applied problems; first-degree inequalities and applied problems; compound inequalities and set operations; absolute value equations

and inequalities; two-variable inequalities and systems of inequalities and applied problems.
DEV 0026 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1280   Technical Mathematics I
Credit Hour(s) 4
Accuracy and precision with approximate numbers, geometry, functions, graphs, basic operations on polynomials, right-triangle trigonometry, systems of linear equations, factoring and quadratic equations. Scientific calculator required.
MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1290   Technical Mathematics II
Credit Hour(s) 4
Trigonometric functions of angles, radian measure, vectors, solving oblique triangles, graphs of trigonometric functions, inverse trigonometric functions, fractional exponents, complex numbers, exponential and logarithmic functions, systems of equations, theory of equations and fundamental trigonometric identities. Scientific calculator required.
MAT 1280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1295   Technical Mathematics III
Credit Hour(s) 5
Trigonometric identities, radical expressions, analytic geometry and the conic sections, polar coordinates, limits, differentiation, integration and numerical methods. Scientific calculator required.
MAT 1290 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1340   Mathematical Reasoning
Credit Hour(s) 4
This course integrates numeracy, proportional reasoning, algebraic reasoning and understanding of functions. An activity-based approach is used to explore numerical concepts, quantitative reasoning, graphical displays of data, proportional relationships in real-world problems, problem solving with equations and inequalities, functions and linear and exponential models.
DEV 0026 with a grade of C or better or satisfactory score on the Sinclair Community College mathematics placement test

1355   Intermediate Algebra I
Credit Hour(s) 3
Factoring; operations with polynomials and rational expressions; solving second-degree equations by factoring; operations with rational expressions; solving equations with rational expressions.
MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1365   Intermediate Algebra II
Credit Hour(s) 3
Operations with rational exponents, radical expressions and complex numbers; relations and functions; simplifying radical expressions; solving equations with radical expressions, quadratic equations by completing the square and the quadratic formula, equations quadratic in form; quadratic functions; variation.
MAT 1355 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1370   Intermediate Algebra
Credit Hour(s) 5
Factoring; operations with polynomials and rational expressions; solving second-degree equations by factoring; operations with rational exponents, radical expressions and complex numbers; relations and functions; simplifying radical expressions; solving equations with rational expressions, equations with radical expressions, quadratic equations by completing the square and the quadratic formula, equations quadratic in form; quadratic functions; variation.
MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1410   Numerical Concepts for Teachers
Credit Hour(s) 4
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.
MAT 1365 or MAT 1370 with a grade of C or better or satisfactory score on the Sinclair Community College mathematics placement test

1420   Algebra & Data Analysis for Teachers
Credit Hour(s) 4
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.
MAT 1410 with a grade of C or better

1430   Geometry & Measurement for Teachers
Credit Hour(s) 4
Introduction to 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.
MAT 1420 with a grade of C or better

1440   Excursions in Mathematics
Credit Hour(s) 3
A mathematics appreciation course designed as a terminal college-level mathematics course for Liberal Arts majors. The course will explore various applications of mathematics in the behavioral, computational, managerial and social sciences. Topics from probability and statistics, finance, graph theory, logic and other areas of mathematics will be covered.
MAT 1365 or MAT 1370 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1450   Introductory Statistics
Credit Hour(s) 4
An introduction to the fundamental ideas of statistics, including statistical methods to gather, analyze and present data; fundamentals of probability; statistical distributions, sampling distributions, confidence intervals, hypothesis testing, Chi-square tests, regression and correlation. Three classroom, two lab hours per week.
MAT 1365 or MAT 1370 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1460   Finite Mathematics for Business Analysis
Credit Hour(s) 4
Applications of finite mathematics and functions to business analysis. Functions, financial mathematics, systems, matrices, inequalities, linear programming, sets, permutations and combinations and elementary probability and statistics.
MAT 1365 or MAT 1370 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1470   College Algebra
Credit Hour(s) 4
Polynomial, radical, rational, exponential and logarithmic functions and their graphs; roots of polynomial functions, rational and polynomial inequalities; conic sections; systems of linear and nonlinear equations; matrices; sequences and series; and applications. A scientific (nongraphing) calculator is required in most sections; however, some sections will require the use of a graphing calculator.
MAT 1365 or MAT 1370 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1570   Trigonometry
Credit Hour(s) 3
Trigonometric functions of angles, solving right and oblique triangles, identities, trigonometric and inverse trigonomoetric equations, vectors, radian measure, graphs of trigonometric functions and inverse trigonometric functions.
MAT 1470 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1580   Precalculus
Credit Hour(s) 5
Polynomial, radical, rational, exponential and logarithmic functions and their graphs, roots of polynomial functions, rational and polynomial inequalities, conic sections, systems of linear equations; sequences and series. Trigonometric functions of angles, solving right and oblique triangles, trigonometric identities and equations, vectors, radian measure, graphs of trigonometric functions, inverse trigonometric functions and applications. A scientific (nongraphing) calculator is required.
Students may only take PreCalculus (MAT 1580) by attaining a satisfactory score on the Sinclair Community College Placement Test. The minimum score required to place

into PreCalculus is higher than the minimum score required to place into College Algebra (MAT 1470) and lower than the minimum score required to place into Trigonometry (MAT 1570).

2160   Calculus for Business & Economics
Credit Hour(s) 5
Functions and graphs, limits, continuity, derivatives, techniques of differentiation, applied problems in business and economics, exponential and logarithmic functions, techniques of integration, applications of integration, functions of two variables, partial derivatives and applications.
MAT 1460 or MAT 1470 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2170   Business Statistics I
Credit Hour(s) 4
Statistical techniques and methodology. Graphical and tabular presentation of data, probability, parameters, statistical distributions, sampling, confidence intervals and tests of hypotheses. Three classroom, two lab hours per week.
MAT 1460 or MAT 1470 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2180   Business Statistics II
Credit Hour(s) 3
Statistical inferences, including estimation, confidence intervals, and tests of hypotheses for means, standard deviations and proportions; analysis of variance; regression analysis; chi-square; business applications. Students will develop a basic competency using a computer spreadsheet to perform statistical calculations. Two classroom, two lab hours per week.
MAT 2170 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2270   Calculus & Analytic Geometry I
Credit Hour(s) 5
Cartesian coordinate system, functions, limits and continuity of functions, the derivative and its applications, the integral and the Fundamental Theorem of Calculus. Derivatives and integrals involving piecewise, polynomial, rational, algebraic, exponential, logarithmic, trigonometric, inverse trigonometric and hyperbolic functions and their inverses.
MAT 1295 or MAT 1570 or MAT 1580

with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2280   Calculus & Analytic Geometry II
Credit Hour(s) 5
Applications of the definite integral, techniques of integration, indeterminate form, L'Hopital's Rule, improper integrals, conic sections, infinite sequences and series, Taylor series, parametric equations, polar coordinates, solid analytic geometry, vectors in the plane and space, dot and cross product of two vectors.
MAT 2270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2290   Calculus & Analytic Geometry III
Credit Hour(s) 5
Lines, planes and surfaces in space, vector-valued functions, arc length and curvature. 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.
MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2310   Elementary Differential Equations
Credit Hour(s) 4
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.
MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2320   Linear Algebra
Credit Hour(s) 3
Systems of linear equations, matrices, determinants, linear transformations,

Euclidean n-space, coordinate vectors, abstract vector spaces, dimension and rank, eigenvalues and eigenvectors.

MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2330 Differential Equations & Linear Algebra
Credit Hour(s) 5

Ordinary differential equations of first and second order including, the Laplace transform, numerical approximation methods and applications. Vectors in Rn, systems of linear equations, systems of differential equations, matrices, linear transformations, subspaces, dimension and rank, coordinate vectors, determinants, eigenvalues, eigenvectors and abstract vector spaces.

MAT 2290 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

Engineering Technology Design (MEE)

2101 Statics for Engineers
Credit Hour(s) 3

Vectorial treatment of forces and moments. Analysis of trusses and frames. Centroids, friction and moment of inertia. Internal shear and moment for beams. Virtual work. This calculus-based course is designed for Engineering University Transfer students. Two classroom, two lab hours per week.

2201 Thermodynamics for Engineers
Credit Hour(s) 3

First and second laws of thermodynamics; thermodynamic properties of gases, vapors and gas-vapor mixtures; energy-systems analysis including power cycles, refrigeration cycles and air-conditioning processes. Introduction to thermodynamics of reacting mixtures.

MAT 2280

2297 Special Topics
Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

2301 Strength of Materials for Engineers
Credit Hour(s) 3

Stress and deformations, torsions, shear and moments in beams, stresses in beams, beam deflections, combined stresses and eccentric loading. Two classroom, two lab hours per week.

2401 Dynamics for Engineers
Credit Hour(s) 3

Kinematics of particles and rigid bodies; acceleration, work, energy, impulse and momentum of particles and rigid bodies. Two classroom, two lab hours per week.

MEE 2101

Mechanical Engineering Technology (MET)

1101 Introduction to Engineering Drafting
Credit Hour(s) 2

Interpretation of engineering drawings. Includes principles of orthographic projection, drafting symbols, surface finish symbols, welding symbols and geometric dimensioning and tolerancing symbols. One classroom, two lab hours.

1111 Preparatory Math for Engineering Technology
Credit Hour(s) 3

Mathematics for engineering technology students to prepare them for critical thinking, analytical reasoning and problem solving. Students will apply math to typical engineering technology problems from a variety of fields. Two classroom, two lab hours per week.

MAT 1270

1131 Personal Computer Applications for Engineering Technology
Credit Hour(s) 1

Applied computer tools to solve engineering technology problems, emphasizing the integration of word processing, spreadsheets, presentation software and engineering research skills using the Internet. Applications of an integrated approach to research papers, engineering technology analysis, technical laboratory reports and technical presentations. One-half classroom, one and one-half lab hours per week.

DEV 0012 and DEV 0022

1151 Guitar Manufacturing using Science, Technology, Engineering, & Mathematics (STEM) Concepts
Credit Hour(s) 3

This course looks at the design elements, manufacturing and assembly of solid-body electric guitars. Science, Technology, Engineering & Mathematics (STEM) concepts that relate directly to guitars are used to help students make an applied learning connection. Two classroom, two lab hours per week.

1161 Advanced Analytical Tools for Engineering Technology
Credit Hour(s) 1

Introduction to computer-based solution of engineering and engineering technology problems. Includes the fundamentals and applications of computer-based software (MathCAD) and integration with other software for documentation of work, including proper use of units and unit systems. Software solution applications include graphing functions and data, basic statistical calculations, use of matrices, vectors, solution of simultaneous and an introduction to Boolean logic. One-half classroom, one and one-half lab hours per week.

MET 1131 and MAT 1280 or MAT 2270

1201 Introduction to Engineering Design using Inventor
Credit Hour(s) 2

Applying the process of designing and developing designs, products and solutions to problems. Parametric 3D CAD modeling creating parts, assemblies and detail drawings with dimensions to effectively communicate ideas. One classroom, two lab hours per week.

MAT 1270

1241 Principles of Engineering
Credit Hour(s) 2

Development of student understanding of the engineering and engineering technology fields through applied math, science and technology principles. Introductory looks into the applied learning of mechanics, strength of materials, free body diagrams and forces. One classroom, two lab hours per week.

MET 1201 and MAT 1280 or MAT 1470

1281 Engineering Design & Development
Credit Hour(s) 2

An engineering research course where student teams develop a plan, design, construct and present a solution to an open-ended engineering problem using the skills developed in the program. Time management tools, teaming skills, fabrication and parametric Computer Aided Drafting (CAD) skills are applied. One classroom, two lab hours per week.

MET 1241

1301   SolidWorks Basics
Credit Hour(s) 3
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. One classroom, six lab hours per week.
MET 1101

1331   Unigraphics Basics
Credit Hour(s) 3
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. One classroom, six lab hours per week.
MET 1101

1351   Solid Edge Basics
Credit Hour(s) 3
A computer-aided drafting course using Solid Edge software 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. One classroom, six lab hours per week.
MET 1101

1371   CAD Concepts using AutoCAD
Credit Hour(s) 3
Computer-aided drafting using the latest release of AutoCAD. Topics include: drawing and editing tools, two- and three-dimensional drawing, drawing layouts, scaling, dimensioning techniques and plotting. Two classroom, two lab hours per week.

2101   Thermodynamics
Credit Hour(s) 3
The laws and application of the principles of thermodynamics as they apply to internal combustion engines, steam cycles and refrigeration.

2151   Material Science
Credit Hour(s) 3
Terminology, designations of metals and the relationship among the properties of metals, the environment and heat treatment processes. Selecting and testing materials. Factors related to the selection of nonmetallic materials and the relationship between the nature of the materials and their properties. Thermoplastics, themosetting, ceramics, composites and glasses are included. Two classroom, two lab hours per week.
MET 1101 and PHY 1131 or PHY 1141 and CHE 1111

2201   Statics
Credit Hour(s) 3
Analysis of various types of two and three dimensional force systems, analysis of trusses, frames, friction, center of gravity and moment of inertia. Two classroom, three lab hours per week.
MAT 1290 or MAT 1570 and PHY 1131 or PHY 1141

2251   Strength of Materials
Credit Hour(s) 3
Stress and deformations, torsions, shear and moments in beams, stresses in beams, beam deflections, combined stresses. Two classroom, two lab hours per week.
MET 2201

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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.

2301   Fluid Mechanics
Credit Hour(s) 3
Essentials of fluid properties, fluid statics, flow measurements, force of a fluid jet, open channel flow and losses through flow in pipes. Two classroom, two lab hours per week.
MET 2201

2351   Dynamics
Credit Hour(s) 3
Kinematics and kinetics of rectilinear motion, curvilinear motion and rotation; plane motion, work, energy, power, impulse and momentum. Two classroom, two lab hours per week.
MET 2201

2401   Machine Design
Credit Hour(s) 3
Design and evaluation 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 presentation and written report is required. Two classroom, three lab hours per week.
MET 2251 and PHY 1131

2700   Mechanical Engineering Technology Internship
Credit Hour(s) 1 to 4   R
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 term. Ten work hours per week per credit hour.

2711   Ethics for Engineering Technology Professionals
Credit Hour(s) 1
Instruction 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-half classroom, one and one-half lab hours per week.
Sophomore status

2780   Mechanical Engineering Technology Capstone
Credit Hour(s) 4
Assessment of achievement by Mechanical Engineering Technology students in attaining program outcomes by completing a project demonstrating principles and practice of the major. Teamwork on projects will be emphasized. Two classroom, four lab hours per week.
Approval of Department

Mental Health Technology (MHT)

1101   Introduction to Human Services & Behavioral Health
Credit Hour(s) 2
Introduction to the field of human services and behavioral health. History and development of human services. Exploration of service delivery, roles, trends and career opportunities. Ethical/legal/professional behaviors. Technical terms. Self-awareness regarding values and biases. Examination of human services as a personal career choice.
DEV 0012 and DEV 0032

1130   Introduction to Addictive Illness
Credit Hour(s) 3
Theories and fundamentals of addictive illness and physical/mental effects of psychoactive drugs. Dynamics of addictive illness on persons, families and society. Knowledge of disease concept, stigmas, identification, assessment, trends in treatment and relapse process. Develop insights, challenge biases and identify personal and professional issues.

Elements of professional/ethical behaviors.
DEV 0012 and DEV 0032

1155 Administration of Activity Programming I
Credit Hour(s) 4

This course will cover an introduction to activity practice settings, colloquy, professional framework, governmental regulations and advocacy common to this industry. In addition, this class will survey behavioral sciences and the adult client population as it pertains to senior adult models of care and the life course. Three classroom, three clinical hours (meets NCCAP practicum requirement) per week.

1200 Social Casework
Credit Hour(s) 2

Basic principles and skills for the professional helping relationship. Relationship and multicultural issues in professional practice. Casework problem-solving model of assessment, goals and action plan is applied.
MHT 1101

1201 Interviewing Skills
Credit Hour(s) 3

Basic interviewing, active listening skills, elements of the helping relationship, professional ethics and issues. Practice in conducting interviews. Cultural factors in interviewing. Introduction to Motivational Interviewing. Health Information Portability and Accountability Act (HIPAA) privacy law.
MHT 1101 and Restricted to Majors

1203 Professional Documentation
Credit Hour(s) 1

Functional, legal and ethical aspects of documentation including mechanics of writing problem statements, intake and progress notes. Documentation systems.
MHT 1101 and Restricted to Majors

1236 Assessment & Diagnosis of Substance Use Disorders
Credit Hour(s) 3

Holistic assessment and diagnosis of substance use disorders. Assessment skill development. Use of and interpretation of assessment instruments. Use of current Diagnostic and Statistical Manual (DSM) criteria related to substance use disorders.
MHT 1130 and Restricted to Majors

1256 Administration of Activity Programming II
Credit Hour(s) 4

Refine person-centered care with adult client population. Care planning practices. Care giving practices. Contrast different possibilities for group settings and calendar production. Activity service standards and design elements for risk management. Policy and procedural development. Three classroom, three clinical hours per week (NCCAP requirements met).
MHT 1155

2105 Psychosocial Methods
Credit Hour(s) 3

Applying advanced clinical interventions and treatment modalities for various client populations. Cognitive behavioral therapy and motivational interviewing are emphasized. Examining the nature of selected mental disorders from the current Diagnostic and Statistical Manual (DSM).
MHT 1200 and PSY 2217 and Restricted to Majors

2111 Group Dynamics I
Credit Hour(s) 3

Introduction to interpersonal dynamics in therapeutic groups. Awareness of group leadership skills and personal issues affecting participation. Laboratory group promotes personal learning while providing experiential awareness of stages of group development. History of the group work method. Factors in group composition. Professional ethics. Practice in group facilitation. Two classroom, two lab (MHT 2112) hours per week.
MHT 1201 and Restricted to Majors

2112 Lab for Group Dynamics I
Credit Hour(s) 0

2121 Practicum I
Credit Hour(s) 5

First of two field experiences in human service delivery. Professional documentation and refinement of interviewing skills. Pharmacology in behavioral health. Three classroom, fourteen practicum hours per week.
MHT 1201 and Restricted to Majors

2137 Treatment Techniques in Substance Use Disorders
Credit Hour(s) 3

Contemporary holistic treatment methods, including motivational interviewing. Models of treatment with individual, group, case management, intervention and families. Levels of care and stages of recovery. Ethical, legal and professional behaviors.
MHT 1236 and Restricted to Majors

2138 Ethical Issues in Behavioral

Healthcare
Credit Hour(s) 2

Ethical codes and responsibilities in the human services field. Federal Confidentiality Regulations, case law, scope of practice, expectations of funding bodies and managed care. Principles of professional behavior with clients and self-awareness of their personal boundary and value concerns. Importance of cultural diversity.
Restricted to Majors

2211 Group Dynamics II
Credit Hour(s) 3

Stages of group development, process planning, and group leadership skills. Advanced practice in group co-facilitation and critical analysis of group processes. Curative factors in groups. Laboratory group promotes personal learning while providing experiential awareness of group dynamics and stages of group development. Two classroom, two lab (MHT 2212) hours per week.
MHT 2111 and Restricted to Majors

2212 Lab for Group Dynamics II
Credit Hour(s) 0

2222 Practicum II
Credit Hour(s) 5

Second of two semesters of field experience in human service delivery. Refinement of clinical documentation and clinical interviewing skills. Three classroom, fourteen practicum hours per week.
MHT 2121 and Restricted to Majors

2232 Community Support
Credit Hour(s) 2

Philosophy, knowledge and skill components to effectively implement community support services. Content and guidelines authorized by the Ohio Department of Mental Health and ethical standards for the profession. Components of recovery and resiliency models and motivational interviewing.
Restricted to Majors

2235 Family Dynamics of Addiction
Credit Hour(s) 3

Impact of substance use disorders on individual family members and overall family functioning. Focuses on the nature of addiction as a disease, its progression, symptoms and treatments. The nature of codependency is discussed. Insight is gained by the students regarding their biases about the disease of addiction.

MHT 1130 and Restricted to Majors

2239 Dual Diagnosis
Credit Hour(s) 2

Treatment of persons with substance use disorders and mental illness. Unique challenges and effective treatment models for client population are explored. Stages of Change and Motivational Interviewing. Community and support resources.
MHT 1130 and Restricted to Majors

2245 Mental Health & the Family
Credit Hour(s) 3

Underlying dynamics and interactional patterns in the functioning of the family system. The impact of family dysfunction upon children, parents and the family system. Issues and trends facing contemporary families and methodologies of clinical intervention are highlighted.
ENG 1101 and MHT 2105 and Restricted to Majors

2250 Child & Adolescent Mental Health
Credit Hour(s) 3

Mental health and mental ill-health issues related to childhood and adolescents. Etiology and treatment approaches.

2252 Issues in Behavioral Health
Credit Hour(s) 1 to 3   R

Mental Health Technology elective course examining current social policies, best practices, and innovations and methods of treatment in behavioral health and human services.

