SINCLAIR
COMMUNITY COLLEGE

2014-2015

Academic Programs & Policies

Important Numbers

Information/Call Center • (937) 512-3000 • 1-800-315-3000

Enrollment Information

Emergency Closing Information (24 hours)	512-2888
Academic Advising	512-3700
Bursar/Cashier	512-3000
New Student Enrollment Center	512-3334
Financial Aid & Scholarships	512-3000
Ombudsman (Help for Students)	512-2205
Registration & Student Records	512-3000
Sinclair Central	512-2201
Testing Center	512-3076

College Services

Academic Advising	512-3700
Academic Resource Center (ARC)	512-3495
Alumni Affairs	512-3330
Bookstore	512-2665
Bursar/Cashier	512-3000
Campus Ministry	512-2768
Career Services	512-2772
College for Lifelong Learning (Senior Citizens)	512-2372
Disability Services	512-5113
Food Service/Tartan Marketplace	512-2501
Help Desk	512-4357 (HELP)
Human Resources	512-2514
Library/Starbucks	512-2855
Leadership Development Center	512-2509
Ombudsman (Help for Students)	512-2205
Parking Information	512-2397
Pre-College Programs	512-5188
Student Employment	512-2772
Student Judicial Affairs	512-2880
Teleport	
-CIL, Bldg 14, Room 14109	512-5079
-Library IT Lab	512-2002
-Mac Lab, Bldg 13, Room 13223	512-5394
Testing Center	512-3076
Tutorial Services	512-2792
Veterans Services	512-2586
Workforce Development	512-3061

Regional Centers

Courseview Campus Center	(513) 339-1212
Englewood Learning Center	836-8750
Huber Heights Learning Center	233-5550
Miami Valley Research Park	252-9787
Preble County Learning Center	456-5252

Academic Departments

Accounting	512-2615
Academic Foundations	512-2701
American Sign Language	512-2722
Architectural Technology	512-2183
Art	512-5381
Associate of Technical Study/ Associate of Individualized Study	512-3198
Astronomy	512-3047
Athletics & Sports Information	512-2860
Automation & Control Technology	512-2242
Automotive Technology	512-3242
Aviation Technology	512-2242
Biology	512-2747
Business Information Systems	512-2892
Business & Public Services	512-2917
Chemistry	512-2890
Child & Family Education	512-2722
Civil Engineering Technology	512-2183
Clarion Newspaper	512-2744
Communication	512-2271
Computer Aided Manufacturing	512-2570
Computer Information Systems	512-2892
Criminal Justice	512-2876
Dance	512-4580
Dental Health Sciences	512-2779
Design	512-4505
Dietetics/Nutritional Management	512-2756
Distance/Online Learning	512-2990
Early Childhood Education	512-2722
Economics	512-2615
Electronics Engineering Technology	512-2570
Emergency Medical Services	512-5338
Engineering Technologies & Design	512-2183
English	512-3078
Entrepreneurship	512-2615
Environmental Technology	512-2183
Exercise, Nutrition & Sports Sciences	512-2860
Financial Management	512-2615
Fire Science Technology	512-3242
Geography	512-2944
Geology	512-2890
Government	512-2844
Health Information Management	512-2973
Health Instruction	512-2973
Health Sciences	512-2919
Heating, Ventilating, Air Conditioning & Refrigeration Technology	512-2183
Honors	512-4331
Hospitality Management/Tourism	512-5197
Humanities	512-2844
Law	512-2616
Liberal Arts, Communication & Social Sciences	512-2881
Management	512-2615
Marketing	512-2615
Mathematics	512-2767
Mechanical Engineering Technology	512-2183
Medical Assistant Technology	512-2973
Mental Health Technology	512-2845
Modern Language	512-2844
Music	512-4580
Nursing	512-2848
Occupational Therapy Assistant	512-5178
Online Learning	512-2990
Operations Technology	512-2570
Phi Theta Kappa	512-2517
Paralegal	512-2616
Physical Therapist Assistant	512-5355
Physics	512-3047
Political Science	512-2844
Psychology	512-2889
Radiologic Technology	512-2268
Real Estate	512-2616
Respiratory Care	512-2268
Science, Mathematics & Engineering	512-2918
Service Learning	512-2040
Sociology	512-2944
Social Work	512-2944
Surgical Technology	512-2563
Tech Prep	512-5146
Theatre	512-4580
Veterinary Technology	512-2563

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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

**Campus Close Dates
2014 - 2015**

May 26 Memorial Day holiday—all campuses closed

July 4 Independence Day holiday—all campuses closed

September 1 Labor Day holiday—all campuses closed

November 11 Veterans' Day holiday—all campuses closed

November 27–28 Thanksgiving holiday—all campuses closed

December 22–26 Holiday Break—all campuses closed

January 19 Martin Luther King, Jr. Holiday—all campuses closed

March 2–8 Student Spring Break—all campuses open regular hours

May 25 Memorial Day holiday—all campuses closed

July 4 Independence Day holiday—all campuses closed

Summer 2014	**Full Term** **May 19–Aug 10**	**A Term**	**12-Week Term**	**B Term** **June 16–Aug 10**
On-time registration begins March 31				
On-time registration ends	May 12	---	---	June 11
Payment due for on-time registration by 7 p.m.	May 12	---	---	June 11
Late registration	May 13–16	---	---	June 12–13
Golden Age and audit registration	May 13–16	---	---	June 12–13
Classes begin	May 19	---	---	June 16
Last day to withdraw with refund and without record	May 27	---	---	June 20
Last day to withdraw	July 25	---	---	July 29
Classes end	Aug 10	---	---	Aug 10
Fall 2014	**Full Term** **Aug 18–Dec 14**	**A Term** **Aug 18–Oct 10**	**12-Week Term** **Sep 15–Dec 14**	**B Term** **Oct 20–Dec 14**
On-time registration begins April 21				
On-time registration ends	Aug 11	Aug 11	Sept 12	Oct 15
Payment due for on-time registration by 7 p.m.	Aug 11	Aug 11	Sept 12 by 5 p.m.	Oct 15
Late registration	Aug 12–15	Aug 12–15	---	Oct 16–17
Golden Age and audit registration	Aug 12–15	Aug 12–15	---	Oct 16–17
Classes begin	Aug 18	Aug 18	Sept 15	Oct 20
Last day to withdraw with refund and without record	Aug 25	Aug 22	Sept 23	Oct 24
Last day to withdraw	Nov 14	Sept 29	Nov 25	Dec 2
Evaluation week	Dec 8–14	---	---	---
Classes end	Dec 14	Oct 10	Dec 14	Dec 14
Spring 2015	**Full Term** **Jan 5–May 3**	**A Term** **Jan 5–Feb 27**	**12-Week Term** **Feb 2–May 3**	**B Term** **Mar 9–May 3**
On-time registration begins November 3				
On-time registration ends	Dec 29	Dec 29	Jan 30	Mar 4
Payment due for on-time registration by 7 p.m.	Dec 29	Dec 29	Jan 30 by 5 p.m.	Mar 4
Late registration	Dec 30–Jan 4	Dec 30–Jan 4	---	Mar 5–6
Golden Age and audit registration	Dec 30 & 31, Jan 2	Dec 30 & 31, Jan 2	---	Mar 6–7
Classes begin	Jan 5	Jan 5	Feb 2	Mar 9
Last day to withdraw with refund and without record	Jan 12	Jan 9	Feb 10	Mar 13
Last day to withdraw	Apr 3	Feb 16	Apr 14	Apr 21
Evaluation week	Apr 27–May 3	---	---	---
Classes end	May 4	Feb 28	May 3	May 4
Summer 2015	**Full Term** **May 18–Aug 9**	**A Term**	**12-Week Term**	**B Term** **June 15–Aug 9**
On-time registration begins March 30				
On-time registration ends	May 11	---	---	June 10
Payment due for on-time registration by 5 p.m.	May 11	---	---	June 10
Late registration	May 12–17	---	---	June 11–12
Golden Age and audit registration	May 12–17	---	---	June 11–12
Classes begin	May 18	---	---	June 15
Last day to withdraw with refund and without record	May 26	---	---	June 19
Last day to withdraw	July 24	---	---	July 28
Classes end	Aug 9	---	---	Aug 9

Dayton Campus
444 West Third Street
Dayton, Ohio 45402-1460
(937) 512-3000

**Courseview Campus
in Mason**
5386 Courseview Drive
Mason, Ohio 45040
(513) 339-1212

Englewood Learning Center
1150 West National Road
Clayton, Ohio 45322
(937) 836-8750

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

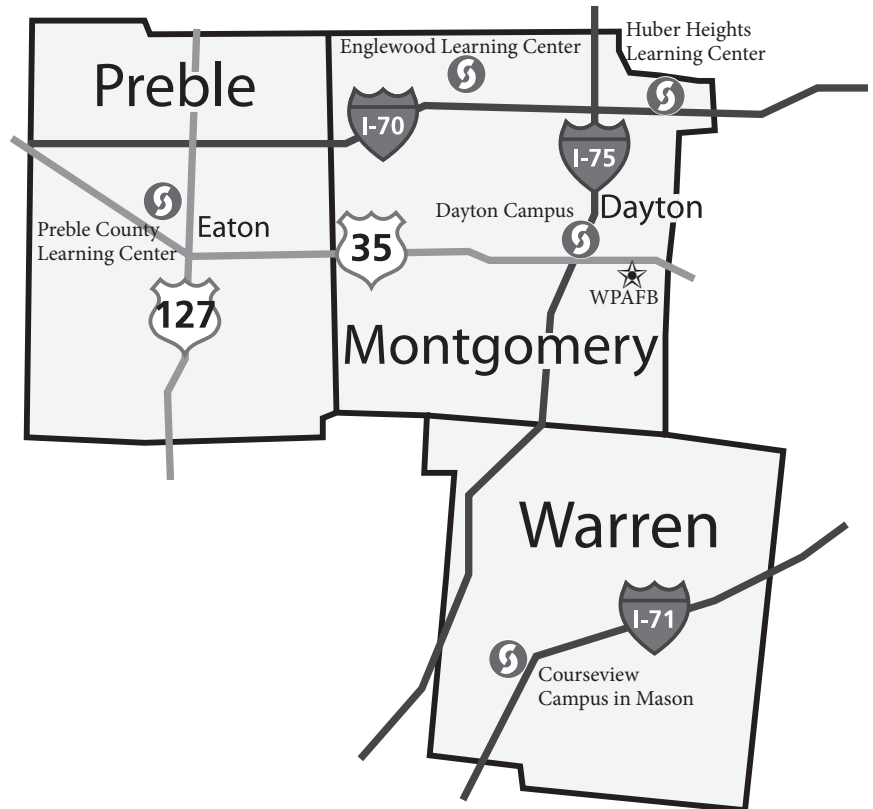**Preble County Learning Center
in Eaton**
450E Washington-Jackson Road
Eaton, Ohio 45320
(937) 456-5252

**Sinclair at Wright-Patterson
Air Force Base**
2130 Fifth Street
Building 50, Area B
WPAFB, OH 45433
(937) 781-9800

SinclairOnline
online@sinclair.edu
www.sinclair.edu/online
(937) 512-2990

Englewood Learning Center

Huber Heights
Learning Center

Preble

I-70

I-75

Preble County
Learning Center

Eaton

Dayton Campus

Dayton

35

WPAFB

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Montgomery

Warren

I-71

Courseview
Campus in Mason

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 or disability.

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:

Janet Jones, Equal Opportunity Officer, Office of Human Resources, Sinclair Community College, 444 West Third Street, Room 7340, Dayton, Ohio 45402-1460

Gwen Jones, Chief Diversity Officer, Title IX Student Coordinator, Sinclair Community College, 444 West Third Street, Room 7342, Dayton, Ohio 45402-1460

Degree/Certificate Seeking Students

Ready to get started at Sinclair? Follow the steps below to find out how to begin your degree or certificate.

All steps can be completed at any Sinclair location! For more information, visit: **sinclair.edu/getstarted**

APPLY> ❏ Apply for admission. Complete the paper application or online at: **sinclair.edu/applynow**

❏ Apply for financial aid at: **fafsa.ed.gov**
- Use Sinclair code: 003119
- Complete your FAFSA as early as possible to ensure your financial aid is processed in time to pay for your classes.

CHECK> ❏ Verify your username and set your password at: **my.sinclair.edu**
- It is important to begin checking your Sinclair email for important registration and financial aid updates.

TAKE> ❏ Take the ACCUPLACER placement test.
- College-level ACT, SAT or Compass scores within the last two years may also be used for placement.
- If you have transfer credit from another institution, have your official transcript(s) sent directly to: Registration & Student Records, Sinclair Community College, 444 W. Third Street, Dayton, Ohio 45402-1460.

ATTEND> ❏ Attend New Student Orientation in person or online.
- For first time in college students; go to **sinclair.edu/orientation** for more information.

MEET> ❏ Meet with an academic advisor to develop your My Academic Plan (MAP).

REGISTER> ❏ Register for classes and pay tuition.
- Both can be completed in person or online at: **my.sinclair.edu**

VISIT> ❏ Visit a Sinclair Campus to get your student ID and purchase your books.
- Student ID (Tartan Card) - Bring a photo ID and copy of your class schedule.
- Buy your books at the bookstore or online at: **bookstore.sinclair.edu**

GO> ❏ Go to your first day of classes!

Questions? Contact us at (937) 512-3000 or **newstudentenrollment@sinclair.edu**

Non-Degree Seeking Student

Ready to take classes at Sinclair? Follow the steps below to find out how to register for classes for the first time.

All steps can be completed at any Sinclair location! For more information, visit: **sinclair.edu/getstarted**

APPLY> ❏ Apply for admission. Complete the paper application or online at: **sinclair.edu/applynow**

CHECK> ❏ Verify your username and set your password at: **my.sinclair.edu**
- It is important to begin checking your Sinclair email for important registration and financial aid updates.

SELECT> ❏ Use the online Course Schedule Planner at **sinclair.edu/schedule** to select your courses. If the Sinclair course(s) has prerequisites:
- Send a copy of your unofficial transcript from your current or former college or university to **newstudentenrollment@sinclair.edu**; please include your Sinclair course selection.
- Take the ACCUPLACER placement test. College-level ACT, SAT or Compass scores within the last two years may also be used for placement.

REGISTER> ❏ Register for classes and pay tuition.
- Both can be completed in person or online at: **my.sinclair.edu**

VISIT> ❏ Visit a Sinclair Campus to get your student ID and purchase your books.
- Student ID (Tartan Card) - Bring a photo ID and copy of your class schedule.
- Buy your books at the bookstore or online at: **bookstore.sinclair.edu**

GO> ❏ Go to your first day of classes!

Questions? Contact us at (937) 512-3000 or **newstudentenrollment@sinclair.edu**

SinclairOnline Courses & Programs

SinclairOnline offers a variety of courses and programs. Course content is the same as in-person courses and meets all program and transfer requirements. For more information about SinclairOnline courses, certificate programs and degree programs, visit: **www.sinclair.edu/online**, or contact us at: **online@sinclair.edu**, (937) 512-2990 or toll free 1-888-226-2457.

SinclairOnline Registration Policies

All students who wish to take online courses must first complete the free tutorial, *How to Succeed in an Online Course*. Information and registration instructions for the required tutorial may be found at: **www.sinclair.edu/online/benefits/success**

All current or returning Sinclair students need to have a cumulative grade point average of 2.0 or higher to enroll in online courses. Students who are new to Sinclair may register for an online course if they have met the course prerequisites.

SinclairOnline Testing Information & Academic Integrity

SinclairOnline works to provide students with a fully online experience. The Sinclair Community College Honor Code requires all students to uphold the values of social responsibility, citizenship, and personal accountability. To support implementation of the Honor Code and to protect the integrity of students' work, some proctored (supervised) testing may be required. Students may be responsible for testing fees.

Students who live fewer than 60 miles from Sinclair's Dayton campus must take their placement test and proctored, online course tests at a Sinclair Testing Center. A list of the online courses that require proctored testing may be found on the SinclairOnline testing website: **www.sinclair.edu/online/testing**

Students who live 60 miles or more from Sinclair's Dayton campus have the option of using a proctor (exam supervisor) to have their placement test, proficiency tests and proctored online course tests administered closer to home. Students are responsible for obtaining a suitable proctor.

More proctor information and a link to the Proctor Agreement Form may be found on the website: **www.sinclair.edu/online/testing/proctor**. Information about the Honor Code may be found at: **www.sinclair.edu/about/learning/gened/hc**

State Authorization

Students who wish to participate in internships/clinical placements/co-ops and online courses and programs in a state other than Ohio must confirm that Sinclair Community College is permitted to offer those opportunities in that particular state. Sinclair must comply with each state's regulations regarding legal authorization for delivering internships/clinical placements/co-ops and online courses and programs. More information about authorized states and out-of-state grievance procedures may be found at: **www.sinclair.edu/online/state authorization**

Accelerate IT Courses & Programs

Accelerate IT allows students to work at their own pace to complete online courses and certificate and degree programs in Computer Information Systems. Accelerate IT programs offer students a faster path to graduation with online, competency-based, self-paced courses. Students may choose to take only one or a few Accelerate IT courses, or an entire program.

- Enrollment dates are flexible.
- Students may earn credit and finish courses at their own pace.

For more information and a list of current Accelerate IT courses and programs, visit: **www.sinclair.edu/accelerate** or contact us at: **accelerate@sinclair.edu** or (937) 512-3765.

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.

In order to have a *MAP* created, a student should meet with 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 **my.sinclair.edu** either from a computer or smart phone and 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 Planner 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 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 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 add books to the electronic bookstore shopping cart. To use these tools, log in to **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 **my.sinclair.edu** from either a computer or smart phone and selecting the options for *My Schedule* and *My Booklist*.

Students are encouraged to compare their *MAP* with their Program Evaluation in WebAdvisor to ensure that they are making appropriate progress toward completion of their desired degree or certificate.

Tuition and Fees (per credit hour)*

Fees current as of Summer 2014. 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	$84.78	$84.78	$84.78
General Fee	$14.25	$14.25	$14.25
Out-of-County Surcharge	---	$47.25	---
Out-of-State Surcharge	---	---	$183.37
Total Tuition and Fees			
Per Credit Hour	$99.03	$146.28	$282.40

Other Fees

Registration Fee for first time registrants	$20.00
Late Registration Fee (nonrefundable)	$30.00
Online Classes (extra fee beyond tuition)	$7.50 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.

Cost of Attendance or Budget

The cost of attendance or budget is 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. Below is an example based on the 2014-2015 tuition and surcharge amounts.

BUDGET A/Off-Campus with Parent(s)	Montgomery County/ Two Semesters (9 months)
Tuition, Fees and Lab Fees	$2,376
Books and Supplies	$1,080
Transportation	$945
Room and Board	$2,700
Personal and Other	$1,350
TOTAL	$8,451
BUDGET B/Off-Campus without Parent(s)	Montgomery County/Two Semesters (9 months)
Tuition, Fees and Lab Fees	$2,376
Books and Supplies	$1,080
Transportation	$945
Room and Board	$5,580
Personal and Other	$1,350
TOTAL	$11,331

Out of county surcharge for 9 months $1,134 • Out of state surcharge for 9 months $4,401

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

Apply for Financial Aid

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. If students are selected for verification, they will receive an email asking them to make corrections online to their FAFSA or provide verification documents. Sinclair will not be able to award any aid until all the requested corrections are completed or all documentation has been verified. See Verification Process section for more details.

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 of marriage (dependent students only)
- Amounts of any additional income received in an entire year, such as child support, social security, welfare benefits, etc.

Students submitting FAFSAs to Sinclair will receive two separate 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 to their **my.sinclair** account explaining the next steps. Please keep in mind that the complete financial aid process may require additional paperwork and/or actions by the student in order to offer the best financial aid package possible. Additional reminders may be sent from Sinclair to obtain required documentation or prompt students to make corrections to their FAFSA.

When should I apply? Apply as early as possible each year. The FAFSA is available for completion by January 1 each year. **May 1** is the annual priority date established by Sinclair. Guarantee dates for each term will be posted in the class schedules. If students miss a guarantee 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.

Some scholarships will require additional applications, available online or from the financial aid office.

The complete financial aid process could take as little as four to six weeks from start to finish or longer than ten to twelve weeks, depending on individual circumstances and the student's response to Sinclair's request for corrections or verification documents. Please plan accordingly.

Results of Financial Aid Application

Within four to six weeks of receipt of the student's FAFSA, the Financial Aid & Scholarships office will notify the student of eligibility via his or her my.sinclair.edu email. Students will be instructed to review their awards on Web Advisor. The following awards must be accepted on Web Advisor before funds will be available for tuition, fees and/or books:
- Federal Loans
- Federal Work Study
- Institutional Access Grant and Book Scholarship

Students interested in taking out federal loans are required to complete additional steps such as online Entrance Counseling and the completion of a Master Promissory Note prior to the disbursement of the loans.
Both can be found at: **https://studentloans.gov/myDirectLoan/index.action**

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, before their loans will be 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**

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	$5,730; award amount based on need and determined by EFC	Student may 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	Student may not have a bachelor's or advanced degree 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 expenses	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 six (6) months after a student's enrollment drops below six (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. Students who are first time borrowers on or after July 1, 2013, may not receive Direct Subsidized Loans for more than 150% of the published length of their program. Additional information on the 150% Rule for first time borrowers is available at:
www.sinclair.edu/services/finaid

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.*

Financial Aid Add/Drop Census Date Policy

Sinclair Community College uses an Add/Drop period, also called the "census date" to determine a student's enrollment status for awarding federal student aid. The census date is typically the 8th calendar day of the full-term.

The courses which students are registered for on the census date and in which students have established attendance, will determine financial aid eligibility. This means that if a student adds or drops classes before the census date, the amount of federal student aid they are eligible for will be affected. If classes are added or dropped after the census date, the federal student aid award amount will not change even if the student has been attending the class.

If the college has made an attendance error that caused a federal student 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 his or her instructor(s) to complete an attendance appeal. Instructors must submit attendance appeals to the office of Financial Aid & Scholarships via the electronic form; students may not submit attendance appeals on behalf of instructors.

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.

For more information on the Financial Aid Add/Drop Policy visit the financial aid website at:
www.sinclair.edu/services/finaid/sourcesandtypesoffinancialaid/federalfinancialaid/

Students may also read the **Dropping A Class?** form on the financial aid website at:
www.sinclair.edu/services/finaid/

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 Sinclair's Call Center: (937) 512-3000, or 1-800-315-3000
   - Email **finaid@sinclair.edu**. In order to receive a response, all email messages sent to **finaid@sinclair.edu** must be sent from a student's **my.sinclair** email account.
   - 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 (Monday-Thursday, 8:00 a.m.-7:00 p.m. and Friday, 8:00 a.m.-5:00 p.m.).

2. The Financial Aid office will communicate with students about the status of their application through their **my.sinclair.edu** 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 **my.sinclair.edu** 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.*

Satisfactory Academic Progress (SAP)

The Sinclair Community College (Sinclair) Satisfactory Academic Progress (SAP) Policy changed effective August 15, 2013 and was updated February 26, 2014. The following summary of policy provisions is provided.