2253 Issues in Chemical Dependency
Credit Hour(s) 1 to 3   R

Current research and issues regarding special populations. Trends and best practices in addictions.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

Marketing (MRK)

2101 Principles of Marketing Management
Credit Hour(s) 3

Marketing strategies and decision making in the context of other business functions. Topics include: research and analysis of markets, environments and competition; market segmentation and selection of target markets; consumer and organizational behavior; planning and integration of product, price, promotion and distribution activities for profit and nonprofit, domestic and global settings.
ECO 2180

2102 Principles of Advertising
Credit Hour(s) 3

This course focuses on 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.

2135 Digital Marketing
Credit Hour(s) 3

Explore existing and emerging technologies and approaches used by successful digital marketers to acquire, cultivate and measure customer relationships. Topics such as social media, search engines, email, internet marketing, content management, emerging media and metrics will be studied.

2145 Principles of Retailing
Credit Hour(s) 3

Functions and concepts for the retail organization. Development and implementation of policies and procedures in planning, pricing, display, layout, buying and services from a management perspective. A consumer-centered approach to examining problems of various types.

2220 Solutions Studio
Credit Hour(s) 3

This course explores the marketing strategy and planning process. Special emphasis is given to analyzing marketing techniques used by innovative entrepreneurs. Students will work collaboratively to develop a marketing plan for a start-up or existing business.

2225 Sales Fundamentals
Credit Hour(s) 3

Along with exploring potential career opportunities, this course introduces students to the approaches and philosophies used by successful sales professionals. Topics such as identifying and communicating with prospects, identifying needs, matching presentation styles to the situation, handling objections, closing techniques and long-term relationship building strategies will be explored.

2297 Special Topics
Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

Music (MUS)

1101 Introduction to Music
Credit Hour(s) 3

Fundamentals of music theory including notation of pitches, rhythms, scales, intervals, triads and chords.

1102 Introduction to Aural Skills
Credit Hour(s) 3

Fundamentals of sight singing, dictation, ear training including reading, hearing and notating rhythms, melodies and intervals.

1103 Sight-Singing for Singers
Credit Hour(s) 1

Developing and understanding of solfeggio through the practice and drill of singing exercises utilizing the syllables and hand signals of Solmization to recognize the notes, rhythms and intervals important to basic sight-reading skills.

1110 Music Technology for Music Majors
Credit Hour(s) 1

Introduction to technology resources used by music majors and future musicians. Typical music studio set-up. Sinclair systems (Angel), music notation software (Finale), MIDI (Cakewalk express), and digital audio recording (Audacity).

1111 Music Theory I
Credit Hour(s) 3

First in a sequence of four music theory courses. Focus placed on diatonic melodic and harmonic structures, including scales and modes, intervals, tonality and keys, melodic organization, voice leading, instrument and voice ranges, transposition, triads and seventh chords. Activities include musical composition, analysis, listening, discussion and computer work.
MUS 1101 and Approval of Department

1112 Aural Skills I
Credit Hour(s) 1

First in a sequence of four aural skills courses. Focus placed on diatonic melodic and harmonic structures within a more basic rhythmic environment. Practical transcription and singing skills are systematically studied. Activities include dictation of intervals, chords,

melodies, harmonic progressions and rhythms, as well as singing of intervals, melodies and rhythms.
Approval of Department

1113   Music Theory II
Credit Hour(s) 3
Second in a sequence of four music theory courses. Focus placed on diatonic and chromatic melodic and harmonic structures, including voice leading, seventh chords, modulation, secondary dominant-functioning chords and binary and ternary forms. Activities include musical composition, analysis, listening, discussion and computer work.
MUS 1111

1114   Aural Skills II
Credit Hour(s) 1
Second in a sequence of four aural skills courses. Focus placed on diatonic melodic and harmonic structures within a more challenging rhythmic environment. Practical transcription and singing skills systematically studied. Activities include interval, chord, melodic, harmonic progression and rhythm dictation, as well as singing of intervals, melodies and rhythms.
MUS 1101

1115   Piano for Music Majors I
Credit Hour(s) 1
First semester of a four-semester sequence for nonpianist music majors. Instruction in correct piano playing techniques with emphasis on skills needed by future music educators.
MUS 1101

1116   Piano for Music Majors II
Credit Hour(s) 1
Second semester of a four-semester sequence for nonpianist music majors. Continued instruction in correct piano playing techniques with emphasis on early intermediate repertoire. The integration of circle of fifths with the playing of all major and minor scales, chords and arpeggios is also stressed.

1117   Vocal Diction I
Credit Hour(s) 3
Italian and German diction, studied with emphasis on correct pronunciation, with regard to clarity, expressiveness, fundamentals of the International Phonetic Alphabet and sound production as applied to singing and reading.
Permission of Instructor

1118   Vocal Diction II
Credit Hour(s) 3
German and French diction, studied with emphasis on correct pronunciation, with regard to clarity, expressiveness, fundamentals of the International Phonetic Alphabet and sound production as applied to singing and reading.
MUS 1117 or Permission of Instructor

1119   Secondary Voice I
Credit Hour(s) 1   R
Private instruction in Applied Voice is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements vary per term, according to the singing ability of the student. Secondary Voice is the required minor instrument for pianists and organists who are seeking an associate degree in music. Four semesters are required; MUS 1119 is the first of these.
Approval of Department

1120   Secondary Voice II
Credit Hour(s) 1   R
Private instruction in Applied Voice is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements vary per term, according to the singing ability of the student. Secondary Voice is the required minor instrument for pianists and organists who are seeking an associate degree in music. Four semesters are required; MUS 1120 is the second of these.
Approval of Department

1121   Music Appreciation
Credit Hour(s) 3
Basic parameters of music through a survey of styles from Gregorian Chant to jazz and current popular styles focusing on melody, rhythm, harmony, performance media and form.

1122   History of Pop/Rock Music
Credit Hour(s) 3
The musical reasons and social conditions under which pop music and rock music have developed, with particular emphasis on music from 1955 until the present. The personalities, events and music that shaped this music and which continue to evolve today.

1131   Chorale I
Credit Hour(s) 1   R
Large select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Approval of Instructor

1132   Chorale II
Credit Hour(s) 1   R
Large select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

1133   Chamber Choir I
Credit Hour(s) 1   R
Small select SATB (soprano-alto-tenor-bass) choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Audition Required

1134   Chamber Choir II
Credit Hour(s) 1   R
Small select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Audition Required

1135   Women's Ensemble I
Credit Hour(s) 1   R
Three-part female choral ensemble specializing in the performance of significant choral repertoire for women's voices, representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

1136   Women's Ensemble II
Credit Hour(s) 1   R
Three-part female choral ensemble specializing in the performance of significant choral repertoire for women's voices representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

1137   Men's Ensemble I
Credit Hour(s) 1   R
The performance and presentation of choral literature written for male voices from all musical periods. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

1138   Men's Ensemble II
Credit Hour(s) 1   R
The performance and presentation of choral literature written for male voices from all musical periods. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

1139   Contemporary Gospel Ensemble I
Credit Hour(s) 1   R
The performance and presentation of mixed-voice choral literature from the African-American, spiritual and contemporary worship and praise music tradition. The ensemble will present at least one public concert per semester.
Audition/Permission of Instructor

1140   Contemporary Gospel Ensemble II
Credit Hour(s) 1   R
The performance and presentation of mixed voice choral literature from the African-American, spiritual, and contemporary worship and praise music tradition. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

1141   Wind Symphony I
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large and small group wind repertoire. Public performance is a major part of course activities.
Audition Required

1142   Wind Symphony II
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large and small group wind repertoire. Public performance is a major part of course activities.
Audition Required

1143   Concert Band I
Credit Hour(s) 1
Concentration on instrumental problems and techniques. Development of large concert band repertoire. Public performance is a major part of course activities.
Audition Required

1144   Concert Band II
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large concert band repertoire. Public performance is a major part of course activities.
Audition Required

1145   Classical Guitar Ensemble I
Credit Hour(s) 1   R
The study and performance of selected classical guitar ensemble literature. The size of the ensemble and the respective backgrounds of its players will determine the performance level of the repertoire. End-of-term performance.
Permission of Instructor

1146   Classical Guitar Ensemble II
Credit Hour(s) 1   R
The study and performance of selected classical guitar ensemble literature. The size of the ensemble and the respective backgrounds of its players will determine the performance level of the repertoire. End-of-term performance.

1147   Jazz Ensemble I
Credit Hour(s) 1   R
Big band jazz ensemble open to college and community musicians. Concerts and appearances are scheduled during academic year.
Audition Required

1148   Jazz Ensemble II
Credit Hour(s) 1   R
Big band jazz ensemble open to college and community musicians. Concerts and appearances are scheduled during academic year.
Audition Required

1149   Jazz Combo I
Credit Hour(s) 1   R
Small jazz group, limited to ten or fewer players. Development of basic jazz performance skills, including improvisation. Concerts scheduled near end of terms.
Audition Required

1150   Jazz Combo II
Credit Hour(s) 1   R
Small jazz group, limited to ten or fewer players. Development of basic jazz performance skills including improvisation. Concerts scheduled near end of terms.
Audition Required

1151   Concert Handbell Choir I
Credit Hour(s) 1   R
The 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.
Audition Required

1152   Concert Handbell Choir II
Credit Hour(s) 1   R
The 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.
Audition Required

1153   Piano Ensemble I
Credit Hour(s) 1   R
The learning of piano duets and duos for advanced students only. Public performance a primary goal. Familiarization with major composers and repertoire for piano ensemble performance.
Permission of Instructor

1154   Piano Ensemble II
Credit Hour(s) 1   R
The learning of piano duets and duos for advanced students only. Public performance a primary goal. Familiarization with major composers and repertoire for piano ensemble performance.
Permission of Instructor

1171   Piano Class
Credit Hour(s) 3
Basic music reading skills and correct piano playing techniques acquired in a group setting. Simple chords and pieces. No piano playing or musical experience required.

1172   Voice Class
Credit Hour(s) 3
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.

1173   Guitar Class I
Credit Hour(s) 1
Fundamental study of guitar playing techniques. Students must provide their own acoustic instruments.(Electric guitars are not appropriate.)

1174   Guitar Class II
Credit Hour(s) 1
Continuation of Guitar Class I with additional keys learned and more ensemble playing. Students must provide their own acoustic instruments. (Electric guitars are not appropriate.)
MUS 1173

1500   Applied Piano for Non-Majors

Credit Hour(s) 1   R

Private instruction in piano is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1501   Applied Voice for Non-Majors

Credit Hour(s) 1   R

Private instruction in voice is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1502   Applied Classical Guitar for Non-Majors

Credit Hour(s) 1   R

Private instruction in classical guitar is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1503   Applied Flute for Non-Majors

Credit Hour(s) 1   R

Private instruction in flute is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1504   Applied Clarinet for Non-Majors

Credit Hour(s) 1   R

Private instruction in clarinet is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1505   Applied Saxophone for Non-Majors

Credit Hour(s) 1   R

Private instruction in saxophone is given on the basis of one credit for 30-minute

lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1506   Applied Oboe for Non-Majors

Credit Hour(s) 1   R

Private instruction in oboe is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1507   Applied Bassoon for Non-Majors

Credit Hour(s) 1   R

Private instruction in bassoon is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1508   Applied Trumpet for Non-Majors

Credit Hour(s) 1   R

Private instruction in trumpet is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1509   Applied Trombone for Non-Majors

Credit Hour(s) 1   R

Private instruction in trombone is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1510   Applied French Horn for Non-Majors

Credit Hour(s) 1   R

Private instruction in french horn is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1511   Applied Baritone Horn for Non-Majors

Credit Hour(s) 1   R

Private instruction in baritone horn is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1512   Applied Tuba for Non-Majors

Credit Hour(s) 1   R

Private instruction in tuba is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1513   Applied Violin for Non-Majors

Credit Hour(s) 1   R

Private instruction in violin is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1514   Applied Viola for Non-Majors

Credit Hour(s) 1   R

Private instruction in viola is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1515   Applied Cello for Non-Majors

Credit Hour(s) 1   R

Private instruction in cello is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.

Approval of Department

1516   Applied String Bass for Non-Majors

Credit Hour(s) 1   R

Private instruction in string bass is given on the basis of one credit for 30-minute

lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1517   Applied Percussion for Non-Majors
Credit Hour(s) 1   R
Private instruction in percussion is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1518   Applied Organ for Non-Majors
Credit Hour(s) 1   R
Private instruction in organ is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1519   Applied Harpsichord for Non-Majors
Credit Hour(s) 1   R
Private instruction in harpsichord is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1520   Applied Popular Guitar for Non-Majors
Credit Hour(s) 1   R
Private instruction in popular guitar is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1521   Applied Electric Bass for Non-Majors
Credit Hour(s) 1   R
Private instruction in electric bass is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1522   Applied Jazz Drumming for Non-Majors
Credit Hour(s) 1   R
Private instruction in jazz drumming is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

1523   Applied Jazz Piano for Non-Majors
Credit Hour(s) 1   R
Private instruction in jazz piano is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements according to advancement of student.
Approval of Department

2111   Music Theory III
Credit Hour(s) 3
Third in a sequence of four music theory courses. Focus will be placed on more advanced chromatic melodic and harmonic structures, including borrowed chords, the Neapolitan chord and augmented-sixth chords. Activities include musical composition, analysis, listening, discussion and computer work.
MUS 1113

2112   Aural Skills III
Credit Hour(s) 1
Third in a sequence of four aural skills courses. Focus placed on chromatic melodic and harmonic structures within a challenging rhythmic environment. Practical transcription and singing skills systematically studied. Activities include interval, chord, melodic, harmonic progression and rhythm dictation, as well as singing of intervals, melodies and rhythms.
MUS 1114

2113   Music Theory IV
Credit Hour(s) 3
Final course in a sequence of four music theory courses. Focus placed on advanced chromatic melodic and harmonic structures, including extended harmony, altered dominant chords, chromatic mediants, sonata and rondo forms, late 19th-century and contemporary techniques. Activities include musical composition, analysis, listening, discussion and computer work.
MUS 2111

2114   Aural Skills IV
Credit Hour(s) 1
Last in a sequence of four aural skills courses. Focus placed on advanced chromatic melodic and harmonic structures within an advanced rhythmic environment. Practical transcription and singing skills systematically studied. Activities include interval, chord, melodic, harmonic progression and rhythm dictation, as well as singing of intervals, melodies and rhythms.
MUS 2112

2115   Piano for Music Majors III
Credit Hour(s) 1
Third semester of a four-semester sequence for nonpianist music majors. Transposition and harmonization are emphasized.
MUS 1116

2116   Piano for Music Majors IV
Credit Hour(s) 1
Fourth semester of a four-semester sequence for nonpianist music majors. Sight reading and vertical four-part reading are emphasized. A comprehensive review of the skills acquired during the four-semester sequence precedes a year-end assessment of all these skills.
MUS 2115

2117   Survey of Musical Styles I
Credit Hour(s) 3
The historical styles of Western music in chronological sequence through analysis of various musical compositions and musical forms from the Medieval, Renaissance, Baroque and Classical eras.
MUS 1112 and ENG 1201 and Approval of Department

2118   Survey of Musical Styles II
Credit Hour(s) 3
The historical styles of Western music in chronological sequence through analysis of various musical compositions and musical forms from the early 19th century to contemporary times, including the Romantic, Modern and 20th-century eras.
MUS 2117 and Approval of Department

2119   Secondary Voice III
Credit Hour(s) 1   R
Private instruction in Applied Voice is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements vary per term, according to the singing ability of the student. Secondary Voice is the required minor instrument for pianists and organists who are

seeking an associate degree in music. Four semesters are required; MUS 2119 is the third of these.
Approval of Department

2120   Secondary Voice IV
Credit Hour(s) 1   R
Private instruction in Applied Voice is given on the basis of one credit for 30-minute lessons for 15 weeks, with an expectation of 45 minutes per day of practice. Repertoire and technical requirements vary per term, according to the singing ability of the student. Secondary Voice is the required minor instrument for pianists and organists who are seeking an associate degree in music. Four semesters are required; MUS 2120 is the fourth of these.
Approval of Department

2131   Chorale III
Credit Hour(s) 1   R
Large select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

2132   Chorale IV
Credit Hour(s) 1   R
Large select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.

2133   Chamber Choir III
Credit Hour(s) 1   R
Small select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Audition Required

2134   Chamber Choir IV
Credit Hour(s) 1   R
Small select SATB (soprano-alto-tenor-bass)choral ensemble specializing in the performance of significant choral repertoire representing varied styles, historical periods and languages. School and public performances required.
Audition Required

2135   Women's Ensemble III
Credit Hour(s) 1   R
Three-part female choral ensemble specializing in the performance of significant choral repertoire for women's voices representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

2136   Women's Ensemble IV
Credit Hour(s) 1   R
Three-part female choral ensemble specializing in the performance of significant choral repertoire for women's voices representing varied styles, historical periods and languages. School and public performances required.
Permission of Instructor

2137   Men's Ensemble III
Credit Hour(s) 1   R
The performance and presentation of choral literature written for male voices from all musical periods. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

2138   Men's Ensemble IV
Credit Hour(s) 1   R
The performance and presentation of choral literature written for male voices from all musical periods. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

2139   Contemporary Gospel Ensemble III
Credit Hour(s) 1   R
The performance and presentation of mixed voice choral literature from the African-American, spiritual, and contemporary worship and praise music tradition. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

2140   Contemporary Gospel Ensemble IV
Credit Hour(s) 1   R
The performance and presentation of mixed voice choral literature from the African-American, spiritual, and contemporary worship and praise music tradition. The ensemble will present at least one public concert per semester.
Audition and/or Permission of Instructor

2141   Wind Symphony III
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large and small group wind repertoire. Public performance is a major part of course activities.
Audition Required

2142   Wind Symphony IV
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large and small group wind repertoire. Public performance is a major part of course activities.
Audition Required

2143   Concert Band III
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large concert band repertoire. Public performance is a major part of course activities.
Audition Required

2144   Concert Band IV
Credit Hour(s) 1   R
Concentration on instrumental problems and techniques. Development of large concert band repertoire. Public performance is a major part of course activities.
Audition Required

2145   Classical Guitar Ensemble III
Credit Hour(s) 1   R
The study and performance of selected classical guitar ensemble literature. The size of the ensemble and the respective backgrounds of its players will determine the performance level of the repertoire. End-of-term performance.
Permission of Instructor

2146   Classical Guitar Ensemble IV
Credit Hour(s) 1   R
The study and performance of selected classical guitar ensemble literature. The size of the ensemble and the respective backgrounds of its players will determine the performance level of the repertoire. End-of-term performance.
Permission of Instructor

2147   Jazz Ensemble III
Credit Hour(s) 1   R
Big band jazz ensemble open to college and community musicians. Concerts and appearances are scheduled during academic year.
Audition Required

2148   Jazz Ensemble IV
Credit Hour(s) 1   R
Big band jazz ensemble open to college and community musicians. Concerts and appearances are scheduled during academic year.
Audition Required

2149   Jazz Combo III
Credit Hour(s) 1   R
Small jazz group, limited to ten or fewer players. Development of basic jazz performance skills including improvisation. Concerts scheduled near end of terms.
Audition Required

2150   Jazz Combo IV
Credit Hour(s) 1   R
Small jazz group, limited to ten or fewer players. Development of basic jazz performance skills including improvisation. Concerts scheduled near end of terms.
Audition Required

2151   Concert Handbell Choir III
Credit Hour(s) 1   R
The 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.
Audition Required

2152   Concert Handbell Choir IV
Credit Hour(s) 1   R
The 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.
Audition Required

2153   Piano Ensemble III
Credit Hour(s) 1   R
The learning of piano duets and duos for advanced students only. Public performance a primary goal. Familiarization with major composers and repertoire for piano ensemble performance.
Approval of Instructor

2154   Piano Ensemble IV
Credit Hour(s) 1   R
The learning of piano duets and duos for advanced students only. Public performance a primary goal. Familiarization with major composers and repertoire for piano ensemble performance.
Approval of Instructor

2210   Conducting Fundamentals
Credit Hour(s) 2
Fundamentals of conducting music ensembles with emphasis on basic baton technique, meters, cueing, addressing different styles, conducting terminology and score reading.
MUS 1113 and Approval of Department

2211Handbell Choir Conducting
Credit Hour(s) 1
Major factors associated with direction of handbell ensembles, emphasizing organization of choirs, performance pedagogy, conducting techniques, repertoire selection, performance aspects and care of equipment.

2240   Music Practicum
Credit Hour(s) 1   R
Music majors may receive credit for practical performance experiences such as performing in a (non-Sinclair) musical, opera, choral organization, etc. Arrangements must be made through department chairperson; only for those students who, due to scheduling impossibilities, cannot participate in Sinclair ensembles at their regularly scheduled times.