There are no changes to the minimum requirements of SAP. They are:

- Maintain at least a 2.0 cumulative GPA;
- Maintain at least a 66.67% cumulative pace of completion (i.e., credit hours successfully completed relative to credit hours attempted); and
- Complete program before attempted credit hours equals or exceeds 150% of the credit hours required for program completion.

The major changes include:

- GPA for Financial Aid: Credit hours for developmental and English as a Second Language that earned a grade of "S", "P", "N", or "U" are included in the calculation of cumulative GPA. The grades have been assigned a grade level of 2.0 for an "S" and "P", and zero for "N" and "U".
- Pace of Completion: Transfer credits are included in the calculation of cumulative pace of completion. They are treated as both attempted and successfully completed.
- Maximum Time Frame: Uses a new "Alert Process" that will notify a student at the end of a term when he/she is within 24 credit hours of reaching the end of his/her aid eligibility (no lengthy monitoring process).

Measuring Satisfactory Academic Progress

Federal regulations require students receiving federal student financial aid to maintain satisfactory academic progress toward the completion of a federal aid eligible program. A student that registers for a term for which the school has received a federally processed Free Application for Federal Student Aid (FAFSA) for the corresponding award year will have his/her academic record evaluated at the end of the term. SAP measures three requirements:

Minimum Cumulative Grade Point Average (GPA—2.0 cumulative GPA (qualitative measure) A cumulative grade point average (GPA) of at least 2.0 must be maintained for aid eligibility. It is computed by dividing the total grade value (given the successfully completed credit hours) by the total attempted credit hours at Sinclair, including credit hours from developmental and English as a Second Language (ESL) courses. Transfer credits accepted from other institutions have no grade value. They are excluded from the GPA calculation.

The Financial Aid Satisfactory Academic Progress (SAP) policy differs from the Sinclair Academic Policy in its calculation of GPA and definition of maximum time frame. Sinclair's Academic Policy calculates cumulative GPA excluding the credit hours graded with a colon, which designates a Fresh Start course. In addition, there is no grade value for S, P, P:, U, and N in the Sinclair grade scheme. However, they are assigned a grade value for Financial Aid SAP, because the grades for remedial courses for which a student received federal aid must be included in the qualitative SAP measure. For SAP purposes, all credit hours graded for developmental and English as a Second Language courses are included in the cumulative GPA calculation.

Minimum Cumulative Pace of Completion—66.67% successfully completed credit hours (quantitative measure) A cumulative pace of completion of at least 66.67% must be maintained for aid eligibility. It is computed as a percentage of the total successfully completed credit hours relative to total attempted credit hours. Sinclair credit hours for college level, developmental, and English as a Second Language (ESL) courses, are counted in attempted and, if appropriate, completed hours. In addition, transfer credits accepted from other institutions are counted in both attempted and completed credit hours.

Maximum Time Frame—150% of credit hours required for program completion (quantitative measure) The maximum time frame of federal aid eligibility toward the completion of a program is 150 percent of its published length in credit hours. It is computed as a percentage of credit hours attempted relative to 150% of the number of credit hours required for program completion. Sinclair credit hours for college level courses and transfer credits are counted in attempted credits.

A student must to be able to complete mathematically the program of study within the maximum time frame.

The Financial Aid Satisfactory Academic Progress (SAP) policy differs from the Sinclair Academic Policy in its definition of maximum time frame to complete a program. Sinclair's Academic Policy allows six years for the completion of an associate degree program. Students will not receive federal financial aid for any courses taken that equal or exceed 100% of the financial aid maximum time frame calculation, which is a measure of attempted credit hours divided by 150% of the credit hours required to complete the program of study, unless approved through the SAP appeal process.

Categories of Satisfactory Academic Progress (SAP) Statuses

A student will be assigned a SAP status in one of the following categories: Financial Aid Satisfactory, Financial Aid Warning, Financial Aid Unsatisfactory, Financial Aid Maximum Time Frame or Financial Aid Probation.

See the table on the following page for a summary of how each status is treated:

Categories of Satisfactory Academic Progress Statuses

If a student's SAP status is Financial Aid one of these categories:	Financial Aid Satisfactory	Financial Aid Warning	Financial Aid Unsatisfactory	Financial Aid Probation	Maximum Time Frame
Is the student eligible for federal financial aid?	**Yes**	**Yes**	**No**	**Yes**	**No**
	Meets all three SAP requirements: • Cumulative GPA is at least 2.0 • Cumulative Pace of Completion is at least 66.67% • Maximum Time Frame is less than 100%. That is, total attempted credit hours are less than 150% of the credit hours required for program completion. Appeal is not necessary.	Fails one or both of requirements for cumulative GPA and cumulative Pace of Completion. Prior term's SAP status must have been a Financial Aid Satisfactory status.	Fails one or both of requirements for cumulative GPA and cumulative Pace of Completion. Prior term's SAP status must have been a Financial Aid Warning, Financial Aid Unsatisfactory, Financial Aid Probation for One Term, or Financial Aid Probation with an Academic Plan.	Successfully files an appeal after being assigned to a Financial Aid Unsatisfactory or Financial Aid Maximum Time Frame status.	Fails to complete program of study before total attempted credit hours is equal to or exceeds 150% of the credit hours required for program completion.
Does the student need to appeal to reinstate financial aid eligibility?		Appeal is not necessary. Warning Period is ONLY one semester.	Yes, if there are extenuating circumstances, a student may appeal.	Appeal was filed and approved, and the student remains eligible. There are two probation statuses: • One term probation; or • Academic plan probation.	Yes, if there are extenuating circumstances.

Multiple Academic Programs

A student may be enrolled in multiple academic programs concurrently. The highest active, credential program with the most recent start date will be evaluated for satisfactory academic progress. The SAP standards will include all credits and grades of institutional and transfer credits.

Timing of SAP Evaluations

SAP is performed at the end of each term, i.e., Fall, Spring and Summer.

Note: An intersession is combined with the term that follows and credit hours attempted are evaluated at the end of that term, i.e., Fall, Spring or Summer.

SAP requirements are calculated on cumulative data and whether or not a student received financial aid for the attempted hours.

A student is notified via letter and/or email (via their **my.sinclair.edu** email address) if there is a change in the student's status or a loss of aid eligibility within five (5) business days of the SAP evaluation that occurs at the end of each term.

Filing a SAP Appeal

A student may appeal the suspension of financial aid eligibility based on extenuating circumstances.

Timeframe for Appeal and Decision: A SAP Appeal may be filed at any time, but only once after each SAP evaluation period. Appeals will be reviewed by the Financial Aid Appeals Committee on the second and fourth Tuesday of each month.

A student will be notified by letter and/or email (via their **my.sinclair.edu** email address) within 10 business days of the Appeals Committee's decision. The decision is final. If denied, a student may file another appeal in a subsequent term if there are additional circumstances.

If an appeal is approved, it is effective for the current term, if registered, or the next term in which a student is registered, and for which Sinclair received a federally processed Free Application for Federal Student Aid (FAFSA) application. If registered in the current term, a student may be reimbursed up to the amount of the accepted awards, if any, for the cost of tuition, fees, and book expenses incurred for the term. Any credit balance of aid awarded will be issued no later than 14 calendar days from the date it occurs.

Note: *A student is responsible for any tuition, fees, and book expenses incurred if enrolling in a term prior to a SAP appeal decision on aid eligibility. If an appeal is denied, no aid will be awarded. The College offers the FACTS payment plan as a payment option.*

Appeal Form and Documentation of Extenuating Circumstances
The written SAP appeal must include:
- Satisfactory Academic Progress (SAP) Appeal Form, which is available online at:
  http://www.sinclair.edu/services/finaid/PUB/2013-2014%20SAP%20Appeal%20Form. pdf?searchTerm=SAP appeal form
- Written statements that address: *(Note: These questions are included on the Appeal form.)*
  - The circumstances that occurred that contributed to the student's failure to meet the minimum standards of academic progress, and
  - What has changed in his or her circumstances to allow the student to achieve satisfactory academic progress within a reasonable period of time?
- Written explanation and documentation of the extenuating circumstances.
  - Extenuating circumstances include illness, accident, grievous personal loss, employment change or relocation, or other circumstances beyond the student's control. Extenuating circumstances does not include difficulty with scheduling, transportation, dependent care, or a dislike of an instructor or mode of instruction.

(Note: Additional documents may be requested by the Appeals Committee to evaluate the appeal.)

Appeals Committee Decision

Each appeal is reviewed on a case-by-case basis. The Financial Aid Appeals Committee will determine the merit of the appeal by considering: the extenuating circumstance(s) and its resolution; the thoroughness of documentation; GPA; pace of completion; number of credit hours and length of time to completion of program; and prior appeals submitted. If the appeal includes extending maximum time frame, the Committee will consider: the student's reason(s) for changing a program of study or pursuing a second or subsequent degree; prior satisfactory academic progress performance; and credits hours remaining to complete program of study.

Submission of an appeal does not guarantee reinstatement of financial aid eligibility. If approved, a student is placed on Financial Aid Probation status with aid eligibility, and the student is notified within 10 business days of the decision. Based on the time needed to achieve a Financial Aid Satisfactory status or complete the program of study, there are two Financial Aid Probation

statuses: (See details under Categories of Satisfactory Academic Progress (SAP) Statuses—Financial Aid Probation).

- One-term probation: Probationary period is one term to achieve minimum SAP standards. If SAP appeal was for maximum time frame, the program of study must be completed.
- Academic plan probation: Probationary period is defined by the academic plan, which is developed by an Academic Advisor and agreed to by the student. A student's progress is reviewed at the end of each term and evaluated on the basis of the requirements of the academic plan. A change in academic program prior to successfully completing the academic plan will result in suspension of aid eligibility with no recourse for appeal.

If an appeal is denied, a student is notified of the loss of aid eligibility within 10 business days of the decision.

Reinstatement of Financial Aid Based on Change in SAP Status

A student that is ineligible to receive aid as a result of not meeting the minimum SAP requirements, and did not file a successful appeal, will be included in the SAP evaluation at the end of a subsequent term of enrollment if Sinclair has received a federally processed Free Application for Federal Student Aid (FAFSA) application for the corresponding award year. If the minimum SAP requirements are met, the student's financial aid eligibility will be reinstated. It is the student's responsibility to contact the Financial Aid office and request a SAP evaluation, if not updated timely. The student will be notified within five (5) business days via letter and/or email (via their **my.sinclair.edu** email address) of the SAP evaluation if the SAP status is Financial Aid Satisfactory and the student is aid eligible. Financial aid awards cannot be paid retroactively for the term(s) during which a student was ineligible to receive financial aid.

Please see a Sinclair Financial Aid officer for additional information or for a copy of the complete details of the Financial Aid Satisfactory Academic Progress policy.

Scholarships

Sinclair Community College offers a variety of scholarship opportunities for students. Sinclair's Institutional scholarships include need-based and merit-based awards to new and currently enrolled students ranging from $300—$2,000 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; for the first semester, the GPA requirement is waived for new students. 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.

Departmental scholarships are also available to students on a competitive merit basis. Eligibility is determined on a departmental basis.

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—$2,700 per year.

Foundation Scholarships—The Sinclair 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. Online applications can be submitted at: **www.sinclair.edu/stars**

External Scholarships—Several scholarships are awarded by agencies and clubs and organizations outside of Sinclair. Students are encouraged to periodically check the Scholarship Information and Applications on the Financial Aid website for additional information.

Athletic Scholarships—The Exercise, Nutrition & Sport Sciences 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. All athletic scholarships are awarded as part of Sinclair's Institutional Scholarships.

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.

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.