2251   Performance Class I
Credit Hour(s) 1   R
Performance repertoire from intermediate to advanced levels on one's instrument. Designed to anticipate and alleviate public performance problems. Emphasizing all aspects of technique and music. Also addressed: sight reading in public, memorization of scores and nervousness/anxiety caused by stage fright. Section 01 - Pianists; Section 02 - Singers; Section 03 - Guitarist
Permission of Instructor

2252   Performance Class II
Credit Hour(s) 1   R
Performance repertoire from intermediate to advanced levels on one's instrument. Designed to anticipate and alleviate public performance problems. Emphasizing all aspects of technique and music, sight reading, memorization of scores and nervousness/anxiety caused by stage fright. MUS 2252 can serve as the third and fourth semesters of one's enrollment in Performance Class. Multiple course numbers for Performance Class exist to avert potential loss-of-federal-funding issues due to repeatability of courses regulations.
Permission of Instructor

2253   Performance Class III
Credit Hour(s) 1   R
Performance repertoire from intermediate to advanced levels on one's instrument. Designed to anticipate and alleviate public performance problems. Emphasizing all aspects of technique and music, sight reading, memorization of scores and nervousness/anxiety caused by stage fright. MUS 2253 can serve as the fifth and sixth semesters of one's enrollment in Performance Class. Multiple course numbers for Performance Class exist to avert potential loss-of-federal-funding issues due to repeatability of courses regulations.
Permission of Instructor

2254   Performance Class IV
Credit Hour(s) 1   R
Performance repertoire from intermediate to advanced levels on one's instrument. Designed to anticipate and alleviate public performance problems. Emphasizing all aspects of technique and music, sight reading, memorization of scores and nervousness/anxiety caused by stage fright. MUS 2254 can serve as the seventh and eighth semesters of one's enrollment in Performance Class. Multiple course numbers for Performance Class exist to avert potential loss-of-federal-funding issues due to repeatability of courses regulations.
Permission of Instructor

2261   Applied Music Practicum I
Credit Hour(s) 2   R
Applied music study for early-intermediate or advanced-level instrumentalists or singers. Sixty minute lessons for 15 weeks. No student recital or board examination obligations (although recital performance is optional, according to the desire of student.) Indefinitely repeatable. section 01 - piano section 02 - voice section 03 - guitar Additional sections, representing other instruments, added each term as necessary.
Approval of Department

2262   Applied Music Practicum II
Credit Hour(s) 2   R
Applied music study for early-intermediate or advanced-level instrumentalists or singers. Sixty minute lessons for 15 weeks. No student recital or board examination obligations (although recital performance is optional, according to the desire of student.) MUS 2262 can represent the third and fourth semesters of one's enrollment in Applied Music Practicum.
Approval of Department

2263   Applied Music Practicum III
Credit Hour(s) 2   R
Applied music study for early intermediate or advanced level instrumentalists or singers. Sixty minute lessons for 15 weeks. No student recital or board examination obligations (although recital performance is optional, according to the desire of student.) MUS 2263 can represent the fifth and sixth semesters of one's enrollment in Applied Music Practicum.
Approval of Department

2264   Applied Music Practicum IV
Credit Hour(s) 2   R
Applied music study for early-intermediate or advanced-level instrumentalists or singers. Sixty minute lessons for 15 weeks. No student recital or board examination obligations (although recital performance is optional, according to the desire of student.) MUS 2264 can represent the seventh and eighth semesters of one's enrollment in Applied Music Practicum.
Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2500   Applied Piano for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Piano for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2500 is the first and second semesters of four required semesters of applied piano study.
Approval of Department and Restricted to Majors

2501   Applied Piano for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Piano for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2501 is the third and fourth semesters of four required semesters of applied piano study.
Approval of Department and Restricted to Majors

2502   Applied Voice for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Voice for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2502 is the first and second semesters of four required semesters of applied voice study.
Approval of Department and Restricted to Majors

2503   Applied Voice for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Voice for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2503 is the third and fourth semesters of four required semesters of applied voice study.
Approval of Department and Restricted to Majors

2504   Applied Classical Guitar for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Classical Guitar for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2504 is the first and second semesters of four required semesters of applied classical guitar study.
Approval of Department and Restricted to Majors

2505   Applied Classical Guitar for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Classical Guitar for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2505 is the third and fourth semesters of four required semesters of applied classical guitar study.
Approval of Department and Approval of Division Advisor and Restricted to Majors

2506   Applied Flute for Majors
Credit Hour(s) 2   R
Private instruction in Applied Flute for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2506 is the first and second semesters of four required semesters of applied flute study.
Approval of Department and Restricted to Majors

2507   Applied Flute for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Flute for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2507 is the third and fourth semesters of four required semesters of applied flute study.
Approval of Department and Restricted to Majors

2508   Applied Clarinet for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Clarinet for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2508 is the first and second semesters of four required semesters of applied clarinet study.
Approval of Department and Restricted to Majors

2509   Applied Clarinet for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Clarinet for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2509 is the third and fourth semesters of four required semesters of applied clarinet study.
Approval of Department and Restricted to Majors

2510   Applied Saxophone for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Saxophone for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2510 is the first and second semesters of four required semesters of applied saxophone study.
Approval of Department and Restricted to Majors

2511 Applied Saxophone for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Saxophone for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2511 is the third and fourth semesters of four required semesters of applied saxophone study.
Approval of Department and Restricted to Majors

2512 Applied Oboe for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Oboe for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2512 is the first and second semesters of four required semesters of applied oboe study.
Approval of Department and Restricted to Majors

2513 Applied Oboe for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Oboe for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2513 is the third and fourth semesters of four required semesters of applied oboe study.
Approval of Department and Restricted to Majors

2514 Applied Bassoon for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Bassoon for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2514 is the first and second semesters of four required semesters of applied bassoon study.
Approval of Department and Restricted to Majors

2515 Applied Bassoon for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Bassoon for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each

semester. MUS 2515 is the third and fourth semesters of four required semesters of applied bassoon study.
Approval of Department and Restricted to Majors

2516 Applied Trumpet for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Trumpet for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2516 is the first and second semesters of four required semesters of applied trumpet study.
Approval of Department and Restricted to Majors

2517 Applied Trumpet for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Trumpet for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2517 is the third and fourth semesters of four required semesters of applied trumpet study.
Approval of Department and Restricted to Majors

2518 Applied French Horn for Majors I
Credit Hour(s) 2   R
Private instruction in Applied French Horn for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2518 is the first and second semesters of four required semesters of applied French horn study.
Approval of Department and Restricted to Majors

2519 Applied French Horn for Majors II
Credit Hour(s) 2   R
Private instruction in Applied French Horn for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2519 is the third and fourth

semesters of four required semesters of applied French horn study.
Approval of Department and Restricted to Majors

2520 Applied Baritone Horn for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Baritone Horn for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2520 is the first and second semesters of four required semesters of applied baritone horn study.
Approval of Department and Restricted to Majors

2521 Applied Baritone Horn for Majors II
Credit Hour(s) 2
Private instruction in Applied Baritone Horn for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2521 is the third and fourth semesters of four required semesters of applied baritone horn study.
Approval of Department and Restricted to Majors

2522 Applied Trombone for Majors I
Credit Hour(s) 2   R
Private instruction in Applied Trombone for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2522 is the first and second semesters of four required semesters of applied trombone study.
Approval of Department and Restricted to Majors

2523 Applied Trombone for Majors II
Credit Hour(s) 2   R
Private instruction in Applied Trombone for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2523 is the third and fourth semesters of four required semesters of applied trombone study.
Approval of Department and Restricted to Majors

MUS 2524   Applied Tuba for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Tuba for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2524 is the first and second semesters of four required semesters of applied tuba study.
Approval of Department and Restricted to Majors

2525   Applied Tuba for Majors II
Credit Hour(s) 2   R

Private instruction in Applied Tuba for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2525 is the third and fourth semesters of four required semesters of applied tuba study.
Approval of Department and Restricted to Majors

2526   Applied Violin for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Violin for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2526 is the first and second semesters of four required semesters of applied violin study.
Approval of Department and Restricted to Majors

2527   Applied Violin for Majors II
Credit Hour(s) 0 to 6   R

Private instruction in Applied Violin for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2527 is the third and fourth semesters of four required semesters of applied violin study.
Approval of Department and Restricted to Majors

2528   Applied Viola for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Viola for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2528 is the first and second semesters of four required semesters of applied viola study.
Approval of Department and Approval of Division Advisor and Restricted to Majors

2529   Applied Viola for Majors II
Credit Hour(s) 2   R

Private instruction in Applied Viola for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2529 is the third and fourth semesters of four required semesters of applied viola study.
Approval of Department and Restricted to Majors

2530   Applied Cello for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Cello for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2530 is the first and second semesters of four required semesters of applied cello study.
Approval of Department and Restricted to Majors

2531   Applied Cello for Majors II
Credit Hour(s) 2   R

Private instruction in Applied Cello for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2531 is the third and fourth semesters of four required semesters of applied cello study.
Approval of Department and Restricted to Majors

2532   Applied String Bass for Majors I
Credit Hour(s) 2   R

Private instruction in Applied String Bass for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2532 is the first and second semesters of four required semesters of applied string bass study.
Approval of Department and Restricted to Majors

2533   Applied String Bass for Majors II
Credit Hour(s) 2   R

Private instruction in Applied String Bass for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2533 is the third and fourth semesters of four required semesters of applied

string bass study.
Approval of Department and Restricted to Majors

2534   Applied Percussion for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Percussion for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2534 is the first and second semesters of four required semesters of applied percussion study.
Approval of Department and Restricted to Majors

2535   Applied Percussion for Majors II
Credit Hour(s) 2   R

Private instruction in Applied Percussion for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2535 is the third and fourth semesters of four required semesters of applied percussion study.
Approval of Department and Restricted to Majors

2536   Applied Organ for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Organ for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2536 is the first and second semesters of four required semesters of applied organ study.
Approval of Department and Restricted to Majors

2537   Applied Organ for Majors II
Credit Hour(s) 2   R

Private instruction in Applied Organ for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2537 is the third and fourth semesters of four required semesters of applied organ study.
Approval of Department and Restricted to Majors

2538   Applied Harpsichord for Majors I
Credit Hour(s) 2   R

Private instruction in Applied Harpsichord for music majors. Weekly one-hour lessons for 15

weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2538 is the first and second semesters of four required semesters of applied harpsichord study. *Approval of Department and Restricted to Majors*

2539 Applied Harpsichord for Majors II

Credit Hour(s) 2   R

Private instruction in Applied Harpsichord for music majors. Weekly one-hour lessons for 15 weeks, with an expectation of two hours per day of practice. Student recital performances and board examinations required each semester. MUS 2539 is the third and fourth semesters of four required semesters of applied harpsichord study. *Approval of Department and Restricted to Majors*

2600 General Ensemble

Credit Hour(s) 1   R

General Ensemble exists in order to allow registrants who desire to participate in an ensemble--and who have utilized all of their previous possible registrations for a particular ensemble--the opportunity to continue participation in the ensemble of their choice. General Ensemble is inclusive of Chorale, Chamber Choir, Women's Ensemble, Men's Ensemble, Wind Symphony, Concert Band, and Jazz Ensemble (150 minutes rehearsal/week) as well as Contemporary Gospel Ensemble, Classical Guitar Ensemble, Jazz Combo, Concert Handbell Choir, and Piano Ensemble (100 minutes rehearsal/week). *Approval of Department or Permission of Instructor*

Nursing (NSG)

1100 Human Response Assessment

Credit Hour(s) 4

Discusses scope and practice of nursing profession and philosophy/framework of Sinclair Nursing program. Introduces human response, nursing process, evidence-based practice and clinical judgment. Develops assessment techniques to identify normal/abnormal human responses. Provides a foundation in patient-centered care, communication, health promotion/disease prevention, safety and documentation. Forty five (45) class, thirty (30) lab, and fifteen (15) clinical hours per semester.
Must be taken with NSG 1101. Acceptance in Nursing Program

1101 Promoting Healthy Responses Through Psychomotor Interventions

Credit Hour(s) 2

Introduces a foundation of selected psychomotor nursing interventions used to assist individuals responding to stressors. Integrates principles from nursing and the sciences, critical thinking, nursing process and resource management into the performance of psychomotor skills. Fifteen (15) online class hours and 45 lab hours per semester.
Must be taken with NSG 1100.
Acceptance into Nursing Program

1102 Promoting Healthy Responses to Physiological Stressors

Credit Hour(s) 7

Introduces concept of general responses to physiological stressors and provides foundation in nutrition. Identifies responses to changes in physical regulation and defense processes, internal environment and cellular growth. Includes nursing principles to support or correct physiological responses. Introduces assessment of family and discusses stressors of transition in settings across healthcare continuum. Forty five (45) class, forty five (45) lab, and 135 clinical hours per semester.
NSG 1100 and NSG 1101

1130 Transition to Registered Nursing

Credit Hour(s) 4

The Ohio Nursing Articulation Model transition course is designed to enable the student to explore integrative concepts in nursing and to assist the student in transition from licensed practical nurse to registered nurse. Students will refine and update previous learning in addition to identifying goals for successful transition into the registered nursing program. Combined with classroom and nursing laboratory experiences, the student learns through 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. Thirty (30) classroom hours and ninety (90) lab hours per semester. *Must be taken with 1131. Current LPN License AND Acceptance into the LPN-RN Track*

1131 Transition to Registered Nursing II

Credit Hour(s) 4

Continues to assist student in transition from LPN to ADN student. Focuses on scope and practice of registered nursing profession and Sinclair philosophy/organizational framework. Identifies responses to physiological stressors and provides foundation in nutrition. Integrates nursing principles and refines psychomotor interventions to support or correct physiological stressors. Thirty (30) class, twenty three (23) lab, and sixty eight (68) clinical hours per semester.
Must be taken with NSG 1130. Current LPN License AND Acceptance into the LPN-RN Track

2200 Promoting Healthy Responses to Specific Stressors I

Credit Hour(s) 8

Applies knowledge of responses to specific stressors related to infectious diseases, metabolic function, surgery, nutrition, elimination and women's reproductive function. Begins application of decision-making and clinical judgment, management of nursing care and resource management. Forty five (45) class, forty five (45) lab, and 180 clinical hours per semester. *Must be taken with NSG 2201. NSG 1102 OR NSG 1131*

2201 Promoting Healthy Responses to Psychosocial Stressors

Credit Hour(s) 2

Applies knowledge of human responses to specific stressors of anxiety, mood disorders, thought disorders, abuse and personality disorders. Emphasizes therapeutic communication and patient education. Begins application of decision-making and clinical judgment, management of nursing care and resource management in mental healthcare settings Thirty (30) class hours per semester.
Must be taken with NSG 2200. NSG 1102 OR NSG 1131

2202 Promoting Healthy Responses to Specific Stressors II

Credit Hour(s) 8

Analyzes responses to specific stressors related to oxygenation, circulation and neurological, sensory, musculoskeletal, urinary and male reproductive functions. Applies nursing process and clinical judgment to interdisciplinary care across the healthcare continuum. Forty five (45) class, forty five (45) lab, and 180 clinical hours per semester.
Must be taken with NSG 2203. NSG 2200 and NSG 2201

2203 Promoting Healthy Responses to Maternal/Child Stressors
Credit Hour(s) 2
Analyzes responses of the childbearing family during maternity cycle. Uses nursing process to promote health in mother and infant. Analyzes responses of child/family to hospitalization and illness. Adapts interventions to developmental needs of child. Thirty (30) class hours per semester.
Must be taken with NSG 2202.
NSG 2200 and NSG 2201

2206 Integrated Care
Credit Hour(s) 2
Facilitates transition from nursing student to beginning Associate Degree Nurse through a directed nursing practice. Integrates critical thinking to make clinical judgments necessary to care for patients/families responding to complex or life-threatening stressors of circulation, renal, shock and oxygenation. Discusses early detection of changes in patient responses and the role of the nurse in emergencies. Fifteen (15) class hours and forty five (45) lab hours per semester.
Must be taken with NSG 2210.
NSG 2202 and NSG 2203

2210 Role Transition
Credit Hour(s) 4
Moves the individual from nursing student to beginning Associate Degree Nurse through a directed nursing practice. Emphasizes professional development, role for the nurse in health promotion/disease prevention, management of care for a group of patients, clinical judgment, interpersonal relationships, responsibility and accountability. Fifteen class (15) hours and 225 clinical hours per semester.
Must be taken with NSG 2206.
NSG 2202 and NSG 2203

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Operations Technology (OPT)

1100 Tooling & Machining Metrology
Credit Hour(s) 2
Various measurement techniques involving shop measuring instruments; correct use and care of basic inspection instruments; interpretation of blueprints as well as machined products related to engineering needs. Introduction to Coordinate Measuring Machines (CMM). One classroom, three lab hours per week.

1101 Introduction to Operations
Credit Hour(s) 3
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 classroom, two lab hours per week.

1110 Operations Work Measurement & Ergonomics
Credit Hour(s) 3
The application of fundamentals of work measurement techniques including taking time studies, calculating standard times, estimating product costs, performing work sampling and Methods Time Measurement (MTM). Also the understanding of how the human body reacts to loads and stresses and how poor work motions and workplace layouts can contribute to this. Two classroom, two lab hours per week.
OPT 1101

1112 World Class Quality Systems & Procedures
Credit Hour(s) 4
Improve customer relations, measure products and processes, analyze current process control and capability and define and audit the quality management system. Three classroom, two lab hours per week.

1113 Coordinate Measurement
Credit Hour(s) 3
Course will prepare students to use and program coordinate measurement machines, apply Geometric Dimensioning and Tolerancing (GD&T) principles, use advanced operating techniques for a servo driven coordinate measuring device. Two classroom, two lab hours per week.
OPT 1100

1125 World Class Operations
Credit Hour(s) 3
An overview of world-class operations principles, illustrating the many inter-related functions within successful companies, including design, planning, operations, sales and customer support. Additional focus on modern operations processes found in service industries, healthcare, transportation, food service, financial and retail. Special emphasis on resource planning and quality assurance.

1126 Supervision, Team Leadership & Project Management
Credit Hour(s) 3
Introduction to the fundamental techniques of industrial supervision and team leadership and the effective management of projects. Includes the five functions of supervision, team leadership functions, leadership styles and the Project Management Body of Knowledge.

1130 Lean Operations
Credit Hour(s) 3
Lean operations principles including lead time reduction, containerization, module design, standardized work and Takt time, Kanban, 5S's and Office Lean. Two classroom, two lab hours per week.
OPT 1101

1136 Plastics & Composites
Credit Hour(s) 3
Students will gain a basic understanding of plastics processes and manufacturing methods within a safe working environment. Two classroom, two lab hours per week.

1198 Excel for Engineering Technology
Credit Hour(s) 1
Students will gain an understanding of Excel software and how to analyze and solve engineering technology problems, emphasizing the advanced use of spreadsheets, including programming with macros. Two lab hours per week.

2201 Statistical Process Control
Credit Hour(s) 3
Emphasis on process capability, control charts, techniques and analysis. This is followed by more advanced study of reliability, quality function deployment, design of experiments, failure mode effects analysis and quality costs. Two classroom, two lab hours per week.
OPT 1101 and OPT 1198

2205 Manufacturing Processes
Credit Hour(s) 3
Students will gain a basic understanding of manufacturing processes within a safe working environment.
OPT 1101

2206 Value Analysis
Credit Hour(s) 2
An introduction to the purpose and need for Value Management techniques to reduce the cost of a product or process while maintaining the quality and functional requirements of the product or process.

2207 Operations Systems Analysis
Credit Hour(s) 3
Computer simulation to solve manufacturing and nonmanufacturing problems. Involves actual programming of computer models consisting of labor, material, processing times and resources to predict future outcome of different alternatives.
OPT 1101

2208 Engineering Technology Economics & Cost Analysis
Credit Hour(s) 3
Basic economic cost concepts, decisions, analysis and evaluations as applied to engineering design, production, maintenance and quality control.
OPT 1198 and MAT 1280

2211 Industrial Risk Management
Credit Hour(s) 2
This course provides a comprehensive approach to the factors that contribute to safe and environmentally sound practices in business and industry.

2216 Facilities Planning
Credit Hour(s) 3
Students will gain a basic understanding of facility planning, layout strategies and material handling techniques within a safe working environment. Two classroom, two lab hours per week.
OPT 1125 and OPT 2205

2221 Quality Assurance
Credit Hour(s) 3
Course will prepare students to improve customer relations and supply chain management, and to define the appropriate financial reporting system, including performance measures such as quality costs. Two classroom, two lab hours per week.
OPT 2201

2223 Quality Systems & Auditing
Credit Hour(s) 2
Course will prepare students to understand the standards, requirements and implementation strategies of major quality systems including ISO, QS and AS. Additional focus on development and implementation of internal auditing programs. One classroom, two lab hours per week.

2225 Design & Process Failure Mode & Effects Analyses
Credit Hour(s) 1
Course will prepare students to apply reliability prediction techniques including fault tree, Failure Mode and Effects Analyses (FMEA) and reliability block diagrams. Two lab hours per week.
OPT 1101

2240 Six Sigma: Green Belt
Credit Hour(s) 3
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. Two classroom, two lab hours per week.

2251 Supply Chain Operations & Logistics
Credit Hour(s) 3
In-depth study of the technical and business functions of operations logistics, materials procurement and management and supply chain development and management in manufacturing, service industries and government in a global economy.
OPT 1125 and MAN 2155

2267 Quality Certification Review
Credit Hour(s) 2
Course will prepare students to take American Society for Quality (ASQ) Certification exams in several areas of expertise, including Quality Engineering, Quality Auditor, Quality Improvement Associate, Quality Technician and others. One classroom, two lab hours per week.