Verification Process for Applicants Filing the FAFSA

Federal verification is a process whereby institutions are required by the U.S. Department of Education (DOE) to verify the accuracy of information provided on a student's FAFSA in an effort to assure federal aid is awarded to those who are eligible. Approximately 30% of FAFSA applications are selected by the federal processor for verification each year. Sinclair may also select any application for federal financial assistance for verification that the College believes is incorrect or has conflicting information.

For the 2014-2015 award year the FAFSA information selected by DOE that an institution, applicant and, if appropriate, the applicant's parent(s) or spouse may be required to verify are:

- Adjusted Gross Income
- U.S. Income Tax Paid
- Untaxed Portions of Individual Retirement Account (IRA) Distributions
- Untaxed Portions of Pensions
- IRA Deductions and Payments
- Tax Exempt Interest Income
- Other Untaxed Income
  - Payments to tax-deferred pension and savings
  - Child support received
  - Housing, food and other living allowances paid to members of the military, clergy and others
  - Veterans non-education benefits
  - Other untaxed income
  - Money received or paid on the applicant's behalf
- Education Credits

- Income Earned from Work
- Number of Household Members
- Number of Household Members in College
- Supplemental Nutrition Assistance Program (SNAP-Food Stamps)
- Child Support Paid
- High School Completion Status
- Identity/Statement of Education Purpose

Please note that Sinclair may select FAFSA items for verification beyond the items required by DOE. Students will receive notification that they have been selected for verification via their **my.sinclair.edu** email account. The email will specify the actions required by the applicant and the documents (if any) required for verification that must be submitted to Sinclair to complete the verification process. The applicant also receives a FAFSA processing email notification from the DOE. This email states that their FAFSA was processed and a Student Aid Report (SAR) was generated that indicates their eligibility status and notifies them if they were selected for verification.

If the Department of Education or Sinclair selects an applicant for verification under this policy, the applicant must complete the required actions specified or provide the requested documents or information. Applicants are advised to complete the required actions or submit copies of the requested documents within 14 days of the request made by the Financial Aid & Scholarships office. However, the Federal deadline for submitting verification documents is 120 days from the applicant's last date of attendance or the federal deadline of September 27, 2014, whichever is earlier. This includes making any necessary corrections, submitting those corrections to the Central Processing System, and submitting the new corrected Student Aid Report (SAR) to Sinclair.

The following consequences occur for applicants who fail to complete verification in a timely manner:

- Applicants who do not complete verification within the required deadlines will not qualify for federal financial aid.
- No federal grant or loan funds will be disbursed.
- No federal financial aid loan will be originated.
- If a loan was originated prior to the notice of verification, any undisbursed monies will be returned to the DOE.
- Student employment in a Federal Work Study job will be terminated.
- If federal grant funds were disbursed prior to being selected for verification and there was an overpayment, the monies must be returned to the appropriate federal grant programs.
- Federal financial aid will not be disbursed, and refunds, if any, will not be available until verification is completed and corrections (if necessary) have been processed and received at Sinclair from the DOE.

The Financial Aid & Scholarships office is required to review each applicant's student information reported to the school from the completed FAFSA for conflicting information. This review ensures that any conflicting information affecting a financial aid applicant's eligibility are identified and resolved. Federal financial aid will not be awarded or disbursed if there are unresolved discrepancies.

Federal financial aid awards are based on the information provided on the applicant's FAFSA. Federal Programs such as the Federal Pell Grant, Federal SEOG Grant, Federal Perkins Loan and the Federal Subsidized Stafford Loan Program have strict eligibility requirements. If the data reported on verification documents differs from the information reported on the applicant's FAFSA, the applicant's eligibility for funding from these programs may be affected.

If any credible information indicates that the applicant engaged in fraud or other criminal misconduct in connection with their application for federal student aid, Sinclair will report applicants to the Office of the Inspector General of the U.S. Department of Education after review.

To obtain a copy of a Tax Return Transcript, go to **www.irs.gov** and click on "Get Transcript for Your Tax Records." Then click on the button to either "Get Transcript ONLINE" or "Get Transcript by MAIL." Once the applicant creates an account, they may order their transcript online for immediate review or via U.S. mail services. The applicant may also call the IRS Transcript Order line at 800-908-9946 or submit a Form 4506-T. This form is available at the Financial Aid & Scholarships office. The IRS Tax Return Transcript—not the IRS Tax Account Transcript—should be requested when ordering via the telephone or by Form 4506-T.

Withdrawal & Return of Title IV Funds

Students earn federal financial aid by attending class (i.e. completing all scheduled days). Any unearned portion must be returned to the appropriate Title IV program. Federal law specifies how Sinclair must determine the amount of Title IV program assistance that you earn if you withdraw from school. The Title IV programs offered by Sinclair that are covered by this law are: Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Iraq and Afghanistan Service Grants, Federal Direct Loans, and Federal PLUS Loans.

Calculating a Return of Title IV Funds When a Student Withdraws

When you withdraw during your payment period or period of enrollment, the amount of Title IV program assistance that you have earned up to that point is determined by a specific formula. If you received (or if Sinclair or your parent received on your behalf) less assistance than the amount that you earned, you may be able to receive those additional funds. If you received more assistance than you earned, the excess funds must be returned by Sinclair and/or you to the U. S. Department of Education (DOE). You will be responsible for repayment of the funds to Sinclair that it paid to the DOE on your behalf.

The amount of assistance that you have earned is determined on a prorated basis. For example, if you completed 30% of your payment period or period of enrollment, you earn 30% of the assistance you were originally scheduled to receive.

Withdrawing from a Course or all Classes Affect a Student's Financial Aid

Students receiving financial aid who withdraw or stop attending, in most cases, will be required to return a portion of financial aid received. A student should submit an official withdrawal from classes form to the Registration & Student Records office (RSR). Before withdrawing or stopping attendance in classes, the student should be aware of the proper procedure for withdrawing from classes and the consequences of withdrawing or stopping attendance. Official withdraw is the responsibility of the student. The Sinclair Official Withdrawal Policy is available online at: **http://catalog.sinclair.edu/#/policies/Academic/Official Withdrawal from College Policy**

Questions on Return of Title IV Funds may be addressed to the Financial Aid & Scholarships office. Questions on withdrawal should be addressed with an Academic Advisor.

The Withdrawal Date

The withdrawal date used in the Return of Title IV calculation is the actual date the official drop form is received by the Registration and Student Records office. If a student stops attending classes without notifying Sinclair, the withdrawal date will be the midpoint of the semester or the last date of recorded attendance in class.

Post Withdrawal Disbursements

If you did not receive all of the funds that you earned, you may be due a post-withdrawal disbursement. Sinclair will notify the student within 30 days of the date of determination of withdrawal concerning the post withdrawal disbursement. If your post-withdrawal disbursement includes loan funds, Sinclair must get your permission (or your parent's permission for a Direct PLUS Loan) before it can disburse the funds. You (or your parent for a Direct PLUS Loan) may choose to decline some or all of the loan funds so that you do not incur additional debt. The student (or parent if a PLUS loan) must respond within 14 days of the date the post-withdrawal disbursement notification was sent.

Sinclair may automatically use all or a portion of your post-withdrawal disbursement of grant funds for tuition and fees and will apply those funds to your student account within 45 days of the date of determination of your withdrawal from Sinclair. Sinclair needs your permission to use the post-withdrawal grant disbursement for all other school charges. If you do not give your permission (Sinclair may ask for this when you enroll or register), you will be offered the funds. However, it may be in your best interest to allow Sinclair to keep the funds to reduce your debt at the school.

There may be some Title IV funds that you were scheduled to receive that cannot be disbursed to you once you withdraw because of other eligibility requirements. For example, if you are a first-time, first-year undergraduate student and you did not complete the first 30 days of your program before you withdrew, you will not receive any Direct Loan funds that you would have received had you remained enrolled past the 30th day.

Returning Unearned Federal Funds

If you receive (or if Sinclair or your parents receive on your behalf) excess Title IV program funds that must be returned, Sinclair must return a portion of the excess equal to the lesser of:
1. Your institutional charges multiplied by the unearned percentage of your funds, or
2. The entire amount of excess funds.

Sinclair will return Title IV funds in the following order:

1. Unsubsidized Direct Loan
2. Subsidized Direct Loan
3. Direct PLUS Loan
4. Federal Pell Grant
5. FSEOG
6. Iraq and Afghanistan Service Grant

The required return of Title IV funds will be made to the Title IV programs within 45 calendar days of the date of determination of withdrawal.

In addition to returning unearned loan and grant funds due from the school to the Title IV program, Sinclair will return those excess unearned grant funds due from you to the Title IV program. You will be required to repay Sinclair for the student portion of the funds returned to the Title IV programs.

Any loan funds that you (or your parent for a Direct PLUS Loan) must return, you repay in accordance with the terms of the promissory note. That is, you make scheduled payments to the holder of the loan over a period of time agreed upon by you (or your parent for a Direct PLUS loan).

Any amount of unearned grant funds that you must return is called an overpayment. The maximum amount of a grant overpayment that you must repay is half of the grant funds you received or were scheduled to receive. You do not have to repay a grant overpayment if the original amount of the overpayment is $50 or less. ***You must make arrangements with Sinclair to repay the Sinclair the amount of the unearned grant funds paid on your behalf by the college.***

The requirements for refunds and repayments of Title IV program funds when you withdraw are separate and different from any Sinclair refund policy. The institutional refund policy determines the amount of tuition and other charges owed the College and has no impact on the Return of Title IV funds calculation. Therefore, you may still owe funds to Sinclair to cover unpaid institutional charges. Sinclair may also charge you for any Title IV program funds that the school was required to return. Students are encouraged to review Sinclair's refund policy which can be found online at: **www.sinclair.edu/services/bursar/refunds/** or you may ask Sinclair for a copy of its refund policy.

Sinclair can also provide you with a copy of the requirements and procedures for an official academic withdrawal from courses or an administrative withdrawal or you can review it online at: **http://catalog.sinclair.edu/#/policies/Academic/Official Withdrawal from College Policy**

If you have questions about your Title IV program funds, you can call the Federal Student Aid Information Center at 1-800-4-FEDAID (1-800-433-3243). TTY users may call 1-800-730-8913. Information is also available on Student Aid on the Web at: **www.studentaid.ed.gov**

All information contained in the Withdrawal and Return of Title IV Funds Policy is subject to change based on changes to federal law, regulation, or Sinclair's policy and procedure. If changes are made, students must abide by the new policy.

Note: In many instances, the student will owe a balance to Sinclair based on the returns made by Sinclair to the U.S. Department of Education. Please see a Sinclair Financial Aid officer for additional information.

Students who meet the VA eligibility criteria may be certified to receive educational benefits by registering with Sinclair's Veteran Services office.

Information regarding the criteria for receiving benefits and current payment rates may be found at: **www.gibill.va.gov**

Once a student has been deemed eligible to receive VA education benefits, the student will submit eligibility and enrollment information to the Sinclair Veteran Services office. It is recommended that students submit their information as soon as registration is complete in order to allow ample processing time at the VA. Registration information must be reported for each term in which a student wishes to use VA education benefits. Students can find updated information and forms to process VA education benefits at: **www.sinclair.edu/veterans**

For specific benefit and payment information contact: Veteran Services, Building 10, Room 10323, Dayton Campus, (937) 512-2586.

Repayment of Benefits

Under certain circumstances, withdrawing from courses could mean repayment of VA benefits, so veterans should contact Veteran Services before withdrawing. Non-attendance of classes could also result in repayment. To eliminate any problems with benefits, each veteran must verify courses with invoice/schedule and semester enrollment form 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. Once the credits have been evaluated, the school will send the student a letter informing them of the number of credits accepted.

Make an appointment with an academic advisor and request a degree audit to be sent to the office of Veteran Services. 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 VA educational benefits. One-year certificate programs do not qualify.

The following is a listing of courses that are not approved for VA benefits:

1. All certificate programs
2. Any course that cannot be credited toward graduation in the degree program
3. A third attempt at a failed (F) course
4. Any developmental course DEV) taken in an online format
5. Real estate courses through Dayton Board of Realtors for students not enrolled in Real Estate & Property Management degree program

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

Articulation and Transfer Policies for Degree-Seeking Students

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

Students can:

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

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

Transfer of Credit to Sinclair

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

1. **Request Official Transcripts**
   Contact all previously attended colleges/universities and request that official transcripts be sent to: Sinclair Community College, Registration & Student Records, 444 West Third Street, Dayton, Ohio 45402-1460

Upon receipt of a student's transcript, Sinclair will notify the student with a post card via U.S. mail. Within 15 business days the Student Records department will equate the transferred courses to Sinclair courses and a full report of these equivalencies will be sent to the student in the mail. Sinclair accepts credits from colleges and universities accredited by regional accrediting associations.

2. **Meet with an Academic Advisor**
   Advisors will work with students to determine which courses to take for their degree programs. If all transcripts have not been received by Sinclair prior to meeting with advisors, students are encouraged to bring an unofficial transcript from previously attended college(s).

3. **Register For Classes**

Transfer of Credits from Sinclair

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

1. Meet with the appropriate Sinclair academic/faculty advisor and speak with a representative at the transfer institution early and often during an academic career. This will help ensure that the student is selecting the appropriate courses.
2. Follow the transfer admissions procedures for that institution.
3. Have official Sinclair transcripts sent to the transfer institution and follow up to ensure that they have received and evaluated the transfer credits.
- For additional information, go to: **www.sinclair.edu/services/registration/records/transcripts**

Remember:

- **Speak with an academic/faculty advisor** early in your academic career. It is the student's responsibility to keep the advisor aware of the intended academic program and/or transfer institution.
- **Contact the transfer institution** as soon as possible. Ask for specific recommendations from the transfer institution to help with structuring a degree program at Sinclair as closely as

possible around their requirements. Also, speaking to advisors from both institutions helps ensure that students receive timely, accurate transfer information.

- **Always confirm course choices with the transfer institution.** Because Sinclair is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools and is a member of the association as well as the Ohio Board of Regents, most credits will transfer to other colleges and universities. University Parallel courses usually transfer more easily than technical courses. Due to of the highly specialized nature of courses in career programs, many are not designed for transfer to a four-year institution. The exception to this is any course in an approved articulation agreement with a four-year college or university. An academic advisor can provide information about which programs offer this option.

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.

Ohio Transfer Module (OTM)

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 Associate of Arts (AA), Associate of Science (AS) and baccalaureate degree programs. Students in Associate of Applied Science (AAS) 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 consists of 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 a student is 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. Additional information and a complete list of approved transfer module courses can be viewed at **http://ohiohighered.org/transfer/reportingsystem**

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. Additional information and a complete list of approved TAG courses can be viewed at: **http://regents.ohio.gov.transfer/tags/index.php**

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 AS degrees prior to fall 2005 with a 2.0 or better overall grade point average would also receive credit for all college level courses they have passed. 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.

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 an academic advisor.
- Outgoing agreements with other colleges and universities indicate how Sinclair Community College programs and courses will transfer to those institutions. Information regarding current agreements can be viewed at: **www.sinclair.edu/about/administrative/vpi/trs/articulationagreements/outgoingarticulationagreements/**

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 3 (three) 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 4 (four) or 5 (five) 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 at:
http://ohiohighered.org/transfer/reportingsystem

Transferology™ (formerly u.select)

Students who have completed courses in higher education and want to know which colleges and universities will accept those courses and apply them to a degree should visit:
www.transferology.com

Transferology will provide quick answers from hundreds of institutions in a streamlined and dynamic interface.

Appalachian Outreach/Think College
Building 7, Room L07E • (937) 512-2126 • **www.sinclair.edu/appalachian**

This department provides the Appalachian community with programs and services to eliminate barriers, ensure access to the learning process and champions the benefits of post-secondary education and life-skills training.

College for Lifelong Learning
(937) 512-2372 • **www.sinclair.edu/lifelong**

Adults of any age may enroll in non-credit seminars and workshops. Classes meet on campuses and at various sites across the community. Topics range from Introduction to Personal Computers, and Managing Money to Dayton History and more. Some classes carry a modest fee to cover instructional costs, while others are free. A schedule of classes is available on the College for Lifelong Learning web page.

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

At Resource Centers located on Sinclair campuses as well as select area high schools, prospective students have an opportunity to improve their skills in math, reading, and writing prior to enrolling in college.

Fast Forward Center
Job Center, Edwin C. Moses Blvd. • (937) 512-FAST (3278) • **www.sinclair.edu/centers/ffc**

This award-winning center serves youth who have previously dropped out of high school by returning them to high school and securing a positive placement upon graduation (employment, military or post-secondary education).

International Education
Building 10, Room 10231 • (937) 512-4606 • **www.sinclair.edu/international**

International Education actively promotes international and intercultural understanding. Our staff members are committed to the enrichment of Sinclair and strive to provide the best services and support to international students and various college departments and offices.

School & Community Partnerships
Building 12, Room 12331 • (937) 512-5226 or (937) 512-5188 • **www.sinclair.edu/precollege**

Programs designed to expose and prepare youth for higher education include: Advanced College Entry, Educational Talent Search, Post-Secondary Enrollment Options (PSEO), Quick Start, Seniors to Sophomores, Upward Bound, and Young Scholars Program.

Workforce Development
Building 12, Room 12101 • Dayton Campus • (937) 252-9787 • **workforce.sinclair.edu**

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.

Student Services & Support

www.sinclair.edu/services

Sinclair provides access to academic support services, programs and resources that proactively and collaboratively guide, assist, and help students achieve their personal learning goals.

Visit **www.sinclair.edu/services** for details on the offices listed below. Direct numbers are provided on the inside front cover of the catalog or call (937) 512-3000 to be connected directly.

Academic Advising
Academic Resource Center
Bursar/College Cashier
Campus Ministry
Career Services
Center for Student Success
Childcare
Counseling Services
Disability Services
English as a Second Language
Financial Aid & Scholarships
New Student Enrollment Center
Ombudsman
Student Support Services
Registration & Student Records
Tartan Card (Student I.D.)
Testing Center
Tutorial Services
Veteran Services

Student Services & Support

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

There are three types of degree programs offered at Sinclair:

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.

Associate Degree Options

Associate of Arts–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.

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.

NOTE: *Students who are working towards an AA or AS degree and 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 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 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.

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.

Some degree programs contain embedded certificates. These are certificate programs that contain all of the same courses required for a degree program. When a student completes these requirements while they are pursuing their selected degree program, the certificate(s) will be automatically awarded. If a student does not want to automatically receive embedded certificates, they must come to the Registration & Student Records office on the Dayton Campus, Building 10, Second Floor or the front desk at any Regional Center to fill out the required form to prevent the embedded certificate(s) from being awarded. The form must be completed and submitted during the first term the degree program is declared.

Degree Programs & Certificates

*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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Ohio Transfer Module

The Ohio Transfer Module (OTM) is a subset or a complete set of general education requirements at Ohio public colleges and universities. OTM courses are guaranteed to transfer to any of Ohio's public institutions of higher education as an area credit, as well as equivalent courses in English and Mathematics. The Ohio Transfer Module represents a common body of knowledge and academic skills. The OTM is comprised of 36-40 semester hours of courses in the following areas:

- English Composition/Oral Communication
- Mathematics, Statistics & Logic
- Natural & Physical Sciences
- Social & Behavioral Sciences
- Arts & Humanities

Sinclair Transfer Module
English/Oral Communication
(Minimum of 3 hours)

COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3

Mathematics, Statistics & Logic *(Minimum of 3 hours)*

MAT	1290	Technical Mathematics II	4
MAT	1295	Technical Mathematics III	5
MAT	1410	Numerical Concepts for Teachers	4
MAT	1420	Algebra & Data Analysis for Teachers	4
MAT	1430	Geometry & Measurement for Teachers	4
MAT	1440	Excursions in Mathematics	3
MAT	1445	Quantitative Literacy	3
MAT	1450	Introductory Statistics	4
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MAT	1580	Pre-Calculus	5
MAT	2160	Calculus for Business & Economics	5
MAT	2170	Business Statistics I	4
MAT	2180	Business Statistics 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
MAT	2330	Differential Equations & Linear Algebra	5

Natural & Physical Sciences
(Minimum of 6 hours –one lab course required)

AST	1111	The Solar System	3
AST	1112	Stars, Galaxies & the Universe	3
AST	1117	Lab for The Solar System	1
AST	1118	Lab for Stars, Galaxies and the Universe	1
BIO	1111	General Biology I	4
BIO	1121	Human Anatomy & Physiology I	3
BIO	1141	Principles of Anatomy & Physiology I	4
BIO	1171	Principles of Biology I	5
BIO	1211	General Biology II	4
BIO	1222	Human Anatomy & Physiology II	3
BIO	1242	Principles of Anatomy & Physiology II	4

BIO	1272	Principles of Biology II	5
BIO	2205	Microbiology	4
BIO	2222	Evolution	3
BIO	2225	Ecology	4
BIO	2235	Genetics	4
CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
CHE	1311	College Chemistry I	4
CHE	1321	College Chemistry II	4
CHE	2111	Organic Chemistry I	5
CHE	2121	Organic Chemistry II	5
GLG	1101	General Geology I	4
GLG	1201	General Geology II	4
GLG	1301	Geologic Field Trips	4
PHY	1100	Introductions to Physics	4
PHY	1104	Sound, Light & Modern Physics	4
PHY	1131	Technical Physics	3
PHY	1141	College Physics I	4
PHY	1142	College Physics II	4
PHY	2201	General Physics I	5
PHY	2202	General Physics II	5

Social & Behavioral Sciences
(Minimum of 6 hours from two disciplines)

AFR	1100	African-American Studies	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
GEO	1101	Human Geography	3
GEO	1102	Physical Geography	4
GEO	1201	World Regional Geography	3
GEO	1208	Geography of the Middle East	3
HIS	2219	Survey of the Middle East	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
PSY	1100	General Psychology	3
PSY	1160	African American Psychology	3
PSY	2200	Lifespan Human Development	3
PSY	2205	Child Development	3
PSY	2206	Adolescent & Adult Development	3
PSY	2217	Abnormal Psychology	3
PSY	2220	Personality Psychology	3
PSY	2225	Social Psychology	3
PSY	2228	Psychology in the Workplace	3
PSY	2242	Educational Psychology	3
SOC	1101	Introduction to Sociology	3
SOC	1115	Sociology of Marriage & Family	3
SOC	1117	Popular Culture	3
SOC	1145	Introduction to Cultural Anthropology	3
SOC	1160	Sociology of Aging	3
SOC	1219	Global Poverty	3
SOC	2205	Social Problems	3
SOC	2208	Sociology of American Cities	3
SOC	2215	Race & Ethnicity	3
SOC	2226	Criminology	3

Arts & Humanities
(Minimum of 6 credit hours from two disciplines)

ART	1110	Art Appreciation: Intro to Art & Art Media	3
ART	2230	Art History: Ancient through Medieval Periods	3
ART	2231	Art History: Renaissance through Contemporary	3
ART	2235	History of Photography	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.