2270 Operations Technology Internship
Credit Hour(s) 1 to 4
Students earn credit 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 semester. Ten co-op hours per week per credit hour.

2277 Operations Technology Project
Credit Hour(s) 3
Application of Operations Technology Principles, using student teams for real or laboratory simulations of operations processes. Two classroom, two lab hours per week.
Approval of Department

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2780 Operations Technology Capstone
Credit Hour(s) 3
Assessment of achievement by Operations Technology students in attaining program-related outcomes by completing a project demonstrating principles and practices of the major.
Approval of Department

Occupational Therapy Assistant (OTA)

1101 Introduction to Occupational Therapy Assistant
Credit Hour(s) 2
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 curriculum. One classroom, two lab hours per week.

1201 The Process of Development
Credit Hour(s) 2
Human development as a personal and universal experience; development of the self as an effective therapeutic tool.
Restricted to Majors

1202 Functional Anatomy
Credit Hour(s) 3
Functional anatomy of neurological and musculoskeletal systems. Analysis of nervous systems, major joint and muscle groups involved in daily living tasks such as dressing, bathing, grooming, eating, cooking and housekeeping.
Restricted to Majors

1251 Developmental Lab
Credit Hour(s) 3
Laboratory experiences in personal and normal development, including development of the self as an effective therapeutic tool, exploration of values, personal and cultural attitudes, sensitivity to cultural differences, group process, ethical decision making and safety issues relating to laboratory experiences. Six lab hours per week.
Restricted to Majors

1261 Directed Practice I
Credit Hour(s) 3
Introduction to people with physical, psychosocial and/or developmental disabilities.

Using a holistic approach, observations will be documented in traditional occupational therapy notewriting formats. Mentorship will be provided by second-year occupational therapy assistant students in collaboration with and direct supervision of an occupational therapist. Two classroom, five directed practice hours per week.
Must be taken with OTA 1201 and OTA 1251. OTA 1101 and BIO 1107 and ALH 1101 and Restricted to Majors

1301 Disease Processes
Credit Hour(s) 2
The effect of the features of major diseases and syndromes treated in the field of occupational therapy on occupational performance.
OTA 1201 and Restricted to Majors

1302 Cultural Competency
Credit Hour(s) 2
The development of awareness of cultural norms, attitudes and beliefs and the value of diversity to allow effective interaction with individuals from different cultural and ethnic backgrounds.
OTA 1201 and Restricted to Majors

1351 Evaluation Techniques
Credit Hour(s) 3
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. Six lab hours per week.
OTA 1201 and Restricted to Majors

1361 Directed Practice II
Credit Hour(s) 3
Continued experience in community settings, focus on observation and beginning to address goals created in collaboration with the occupational therapist. Interaction with clients will be focused on creating and analyzing activities based on short-term goals. Responsibility for writing accurate and professional notes. Preparation for mentorship role following semester. Two classroom, five directed practice hours per week.
Must be taken with OTA 1301 and OTA 1353. OTA 1201 and OTA 1251 and OTA 1261 and Restricted to Majors

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2401 Treatment Approaches
Credit Hour(s) 2
Theories, models of practice and frames of reference that provide the foundation for the practice of occupational therapy.
OTA 1301 and Restricted to Majors

2451 Treatment Techniques I
Credit Hour(s) 3
Focus on intervention planning to increase levels of independence in areas of occupation; includes frames of reference and models of practice; professional communication, role of occupational therapy assistants in a variety of settings and practice areas. Six lab hours per week.
OTA 1301 and Restricted to Majors

2461 Clinical Practicum I
Credit Hour(s) 3
Clinical practicum integrates the academic classroom instruction and clinical experiences in a traditional occupational therapy practice setting(s) under the direct supervision of an occupational therapy assistant and/or occupational therapist and coordinated by the academic fieldwork coordinator. Two classroom, seven practicum hours per week.
Must be taken with OTA 2401 and OTA 2451. OTA 1301 and OTA 1351 and OTA 1361 and Restricted to Majors

2501 Occupational Therapy Assistant Capstone
Credit Hour(s) 2
Oral and written case presentations demonstrating skills and knowledge necessary for success in the clinical phase of the curriculum.
OTA 2401 and Restricted to Majors

2551 Treatment Techniques II
Credit Hour(s) 2
Continued treatment implementation with groups and individuals; focus on compensatory strategies, low-tech and high-tech adaptive technology and case coordination. Four lab hours per week.
OTA 2401 and Restricted to Majors

2560 Clinical Affiliation I
Credit Hour(s) 2
First of two eight-week assignments of advanced clinical experience under the supervision of a licensed occupational therapist or licensed occupational therapy assistant which must be successfully completed before the student is eligible for national certification examination. Forty hours per week of co-op experience for half a semester.
OTA 2501 and OTA 2551 and OTA 2461 and Restricted to Majors

2561 Clinical Issues I
Credit Hour(s) 1
Facilitation of increased practical knowledge and problem-solving skills to address professional, ethical, legal and social issues within clinical practice.
OTA 2501 and OTA 2551 and OTA 2461 and Restricted to Majors

2662 Clinical Affiliation II
Credit Hour(s) 2
Second of two eight-week assignments of advanced clinical experience under the supervision of a licensed occupational therapist or licensed occupational therapy assistant which must be successfully completed before the student is eligible for national certification examination. Twenty hours per week of co-op experience per week for half a semester.
OTA 2560 and OTA 2561 and Restricted to Majors

2663 Clinical Issues II
Credit Hour(s) 1
Facilitation of discussion on issues related to the transition from student to entry-level occupational therapy assistant. Students will formulate appropriate action plan and continued development of collaborative and supervisory strategies in the practice of occupational therapy.
OTA 2560 and OTA 2561 and Restricted to Majors

Paralegal (PAR)

1101 Paralegal Principles
Credit Hour(s) 3
Existing resources will be used. Podium classroom with individual student computer access required. Sinclair Library legal resources needed. Student Lexis/Nexis ID required.

1102 Legal Technology
Credit Hour(s) 1
This course develops student paralegal skills in introduction to the technology used by paralegals in law firm environments.
Restricted to Majors

1103   Litigation
Credit Hour(s) 3
Introduction to the civil system, courts, torts and civil pleadings. The student will develop skills in drafting basic pleadings.
PAR 1101 and PAR 1102 or students may take this course concurrently with PAR 1101 and PAR 1102 and Restricted to Majors

1201   Legal Research & Writing
Credit Hour(s) 3
This course develops student skills in researching Ohio's legal resources, writing legal memos and letters and using the Ohio Manual of Citations.
PAR 1101 and PAR 1102

1202   Advanced Legal Technology
Credit Hour(s) 1
This course develops student paralegal skills in use of software in a legal environment, including spreadsheets, databases, data backup media, group calendaring and research on the Internet.
PAR 1102 and Restricted to Majors

1203   Advanced Litigation
Credit Hour(s) 3
The paralegal's role in the litigation process, from pleadings through discovery and trial. This course develops student paralegal skills in drafting pleadings, use of discovery tools and litigation software.
PAR 1103 and Restricted to Majors

1204   Real Estate Law
Credit Hour(s) 3
This course develops student paralegal skills in analyzing Ohio real estate law, preparing real estate transaction and litigation documents and locating real estate documents in public records.
PAR 1101 and PAR 1102 and Restricted to Majors

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2301   Advanced Legal Research & Writing
Credit Hour(s) 3
Develops skills introduced in Legal Research & Writing. This course covers research in federal and national legal resources, writing trial briefs, writing research memoranda and letters and using a citations manual.

PAR 1201 and Restricted to Majors

2302   Family Law
Credit Hour(s) 3
This course develops student paralegal skills in preparation of documents in a domestic relations practice, including pleadings and forms.
PAR 1103 and Restricted to Majors

2303   Probate Law
Credit Hour(s) 3
Summary and full administration of probate estates, adoptions, guardianships, name changes and minor settlements.
PAR 1101 and PAR 1102 and Restricted to Majors

2304   Paralegal Ethics
Credit Hour(s) 3
Ethical issues facing paralegals, including the unauthorized practice of law, confidentiality, conflicts of interest, client privilege and work product. Regulation of the profession and legal environments.
PAR 1101 and PAR 1102 and PAR 1103 and Restricted to Majors

2401   Paralegal Internship
Credit Hour(s) 3
Application of skills in a legal environment. Professionalism, resumes and interviewing skills. One classroom, fourteen practicum hours per week.
PAR 1103 and PAR 1201 and PAR 2304 and Restricted to Majors

2501   Juvenile Law
Credit Hour(s) 1
Juvenile delinquency, child custody, child support and matters relating to juveniles in the justice system.
PAR 1101 and PAR 1102 and Restricted to Majors

2502   Employment Discrimination
Credit Hour(s) 1
Employee rights in the work place, including civil rights, Title VII, age discrimination and sexual harassment.
PAR 1101 and PAR 1102 and Restricted to Majors

2503   Intellectual Property
Credit Hour(s) 1
Existing resources will be used. Podium classroom with individual student computer

access required. Sinclair Library legal resources needed. Student Lexis/Nexis ID required.
PAR 1101 and PAR 1102 and Restricted to Majors

2504   Bankruptcy Law
Credit Hour(s) 2
This course develops student paralegal skills in bankruptcy data collection, preparation of bankruptcy schedules, and online filing of bankruptcy cases. This course develops student paralegal skills in bankruptcy data collection, preparation of bankruptcy schedules and online filing of bankruptcy cases.
PAR 1101 and PAR 1102 and Restricted to Majors

2505   Criminal Law
Credit Hour(s) 2
This course develops student paralegal skills in analyzing Ohio criminal law and Ohio criminal procedures and preparing criminal trial procedure documents.
PAR 1101 and PAR 1102 and Restricted to Majors

2506   Business Organizations
Credit Hour(s) 3
This course develops student paralegal skills in the organization, operation and dissolution of business organizations. .
PAR 1101 and PAR 1102 and Restricted to Majors

2507   Legal Interviewing Skills
Credit Hour(s) 1
This course develops student paralegal skills in client and witness interviews, including using interpersonal skills and identifying ethical concerns.
PAR 1101 and PAR 1102 and Restricted to Majors

2508   Appellate Procedure
Credit Hour(s) 1
This course develops student paralegal skills in initiating criminal and civil appeals. Requirements for ordering transcripts and organizing appellate briefs.
PAR 1103 and Restricted to Majors

2509   Estate Taxes
Credit Hour(s) 1
This course develops student paralegal skills in preparation of 1040, 1041, Ohio Estate Tax and 706 forms for a decedent.
PAR 2303 and Restricted to Majors

2511   Online Legal Research
Credit Hour(s) 1
Advanced use of computer-assisted research to find federal and state statutory and case law. Analysis of law. Students use LEXIS-NEXIS

and free legal resources: Cornell web site, Casemaker, LoisLaw.
PAR 2301 and Restricted to Majors

Physical Education (PED)

1101   Introduction to Swimming
Credit Hour(s) 1
Introduction to Swimming introduces elementary aquatic skills, basic swimming strokes and personal water safety for the entry-level student. This course includes active participation and academics. Two lab hours per week.

1102   Fitness Swimming
Credit Hour(s) 1
Fitness Swimming provides exercise for the intermediate and advanced swimmer. The course emphasizes stroke refinement, distance swimming and training techniques while improving cardiorespiratory endurance. This course includes both active participation and academics. Two lab hours per week.
PED 1101

1103   Beginning Scuba Diving
Credit Hour(s) 1
Beginning Scuba Diving requires the students to develop physical skills and an understanding of diving physics and physiology, safe use of diving equipment, communications, safety rules and problem management. Open-water certification is available at additional cost. This course includes both active participation and academics. Two lab hours per week.

1104   Advanced Scuba Diving
Credit Hour(s) 1
Advanced Scuba Diving requires the students to further develop their diving skills. Fundamental skills will be reviewed. Additional specialty skills will be included. Advanced Open-Water certification is available at additional cost. This course includes both active participation and academics. Two lab hours per week.
PED 1103 or Approval of Department

1105   Lifeguard Training
Credit Hour(s) 3
Successful completion of this course results in the following certifications: Lifeguard Training/First Aid, CPR/AED for the Professional Rescuer and Bloodborne Pathogens: Preventing Disease Transmission. Two classroom, two lab hours per week.
PED 1102

1106   Water Safety Instructor
Credit Hour(s) 3

Course covers methods and techniques of teaching swimming. Students who successfully fulfill course requirements are eligible for the American Red Cross Water Safety Instructor and Basic Water Rescue certifications. Two classroom, two lab hours per week.
PED 1101

1107   Golf
Credit Hour(s) 1
Golf introduces students to the following topics: history, rules and regulations of the game, etiquette, club selection, techniques, swing analysis and playing strategies. This course includes both active participation and academics. Two lab hours per week.

1109   Bowling
Credit Hour(s) 1
Bowling introduces students to the following topics: history, rules and regulations of the game, etiquette, ball selection, techniques and game strategies. This course includes both active participation and academics. Two lab hours per week.

1111   Volleyball
Credit Hour(s) 1
Volleyball introduces students to the following topics: history, rules and regulations of the game, etiquette, skills and team strategies. This course includes both active participation and academics. Two lab hours per week.

1113   Basketball
Credit Hour(s) 1
Basketball introduces the students to the following topics: history, rules and regulations of the game, etiquette, skills and team strategies. This course includes both active participation and academics. Two lab hours per week.

1115   Tennis I
Credit Hour(s) 1
Tennis I is designed to offer the fundamentals of tennis. Basic rules and regulations of singles and doubles, stroke technique, parts of the court along with singles and doubles playing strategies will be the focus. This course includes both active participation and academics. Two lab hours per week.

1116   Tennis II
Credit Hour(s) 1
Tennis II is designed for students who already have the fundamentals of tennis. Strategies and training techniques are emphasized to take the player to the next level of competition. This course includes both active participation and

academics. Two lab hours per week.
PED 1115 or Approval of Department

1117   Social Dance
Credit Hour(s) 1
Social Dance introduces the fundamentals of popular social dances that include ballroom, country western and line. Basic skills, styles, techniques and movement patterns will be emphasized. This course includes both active participation and academics. Two lab hours per week.

1119   Martial Arts
Credit Hour(s) 1
Martial Arts include Judo, Karate and other forms. The philosophy and skills related to these arts will be introduced. Mental and physical fundamentals, skills and techniques will be emphasized. This course includes both active participation and academics. Two lab hours per week.

PED 1121   Fencing
Credit Hour(s) 1
Fencing introduces the students to the following topics: history, rules and regulations of the sport, etiquette, skills, maneuvers and strategies. This course includes both active participation and academics. Two lab hours per week.

1201   Physical Fitness
Credit Hour(s) 1
Physical Fitness is designed to offer a variety of fitness components; cardiorespiratory endurance, muscular strength and endurance and flexibility. Sections will focus on selected fitness programming; Nia Technique, Boot Camp, TRX Training, Functional Fitness and other programs. This course includes both active participation and academics. Two lab hours per week.

1203   Strength Training
Credit Hour(s) 1
Strength Training introduces basic and intermediate strategies to develop an appropriate individual strength training program. Emphasis will be placed on understanding basic program design, implementing and execution of basic strength exercises. This course will include both active participation and academics. Two lab hours per week.

1205   Flexibility Fitness
Credit Hour(s) 1
Flexibility Fitness introduces basic concepts

for a safe and effective flexibility program. Proper stretching techniques along with exercises that improve flexibility, strength, balance and relaxation will be incorporated. This course includes both active participation and academics. Two lab hours per week.

1207   Yoga
Credit Hour(s) 1
Yoga introduces the student to the philosophy and principles of yoga including coordination, strength, flexibility and meditation/relaxation. This course includes both active participation and academics. Two lab hours per week.

1209   Pilates
Credit Hour(s) 1
Pilates is a specific body conditioning method. Pilates strengthens muscles, improves posture, balance and flexibility, and concentrates on training the mind and body to work together toward the goal of overall health and fitness. This course includes both active participation and academics. Two lab hours per week.

1211   Aquatic Exercise
Credit Hour(s) 1
Aquatic Exercise provides cardiorespiratory endurance, muscular strength, endurance and flexibility workouts in the water. A variety of equipment and programming will be introduced to enhance the workout. Both swimmers and nonswimmers can participate in this course. This course includes both active participation and academics. Two lab hours per week.

1213   Aerobic Conditioning
Credit Hour(s) 1
Aerobic conditioning is an energetic class composed of fitness techniques for cardiorespiratory endurance, muscular strength and endurance, coordination and agility. The class provides a workout for all fitness levels. This course includes both active participation and academics. Two lab hours per week.

1215   Group Strength Training
Credit Hour(s) 1
Group Strength Training incorporates both strength and endurance exercises using various types of equipment. Choreographed routines that incorporate different types of lifting techniques are performed. Emphasis is placed on correct body placement and proper technique. This course includes both active participation and academics. Two lab hours per week.

1217   Fitness Walking &

Conditioning
Credit Hour(s) 1
Fitness Walking and Conditioning is designed to introduce the proper walking techniques used for fitness. Programming will incorporate interval training, strengthening and stretching exercises along with monitoring of intensity. Various types of equipment will be introduced to enhance the workout experience. This course includes both active participation and academics. Two lab hours per week.

1219   Tai Chi
Credit Hour(s) 1
Tai Chi is an ancient art that promotes serenity through gentle movements that connect the mind and body. The exercises are performed in a series of postures or movements in a slow graceful manner. This course includes both active participation and academics. Two lab hours per week.

1221   Core Conditioning
Credit Hour(s) 1
Core Conditioning provides fitness techniques with an emphasis on the deepest muscles of the trunk, improving posture and coordination through stabilization and strength with a cardiorespiratory endurance component. This course includes both active participation and academics. Two lab hours per week.

1223   Indoor Group Cycling
Credit Hour(s) 1
Indoor Group Cycling provides a group cardiorespiratory endurance workout. Proper seat setup, cycling techniques and body positioning will be emphasized. This course includes both active participation and academics. Two lab hours per week.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Philosophy (PHI)

2204   Great Books: Philosophy
Credit Hour(s) 3
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.

2205   Introduction to Philosophy
Credit Hour(s) 3
Basic nature of philosophy, its relationship to

physical and social sciences and theology and its value to the individual.

2206   Introduction to Ethics
Credit Hour(s) 3
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.

2207   Logic
Credit Hour(s) 3
Principle elements in deductive and inductive logic. Analysis of three acts of the intellect and the laws of reasoning. Application of principles to specific cases.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Physics (PHY)

1100   Introduction to Physics
Credit Hour(s) 4
A survey of motion, forces, energy, thermodynamics, properties of matter, electricity and magnetism for nonscience majors. Three classroom, three lab (PHY 1110) hours per week.
DEV 0024

1104   Sound, Light & Modern Physics
Credit Hour(s) 4
A survey of sound, light, color, atomic and nuclear physics and special relativity for nonscience majors. Three classroom, three lab (PHY 1119) hours per week.
PHY 1100 or PHY 1141

1106   Physics for Technology
Credit Hour(s) 3
Survey of conceptual physics for technology majors. Topics include motion, forces, energy, electricity, magnetism, waves, sound, light, atomic structure and emission and absorption of radiation. Two classroom, two lab (PHY 1107) hours per week.

1107   Lab for Physics for Technology
Credit Hour(s) 0

1110   Lab for Introduction to Physics
Credit Hour(s) 0

1119   Lab for Sound, Light & Modern Physics
Credit Hour(s) 0

1131   Technical Physics
Credit Hour(s) 3
Algebra-based mechanics including kinematics, dynamics, statics, work, energy, power, rotational motion and fluids. Two classroom, two lab hours per week.
MAT 1280

1141   College Physics I
Credit Hour(s) 4
Algebra-based university-parallel sequence in mechanics, including vectors, statics, work and energy, momentum, rotational motion, elasticity, fluids and thermodynamics. Three classroom, three lab hours per week.
MAT 1470

1142   College Physics II
Credit Hour(s) 4
Algebra-based university-parallel course in oscillations, waves, sound, optics, electricity, magnetism and electromagnetism. Three classroom, three lab hours per week.
PHY 1141

1161   Scientific Thought & Method
Credit Hour(s) 3
Exploration of methods employed in the natural sciences through interdisciplinary units designed to illustrate scientific thinking and related mathematical skills. Intended for students who plan to major in one of the natural sciences or engineering. Two classroom, two lab hours per week.
MAT 1270

2201   General Physics I
Credit Hour(s) 5
Fundamentals of mechanics including kinematics, dynamics, work and energy, momentum, oscillations, gravity, fluids, waves and sound, thermodynamics and kinetic theory, using calculus as appropriate. Five classroom, three lab (PHY 2207) hours per week.
MAT 2270 or MAT 2280 or MAT 2290 or MAT 2310 or MAT 2320 or MAT 2330

2202   General Physics II
Credit Hour(s) 5
Electrostatics, D.C. conduction and circuits, magnetism, electromagnetic induction, quantum mechanics, optics and special relativity. Calculus used extensively. Five classroom, three lab (PHY 2208) hours per

week.
PHY 2201 and MAT 2280 or MAT 2290 or MAT 2310 or MAT 2320 or MAT 2330

2207   Lab for General Physics I
Credit Hour(s) 0

2208   Lab for General Physics II
Credit Hour(s) 0

2210   Problem Solving in Physics with Matlab
Credit Hour(s) 2

Introduction to problem solving in physics using the computational tool, Matlab. Topics include the Matlab desktop, array manipulations, relational and logical operations, control flow, creating M-files, low-level I/O, graphics and symbolic manipulations. One classroom, two lab hours per week.
MAT 1470 or MAT 1290

2211   Introduction to Computational Methods
Credit Hour(s) 3
Develop the necessary computational physics skills to model and simulate a broad set of deterministic and stochastic systems, including the modeling of empirical data. Integrated problem-solving methods found in modern research facilities and high-technology workplaces will be utilized. Two classroom, two lab hours per week.
MAT 1470

2212   Introduction to Modeling & Simulation
Credit Hour(s) 3
Analyze a variety of scientific problems by designing a representative model, implementing the model, completing a verification and validation process of the model, reporting on the model in oral and written form and changing the model to reflect corrections, improvements and enhancements. Two classroom, two lab hours per week.
MAT 1570

2220   Introduction to Computational Physics
Credit Hour(s) 4
Develop mathematical models of a physical system, construct simulations from the models using Matlab, explore the complex systems using the simulator and present the results effectively in oral and written form. Three classroom, two lab hours per week.
MAT 2280 and PHY 2202

2245   Concepts in Physics

Credit Hour(s) 4
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. Three classroom, two lab hours per week.
MAT 1420

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Political Science (PLS)

1120   American Federal Government
Credit Hour(s) 3
American political system at the national level, including process of government; democratic theory and development of the
U. S. Constitution; citizen participation through voting; interest groups and political parties; structure, functions and powers of legislative, executive and judicial branches; issues of civil liberties and equal rights.