ART	2236	History of Women Artists	3
ART	2237	History of American Art	3
ART	2238	History of African Art	3
DAN	1155	Dance History	3
DAN	1157	Dance Appreciation	3
HIS	1101	United States History I	3
HIS	1102	United States History II	3
HIS	1105	African American History	3
HIS	1111	Western Civilization I	3
HIS	1112	Western Civilization II	3
HIS	2215	Survey of African History	3
HIS	2216	Survey of Latin American History	3
HIS	2217	Survey of East Asian History	3
HIS	2218	History of Ohio	3
HUM	1125	Introduction to the Humanities	3
HUM	1130	Humanity & the Challenge of Technology	3
HUM	1131	The Search for Utopia	3
HUM	1135	Environmental Ethics	3
HUM	1140	Appalachian Folkways	3
HUM	1141	Appalachian History & Culture	3
LIT	2201	British Literature I	3
LIT	2202	British Literature II	3
LIT	2211	American Literature I	3
LIT	2212	American Literature II	3
LIT	2217	Images of Women in Literature	3
LIT	2220	Introduction to Literature	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
LIT	2400	Children's & Adolescent Literature	3
MUS	1121	Music Appreciation	3
MUS	1123	World Music	3
MUS	2117	Surveys of Musical Styles I	3
MUS	2118	Surveys of Musical Styles II	3
PHI	2204	Great Books: Philosophy	3
PHI	2205	Introduction to Philosophy	3
PHI	2206	Introduction to Ethics	3
REL	1111	Eastern Religions	3
REL	1112	Western Religions	3
REL	1135	American Religious Movements	3
REL	2204	Great Books: The Bible & Western Culture	3
REL	2255	People & Religion	3
THE	1101	Theatre Appreciation	3
THE	1105	Introduction to Theatre	3
THE	2201	History of Theatre I	3
THE	2202	History of Theatre II	3

Transfer Assurance Guides (TAGs)

TAGs are groups of foundational courses that represent a commonly accepted pathway to a Bachelor's degree. 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. The approved TAG courses for Sinclair Community College are as follows:

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
ALH	2220	Pathophysiology	3
ART	1101	2-D Foundations	3
ART	1102	3-D Foundations	3
ART	1111	Drawing I	3
ART	1121	Beginning Painting I	3
ART	1131	Introduction to Sculpture	3
ART	1141	Introduction to Ceramics	3
ART	1161	Black & White Darkroom Photography I	3
ART	2216	Life Drawing & Anatomy I	3
ART	2230	Art History: Ancient through Medieval Periods	3
ART	2231	Art History: Renaissance through Contemporary Periods	3
ART	2269	Introduction to Printmaking	3
BIO	1171	Principles of Biology I	5
BIO	1272	Principles of Biology II	5
BIS	1221	Specialized Computer Applications for HIM	3
CAT	1201	Construction Methods & Materials	5
CAT	1501	Construction Surveying	3
CAT	2421	Soil Mechanics	3
CHE	2111	Organic Chemistry I	5
CHE	2121	Organic Chemistry II	5
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
DAN	1155	Dance History	3
DIT	1525	Human Nutrition	3
DIT	2510	Institutional Foodservice Systems	3
DIT	2515	Foodservice Practicum I	1
DIT	2735	Foodservice Organization & Management	3
ECE	1101	Introductory Child Development	3
ECE	2200	Families, Communities & Schools	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
EDU	1100	Introduction to Education	3
EDU	1103	Educational Technology	3
EDU	1105	Individuals with Exceptionalities	3
EET	1131	Digital Electronics	5
EET	1150	D.C. Circuits	4
EET	1155	A.C. Circuits	4
EET	2201	Electronic Devices & Circuits	5
EET	2261	Microprocessors	4
EGV	1101	Alternate & Renewable Energy Sources	3
EGV	2101	Solar Photovoltaic Design & Installation	3
EGV	2151	Solar Thermal Systems	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives. 39

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ENG	1131	Business Writing	3
FST	1111	Fire Behavior & Combustion	3
FST	1112	Principles of Emergency Services	3
FST	1113	Fire Prevention	3
FST	2202	Building Construction for Fire Protection	3
GEO	1101	Human Geography	3
GEO	1102	Physical Geography	4
GEO	1209	Introduction to Cartography	4
GLG	1101	General Geology I	4
GLG	1201	General Geology II	4
HIM	1101	Medical Terminology	2
HIM	1204	Medicolegal & Ethics in Healthcare Records	2
HIM	2165	Healthcare Data in Reimbursement	3
HIS	1101	United States History I	3
HIS	1102	United States History II	3
HIS	1111	Western Civilization I	3
HIS	1112	Western Civilization II	3
HMT	1112	Food Principles & Basic Preparation	4
LAW	1101	Business Law	3
LIT	2201	British Literature I	3
LIT	2202	British Literature II	3
LIT	2211	American Literature I	3
LIT	2212	American Literature II	3
MAT	2170	Business Statistics I	4
MAT	2180	Business Statistics II	3
MAT	2290	Calculus & Analytic Geometry III	5
MAT	2310	Elementary Differential Equations	4
MAT	2320	Linear Algebra	3
MET	1371	CAD Concepts using AutoCAD	3
MET	2151	Material Science	3
MET	2201	Statics	3
MET	2251	Strength of Materials	3
MET	2301	Fluid Mechanics	3
MRK	2101	Principles of Marketing Management	3
MRK	2102	Principles of Advertising	3
MUS	1111	Music Theory I	3
MUS	1112	Aural Skills I	1
MUS	1113	Music Theory II	3
MUS	1114	Aural Skills II	1
MUS	1115	Piano for Music Majors I	1
MUS	1116	Piano for Music Majors II	1
MUS	1131	Chorale	1
MUS	1141	Wind Symphony	1
MUS	1143	Concert Band	1
MUS	1145	Classical Guitar Ensemble	1
MUS	2111	Music Theory III	3
MUS	2112	Aural Skills III	1
MUS	2113	Music Theory IV	3
MUS	2114	Aural Skills IV	1
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	2525	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
OPT	2205	Manufacturing Processes	3
PHI	2205	Introduction to Philosophy	3
PHI	2206	Introduction to Ethics	3
PHY	1141	College Physics I	4
PHY	1142	College Physics II	4
PHY	2201	General Physics I	5
PHY	2202	General Physics II	5
PLS	1120	American Federal Government	3
PLS	1232	State & Local Government	3
PLS	2200	Political Life, Systems & Issues	3
PLS	2220	International Relations	3
PSY	1100	General Psychology	3
PSY	2200	Lifespan Human Development	3
PSY	2205	Child Development	3
PSY	2206	Adolescent & Adult Development	3
PSY	2217	Abnormal Psychology	3
PSY	2220	Personality Psychology	3
PSY	2225	Social Psychology	3
PSY	2242	Educational Psychology	3
SOC	1101	Introduction to Sociology	3
SOC	1115	Sociology of Marriage & Family	3
SOC	1145	Introduction to Cultural Anthropology	3
SOC	2205	Social Problems	3
SOC	2215	Race & Ethnicity	3
SOC	2226	Criminology	3
SWK	1206	Introduction to Social Work	3
SWK	1213	Introduction to Social Welfare	3
THE	1106	Stagecraft	2
THE	1111	Acting I	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.

THE	1194	Applied Theatre Technology I	1
THE	2206	Script Analysis	3
THE	2299	Theatre Practicum: Performance	1-3

Multicultural Electives

AFR	1100	African-American Studies	3
ART	2236	History of Women Artists	3
ASL	1101	Orientation to Deafness	2
COM	2245	Intercultural Communication	3
GEO	1101	Human Geography	3
GEO	1201	World Regional Geography	3
HUM	1130	Humanity & the Challenge of Technology	3
LIT	2217	Images of Women in Literature	3
LIT	2234	Literature of Africa, Asia, & Latin America	3
LIT	2236	African-American Literature	3
PLS	2200	Political Life, Systems & Issues	3
PLS	2860	Model UN/International Issues	3
PSY	1160	African American Psychology	3
PSY	2180	Psychology of Gender	3
PSY	2225	Social Psychology	3
REL	1111	Eastern Religions	3
REL	1112	Western Religions	3
SOC	1145	Introduction to Cultural Anthropology	3
SOC	2215	Race & Ethnicity	3

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

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SINCLAIR COMMUNITY COLLEGE

Art

Program Code: ART.S.AA • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

Accreditation

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

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.

OTM		Social & Behavioral Sciences Elective	6
OTM		Mathematics Elective	3
OTM		Natural & Physical Sciences Elective	6
OTM		Arts & Humanities Elective	3
ART		Art History Elective	3
ART		ART Concentration Elective	6
ART		ART Elective	12
ART		ART 2D or 3D Elective	3
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
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1

Drawing Concentration (2D)

ART	1112	Drawing II
ART	2111	Intermediate Drawing I

Life Drawing and Anatomy Concentration (2D)

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

Painting Concentration (2D)

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

Photography Concentration (2D)

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

Ceramics Concentration (3D)

ART	1141	Introduction to Ceramics
ART	1142	Intermediate Ceramics

Sculpture Concentration (3D)

ART	1131	Introduction to Sculpture
ART	1132	Intermediate Sculpture

2D Electives

ART	1112	Drawing II
ART	1121	Beginning Painting I
ART	1122	Beginning Painting II
ART	1161	Black & White Darkroom Photography I
ART	1162	Black & White Darkroom Photography II
ART	1170	Non-Silver Photography
ART	1171	Studio Photography
ART	1175	Computer Photography
ART	2216	Life Drawing & Anatomy I
ART	2217	Life Drawing & Anatomy II .
ART	2221	Intermediate Painting—Observation & Concept
ART	2222	Intermediate Painting—The Figure
ART	2265	Digital Color Photography I
ART	2266	Digital Color Photography II
ART	2269	Introduction to Printmaking

3D Electives

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

Art History Electives

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

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

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Associate of Arts

Program Code: LA.S.AA • **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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

	Any Course in Catalog Elective		8
	Multicultural Elective		3
OTM	Arts & Humanities Elective		12
OTM	Natural & Physical Sciences Elective		6
OTM	Social & Behavioral Sciences Elective		12
OTM	Mathematics Elective		3
BIS	1120	Introduction to Software Applications	3
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3

Communication Studies

Program Code: COM.S.AA • **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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

Career Opportunities

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. Through careful course selection, a program of study can be planned to satisfy your particular educational and career interests. Enhancing communication skills provides invaluable benefits for all students, regardless of major or career path.

OTM	Social & Behavioral Sciences Elective		6
OTM	Natural & Physical Sciences Elective		6
OTM	Mathematics Elective		3
OTM	Arts & Humanities Elective		6
OTM	Any Group		6
	Any Course in Catalog Elective		3
	Communication/Journalism Elective		6
BIS	1120	Introduction to Software 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
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1

Communication/Journalism Electives

COM	2230	Nonverbal 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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SINCLAIR COMMUNITY COLLEGE

Creative Writing

Program Code: CRWE.S.AA • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

		Multicultural Elective	3
OTM		Any Group	6
		Any Course in Catalog Elective	5
OTM		Arts & Humanities Elective	6
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	9
		Communication/Journalism Elective	3
BIS	1120	Introduction to Software Applications	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
SCC	1101	First Year Experience	1
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4

English

Program Code: ENGE.S.AA • 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 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

		Associate of Arts Elective	6
OTM		Arts & Humanities Elective	3
OTM		Mathematics Elective	3
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	9
BIS	1120	Introduction to Software Applications	3
ENG	1101	English Composition I	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	2220	Introduction to Literature	3
LIT	2230	Great Books of the Western World	3
LIT	2234	Literature of Africa, Asia, & Latin America	3
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3

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

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SINCLAIR COMMUNITY COLLEGE

History

Program Code: HISE.S.AA • Credit Hours: 61-62

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 History is designed for students who plan to transfer to a four-year college or university and pursue a baccalaureate degree in history, or a degree in which history is a strong foundation for the baccalaureate. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

BIS	1120	Introduction to Software Applications	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
HIS	1101	United States History I	3
HIS	1102	United States History II	3
HIS	1111	Western Civilization I	3
HIS	1112	Western Civilization II	3
SCC	1101	First Year Experience	1
		Multicultural Elective	3
OTM		Social & Behavioral Sciences Elective	6
OTM		Natural & Physical Sciences Elective	6
		Associate of Arts Communication Group Elective	3
HIS	1105	African-American History OR	
HIS	2218	History of Ohio	3
OTM		Arts & Humanities Elective	3
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4
		Associate of Arts Elective	6
HIS	2215	Survey of African History OR	
HIS	2216	Survey of Latin American History OR	
HIS	2217	Survey of East Asian History	6

Modern Languages

Program Code: FORE.S.AA • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

OTM		Arts & Humanities Elective	6
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	6
OTM		Any Group	9
		Multicultural Elective	3
		Communication/Journalism Elective	3
		First Year Modern Language Sequence	8
		First Year or Second Year Modern Language Sequence	6-8
BIS	1120	Introduction to Software Applications	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
SCC	1101	First Year Experience	1
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4

First-Year Modern Language Course Sequences

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

Second -Year Modern Language Course Sequences

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

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

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Multimedia Journalism

Program Code: COMMJ.S.AA • Credit Hours: 62

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 Opportunities

Multimedia journalism is the fastest growing area of journalism, and this degree prepares students to work as producers for news and corporation websites. Students may also elect to transfer to a four-year college or university baccalaureate program to continue their studies in journalism or communication.

OTM		Arts & Humanities Elective	6
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	6
OTM		Mathematics Elective	3
OTM		Any Group	6
BIS	1120	Introduction to Software 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	2290	Introduction to Broadcasting	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
SCC	1101	First Year Experience	1

Music

Program Code: MUS.S.AA • 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 A.A. 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

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
MUS	1110	Music Technology for Music Majors	1
MUS	1111	Music Theory I	3
MUS	1112	Aural Skills I	1
MUS	1113	Music Theory II	3
MUS	1114	Aural Skills II	1
MUS	2111	Music Theory III	3
MUS	2112	Aural Skills III	1
MUS	2113	Music Theory IV	3
MUS	2114	Aural Skills IV	1
MUS	2117	Survey of Musical Styles I	3
MUS	2118	Survey of Musical Styles II	3
MUS		Applied Instrument Elective	8
MUS	1115	Piano for Music Majors I AND	
MUS	1116	Piano for Music Majors II AND	
MUS	2115	Piano for Music Majors III AND	
MUS	2116	Piano for Music Majors IV OR	
MUS	1119	Secondary Voice AND	
MUS	1119	Secondary Voice AND	
MUS	1119	Secondary Voice AND	
MUS	1119	Secondary Voice	4
MUS	1131	Chorale OR	
MUS	1143	Concert Band OR	
MUS	1145	Classical Guitar Ensemble	4
OTM		Arts & Humanities Elective	6
OTM		Mathematics Elective	3
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Electives	6

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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Physical Education/Sport & Recreational Management

Program Code: PED.S.AA • Credit Hours: 63-65

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. Students are required to demonstrate competency by earning a C grade or better in all ENS courses for their degree. Students will need to be in good standing before department approval is given for Practicum.

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.

OTM		Mathematics Elective	3
OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	6
ALH	1132	American Heart Association Heartsaver First Aid	1
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1118	Lifetime Physical Fitness & Wellness	3
ENS	2419	Health Promotion, Fitness & Sport Programming	3
ENS	2471	Exercise, Nutrition & Sports Science Practicum	2

HIS	1111	Western Civilization I	3
HIS	1112	Western Civilization II	3
PSY	1100	General Psychology	3
BIO	1121	Human Anatomy & Physiology I (PED Track) OR	
GLG	1101	General Geology I (Sports Track)	3-4
BIO	1222	Human Anatomy & Physiology II (PED Track) OR	
GLG	1201	General Geology II (Sports Track)	3-4
	ENS	Concentration of Track	18

ENS Concentration of Track
Physical Education Electives

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

Sport and Recreation Management Electives

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

Political Science

Program Code: PLSE.S.AA • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

		Associate of Arts Elective	12
		Associate of Arts Communication Elective	3
		Multicultural Elective	3
OTM		Arts & Humanities Elective	6
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	6
OTM		Mathematics Elective	3
BIS	1120	Introduction to Software Applications	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

Psychology

Program Code: PSYE.S.AA • 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 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

BIS	1120	Introduction to Software Applications	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PSY	1100	General Psychology	3
PSY	2180	Psychology of Gender OR	
PSY	1160	African American Psychology	3
PSY	2200	Lifespan Human Development	3
PSY	2217	Abnormal Psychology	3
PSY	2220	Personality Psychology	3
PSY	2225	Social Psychology	3
		Psychology 200 Level Elective	3
SCC	1101	First Year Experience	1
		Associate of Arts Elective	8
OTM		Arts & Humanities Elective	6
OTM		Mathematics Elective	3
OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	3

Psychology Electives

PSY	2205	Child Development
PSY	2206	Adolescent & Adult Development
PSY	2214	Drugs & Behavior
PSY	2218	Principles of Counseling
PSY	2228	Psychology in the Workplace
PSY	2235	Behavioral Science Research Methods
PSY	2236	Behavioral Science Statistics
PSY	2242	Educational Psychology
PSY	2297	Special Topics

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.

Social Work

Program Code: SWKE.S.AA • 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	General Biology I	4
BIO	1211	General Biology II	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
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
PSY	1100	General Psychology	3
SWK	1206	Introduction to Social Work	3
SWK	1213	Introduction to Social Welfare	3
SWK	2207	Cultural Competence in a Diverse World	3
PLS	1120	American Federal Government OR	
PLS	2200	Political Life, Systems & Issues	3
OTM		Mathematics Elective	3
OTM		Arts & Humanities Elective	6
OTM		Sociology Elective	3
		Modern Language Elective	6-8

Sociology

Program Code: SOCE.S.AA • 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 universities. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

OTM		Mathematics Elective	3
OTM		Social & Behavioral Sciences Elective	3
OTM		Natural & Physical Sciences Elective	8
OTM		Arts & Humanities Elective	6
		Associate of Arts Elective	6
		Communication/Journalism Elective	3
BIS	1120	Introduction to Software Applications	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	Introduction to Cultural Anthropology	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.   49

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.

Theatre Performance

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

Description

The theatre performance degree is designed as a university-parallel program for students to transfer to four-year institutions. The faculty and staff are theatre professionals with extensive experience in acting, directing, playwriting and choreography. Curriculum is based on skills required to enhance students' performance including: voice, movement, character and script analysis, dance, auditioning and presentation. Successful students achieve real-world experience participating in our theatre productions in several performance venues. Students must pass all THE courses with a grade of C or better. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

Career Opportunities

Employment opportunities are available in areas such as performer, director, educator, dramaturge, playwright, arts administrator, company business or artistic manager. These positions can commonly be found in theatre, film, television commercials, voice over work, theme parks, cruise ships, education, and modeling. A theatre performance degree also provides skills to enrich any career that requires artistic research, presentations, customer service, confidence or communication.

Program Prerequisite(s)

Approval of Department

OTM	Social & Behavioral Sciences Elective	6
OTM	Natural & Physical Sciences Elective	6
OTM	Literature Elective	3
COM 2211	Effective Public Speaking	3
ENG 1101	English Composition I	3
ENG 1201	English Composition II	3
THE 1105	Introduction to Theatre	3
THE 1106	Stagecraft	2
THE 1107	Lab for Stagecraft	1
THE 1111	Acting I	3
THE 1194	Applied Theatre Technology I	1
THE 1194	Applied Theatre Technology I	1
THE 1196	Applied Theatre Technology II	1
THE 1199	Applied Theatre Performance	1
THE 1213	The Audition Process	3
THE 2216	Acting II	3
THE 2114	Voice & Movement for the Actor	3
THE 2201	History of Theatre I	3
THE 2202	History of Theatre II	3
THE 2206	Script Analysis	3
MAT 1470	College Algebra OR	
MAT 1440	Excursions in Mathematics	3-4
DAN 1172	Ballet I OR	
DAN 1173	Modern Dance I OR	
DAN 1174	Jazz Dance I OR	
DAN 1175	Tap Dance I	3

Theatre Technology

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

Description

The theatre technology degree is designed as a university-parallel program for students to transfer to four-year institutions. The faculty and staff are theatre professionals with extensive experience in design and technology including: scenic, lighting, costumes, props, make-up/hair, sound, directing and stage management. Curriculum is based on skills required to enhance students' technical skills including: stage craft, lighting and costume fundamentals, make-up, stage management, script analysis, and portfolio. Successful students achieve real-world experience participating in our theatre productions in several performance venues. Students must pass all THE courses with a grade of C or better. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

Career Opportunities

Employment opportunities are available in areas such as designer, technician, director, educator, stage manager, arts administrator and company business or artistic manager. These positions can commonly be found in theatre, film, theme parks, cruise ships, rocks shows, museums, churches, interior or architectural design, or fashion. A theatre technology degree also provides the skills to enrich any career that requires artistic research, electronic media, safety troubleshooting, management, presentations or creative problem solving.

Program Prerequisite(s)

Approval of Department

OTM	Natural & Physical Sciences Elective	6
OTM	Social & Behavioral Sciences Elective	6
OTM	Literature Elective	3
COM 2211	Effective Public Speaking	3
ENG 1101	English Composition I	3
ENG 1201	English Composition II	3
THE 1105	Introduction to Theatre	3
THE 1106	Stagecraft	2
THE 1107	Lab for Stagecraft	1
THE 1111	Acting I	3
THE 1116	Stage Lighting Fundamentals	2
THE 1117	Lab for Stage Lighting Fundamentals	1
THE 1118	Costume Fundamentals	2
THE 1119	Lab for Costume Fundamentals	1
THE 1194	Applied Theatre Technology I	1
THE 1194	Applied Theatre Technology I	1
THE 1196	Applied Theatre Technology II	2
THE 2201	History of Theatre I	3
THE 2202	History of Theatre II	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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THE	2206	Script Analysis	3
THE	2220	Theatre Portfolio	2
THE	2240	Stage Management	3
THE	2296	Applied Theatre Technology IV	2
MAT	1440	Excursions in Mathematics OR	
MAT	1470	College Algebra	3-4

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

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Associate of Science

Program Code: LA.S.AS • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

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

Biology

Program Code: BIOE.S.AS • Credit Hours: 61

Description

The Associate 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

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.

OTM		Social & Behavioral Sciences Elective	6
OTM		Arts & Humanities Elective	6
		Multicultural Elective	3
BIO	2222	Evolution	3
BIO	2225	Ecology	4
BIO	2235	Genetics	4
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
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	1450	Introductory Statistics	4
MET	1131	Personal Computer Applications for Engineering Technology	1
SCC	1101	First Year Experience	1

*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 • Credit Hours: 67

Description

The 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

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).

OTM		Natural & Physical Sciences Elective	6
OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	6
ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Introduction to Software 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 Writing	3
ENG	1201	English Composition II	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MAN	2150	Management & 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

Chemistry

Program Code: CHEE.S.AS • 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. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

OTM		Arts & Humanities Elective	6
OTM		Social & Behavioral Sciences Elective	6
		Multicultural Elective	3
CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
CHE	2111	Organic Chemistry I	5
CHE	2121	Organic Chemistry II	5
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
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.   53

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.