1232   State & Local Government
Credit Hour(s) 3
The study of state and local governments (with emphasis on Ohio), organizational structures of state and local governments, state constitutions, county and city charters, state and local government powers and programs, financing, and taxation, and trends in government programs are all documented and analyzed.

2200   Political Life, Systems & Issues
Credit Hour(s) 3
Basic political and government concepts and systems, including ideologies and comparative political systems; current political issues in Asia, Africa, Europe, Latin America, along with United States interests and policy options.

2220   International Relations
Credit Hour(s) 3
Principles and techniques of international politics, including theories, organizations and different world perspectives.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2860   Model UN/International Issues
Credit Hour(s) 3

History and structure of the United Nations with an in-depth look at selected current world issues; participation in Model UN simulations and opportunity to attend the Dayton Model United Nations Conference and/or other Model UN conferences.

Prior Learning Assessment (PRL)

1100 Prior Learning Portfolio Development
Credit Hour(s) 2

This course will engage students in the process of preparing a portfolio for a specific Sinclair Community College course describing and documenting learning gained from experience. Upon completion, the portfolio is evaluated and college credit is awarded to the extent the learning is college equivalent.

1130 ATS/AIS Degree Development
Credit Hour(s) 1

Development of the individual degree plan of study to be followed for successful completion of the ATS or AIS degree.
Approval of Prior Learning Assessment Coordinator

2780 ATS/AIS Capstone
Credit Hour(s) 2

Assessment of achievement by ATS/AID students in attaining degree plan oputcomes through a self-identified problem, reflective learning or portfolio.
PRL 1130 and Approval of Prior Learning Assessment Coordinator

Psychology (PSY)

1100   General Psychology
Credit Hour(s) 3

University-parallel course covering history and systems of psychology, behavioral research methods, physiology of behavior, sensation, perception, learning, memory, consciousness, cognition, personality, lifespan development, gender, social psychology, motivation, emotion, stress, mental disorders and therapies.
DEV 0012

1126   Stress Management

Credit Hour(s) 3

A course providing the 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.

1160   African American Psychology
Credit Hour(s) 3

Multidisciplinary study of theories, cultural themes and psychological constructs used to further promote understanding of thoughts, feelings and behaviors of African-Americans.

1180   Psychology of Gender
Credit Hour(s) 3

An 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.

2200   Lifespan Human Development
Credit Hour(s) 3

Research and theory concerning the physical, cognitive and social development of a person from conception to death, including prenatal and child development, adolescence, adult life crises, marriage, family, work, leisure and senescence.
PSY 1100

2205   Child Development
Credit Hour(s) 3

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.
PSY 1100

2206   Adolescent & Adult Development
Credit Hour(s) 3

Research and theory concerning physical, cognitive, social and psychological development from adolescence through old age. Focus is on developmental issues such as identity development, cognitive growth

and developmental tasks such as education, marriage, family, work, leisure, aging and facing death.
PSY 1100

2214   Drugs & Behavior
Credit Hour(s) 3

An introduction to behavioral pharmacology examining the major classes of psychoactive substances. Topics include basic principles of neuropharmacology, pharmacodynamics (drug absorption, distribution and elimination) and physiology of tolerance and dependence for each class of drugs.
PSY 1100

2217   Abnormal Psychology
Credit Hour(s) 3

A study of the diagnostic criteria, symptoms, causes and treatments of disorders listed in the Diagnostic and Statistical Manual of Mental Disorders, with an emphasis on current clinical research.
PSY 1100

2218   Principles of Counseling
Credit Hour(s) 3

An introduction to professional issues in 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.
PSY 1100

2220   Personality Psychology
Credit Hour(s) 3

An introduction to personality with emphasis on principles, research and theories, including psychodynamic, ego-psychology, object relations, trait/biological, phenomenology, behavior-environmental and cognitive/self-regulation.
PSY 1100

2225   Social Psychology
Credit Hour(s) 3

A study of the interaction between individual and social environment within a multicultural context. Topics include: self-concept formation, attitudes, persuasion, attributions, group structure and processes, prejudice, aggression and violence.
PSY 1100

2228   Psychology in the Workplace
Credit Hour(s) 3

The contributions of psychology to human resource management, organizational science

and human factors engineering, including relevant theories and applications within organizational settings. Specific topics include motivation, group decision making and development, leadership, workplace politics, employee selection, work-related stress, performance evaluations and organizational improvement.
PSY 1100

2235 Behavioral Science Research Methods
Credit Hour(s) 3
Basic research methods for the behavioral sciences covering: correlational/descriptive and laboratory/experimental design methodology, dependent and independent variables, principles of measurement, and reading and writing scientific research reports.
PSY 1100

2236 Behavioral Science Statistics
Credit Hour(s) 3
Basic statistical techniques used in behavioral sciences, including descriptive and inferential statistics, frequency distributions, measures of central tendency and distribution, non-parametric statistics, hypothesis testing, tests of significance, analysis of variance and post-hoc tests.
PSY 1100

2242 Educational Psychology
Credit Hour(s) 3
Principles of learning and development applied to educational settings emphasizing research-supported development of effective learning in varied educational environments.
PSY 1100

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Physical Therapy Assistant (PTA)

1106 Introduction to Physical Therapy
Credit Hour(s) 1
Purpose, philosophy, history and development of the Physical Therapy (PT) profession, Physical Therapist Assistant (PTA) duties, PT/PTA relationship, essential functions, legal and ethical responsibilities and professional behaviors. Function of regulatory agencies,

licensing bodies and professional associations.

1110 Professional Issues I
Credit Hour(s) 3
Scope and practice of the Physical Therapist Assistant (PTA), introduction to human response, critical thinking, decision making and collaborative practice, foundation of therapeutic communication and medical terminology for the PTA with the emphasis on documentation and current business practices.
HIM 1101 and Admission to Program and Restricted to Majors

1112 Pathology for Physical Therapist Assistant
Credit Hour(s) 2
Recognize and manage physiological responses in body systems related to physical interventions in commonly treated pathological conditions. One classroom, two lab hours per week.
ALH 2220 and Admission to Program and Restricted to Majors

1115 Professional Issues II
Credit Hour(s) 1
Professional ethics and caring, character and principles in clinical practice. Understanding the aging mind and effect on patient interactions and interventions.
PTA 1110 and Restricted to Majors

1116 Anatomy & Kinesiology
Credit Hour(s) 5
Human anatomy and clinical kinesiology with emphasis on integration of neuromusculoskeletal anatomy, physiology, physics principles and geometry in relationship to human movement. One classroom, eight lab hours per week.
BIO 1121 and Admission to Program and Restricted to Majors

1124 Clinical Procedures I
Credit Hour(s) 4
Physiology and clinical rationale for use and application of passive and mechanical physical agents, with emphasis on safe application of the treatment intervention following the plan of care and documentation of progress toward treatment goals. One classroom, six lab hours per week.
PTA 1116 and Restricted to Majors

1129 Therapeutic Exercise
Credit Hour(s) 3
Theory of and clinical rationale for the use of basic therapeutic exercises, functional activities and orthopedic special tests, with application

of these procedures to a general population and to those with common orthopedic and musculoskeletal diagnoses of the upper and lower extremities. One classroom, six lab hours per week.
PTA 1116 and Restricted to Majors

1144 Therapeutic Foundations
Credit Hour(s) 3
Theory, clinical rationale and application of common tests, measures and therapeutic interventions utilized in the practice of physical therapy, with emphasis on demonstration of knowledge, skillful performance and patient education related to these procedures in a variety of clinical settings with a variety of diagnoses. Six lab hours per week.
PTA 1116 and Restricted to Majors

2211 Clinical Practicum I
Credit Hour(s) 3
Introductory experience in the clinical setting under the supervision of a Physical Therapist or Physical Therapist Assistant clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions. Forty hours per week for five weeks and eight hour seminar in one week.
PTA 1144 and Restricted to Majors

2212 Clinical Practicum II
Credit Hour(s) 3
Intermediate experience in the clinical setting under the supervision of a Physical Therapist or Physical Therapist Assistant as the clinical instructor. Application of theories and techniques for patient interventions, documentation and interdisciplinary interactions. Forty hours per week for five weeks and eight hour seminar in one week.
PTA 2211 and Restricted to Majors

2226 Clinical Procedures II
Credit Hour(s) 2
Theory, rationale and clinical practice of manual therapy techniques and other therapeutic techniques frequently utilized in physical therapy for the purpose of enhancing movement, decreasing pain, improving overall health and function and reducing stress. Four hour lab per week.
PTA 1116 and PTA 1144 and Restricted to Majors

2230 Neuromuscular Rehabilitation
Credit Hour(s) 4

Structure and function of the nervous system, including changes across the life span and impact on human development. Use of therapeutic interventions for neurological, cardiovascular and pediatric pathologies.
PTA 1144 and Restricted to Majors

2234 Practice Management
Credit Hour(s) 3
Study of management concepts, techniques, administrative skills and professional issues in the operation of a physical therapy practice. Legal and ethical issues involved with business practices, health care reform and community education. Preparation for the state and national licensing examinations.
PTA 2212 and Restricted to Majors

2238 Musculoskeletal Rehabilitation
Credit Hour(s) 2
Theory and application of physical therapy treatment techniques for more complex and specialized diagnoses across the lifespan, including but not limited to orthopedic spinal conditions, cardiovascular, pulmonary, obstetrical, endocrine and multisystem disorders. One classroom, two lab hours per week.
PTA 1129 and Restricted to Majors

2240 Clinical Procedures Review
Credit Hour(s) 1
Review of curricular course content with required competency of technical skills based on courses being remediated.
Restricted to Majors

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Radiologic Technology (RAT)

1101 Introduction to Radiologic Technology
Credit Hour(s) 2
Introduction to the field of radiologic technology, including history, basic radiation production and safety concepts, patient communication, clinical education, ethical, legal and professional issues.

1111 Clinical Practicum I
Credit Hour(s) 1
Orientation to clinical facility and radiology department, introduction to competency performance of radiographic procedures, image analysis, radiation protection, patient care and team work. Seven practicum hours per week.
Must be taken with RAT 1121. Restricted to Majors

1121 Radiographic Procedures I
Credit Hour(s) 5
Radiographic anatomy, equipment manipulation, positioning and image analysis of the thorax, abdomen and appendicular skeleton. Four classroom, three lab (RAT 1127) hours per week.
Restricted to Majors

1127 Lab for Radiographic Procedures I
Credit Hour(s) 0

1131 Patient Care in Radiologic Technology
Credit Hour(s) 4
Safety and assessment techniques related to care of the patient in a radiography department, including legal and professional aspects, elements of ethical behavior and practical dilemmas, and current infection control practices. Three classroom, two lab (RAT 1137) hours per week.
Restricted to Majors

1137 Lab for Patient Care in Radiologic Technology
Credit Hour(s) 0

1212 Clinical Practicum II
Credit Hour(s) 0
Continuation of clinical competency development to include spine, skull, contrast media procedures, mobile and surgical radiography, trauma radiography, exposure factors, radiation protection and image analysis/evaluations. Fourteen practicum hours per week.
RAT 1111 and Restricted to Majors

1222 Radiographic Procedures II
Credit Hour(s) 5
Radiographic anatomy, positioning and image analysis of the spine, skull, gastrointestinal and genitourinary systems, as well as general pharmacological principles as they pertain to radiology. Alternative positioning for trauma and mobile radiography. Four classroom, three

lab (RAT 1228) hours per week.
RAT 1121 and Restricted to Majors

1228 Lab for Radiographic Procedures II
Credit Hour(s) 0

1241 Radiologic Sciences I
Credit Hour(s) 3
This course is designed to help the student understand the concepts of electromagnetic energy, electricity, x-ray equipment, production of x-radiation and its interaction with matter. Special radiographic equipment including digital radiography and the concepts of radiation safety and protection will also be presented. Two classroom, two lab (RAT 1247) hours per week.
RAT 1121 and Restricted to Majors

1247 Lab for Radiologic Sciences I
Credit Hour(s) 0

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

2413 Clinical Practicum III
Credit Hour(s) 3
Continuation of clinical competency development to include diagnostic radiography, mobile radiography, contrast studies, pediatric, geriatric, advanced imaging, alternative shifts, radiation protection and image analysis. Twenty-one practicum hours per week.
RAT 1212 and Restricted to Majors

2415 Radiographic Pathology
Credit Hour(s) 3
Introductory concepts of disease processes and etiologies with emphasis on radiographic appearances and exposure factor compensation.
Restricted to Majors

2423 Radiographic Procedures III
Credit Hour(s) 3
Radiographic considerations related to geriatric, pediatric, advanced imaging procedures and modalities. Includes analysis of human anatomical structures using various anatomical planes.
RAT 1222 and Restricted to Majors

2442 Radiologic Sciences II
Credit Hour(s) 4
Principles of digital imaging technology to include applications in exposure formulation,

image quality factors and variables, and image management processes. Three classroom, two lab (RAT 2448) hours per week.
RAT 1241 and Restricted to Majors

2448   Lab for Radiologic Sciences II
Credit Hour(s) 0

2514   Clinical Practicum IV
Credit Hour(s) 3
Final clinical competency experience, including total exposure to the health care system and entry-level radiographer skills, completion of all program requirements (including final competency evaluations). Twenty-one practicum hours per week.
RAT 2413 and Restricted to Majors

2526   Capstone in Radiologic Technology
Credit Hour(s) 4
Synthesis of current knowledge of radiologic technology concepts, professional development including certification and licensure requirements , ethical/legal responsibilities and transition from student to radiographer.
Must be taken with RAT 2514. Restricted to Majors

2543   Radiologic Sciences III
Credit Hour(s) 2
Fundamental principles of molecular and cellular effects of x-ray interaction, along with a comprehensive study of health physics and radiation protection to include quality management and quality assurance testing of the radiographic system. Includes basic principles and applications of computed tomography.
RAT 2442 and Restricted to Majors

2640   Computed Tomography Practicum
Credit Hour(s) 1 to 4
A variable credit clinical education course that provides hands-on experience performing computed tomography procedures at an affiliate hospital and/or imaging center. Seven practicum hours per week per semester credit hour.
Approval of Department

2641   Principles of Computed Tomography
Credit Hour(s) 2
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.
Approval of Department

2643   Principles of Magnetic Resonance Imaging
Credit Hour(s) 2
Basic physics concepts involving the generation and construction of human planar images using magnetic resonance imaging technology.
Approval of Department

2644   Applications of Magnetic Resonance Imaging
Credit Hour(s) 2
Magnetic resonance imaging procedures including patient preparation, positioning, imaging protocol, instrumentation and archiving.
RAT 2643 and Approval of Department

2645   Magnetic Resonance Imaging Practicum
Credit Hour(s) 1 to 4
A variable credit clinical education course that provides hands-on experience performing magnetic resonance imaging procedures at an affiliate hospital and/or imaging center. Seven hours per week per semester credit hour.
Approval of Department

2647   Principles of Mammography
Credit Hour(s) 3
Comprehensive overview of mammographic concepts and equipment, including patient care/education, communication, anatomy and physiology, epidemiology, pathology, positioning techniques, interventional procedures, image analysis, imaging media and processing, quality assurance testing and principles of exposure.
Approval of Department

2649   Mammography Practicum
Credit Hour(s) 1 to 4
A variable credit clinical education course that provides hands-on experience performing mammographic procedures and quality assurance testing at an affiliate hospital and/ or imaging center. Seven practicum hours per week for each semester credit hour.
Approval of Department

Religion (REL)

1111   Eastern Religions
Credit Hour(s) 3
Introduction to Far Eastern religions and cultural traditions, including beliefs, practices,

stories and rituals, and historical context.

1112   Western Religions
Credit Hour(s) 3
Introduction to Western religions and cultural traditions, including beliefs, practices, stories, rituals and historical context.

1135   American Religious Movements
Credit Hour(s) 3
Examination of the history of unique American religious movements and their impact on our culture and thought.

2204   Great Books: The Bible & Western Culture
Credit Hour(s) 3
An exploration of how and why the Bible is viewed as a great book. Both the Old and New Testaments will be explored in their respective historical contexts.

2255   People & Religion
Credit Hour(s) 3
Overview of the rich diversity of human religiosity and the key beliefs, practices, stories and rituals that serve to connect humans to the sacred. Special attention to unique individuals within each religious tradition. A comparative look at religion in our society.

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Real Estate (RES)

1101   Real Estate Principles
Credit Hour(s) 3
This course develops skills in areas encompassed in the real estate industry, including the market, investment, brokerage, contractual and property rights, as they affect both the investor and the purchaser. Agency law, fair housing and environmental issues as they concern the field will also be explored.

1102   Real Estate Abstracting
Credit Hour(s) 4
Examine how recorded documents affect real estate, terms used in abstracting and the function of public offices in the process. Additionally, demonstrate correct procedures in title search and in using indices records to determine ownership, outstanding interests and rights in interests.

1201   Real Estate Law

Credit Hour(s) 3

Explanation of the legal phases of a realty transaction. Examination of types of estates in land, co-ownership, mortgages, Ohio license law, landlord/ tenant law and legal factors in financing.

2297   Special Topics

Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

2301   Real Estate Finance & Appraisal

Credit Hour(s) 3

Exploration of the institutions, methods, instruments and procedures involved in the financing of real estate, Nature of mortgage market and effects of government monetary/ fiscal policy considered. Methodology of appraising urban property, basic techniques of appraising and appraisal theory.

2302   Real Estate Investing & Property Management

Credit Hour(s) 4

An analytical approach to investment in real estate. Financing, tax considerations, appraisal, internal rate of return, acquisitions and exchanges and problems involving investment analysis. Management of residential, business and commercial property. Topics presented are merchandising, public relations, leasing, accounting and insurance.

2401   Real Estate Capstone

Credit Hour(s) 3

Apply knowledge and practice skills acquired in real estate courses concerning principles, law, finance, appraisal, abstracting, investing and property management through the use of case studies, simulations and role playing.
RES 1101 and RES 1102 and RES 1201 and RES 2301 and RES 2302

Respiratory Care (RET)

1100   Introduction to Respiratory Care

Credit Hour(s) 1

Respiratory Care as a profession to include standards of practice, regulating agencies, ethics and legal issues, education and program requirements, areas of clinical focus and employment outlook for a respiratory therapist.
DEV 0012 and DEV 0032

1101   Respiratory Care Fundamentals I

Credit Hour(s) 5

Respiratory care theory, physical assessment, equipment and skill development of procedures required for clinical practice, including vital signs, isolation precautions, body mechanics, respiratory vitals, airway management, oxygen therapy, humidity and aerosol therapy, medicinal therapy and fluidics. Four classroom, three lab (RET 1102) hours per week.
RET 1100 and Restricted to Majors

1102   Lab for Respiratory Care Fundamentals I

Credit Hour(s) 0

1124   Cardiopulmonary Pharmacology

Credit Hour(s) 2

Actions, effects, dosages and indications for drug classes commonly used to treat pulmonary and cardiovascular diseases.
CHE 1111 and Restricted to Majors

1125   Respiratory Care Sciences

Credit Hour(s) 4

Advanced 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, control mechanisms and physiological stressors; microbiology and infection control methods; emphasis on application/integration of respiratory sciences to patient scenarios.
BIO 1107

1201   Respiratory Care Fundamentals II

Credit Hour (s) 5

Respiratory care theory, equipment and skill development of procedures required for clinical practice, including hyperinflation therapy, bronchopulmonary hygiene therapy, arterial blood gas puncture and analysis, pulse oximetry, electrocardiographs (ECGs), bronchoscopies, home care, cardiopulmonary rehabilitation and smoking cessation techniques. Four classroom, three lab (RET 1202) hours per week.
RET 1101 and Restricted to Majors

1202   Lab for Respiratory Care Fundamentals II

Credit Hour(s) 0

1203   Respiratory Care Clinic I

Credit Hour(s) 3

Acquire and evaluate clinical data, initiate

prescribed respiratory care treatments, manage life support activities, evaluate and monitor patient responses to therapy and modify the prescribed therapy to achieve the desired therapeutic objectives. Fifteen directed practice hours per week.
RET 1101 and Restricted to Majors

1205   Cardiopulmonary Disease Processes

Credit Hour(s) 3

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.
RET 1101 and Restricted to Majors

1301   Respiratory Care Fundamentals III

Credit Hour(s) 3

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.
RET 1201 and Restricted to Majors

1303   Respiratory Care Clinic II

Credit Hour(s) 1

Enhance clinical skills by performing prescribed therapy, evaluating clinical data, assessing patient status and observing/ performing diagnostic studies, rehabilitation, hyperbaric oxygen therapy and patient education in multiple health care settings. Seven practicum hours per week.

2101   Critical Care I

Credit Hour(s) 5

Assessment and treatment of the critically ill patient to include airway emergencies, physiology and improvement of oxygenation/ ventilation, lung mechanics, positive airway pressure therapies, ventilator classification and management, weaning from mechanical ventilation and neonatal/pediatric mechanical ventilation. Four classroom, three lab (RET 2102) hours per week.
RET 1301 and Restricted to Majors

2102   Lab for Critical Care I

Credit Hour(s) 0

2103   Respiratory Care Clinic III

Credit Hour(s) 3

Enhance clinical skills by performing prescribed mechanical ventilation within the critical care environment, diagnostic studies and evaluating clinical data on the adult and

pediatric patient. Fifteen directed practice hours per week.
RET 1301 and Restricted to Majors

2201   Critical Care II
Credit Hour(s) 4
Management of advanced modes of ventilation, ventilator graphics interpretation, critical care assessment considerations, advanced procedures for the respiratory therapist in the critical care setting and homecare ventilation/disease management. Three classroom, three lab (RET 2202) hours per week.
RET 2101 and RET 2102 and Restricted to Majors

2202   Lab for Critical Care II
Credit Hour(s) 0

2203   Respiratory Care Clinic IV
Credit Hour(s) 2
Apply adult, pediatric and neonatal clinical skills, including respiratory care procedures, diagnostics and mechanical ventilation within the critical care environment. Ten directed practice hours per week.
RET 2101 and Restricted to Majors

2204   Respiratory Care Clinic V
Credit Hour(s) 1
Summative skills performance to include initiating prescribed respiratory care treatments, managing life-support activities, evaluating patient responses to such therapy and modifying therapy, performing diagnostic studies, rehabilitation, hyperbaric oxygen therapy, providing education for in-patient and home care environment and performing mechanical ventilation on adults, pediatrics and neonates. Seven practicum hours per week.
RET 2101 and Restricted to Majors

2220   Respiratory Care Emergency Preparedness
Credit Hour(s) 3
Advanced resuscitation techniques for the adult, pediatric, and neonatal patient with additional focus on disaster and epidemic preparedness/treatment and transport of the critically ill patient. Two classroom, three lab (RET 2222) hours per week.
RET 2101 and RET 2250 and Restricted to Majors

2222   Lab for Respiratory Care Emergency Preparedness
Credit Hour(s) 0

2250   Pediatrics & Neonatology
Credit Hour(s) 2
Development of the fetus, anticipation of high-risk pregnancies and care of the newborn infant, emphasizing neonatal and pediatric physiology and diseases, including mechanical ventilation and pertinent diagnostics.
Restricted to Majors

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Russian (RUS)

1100   Conversational Russian I
Credit Hour(s) 3
A foundation for gaining knowledge about Russian culture and basic phrases related to simple spoken Russian, including travel situations.

1105   Conversational Russian II
Credit Hour(s) 3
Develops conversational skills to a greater degree of complexity, covering more situations. Promotes free expression in Russian within more specific and complex cultural contents.
RUS 1100

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Sinclair Student Success Experience (SCC)

1101   First Year Experience
Credit Hour(s) 1
This course is designed to help new students make a successful transition to Sinclair Community College. Topics include college resources; academic, career and personal goals; learning styles; the learning process; financial responsibility; stress and wellness; and an introduction to the general education competencies at Sinclair.
DEV 0010 and DEV 0030

Sociology (SOC)

1101   Introduction to Sociology
Credit Hour(s) 3
A critical analysis of contemporary American society with review of major sociological theories, research methods, culture, socialization, groups, social structure, social

institutions, deviance, social inequalities, social processes and social change.
DEV 0010 and DEV 0030

1108   Appalachian Families
Credit Hour(s) 3
A critical 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, including an examination of the diverse populations within the Appalachian region.

1115   Sociology of Marriage & Family
Credit Hour(s) 3
This course is a sociological examination of theoretical perspectives on the institution of family. Topics include the historical context of the family, the role of marriage and family in society, family formation, socialization, divorce, parenting, family issues, family throughout the life course and social policy. Variations in family types and lifestyles among diverse groups worldwide are examined.
SOC 1101

1117   Popular Culture
Credit Hour(s) 3
Exploration of contemporary popular culture and popular culture in a historical context: examination of influence of popular culture on the development of a unique American society and culture through media, music, sports, entertainment and/or food.

1129   Sociological Aspects of Deafness
Credit Hour(s) 3
Studies implications of deafness of children and adults in the areas of language, family relationships, education, psychology, history, culture and societal roles.

1145   Introduction to Cultural Anthropology
Credit Hour(s) 3
An examination of what is meant by culture and a review of the various theories and methods in Cultural Anthropology. Includes a comparison of the similarities and differences among world cultures as well as comparative analysis of family organization, religious beliefs, educational systems, economics and governmental systems.

1160   Sociology of Aging
Credit Hour(s) 3
Orientation to the sociological, biological and psychological dimensions of the aging process

and society's response to its older members and social concerns. Examination of social forces that impact the aging process.
SOC 1101

1216   Sociology of Human Sexuality
Credit Hour(s) 3
A critical analysis of the interrelatedness of sociological, cultural, biological, psychological and religious factors influencing attitudes towards sexuality.

1219   Global Poverty
Credit Hour(s) 3
This course focuses on the issue of global poverty. It includes a comparison of relative poverty and absolute poverty. This course specifically examines three areas of global poverty through both a sociological and interdisciplinary perspective(including a comparison of western and nonwestern perspectives). The three areas include an examination of the many hypotheses and theories about the causes of global poverty, an examination of the consequences of poverty at the micro, meso and macro levels, and an examination of the theories and solutions to reduce/solve global poverty.

2130   Sociology of Family Violence
Credit Hour(s) 3
Sociological explanation of the nature and scope of family violence: child abuse, spousal abuse, elder abuse, sexual abuse, neglect and emotional abuse. Analysis of social and legal implications; intervention and prevention will be explored.
SOC 1101

2205   Social Problems
Credit Hour(s) 3
An introduction to social problems facing large, complex societies using sociological theories and methodology to examine causes, treatments and solutions. Among the topics discussed are: mental illness, health care, alcohol and drug abuse, violence, crime, delinquency, inequality, poverty, immigration, family, global and environmental issues.
SOC 1101

2208   Sociology of American Cities
Credit Hour(s) 3
The socioeconomic evolution and growth of cities, emphasizing affluence and poverty, racial and ethnic pluralism, physical and moral decay of inner cities and the effects on both urban and suburban residents.
SOC 1101

2214   Applied Population Demography
Credit Hour(s) 3
Introduction to the study of human populations and the process that governs their change, fertility, migration and mortality. Application and comparison of demographic data related to the United States Census, emphasizing current and future social and economic trends through computer applications for demographic research.

2215   Race & Ethnicity
Credit Hour(s) 3
Sociological exploration of American racial and ethnic diversity. Emphasis given to the social construction of race and ethnicity, patterns of intergroup contact and global migration. Historical comparative analysis of selected groups with emphasis given to economic, political and structural inequalities.
SOC 1101

2226   Criminology
Credit Hour(s) 3
This course presents a framework for studying the nature and the causes of crime and criminal behavior. Focus is provided through criminal typologies and the myriad of theories using multi-disciplinary perspectives.
SOC 1101

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Spanish (SPA)

1100   Conversational Spanish I
Credit Hour(s) 3
A foundation for gaining knowledge about Hispanic culture and basic phrases related to simple spoken Spanish, including travel situations.

1101   Elementary Spanish I
Credit Hour(s) 4
Foundation for understanding, speaking, reading and writing Spanish. Work outside of class and/or in the language laboratory is required.

1102   Elementary Spanish II
Credit Hour(s) 4
Foundation for understanding, speaking, reading, and writing Spanish. Work outside of class and/or in the language laboratory is required.
SPA 1101

1161   Conversational Spanish for Criminal Justice
Credit Hour(s) 3
Conversational Spanish focused on learning to communicate 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.

2201   Intermediate Spanish I
Credit Hour(s) 3
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
SPA 1102

2202   Intermediate Spanish II
Credit Hour(s) 3
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
SPA 2201

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Surgical Technology (SUT)

1101   Tissue Banking I
Credit Hour(s) 4
Framework and environment for the practice of Tissue Banking. 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), the U.S. Food and Drug Administration (FDA) and related regulatory agencies. May be taken with SUT 1107.
BIO 1107 and Restricted to Majors

1107   Lab for Tissue Banking I

Credit Hour(s) 1

Framework and environment for the practice of sterile technique in Tissue Banking. Introduces the use of sterile technique, scrubbing gowning and gloving, skin preparations and sterile draping for tissue recovery and processing. Three lab hours per week.

BIO 1107 and Restricted to Majors

1110 Theory & Fundamentals

Credit Hour(s) 5

Discusses the framework and environment for the practice of Surgical Technology. Introduces the use of therapeutic communication, group process and critical thinking. Focuses on safety through preoperative preparation, asepsis and an overview of anesthesia. Introduces the techniques for preparing the operating room, instruments, supplies and the equipment to be used during a surgical procedure. Must be taken with SUT 1117.

ALH 1101 and BIO 1121 and BIO 1222 and COM 2206 or COM 2211 and HIM 1101 and ENG 1101 and Restricted to Majors

1117 Lab for Theory & Fundamentals

Credit Hour(s) 1

Beginning competencies in aseptic technique, surgical hand preparation, gowning and gloving techniques, patient positioning, patient skin preparation, patient draping and preoperative patient care techniques to include chart review and vital signs. Three lab hours per week.

ALH 1101 and BIO 1121 and BIO 1222 and COM 2206 or COM 2211 and HIM 1101 and ENG 1101 and Restricted to Majors

1120 The Surgical Process

Credit Hour(s) 2

Introduces 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. Must be taken with SUT 1127.

BIO 2205 and PSY 1100 and SUT 1110 and Restricted to Majors

1127 Directed Practice for the Surgical Process

Credit Hour(s) 4

Implements the surgical process in the operating room for basic abdominal surgeries. Twenty directed practice hours per week.

Restricted to Majors

2101 Tissue Banking II

Credit Hour(s) 2

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. Certification exam review. Must be taken with SUT 2107.

SUT 1101 and Restricted to Majors

2107 Practicum for Tissue Banking II

Credit Hour(s) 2

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. Fourteen practicum hours per week.

SUT 1101 and Restricted to Majors

2110 Surgical Procedures I

Credit Hour(s) 2

Discusses specific surgical procedures of the gastrointestinal, biliary and reproductive systems. Adapts surgical care concepts to geriatric and pediatric patients. Correlates intraoperative procedures with postoperative care.

Must be taken with SUT 2117.BIO 2205 and SUT 1120 and SUT 1127 and Restricted to Majors

2117 Directed Practice for Surgical Procedures I

Credit Hour(s) 4

Implements the surgical process in the operating room for general surgery, Obstetrics/Gynecology and Genitourinary (GU) surgeries. Twenty directed practice hours per week.

BIO 2205 and SUT 1120 and SUT 1127 and Restricted to Majors

2120 Surgical Procedures II

Credit Hour(s) 5

Discusses genitourinary, ophthalmic, ear/nose/throat, head and neck, oral, plastic and vascular surgical procedures. Explains the role of the scrub technologist when intraoperative emergencies occur.

Must be taken with SUT 2117. ALH 2201 and SUT 2110 and SUT 2117 and Restricted to Majors

2127 Directed Practice Surgical

Procedures II

Credit Hour(s) 4

Implements the surgical process in the operating room for Genitourinary, Eye-Ear-Nose-Throat, Opthalmology, Plastics and Vascular surgical procedures. Twenty hours of directed practice per week.

ALH 2201 and SUT 1120 and SUT 1127 and SUT 2110 and SUT 2117 and Restricted to Majors

2200 Surgical Procedures III

Credit Hour(s) 5

Discusses specific orthopedic, neurological, thoracic, open heart, trauma and pediatric procedures. Examines immediate postanesthesia care. 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. Must be taken with SUT 2207.

ALH 1140 and MAT 1130 and SUT 2120 and SUT 2127 and Restricted to Majors

2207 Directed Practice for Surgical Procedures III

Credit Hour(s) 4

Implements the surgical process in the operating room for orthopedic, neuro, thoracic, open heart, trauma, pediatrics. Implements the role transition to beginning Surgical Technology practitioner. Twenty hours of directed practice per week.

ALH 1140 and MAT 1130 and SUT 2120 and SUT 2127 and Restricted to Majors

2297 Special Topics

Credit Hour(s) 0.5 to 9   R

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 nontraditional format.

Social Work (SWK)

1206 Introduction to Social Work

Credit Hour(s) 3

Explore how historical events have shaped the social work profession. Recognize personal values in the context of one's practice as social worker and identify roles and knowledge base required. Recognize

social, cultural and economic justice issues related to vulnerable groups and the impact of inequality. Describe social work settings and various fields of practice.
DEV 0010 and DEV 0030

1213   Introduction to Social Welfare
Credit Hour(s) 3   Explore history, values, ideologies and ethics in development of social welfare in the United States and identify the role of government in the delivery of social services. Learn how institutional structures, including forms of oppression and discrimination, and human diversity issues influence the delivery of social services.

2207   Cultural Competence in a Diverse World
Credit Hour(s) 3
Set of skills to be effective with multicultural clients. Understanding of theories, which will enhance competence in terms of behaviors, attitudes and policies that come together to assist professionals to work effectively in cross-cultural situations. Strong emphasis on self-awareness of personal cultural values and beliefs to increase appreciation of multicultural identities.
DEV 0010 and DEV 0030

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Theatre (THE)

1101   Theatre Appreciation
Credit Hour(s) 3
Theatre as an art form presented from the historical, literary and production points of view. Includes an exploration into the creative processes associated with the production of plays and the collaborative contributions of the actor, director, designers, playwright, critic and audience.

1103   Acting For The Non-Major
Credit Hour(s) 3
Introduction to the art of acting, focusing on acquainting nonmajors with the concepts and skills of the acting profession. Two classroom, two lab hours per week.

1105   Introduction to Theatre
Credit Hour(s) 3
An exploration of the artists, innovators and techniques that have influenced theatrical

practices in historical and contemporary productions through research, script analysis and viewing theatre productions.
Restricted to Majors

1106   Stagecraft
Credit Hour(s) 3
A study of techniques for building and handling theatrical scenery. Covers tools, materials and hardware used, along with standard safety practices and the artistic and practical considerations of scenery construction. Two classroom, three lab (THE 1107) hours per week.
DEV 0022

1107   Lab for Stagecraft
Credit Hour(s) 0
A study of techniques for building and handling theatrical scenery. Covers tools, materials and hardware used, along with standard safety practices and the artistic and practical considerations of scenery construction.

1108   Voice & Speech for the Actor
Credit Hour(s) 3
Basic training in use and care of the actor's vocal instrument with emphasis on the use of the international phonetic alphabet. Two classroom, two lab hours per week.

1109   Movement For The Actor
Credit Hour(s) 3
Various movement styles that will enable the student to develop flexibility and kinesthetic awareness for more nuanced physical expression of a character. Two classroom, two lab hours per week.

1111   Acting I
Credit Hour(s) 3
Basic training and practice in vocal, physical and creative processes used by the actor. Two classroom, two lab hours per week.

1112   Acting II
Credit Hour(s) 3
Intermediate training and practice in vocal, physical and creative processes used by the actor. Two classroom, two lab hours per week.
THE 1111 and Approval of Department

1116   Stage Lighting Fundamentals

Credit Hour(s) 3
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. Two classroom, three lab (THE 1117) hours per week.

1117   Lab for Stage Lighting Fundamentals
Credit Hour(s) 0
Study of theatrical lighting equipment, materials, methods and techniques. Emphasis on technical aspects of stage lighting, with and introduction to the principles of lighting design.

1118   Costume Fundamentals
Credit Hour(s) 3
Basic training in fundamental concepts and practices of costume design and construction. Two classroom, three lab (THE 1119) hours per week.

1119   Lab for Costume Fundamentals
Credit Hour(s) 0
Laboratory must be taken with THE 1118.

1120   Stage Make-up
Credit Hour(s) 2   R
Basic training in fundamental concepts and practices of stage make-up application.

1194   Applied Theatre Technology I
Credit Hour(s) 1   R
Lab experience in theatre technology; positions can include production assistant, front of house, run crew and construction crews for theatre department productions. Assignments are made through department faculty and staff.

1196   Applied Theatre Technology II
Credit Hour(s) 1
Continued lab experience in theatre technology; positions can include production assistant, front of house, run crew and construction crews for theatre department productions. Assignments are made through department faculty and staff.
Approval of Department

1198   Applied Theatre Technology III
Credit Hour(s) 1   R
Further lab experience in theatre technology; positions can include production assistant, front of house, run crew and construction crews for theatre department productions.

Assignments are made through department faculty and staff.
Approval of Department

1199 Applied Theatre Performance
Credit Hour(s) 1   R
Applied Theatre Performance provides the student the opportunity to receive credit for practical experience.

2113 The Audition Process
Credit Hour(s) 3
Perform scenes from several eras in theatre history: Greek, Restoration, Shakespeare and post-modernist theatre. Study and perform modern audition techniques (cover letters, headshots, etc.). Two classroom, two lab hours per week.
THE 1112 and Approval of Department

2201 History of Theatre I
Credit Hour(s) 3
The world of theatre, from its origins through 1800 AD. A close look at the architecture, costuming, acting and plays of the Egyptian, Greek, Roman, Medieval, Renaissance, French Neoclassical and Medieval Asian periods.

2202 History of Theatre II
Credit Hour(s) 3
The world of theatre, from 1800 AD to the present day. A close look at the architecture, costuming, acting and plays of the Early American, Realism, Expressionism, Anti-Realism, Agit-Prop, Post-Modernist, American Realism, Musical Theatre and Contemporary Theatre styles.
THE 2201

2206 Script Analysis
Credit Hour(s) 3
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 classroom, four lab hours per week.
THE 1105

2214 Introduction To Stage Combat
Credit Hour(s) 3
An introduction to theatrical violence and fighting styles with emphasis on the integration of technical skills and characterization. Two classroom, two lab hours per week.
THE 1109

2215 Acting Shakespeare
Credit Hour(s) 3
Script and character and the performance of selected Shakespearean scenes, monologues and soliloquies. Two classroom, two lab hours per week.

2220 Theatre Portfolio
Credit Hour(s) 2
Process for creating a theatre resume and portfolio: development of presentation and interview skills.
15 hours completed from Theatre Department

2240 Stage Management
Credit Hour(s) 3
An introduction to the creative and administrative work of the stage manager, including hands-on activities in learning the principles and practices of stage management. Attendance at department production rehearsals and performance required. Two classroom, two lab hours per week.
THE 1105

2255 Theatre Workshop
Credit Hour(s) 1 to 3   R
Focused on a specialized area in theatre. This course is designed to bring together performance, direction and design/technology.
Approval of Department

2296 Applied Theatre Technology IV
Credit Hour(s) 1 to 3   R
Advanced practical experience in theatre design and technology. Participation in department production required. Assignments made through department faculty and staff.
Approval of Department

2297 Special Topics
Credit Hour(s) 0.5 to 9   R
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.

2298 Applied Theatre Technology V
Credit Hour(s) 1 to 3   R
Further advanced practical experience in theatre design and technology. Participation in department production required. Assignments

made through department faculty and staff.
Approval of Department

2299 Theatre Practicum: Performance
Credit Hour(s) 1 to 3   R
This course provides the student who is interested in the performance aspects of production the opportunity to receive credit for practical experience.
Approval of Department

Visual Communication (VIS)

1100 Design Basics
Credit Hour(s) 4
Introduction to the fundamentals of two-dimensional and three-dimensional design. Students will apply critical and creative thinking techniques to applied projects that will explore the use of conceptualization, color, typography, image, modeling and applying the fundamentals of design. Two classroom, four lab hours per week.

1110 Design Drawing
Credit Hour(s) 4
Introduction to design drawing techniques as applied to visual communications, including stylization, perspective, shading and rendering. Two classroom, four lab hours per week.

1140 Digital Design I
Credit Hour(s) 3
Introduction to computer illustration, imaging, photo manipulation, page layout and composition techniques using industry-based software.

1180 History of Design
Credit Hour(s) 3
History of graphic design covering major designers and their work, as well as design movements. From the origins of graphic art including printing and typography through the rise of the Internet, this course will explore the connection between culture and technology in the evolution of graphic design.
DEV 0032

1208 Typography
Credit Hour(s) 4
Introduction to typography as an element and tool of visual communication. The concept of

type as image is emphasized. Two classroom, four lab hours per week.
VIS 1100 and VIS 1140

1218   Digital Design II
Credit Hour(s) 4
Introduction to media design, including digital video, animation and web-based software applications, for the development of online interactive media. Design basics and a hands-on approach emphasized.
VIS 1140

1250   Print Production
Credit Hour(s) 4
This course will provide the fundamentals of the various printing processes. It will include digital prepress techniques used to prepare layouts for the different processes used in the industry.
VIS 1140

2110   Design Principles
Credit Hour(s) 4
Development of an identity system, visual language, stationery system and identity manual. Exploration of advanced elements and principles of design; introduction to symbology. Two classroom, four lab hours per week.
VIS 1110 and VIS 1208 and VIS 1250 and VIS 1218

2120   Design Applications I
Credit Hour(s) 4
Design Applications I will cover the development of a pictogram and wayfinding system that will be used as a component to an overall Identity Manual developed in Design Principles. Two classroom, four lab hours per week.
VIS 1110 and VIS 1208 and VIS 1250 and VIS 1218

2160   Design Applications II
Credit Hour(s) 4
Advanced application of design principles. Emphasis will be placed on creating fully developed digital media. Two classroom, four lab hours per week.
VIS 2110 and VIS 2120

2260   Visual Communications Portfolio
Credit Hour(s) 4

Graphic design business practices including individualized portfolio development, work experience and development of professional practice skills; including cost estimating, contract writing, sales and communication techniques. Two classroom, four lab hours per week.
VIS 2110 and VIS 2120

2270   Design Internship
Credit Hour(s) 1 to 3   R
Students earn elective credits toward Visual Communications or Interior Design degree requirements for work-learning experience. Students establish learning outcomes and prepare related reports and/or projects in consultation with the employer and faculty. Twelve field experience hours per credit hour each week.
VIS 1110 and Approval of Department

2297   Special Topics
Credit Hour(s) 0.5 to 9   R
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 nontraditional format.

Policies, Procedures & Services

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. This catalog contains official information for the academic year 2012-2013.

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.

For current information:

- (937) 512-3000
- 1-800-315-3000
- www.sinclair.edu

Adding /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 online or in person.

- Process the drop/add/withdrawal form in the office of Registration & Student Records, Dayton Campus, Building 10, Second Floor or at the Learning Centers
- Online through my.sinclair.edu
- To drop or withdraw from all classes for the term, students may use the Call Center, (937) 512-3000, 1-800-315-3000.
- 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/Z," in the class.

NOTE:
- Veterans' benefits will be affected by withdrawal from one or more classes. Veterans should first contact the Veterans Assistance office, Dayton Campus, Building 10, Room 10324.
- Financial aid status of any students may be affected by withdrawing from one or more classes.

To withdraw from a standard term course:

- Withdraw during the first eight (8) calendar days of the term for 100% tuition refund and no record of the class on the transcript.
- Withdrawal later than the first eight (8) calendar days, but during the first eight (8) weeks of the term, means no refund and a grade of "W" on the permanent record.

Short term courses of less than a term in length have special deadlines. Students should check the online calendar at www.sinclair.edu.

Financial Aid Add/Drop Policy

Sinclair Community College uses an Add/Drop period, also called the "census date" to determine a student's enrollment status for awarding federal financial aid. The census date is typically the 8th calendar day of the term.

The courses which students are registered for on the census date will determine financial aid eligibility. This means that if a student adds or drops classes before the census date, the amount of federal financial aid they are eligible for will be affected. If classes are added or dropped after the census date, the federal financial aid award amount will not change even if the student has been attending the class.

If the college has made an error that caused a federal financial aid recipient to be purged from classes and the student is requesting to be re-registered after the census date, the student should meet with a designated Registration staff member to complete the appropriate petition. The documentation collected will be forwarded to the Director or Assistant Directors of Financial Aid to verify whether or not federal financial aid can be used to pay for the classes in which the student will be re-registered after the census date. This documentation must include, but is not limited to, proof of attendance in all classes

for which the student is requesting re-registration.

Please note: If a federal aid recipient registers or re-registers for a class on or after the first day of classes, the student must obtain a signature from the instructor verifying the student has been attending the class.

Return of Title IV Policy—Return of Federal Financial Aid

Important Notice to All Federal Financial Aid Recipients: The federal Higher Education Act (HEA) of 1965 was amended in 1998 and new regulations were established with regard to Title IV student financial aid programs. Students earn their Title IV federal financial aid by attending class and if they are not enrolled long enough to earn all of their aid, the 'unearned' portion must be returned to the appropriate Title IV program.

Title IV financial aid programs include Federal Pell Grant, Federal Stafford Loans and Federal Work-Study (FWS). Federal Work-Study earnings are not affected by Title IV regulations concerning the return of unearned federal financial aid. Only grants and loans are affected by this policy.

This is a unique refund policy for financial aid that differs from the college refund policy.

The Return of Unearned Title IV Funds Policy applies if the student withdraws from or ceases attending all classes before the sixty percent point in the term. Completely withdrawing from, or ceasing to attend may result in financial aid repayment. Withdrawing may also affect future financial aid eligibility. Please speak to a financial aid counselor before withdrawing from classes at Sinclair. In some cases, a student may owe monies to Sinclair as an overpayment. This means that the student will not qualify for any additional federal funds until the balance is paid.

- 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.

- Stop attending all classes: For students who stop attending all classes without officially withdrawing, return of federal financial aid will be calculated according to the same guidelines.

- Non-Attendance of one or more classes: If students fail to attend one or more of their classes, their financial aid may be reduced or removed.

- Modular (Short-Term) courses: A student who withdraws from a short-term course(s) before the start of a future course within the same payment period will be considered as withdrawn for Return of Title IV purposes.

  -An exception is made if the student provides written notification affirming their intent to attend a future course prior to the start of the course within the payment period or the student provides affirmation of attendance by enrolling in a future course within the same payment period after the original withdrawal date. Written notification MUST be received prior to the first day of the future course.

  -Notification of attendance in a future course must be made in writing and will include:

- First and Last Name of the student

- Tartan ID or Social Security Number

- Future course(s) Name and Number (ex: PHI 2207 Logic)

- Begin and end date of future course(s)

- Statement affirming intent to attend future course(s)

- Student Signature

    -Notification may be provided as an attachment from the student's my.sinclair email account to finaid@sinclair.edu, standard mail or by dropping it off at any Sinclair location.
    -It remains the responsibility of the student to provide accurate, complete and timely notification.

- Return of Title IV calculations are performed at regular intervals.

- Example of Return of Title IV Calculation

Pell Grant	$1850
Subsidized Stafford Loan	$1162
Unsubsidized Stafford Loan	$664
Total	$3676
Completed days	18
Days per Term	77
% Aid Earned (Completed Days/Days per Term)	23.4%
Total Aid Earned (% Aid Earned * Total Aid Disbursed) =23.4%*$3676	$860.18
• Amount of Aid to be returned $3676.00 - $2815.82	$860.18
•Amount to be returned by Sinclair and Student	
Tuition/Fees/Books	$1265.40
$1265.40*(1-23.4%) College returns $664 Unsubsidized Loan + $305.30 Subsidized loan to the Stafford Loan Program	-$969.30
Student owes DOE for Stafford Loan	-$856.70
Initial amount of unearned Title IV due from student	$1846.52
Initial amount of Title IV grants for student to return	$989.82
Subtract the protected amount of Title IV grants $1850*50%	-$925
Pell Grant funds to be returned to DOE by student	$64.82

- Initial Amount to be Returned by Student

- Student will repay the $856.70 when they enter into repayment on their student loan.

- The $64.82 in Pell must be repaid to Sinclair Community College immediately in order for the student to regain financial aid eligibility.

- The student will be considered in overpayment status until the amount is repaid.

- Overpayment status will prohibit the student from receiving financial aid at Sinclair Community College or any other college.

- Repayment information can be found at the Office of the Bursar online at *http://www.sinclair.edu/services/bursar/* or by calling the Bursar at 937-512-2606.

- Students will be notified of their calculation of Unearned Title IV by the Sinclair Community College Financial Aid Office.

- See a Financial Aid Officer for additional information.

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 Hearing Panel. 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.

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.

- 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.

- Students must provide documentation of successful completion of requirements per the agreement. Each department is responsible for determining appropriate documentation.

- The course(s) will be recorded on the students' transcript with a "Y" grade.

- Credits earned via an articulation agreement do not apply toward the college residency requirements.

Since the development of articulation agreements with colleges and universities is an ongoing process, students should check with their academic/faculty advisors for the most

current listing of agreements.

Associate Degree

To be degree candidates, the students must:

- Fulfill requirements of the degree program and the institution.
- Complete a minimum of 60 semester hours (accredited programs must meet accreditation association requirements). Additionally, students must earn a minimum of 33 semester hours of their academic program from Sinclair, or must earn the last 20 semester hours of their academic program from Sinclair.
- Maintain a cumulative grade point average of at least 2.0.

Students have to meet degree requirements 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.

In order to earn more than one Associate's degree at Sinclair, a student must take a minimum of 12 credit hours in the second program that are different than the first. If a student qualifies for more than one degree using the same curriculum and does not take the minimum hours difference, the student may choose the degree to which they will be awarded.

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 SinclairOnline 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 SinclairOnline classes may affect final grades, financial aid eligibility, and V.A. benefits.

Auditing a Course

To audit a course means:

- students may attend class
- students are not required to take exams
- students do not receive a grade or credit

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. Registration can only be done in person, Room 10231, Dayton Campus or at the Learning Centers. Check www. sinclair.edu for deadlines.
- Audit status must be indicated on the registration form by marking a "Y" in the audit column.
- The fee for auditing is the same as that for enrolling for credit. A veteran may not use educational benefits to audit a course. In addition, financial aid may not be used to pay for courses that are audited.

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

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 who then enroll in courses appropriate to their skill levels are four times more likely to succeed academically as those students who are not assessed or who ignore placement requirements. Because Sinclair Community College is committed to providing accessible, high quality education, the following assessment policy was implemented fall 1990.

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

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

Students must begin mathematics and/or English course sequences at the level indicated by their assessment results. Students who possess less than a tenth grade level of mastery in reading must see an advisor before enrolling in any college level courses, except those specifically identified as exempt from this requirement.

This catalog is meant to serve as a guide; official and current information is available at:
www.sinclair.edu

Certificate Programs

Certificate programs recognized by the Ohio Board of Regents require completion of

a minimum of 30 semester 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 9 credit hours of Sinclair course work within the area of study to fulfill the institution's requirements.

Changing an Academic Program

In order to change from one academic program (major) to another, students have to meet with an academic advisor in Room 11346 or a faculty advisor (from the division housing their new academic program), who will implement the change. Students may also complete this process online at www.sinclair.edu/services/advising. This change will be indicated on their record and will not affect the cumulative grade point average.

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, Dayton Campus or at the Learning Centers.

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.

Communication with Financial Aid & Scholarships office

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 or 1-800-315-3000
   - Email finaid@sinclair.edu or send a letter; address: Financial Aid & Scholarships, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460.
   - Visit the Dayton Campus office, Building 10, Room 10324 to speak with a financial aid representative.

2. The Financial Aid office will communicate with students about the status of their application through their Sinclair email account. When the student's financial aid award package has been determined, an award notification will be sent via email. Students should check their college email account regularly.

Note: No information regarding student's financial aid records will be provided to anyone but the student without the student's written permission. See a financial aid representative at any campus location to complete the Release of Information form.

Degree Audit

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 online (http://my.sinclair.edu, click on Web Advisor).

Fresh Start Policy

Fresh Start allows a student, who has returned to the college after an absence of at least three years (9 semesters), and has completed specific requirements, a "one time only" option of having his or her grade point average recalculated from the point of re-enrollment without losing credit for previous course work for which a grade of *S, P, C* or better was earned. The Financial Aid office does not recognize the Fresh Start Policy or any changes it may have on a student's record.

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

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

    • Re-enroll in the college after an absence of at least 9 consecutive semesters (including summers).

    • Successfully complete any required Developmental (DEV) courses anytime during their college experience based on an assessment of reading, language usage, writing and numerical skills.

    • Successful completion of a minimum of six credit hours after re-enrollment with grades of *S, P, C* or better. DEV courses do not count toward the 6 credit hours. The following are examples of completion of the minimum first six credit hours.

Example 1:	1st sem:	6 hours – FS applied
Example 2:	1st sem:	15 hours –FS applied
Example 3:	1st sem:	3 hours
	2nd sem:	3 hours – FS applied
Example 4:	1st sem:	2 hours
	2nd sem:	3 hours
	3rd sem:	8 hours – FS applied

    • Request in writing that the policy be applied.

2. The policy can be applied only once and only to classes taken before re-enrollment. Once approved, the application of this policy against the student's record is irrevocable.

3. After a student elects Fresh Start and eligibility is verified, a notation will be added to

the student's transcript indicating that all Sinclair credit hours earned prior to policy enactment will be subject to the following conditions:

- the previous cumulative GPA is recalculated based upon the elimination of D, F, and Z grades

- credit earned at Sinclair with a grade of at least S, P, C or higher is carried over

- credit earned at Sinclair with a grade of D is forfeited

- grades from all course work taken at Sinclair will be shown on the transcript

4. Fresh Start may not be applied to any course previously used by the student to complete a degree or certificate.

The academic transcript will show:

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

Grades

The grade point average is computed by dividing the total points earned by the total credit hours attempted. Courses in which a student earns grades of "X", "I", "W", "P", "N", "S", "IP", "U" OR "Y" are not computed in the total credit hours attempted. These grades are considered in place of completion calculations for financial aid satisfactory academic programs evaluation.

Students may be given an "I" if their work has not been completed. The students must contact their instructor and request an "I" grade. If the instructor agrees, the students and instructor must sign the "Incomplete Grade Contract." When the required work is completed within 30 calendar days after the beginning of the next term, a grade will be submitted for the "I" grade. If this is not removed within this time, the "I" becomes and "F". This time limit may be extended by special permission of the instructor.

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

An "N" grade indicates the students attended classes and made satisfactory progress but didn't completed 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 circumstance will a grade be changed after two years have elapsed from the end

Grade		Quality Points		Grade		Quality Points
A	Excellent	4	90 - 100%	S	Satisfactory	0
B	Good	3	80 - 89%	U	Unsatisfactory	0
C	Average	2	70 - 79%	I	Incomplete	0
D	Passing	1	60 - 69	W	Withdrawal	0
F	Failure	0	0 - 59	P	Pass	0
Z	Non-Attendance	0	0 - 59	N	Progress	0
				Y	Proficiency Credit	0
				IP	In Progress	0
				X	Audit	0

of the term in which the grade was recorded. Within the two-year limitation, a petition may be filed with the office of the Associate Provost 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 requirement after that date.

Graduation

The office of Registration & Student Records is responsible for identifying students who have met all of the requirements for their programs. Once those students have been identified, they will be graduated.

Students will receive an email from the office of Registration & Student Records during the term in which they are enrolled in the final courses needed to complete their degrees, certificates or short term certificates. This email will simply confirm that the student has indeed registered for the necessary courses, and, pending successful completion of those courses, can expect to receive their diplomas or certificates at the end of the term. Once those courses have been completed successfully, students will be graduated. They will receive their diplomas or certificates through the U.S. Postal Service in three to four weeks after the end of the term.

Important points for graduating students to do during their last term:

- Check with an academic advisor to ensure their academic programs are correctly recorded.
- Check their Sinclair emails.
- Be sure the office of Registration & Student Records has their correct mailing addresses.

Student must earn a minimum of 33 semester credit hours of their academic program from Sinclair or must earn the last 20 semester credit hours of their academic program at Sinclair. Students interested in pursuing a second degree or certificate at Sinclair will need to file a Graduate Appeal in order to be considered for Financial Aid.

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 semester below 2.0 GPA—Academic Intervention
- Second consecutive semester below 2.0 GPA—Academic Probation
- Third consecutive semester 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:

   a. register or add classes

   b. receive additional support information or assistance.

Students whose semester 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 semester in which the semester GPA is 2.0 or greater.

NOTE: Financial aid considers all assigned grades when calculating cummunlative grade point average for satisfactory academic progress evaluation.

Participation in Commencement

Students earning their associate degrees will be offered the opportunity to participate in Sinclair's annual commencement ceremony. This ceremony takes place in May. Participation in the commencement ceremony is limited to those students earning associate degrees.

Guarantees

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 (AA and AS Degrees)—For students 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.

The guarantee applies only to courses included in a written transfer/articulation plan that must be on file in the Provost office.

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 (AAS 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 credit hours of additional training by Sinclair Community College, under the conditions of the guarantee policy.

The guarantee applies only to graduates employed on a full-time basis directly related to the area of program concentration as certified by the senior vice president and provost. 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) semester 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

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 each term begins. See the online 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. Register in person only.

Note: SinclairOnline classes are considered to have met as of midnight on the second day of the term.

Military Training

Sinclair evaluates military training according to the American Council on Education

recommendations. Contact the Registration & Student Records office for a list of official documentation that is acceptable for evaluation.

Policies

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

One Year Time Limit on Math Prerequisites

The following policy with regard to a time limit on math prerequisites applies to all courses taught in the Math (MAT) department and all MAT courses which list DEV 0026 as a course prerequisite.

Students registering for a Math (MAT) course are required to have completed the prerequisite course not more than one calendar year (four consecutive terms or three consecutive semesters) prior to the term for which they are registering. For example, if a student wants to register for MAT 1270, fall term 2012, the student must have completed the prerequisite course, DEV 0026 (or the equivalent), no earlier than fall term 2011.

Students whose prerequisites for math courses were completed more than one calendar year ago (four consecutive terms or three consecutive semesters) should see an academic advisor for assistance in registering for an MAT course.

Note: The One Year Time Limit on Math Prerequisites policy does NOT apply to MAT 1110, 1120 or 1130. Further, the policy does NOT apply to courses offered by other departments which list a mathematics prerequisite. For example, the policy does NOT apply to the mathematics prerequisite listed for CHE 1221.

Payment Plan

FACTS Tuition Payment Plan (available from Nelnet Bussiness Solutions),

http://facts.sinclair.edu

FACTS is a payment plan offered to help students budget tuition costs. It automatically withdraws a non-refundable $25 per term 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. There is a maximum amount to qualify for the plan. 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.

A deposit may be required. FACTS enrollment/payment dates for the current term are available at the Sinclair website.

If the $25 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 term's schedule. FACTS will charge a $30 "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 http://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 email 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.

Personal Data

To change a name or address:

- Apply online at Web Advisor at http://my.sinclair.edu, or
- Complete a change of information form at the office of Registration & Student Records or at the Learning Centers.

To change a social security number, students must bring a copy of their card to Registration & Student Records or at the Learning Centers.

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 Registration & Student Records. For deadline dates, see Registration at www.sinclair.edu/services/registration; call (937) 512-3000 or 1-800-315-3000.

To change name, proper court documentation must be brought to Registration & Student Records or at the Learning Centers.

Prerequisites

Some beginning or advanced courses have prerequisites which are other courses that

must be successfully completed first. 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.

Prior Learning Assessment Programs

Advanced Placement (AP) Program—The College Board's Advanced Placement (AP) Program (http://apcentral.collegeboard.com/apc/public/program/index.html) offers high school students the opportunity to earn college credit by providing examinations in 35 introductory courses in 20 fields. Sinclair faculty have reviewed the AP exams and determined which Sinclair courses will be awarded. To have AP scores reported to Sinclair Community College, the school code is 1720. For AP exams taken in the past, contact the College Board at 888-225-5427 to request an official score report to be sent to Sinclair. Additional score reporting services are available at http://www.collegeboard.com/student/testting/ap/exgrd_rep.html.

1. Students obtaining an Advanced Placement (AP) exam score of 3 or above will be awarded the aligned course(s) and credits for the AP exam(s) successfully completed.

2. Additional courses or credits may be available when a score of 4 or 5 is obtained. Award of credit for higher score values will vary depending on the academic discipline.

College Level Examination Program (CLEP)—The College Board (www.collegeboard.org/clep/) offers nationally standardized CLEP exams that may allow learners to earn college credit for knowledge acquired through on-the-job training, professional development, etc. CLEP exams are not given at Sinclair, but they are given at test sites in Dayton and across the nation. To have CLEP scores reported to Sinclair Community College, the school code is 1720. For CLEP exams completed in the past, contact the College Board for an official transcript.

DANTES Subject Specific Tests (DSST)—These nationally standardized exams (www.getcollegecredit.com) may be equivalent to certain Sinclair courses. Most DSST (DANTES Standardized Subject Test) exams (except Principles of Public Speaking) can be given in electronic form at Sinclair. To have DSST scores reported to Sinclair Community College, the school code is 9309. For DSST exams completed in the past and not had your scores sent to Sinclair, contact Prometric (www.getcollegecredit.com/downloads/TRNSCRPTDSST.pdf) for an official transcript.

American Council on Education (ACE)—ACE provides access to transcripts for several of its programs. If you have taken training through your employer or a specialized training provider that has been evaluated by ACE, in many cases ACE has established credit recommendations that can help you get that training translated into college credit.

ACE/CREDIT (non-military)—For ACE military evaluations, your ACE military transcript should be sent directly to the Registration and Student Records, and is

considered the same as transfer credit. Specific course equivalency is established by the department chair(s) responsible for the subject area requested. Additional information about the ACE/CREDIT programs, can be found at http://www.acenet.edu/nationalguide/.

Policies – AP, CLEP, DANTES, and ACE

- Students must be officially admitted to Sinclair and have paid the appropriate admission application fee to have AP, CLEP, DANTES and ACE course credits transcripted to his/her student record.

- Course credits will be recorded on the students' transcripts with a "Y" grade.

- Course credits earned via AP, CLEP, DANTES, and ACE do not apply toward college residency requirements.

Sinclair Proficiency Examinations—A learner who can demonstrate knowledge and ability in a particular subject area may earn credit for specific Sinclair courses without enrolling in them. This is done by taking a proficiency examination or by demonstrating a level of skill evaluated by the appropriate academic department. For a list of courses available for proficiency exams, visit http://cmt.sinclair.edu/reports/proficiency/dspResults.cfm. The fee for testing varies from course to course.
Contact plaprograms@sinclair.edu for more information.

Policies—Proficiency Examinations

- A proficiency exam cannot be taken until a student is officially admitted to Sinclair Community College.

- Most proficiency exams require departmental approval.

- A student must have completed any course prerequisites before taking a proficiency exam.

- A proficiency exam can be taken only once for any course.

- A proficiency exam cannot be taken for a course in which you are currently registered.

- A grade of A, B, C, D or F will be awarded for proficiency exams; however, only an A, B, or C grade will be recorded on the student's transcript.

- Credits earned by proficiency exams do not apply toward the college residency requirements.

- Proficiency exam fees are non-refundable.

- Proficiency exam grades will be recorded on the student's transcript with a notation that clearly indicates grades were earned as a result of taking a proficiency exam. For example: A#.

Portfolio Based Evaluations—Sinclair recognizes that the classroom isn't the only place where learning occurs. Many students bring to Sinclair a wealth of learning experiences and knowledge they've gained from work, outside interests and life itself. A portfolio is a detailed summary of a student's individual learning experiences. It consists of a written description of experience, and most importantly, what learning was gained from the

experience. The document includes a brief life history; a statement of individual student goals; a description of the experiences and related learning, matched to courses listed in the Sinclair catalog; and supporting documentation.

To prepare the portfolio, students must enroll in PRL 1100, Prior Learning Portfolio Development. In this 2-credit-hour course, students work with a faculty member to create individual portfolios.

Once the portfolio has been completed, Sinclair faculty knowledgeable in the specific area of learning evaluate the portfolio for appropriate college credit and grades based on the demonstrated competency. The final grade will appear on the student's transcript. There is a $45 fee assessed for each course submitted for evaluation.

Articulation Agreements (for Prior Learning Assessment)—Original documentation of training, including copies of licenses, certifications, or other credentials requiring passing an exam, or completion of a qualified high school program with college-level components, should be submitted to Prior Learning Assessment in the Academic Advising Center. If there is no current articulation agreement for the documentation being presented, it is up to the department chair to approve any course equivalency demonstrated by that documentation, on a case-by-case basis. Equivalent Sinclair courses that can be identified based on this documentation may be eligible to be added to your Sinclair record. These courses are not always transferable to other colleges, but they count toward fulfilling Sinclair graduation requirements.

Policies—Articulation Credit

- Students must be officially admitted to Sinclair and have paid the appropriate admission application fee to have articulated course credits transcripted to his/her student record.

- There is a processing fee of $10 per course for each course applied to the student's transcript.

- Course credits will be recorded on the students' transcripts with a "Y" grade.

- Course credits earned via articulated credit do not apply toward college residency requirements.

- Articulated course credits are not always transferable to other colleges, but they count toward fulfilling Sinclair graduation requirements.

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.

Readmission Policy for Dismissed Students

Students 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 academic advisor at least three weeks before the first day of classes for the term 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 term, including summer. (For example, if dismissal was at the end of fall term, the student cannot attend winter term, but may petition for readmission to spring term.)

- A student dismissed for a second time must remain out of school for one academic year (three terms).

- A student dismissed for the third time will not be readmitted to Sinclair unless there are documented, extenuating circumstances.

- Petitions for readmission are available from 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, Dayton Campus, Room 10324, after readmission to the college.

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 or through Web Advisor within the refund period, which is published online at registration.

- If students withdraw by the eighth calendar day from a full-term course (including Saturday and Sunday) of fall, spring and summer terms, a 100 percent 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 term, and for courses that have beginning and ending dates that do not correspond to the full-length term dates. For information, contact Registration & Student Records, Dayton Campus, Second Floor, Building 10, (937) 512-3000 or learning centers.

- If students withdraw after the eighth day of the term, 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. Students may access this form through www.sinclair.edu/services/bursar/refunds/tr. Follow the steps accordingly. Financial aid may be affected. Please refer to *Returning Title IV*.

- If Sinclair Community College cancels the student's class, they will receive a 100 percent refund. Refunds are issued by check within 10 to 14 days 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.

Repeating a Course

A student may repeat a course for any reason. When a course is repeated, the most recent

grade will be used in calculating the cumulative grade point average (GPA) in place of the original grade. 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.

Financial aid will only pay for one repetition of a passed course. For financial aid purposes, a "D" is considered passing.

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 residence in Ohio for the purpose of attending a college or university will be considered a non-resident for fee purposes.

- A person admitted to this country as a resident alien may establish Ohio residency in the same manner as any other non-resident.

- An alien admitted to this country on a student visa or other visas, which do not qualify the person to remain in this country on a permanent basis, will be considered a non-resident for fee purposes.

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

- Has resided in Ohio for at least 12 consecutive months immediately preceding enrollment and is not receiving, and has not received in that time period, financial support from persons or entities who are not residents of Ohio.

- Is a dependent student and at least one of his or her parents or legal guardians has been a resident for at least 12 consecutive months immediately preceding enrollment.

- Is living in Ohio and employed on a self-sustaining basis in Ohio, and is attending college on a part-time basis. The student's spouse who is a full-time homemaker will

also be considered gainfully employed.

- Has a parent or spouse who has accepted full-time employment and has established a place of residence in the state of Ohio as of the first day of the term the student enrolls.

Specific Exceptions

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

- Is on active duty in the armed forces of the United States and is stationed and resides in Ohio.

- Forever Buckeye extends the in-state resident tuition rate to any public or private Ohio high school graduate who leaves the state but returns to enroll in an undergraduate or graduate program at an Ohio college and also establishes residency in Ohio. The Forever Buckeyes provision of law removes the 12-month period of establishing domicile in Ohio before becoming eligible for in-state tuition rates.

- Is on active duty in the armed forces of the United States, and Ohio is the state of residence for legal purposes.

- Is transferred by his or her employer beyond the territorial limits of the 50 states of the United States and the District of Columbia, and Ohio is the state of residence for legal purposes.

- Has been employed as a migrant worker in Ohio and has worked in the state at least four months during each of the three years preceding the date of enrollment.

Montgomery County

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

- The student must qualify as a resident of the state of Ohio in order to qualify as a resident of Montgomery County.

- A person who has established a place of residence in Montgomery County for the purpose of attending Sinclair will be considered a non-resident for fee purposes.

- A student who has been classified as a Montgomery County resident shall be considered to have lost his or her residency after he or she (or in the case of a minor), his or her parents or legal guardian move out of the county.

Within the above stated general rules, a student will be classified as a resident of Montgomery County for fee purposes if the student:

- Has resided in Montgomery County for at least 12 consecutive months immediately preceding enrollment at Sinclair, and is not receiving, and has not directly or indirectly received during that time financial support from persons or entities who are not residents of Montgomery County.

- Is a dependent student and at least one of his or her parents or legal guardians has been a resident of Montgomery County for at least 12 consecutive months preceding enrollment.

- Is gainfully employed on a self-sustaining basis and resides in Montgomery County and is enrolled on a part-time basis (less than 12 credit hours). The spouse who is a full-time homemaker will also be considered gainfully employed.

- Has a parent or spouse who has accepted full-time employment and has established a place of residence in Montgomery County as of the first day of the term the student enrolls.

Specific Exceptions

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

- Is on active duty in the armed forces of the United States and is assigned to Wright-Patterson Air Force Base.

- Entered active duty in the armed forces of the United States as a resident of Montgomery County and can provide proof of eligibility to vote in the county and intends to maintain Montgomery County as the legal residence.

- Has been employed as a migrant worker in Montgomery County and has worked in the county at least four months during each of the three years preceding the date he or she enrolled.

If a student has been classified as a non-resident of the State of Ohio or Montgomery County, he or she must apply for reclassification when the student meets the qualifications for residency. A change of address does not automatically change residency.

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

Information concerning residency, types of documents required, and residency forms are available at the Registration & Student Records office, Second Floor, Building 10. Requests for reclassification and supporting documents must be submitted prior to the deadline listed on the residency application.

Residency information obtained from the application for admission (more than the current address) will be used to determine residency for tuition purposes. 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.

Satisfactory Academic Progress for Financial Aid

Sinclair Community College students receiving federal financial aid are required to

maintain Satisfactory Academic Progress (SAP) according to federal law. Academic records are reviewed for all students receiving federal financial aid or being considered for federal financial aid from the following sources:

- Federal Pell Grant
- Federal Work Study Program
- Federal Supplemental Educational Opportunity Grant
- Federal Direct Stafford Loan Program (subsidized and unsubsidized)
- Federal Direct Parent PLUS Loan
- Other programs as determined by the Financial Aid & Scholarships office

The review of a student's SAP status is based on the entire academic record. The SAP status is monitored after each term's grades are posted. Being eligible to enroll in classes does not mean the student is maintaining SAP for federal financial aid.

Sinclair's SAP policy is explained below. The SAP policy is applied to all federal financial aid recipients regardless of whether they have received federal financial aid previously. Also, Sinclair's Fresh Start Policy has no bearing on the SAP Policy.

Students will be considered to be maintaining SAP if they: maintain the required cumulative grade point average, satisfactorily complete the necessary number of credit hours, or Pace of completion and will graduate within 150% of the credit hours required to complete the program of study.

Grade Point Average Requirement:

- Students must maintain a cumulative 2.0 grade point average.

Credit Hour Requirement or Pace of Completion:

- Students must successfully complete 67% or more of the credit hours attempted since the first term of enrollment at Sinclair Community College.
- Grades of A, B, C, D, Y, P and S will be considered successfully completed. Grades of N, W, F, U, I, IP and Z will be considered credit hours not successfully completed.

Maximum Timeframe to Complete the Program:

- Students must complete their program of study within 150% of the published length of the program as measured by credit hours attempted.

Additional Certificates/Degrees:

- Students can pursue an additional certificate and/or degree. No more than two degrees will be considered for federal aid purposes. Students must have their Academic Advisor complete a Graduate Appeal form so the Financial Aid office can determine how many credit hours are needed to complete the second program.

Change of Major/Program:

- Students may change their program of study. However, all credit hours attempted and grades earned will count toward the new program and be included in SAP

determination.

Transfer Credits:

- Transfer hours accepted by Sinclair Community College must be evaluated by an Academic Advisor. Students must have their Academic Advisor complete a Transfer Hour Appeal form to determine how many transfer hours count toward a student's program of study. These transfer hours will be used in calculating federal aid eligibility.

ESL Courses:

- English as a Second Language course work will count towards the student's timeframe and completion rate components of the SAP policy.

Remedial Courses:

- A student is limited to 45 credit hours of developmental course work while receiving federal financial aid. Federal financial aid programs will not cover any developmental courses taken after reaching the maximum 45 credit hour limit. Remedial course work will count towards the determination of the SAP policy.

- If a student has only ever enrolled in all DEV classes and passes all of their DEV classes with an S or a P, they will not be placed on warning.

- If a student does not pass all of their DEV classes, they will be placed on warning to earn a 2.0 Cum GPA and possibly earn a 67% completion rate in the next quarter enrolled. This includes students who earned an N, U or dropped the class with a W.

Repeated Courses:

- Students who have failed a class can repeat it and receive federal financial aid for the credit hours.

- Financial aid can pay for one repetition of a passed class.

- However, if a student has passed a class more than once and wants to take it a third time, they can repeat it, but the credit hours will not be used in determining the amount of federal financial aid they can receive. Students in this situation can learn more by contacting the Financial Aid & Scholarships office.

- A student may appeal a repeated course with identical course number but different course content.   The course must be required for graduation in the student's valid active program as described in the course catalog.

Warning Status:

- After grades are posted for each term, a student's SAP status will be calculated. Students who fail to meet the SAP requirements will be placed on warning for one term. Students will receive written notification informing them of not meeting one or more of the minimum requirements.

  -A student who has not completed at least 67% of the total attempted hours, or is below the minimum 2.0 GPA for credit hours attempted, will be placed on warning. The student has one term to correct the deficiencies.

Suspension:

- If the warning requirements are not met, federal financial aid will be suspended.

Appeal Process:

- Students who fail to maintain satisfactory academic progress may appeal the suspension of federal financial aid if they feel they have extenuating circumstances. These circumstances must be documented and submitted with the appeal which will be reviewed along with academic transcripts by the Financial Aid Appeals Committee. The committee will also consider appeals for students pursuing additional degrees or certificates.

    - Appealable circumstances include: The student's illness or injury, the death of a relative or other special circumstances.
    - Appeals must include an explanation of why satisfactory academic progress was not made and what has changed that will allow the student to make satisfactory academic progress the next term.
    - The student must provide supporting documentation concerning their appealable circumstance and their explanation of what has changed. Additional documentation may be requested in order to evaluate the appeal.

- Appeals are currently reviewed the 2nd Tuesday of every month and appeals are due in the Financial Aid Office on the first Friday of the month. Therefore, if you plan to attend the term, you must be prepared to pay your tuition, fees and books by the payment deadline date. The FACTS Payment Plan is an option for paying your tuition and fees.

- Students will be notified by letter of the decision by the Appeals Committee. All decisions of the Appeals Committee are final.

- If a student's appeal is approved, it will be effective for the current term if a student registered. Students may be reimbursed up to the amount of the accepted awards, if any. Otherwise, the appeal will be effective for the following term. Once the appeal term is determined, it will not be changed.

- If a student changes their valid active program after they have an approved appeal and before they have met the conditions of their appeal, their aid will be suspended.

Procedures for Reestablishing Satisfactory Academic Progress:

- Students may regain eligibility for federal financial aid by approval of an appeal or;

- Successfully completing the requirements originally requested under the warning status. Students must notify the Financial Aid & Scholarships office when they believe they have met the requirements necessary for reinstatement of aid.

Scholarships

Sinclair Community College offers a variety of scholarship opportunities for students. Scholarships are available to recent high school graduates, new students, current students and returning students.

Sinclair's Institutional Scholarships are available to high school graduates, new students, current students, and returning students and range from $600 - $1,800 per year.

Students who have no federal and/or state grant eligibility will automatically be considered for an Access Grant or Book Scholarship when their financial aid file is complete provided funds are still available. Students must have at least a 2.0 cumulative GPA or be a new student at Sinclair. Students who are awarded an Access Grant or Book Scholarship are not eligible for any of the other institutional scholarships. Students are only eligible for one institutional scholarship per academic year.

If students have little or no federal and/or state grant eligibility and have not been awarded an Access Grant or Book Scholarship, they may submit an application once their financial aid file is complete.

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. These scholarships are available during the school year immediately following high school graduation and range from $900 - $1,800 per year.

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

External Scholarships—Several scholarships are awarded by agencies and clubs and organizations outside of Sinclair. A student is encouraged to periodically check the Scholarship Information and Applications under the Financial Aid website for additional information.

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

State Scholarships —A variety of state scholarships are also available. Visit www.sinclair.edu/services/finaid for more information.

Visit www.sinclair.edu/services/finaid/scholarships for additional scholarship information including application and selection details.

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.

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.

Inquiries and complaints concerning this policy should be referred to the Equal Opportunity Officer who coordinates Title IX (discrimination on the basis of sex). Complaints by students should be referred to: Title IX Coordinator (Student Complaints), Diversity Officer, 444 West Third Street, Room 7342, Dayton, Ohio 45402-1460, (937) 512-4294.

Smoking Policy

In 1988 the Sinclair Board of Trustees, upon the recommendation of a campus wide committee, adopted a smoking policy that prohibits smoking in designated locations on the Dayton 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 Dayton Campus is smoke free.

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

The following areas are designated smoking areas and have specially marked signage:

- Building 2, southwest steps under the overhang
- Building 5, west side between Buildings 5 and 8
- Building 7, in the north terrace area in the Tartan Marketplace
- Building 7, south entrance on either side of the building
- In the center of the main plaza
- Building 8, entrance south side of plaza
- Building 10, north steps on east end
- Building 12, west plaza facing the main campus
- Building 12, southeast plaza facing Perry Street
- Building 13, west under the pedestrian bridge

- Building 14, east plaza facing Perry Street
- Building 16, near the air unit fencing
- Building 19, on Wilkinson Street north at the alley
- Building 20, near the art display
- Building 20, southeast plaza facing the Great Miami River
- Parking Lot A, first floor, behind the PMI office

Anyone smoking may also use any public sidewalk adjacent to Sinclair property.

Student Private Loans

Sinclair provides information about private lenders who qualify to provide private loans to community college students who do not qualify for federal loan programs or who need additional financial assistance to meet educational expenses.

These are student loans offered by private companies. They are not guaranteed by the Federal Government. Private loans are meant to help students cover education costs not met by other forms of financial aid. It is recommended that students take full advantage of all government loans available to them before considering a supplemental private loan.

The Tartan 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 on Sinclair campuses 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 transfer stations (the Dayton Campus, Buildings 4, 7, 8, 11, 13), or online at www.sinclair.edu.

The Bursar office has a $10 minimum deposit requirement at the Cashier's window. Students wanting to deposit less than $10 must use the VTS machines, Café registers 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 form at the Bursar office, or online under the refund information on the Bursar office pages. The Tartan Closures are processed at the end of each term. 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 website at www.sinclair.edu. Click on Current Student, Tartan Card under menu, then click on Click Here to go to Online Card Office.

To get the first Tartan Card at no charge, present a fee bill and another photo I.D. to Registration & Student Records, Dayton Campus, Second Floor, Building 10 or at the Learning Centers. 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.

- Currently enrolled students may pay the student parking rate of $1 when paying with their tartan card.
- 5 percent discount on all food purchases
- 10 percent discount on selected gifts at Bookstore
- 50 percent 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, visit www.sinclair.edu/services/registration. 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.
- Payment for transcripts can also be made at the Bursar office or at the learning centers
- A financial hold on your student account will prevent you from receiving transcripts.

Verification Process for FAFSA

The federal government may ask Sinclair to verify the accuracy of the students' FAFSA application. If students are selected for verification, they will receive an email 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 email requests. It may include:

   • Student Federal Tax Return Transcript (actual tax forms can no longer be accepted)

   • Student W2 or wage transcript

   • Parent Federal Tax Return Transcript (actual tax forms can no longer be accepted)

   • Parent W2 or wage transcript

   • Verification Worksheet

   • Verification of untaxed income such as child support, disability, SNAP benefits, etc…

   • Proof of number of family members in the household

   • Additional documentation as requested

2. Submit all requested information to the Financial Aid & Scholarships office.

3. Sometimes students will be asked for additional documentation after submitting preliminary documents. Students should submit any additional documents as quickly as possible.

4. To obtain a copy of a Tax Return Transcript go to www.irs.gov then click on "Order a Return or Account Transcript", call (800) 908 -9946 or submit a Form 4506T which is available in the Financial Aid office and on the IRS website. The "IRS Tax Return Transcript" and not the "IRS Tax Account Transcript" should be requested. If an amended tax return was filed, then both will be required

Sinclair will not be able to award any federal financial aid as well as some state and institutional scholarship aid until all requested information has been submitted to the college and verified by the Financial Aid & Scholarships office.

Waitlisting

An upgrade to registration allows students to electronically "wait in line" for the next available seat. As a vacancy becomes available, the next students on the waiting list will be automatically registered for the section. The students will then be notified via their my.sinclair.edu email address that they have been registered for the course section.

By placing his or her name on the waiting list a student is agreeing that he or she is financially obligated to pay for the courses. Tuition must be paid and follow the tuition payment schedule at www.sinclair.edu/services/registration.

Students will be able to add themselves to the waitlists up through 5:00 p.m. on the Monday of late registration. For the current term's drop and withdraw dates, check www.sinclair.edu/services/registration/dates.

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