Engineering
University Transfer

Program Code: ESUP.S.AS • Credit Hours: 60

Description

The Engineering University Transfer, Associate of Science degree program is for the student who plans to transfer to a four-year college or university for a degree in Engineering. 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 and Engineering. Please see an academic advisor for assistance in selecting electives toward your major and acceptability by the receiving transfer institution. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

		Engineering Elective	14
OTM		Arts & Humanities Elective	6
OTM		Social & Behavioral Sciences Elective	6
CHE	1211	General Chemistry I	5
CHE	1251	Lab for General Chemistry I	0
COM	2211	Effective Public Speaking	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
PHY	2201	General Physics I	5
PHY	2207	Lab for General Physics I	0
PHY	2202	General Physics II	5
PHY	2208	Lab for General Physics II	0

Engineering Electives

BIO	1141	Principles of Anatomy & Physiology I
BIO	1147	Lab for Principles of Anatomy & Physiology I
BIO	1171	Principles of Biology I
BIO	1272	Principles of Biology II
CAT	1301	Introduction to Civil Construction CAD
CHE	1221	General Chemistry II
CHE	1261	Lab for General Chemistry II
CHE	2111	Organic Chemistry I
CHE	2121	Organic Chemistry II
CHE	2151	Lab for Organic Chemistry I
CHE	2161	Lab for Organic Chemistry II
CIS	1107	Introduction To Operating Systems
CIS	2212	Java Software Development I
CIS	2217	Java Software Development II
CIS	2550	Linux Operating System
EET	1131	Digital Electronics
EET	1150	D.C. Circuits
EET	1155	A.C. Circuits
EET	2252	Advanced Digital Circuits
EET	2261	Microprocessors
EGR	1101	Introductory Mathematics for Engineering Applications
EGR	1111	Introduction to Nanotechnology
EGR	1121	Introduction to the Intelligence Community
EGR	1122	Fundamentals of Remote Sensing in Intelligence
EGR	1201	Introduction to Spectral Sensing with Applications in Intelligence
EGR	1202	Introduction to Radar
EGR	1211	Introduction to Large Area Surveillance
EGR	1212	Measurement & Signal Intelligence
EGR	2211	Nanotechnology Applications & Fabrications Techniques
EGR	2261	Engineering Problem Solving using "C" & "C++"
MAT	2290	Calculus & Analytic Geometry III
MAT	2310	Elementary Differential Equations
MAT	2320	Linear Algebra
MAT	2330	Differential Equations & Linear Algebra
MAT	2570	Discrete Mathematics
MEE	2101	Statics for Engineers
MEE	2201	Thermodynamics for Engineers
MEE	2301	Strength of Materials for Engineers
MEE	2401	Dynamics for Engineers
MET	1301	SolidWorks Basics
MET	1371	CAD Concepts using AutoCAD
PHY	2202	General Physics II
PHY	2208	Lab for General Physics II
PHY	2210	Problem Solving in Physics with Matlab

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

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Mathematics

Program Code: MATE.S.AS • Credit Hours: 60-61

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 pure mathematics, applied mathematics, statistics, or secondary math education. The curriculum fulfills the freshman and sophomore general education requirements of most four-year colleges and universities. As part of this degree program, students must complete the requirements of the Ohio Transfer Module in order to graduate.

Career Opportunities

- Actuary
- Statistical Consultant
- Investment Analyst
- Cryptographer
- Operations Researcher
- High School or College-Level Teacher

Visit **www.maa.org/careers/career-profiles** for more opportunities. For more information on these and other careers, including employment outlook and working conditions, go to www.ohcis.intocareers.org and login with username "sinclaircoll" and password "ohiocis03".

OTM		Natural & Physical Sciences Elective	10
OTM		Social & Behavioral Sciences Elective	6
OTM		Arts & Humanities Elective	6
		Multicultural Elective	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	2310	Elementary Differential Equations OR	
MAT	2330	Differential Equations & Linear Algebra	4-5
MAT	2290	Calculus & Analytic Geometry III	5
MAT	2320	Linear Algebra	3
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3
		Any Course in Catalog Elective	3

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Accounting

Program Code: ACC.S.AAS • Credit Hours: 65

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 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.

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).

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.

OTM	Arts & Humanities Elective	3
	Accounting Elective	3
ACC 1210	Introduction to Financial Accounting	3
ACC 1220	Introduction to Managerial Accounting	3
ACC 1510	Computerized Accounting Systems	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
BIS 1410	Business Software Applications	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 2170	Business Statistics I	4
MRK 2101	Principles of Marketing Management	3
COM 2211	Effective Public Speaking OR	
COM 2225	Small Group Communication	3
MAT 1460	Finite Mathematics for Business Analysis OR	
MAT 1470	College Algebra	4

Accounting Electives

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

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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American Sign Language Interpreting for the Deaf

Program Code: ASL.S.AAS • Credit Hours: 69-70

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 function as an 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. A grade of "C" or better is required in all ASL courses.

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.

Career Opportunities

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

OTM		Arts & Humanities Elective	3
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 & Signing Modalities	3
ASL	2261	Practicum I	3
ASL	2262	Practicum II	3
ASL	2300	Educational Interpreting	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PSY	1100	General Psychology	3
SOC	1129	Sociological Aspects of Deafness	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1470	College Algebra OR	
MAT	1440	Excursions in Mathematics	3-4

Architectural Technology

Program Code: ARC.S.AAS • Credit Hours: 69

Description

Architectural Technology is designed to develop student skills for efficient application of the art and science related to the built environment. 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.

OTM		Social & Behavioral Sciences Elective	3
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	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
CAT	1161	Introduction to Civil & Architectural Technology OR	
CAT	2741	Current Topics in Architecture	2

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives. 57

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Automation & Control Technology with Robotics

Program Code: AMCT.S.AAS • Credit Hours: 63

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.

OTM		Social & Behavioral Sciences Elective	3
COM	2211	Effective Public Speaking	3
EET	1120	Introduction to DC & AC 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 (CIM) Systems	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	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
		Engineering Elective OR	
EGR	2270	Automation & Control Internship	3

Engineering Electives

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

Automotive Technology

Program Code: AUT.S.AAS • Credit Hours: 69

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.

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.

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.

OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	3
		Automotive Elective	2
AUT	1102	Introduction to Automotive Service	2
AUT	1108	Automotive Engine Systems	4
AUT	1111	Automotive Management	2
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
AUT	2250	Automotive Service Operations	7
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3
OPT	2211	Industrial Risk Management	2
SCC	1101	First Year Experience	1

Automotive Electives

AUT	1100	Basic Automotive Systems
AUT	1170	Automotive Internship I
AUT	2221	High Performance Engine Blocks & Heads

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.

AUT	2222	High Performance Engine Assembly & Dyno Testing
AUT	2224	High Performance Fuel Induction Systems
AUT	2226	High Performance Fabrication
AUT	2230	Hybrid Electric Vehicle Systems

Automotive Technology (Chrysler CAP)

Program Code: CAP.S.AAS • Credit Hours: 67

Description

Fully accredited by the National Automotive Technicians Education Foundation, the Associate of Applied Science in the MOPAR 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.

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.

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.

OTM		Arts & Humanities Elective	3
AUT	1102	Introduction to Automotive Service	2
AUT	1108	Automotive Engine Systems	4
AUT	1111	Automotive Management	2
AUT	1114	Automotive Electrical/Electronic Systems I	3

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

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	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	Automotive Electrical/Electronic Systems II	4
AUT	2215	Automotive Engine Performance II	4
AUT	2241	Automatic Transmission 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
OPT	2211	Industrial Risk Management	2
SOC	1101	Introduction to Sociology	3

Automotive Technology (GM ASEP)

Program Code: ASEP.S.AAS • Credit Hours: 67

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.

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.

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.

OTM		Arts & Humanities Elective	3
AUT	1102	Introduction to Automotive Service	2
AUT	1111	Automotive Management	2
AUT	1114	Automotive Electrical/Electronic Systems I	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.

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	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	Automotive Electrical/Electronic Systems II	4
AUT	2215	Automotive Engine Performance II	4
AUT	2241	Automatic Transmission Systems	4
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
OPT	2211	Industrial Risk Management	2
SOC	1101	Introduction to Sociology	3

Automotive Technology (Honda PACT)

Program Code: AUTHA.S.AAS • Credit Hours: 68

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.

Accreditation

The Sinclair Automotive Technology programs are 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.

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.

OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	3
		Automotive Elective	2
AUT	1102	Introduction to Automotive Service	2
AUT	1108	Automotive Engine Systems	4
AUT	1111	Automotive Management	2
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

*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.

AUT	2250	Automotive Service Operations	7
CAM	1109	Fundamentals of Tooling & Machining	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3
OPT	2211	Industrial Risk Management	2

Automotive Electives

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

Aviation Airframe Maintenance Technology

Program Code: AVIAO.S.AAS • Credit Hours: 72

Description

This program leads to an Associate of Applied Science in Airframe Maintenance and provides the knowledge and skill required by the Federal Aviation Administration (FAA) for certification as an airframe maintenance technician. The training and knowledge the student receives from the General Aviation Maintenance and the Airframe Aviation Maintenance certificate programs funnels directly into this degree program. The student, having completed this course work, would have the background and skills to either continue towards a Bachelor's degree in Aviation Science (or related field), or to begin a career as an aviation maintenance technician specializing in airframe maintenance (with the addition of the required FAA airframe maintenance certification).

Accreditation

The program is approved and certificated by the FAA.

Career Opportunities

The Bureau of Labor Statistics projects "favorable future job opportunities" over the long term as older mechanics and technicians retire. Maintenance Repair Organizations (M.R.O.'s) are contracting for the work that airlines used to do in house. Many of the M.R.O.'s are in need of maintenance technicians. 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	1113	Drawings for Aviation	3
AVT	1116	Regulations for Maintenance	3
AVT	1118	Weight & Balance	3
AVT	1131	Basic Aviation Electricity	3
AVT	1133	Instruments/Communications	3
AVT	1135	Materials & Processes	4
AVT	1136	Sheet Metal	4
AVT	1213	Corrosion	3
AVT	1214	Cabin Atmospheric Control	2
AVT	1218	Utility Systems	6
AVT	2121	Assembly & Rigging	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.

AVT	2132	Airframe Electrical Systems	4
AVT	2143	Review & Recommendation	2
AVT	2236	Non-Metallic Structures	4
AVT	2237	Aircraft Inspections	3
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
PHY	1107	Lab for Physics for Technology	0
SCC	1101	First Year Experience	1
OTM		Arts & Humanities Elective	3

Aviation Powerplant Maintenance Technology

Program Code: AVIAP.S.AAS • Credit Hours: 68

Description

This program leads to an Associate of Applied Science in Powerplant Maintenance and provides the knowledge and skill to successfully pass the Federal Aviation Administration (FAA) written, oral, and practical examinations required by the FAA for certification as a powerplant maintenance technician. The training and knowledge the student receives from the General Aviation Maintenance and the Powerplant Aviation Maintenance certificate programs funnels directly into this degree program. The student, having completed this course work, would have the background and skills to either continue towards a Bachelor's degree in Aviation Science (or related field), or to begin a career as an aviation maintenance technician specializing in powerplant maintenance (with the addition of the required FAA powerplant maintenance certification).

Accreditation

The program is approved and certificated by the FAA.

Career Opportunities

The Bureau of Labor Statistics projects "favorable future job opportunities" over the long term as older mechanics and technicians retire. Maintenance Repair Organizations (M.R.O.'s) are contracting for the work that airlines used to do in house. Many of the M.R.O.'s are in need of maintenance technicians. 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	1128	Powerplant Safety Systems	3
AVT	1131	Basic Aviation Electricity	3
AVT	1135	Materials & Processes	4
AVT	1213	Corrosion	3
AVT	2122	Ignition & Starting	4
AVT	2126	Reciprocating Engines	7
AVT	2129	Propellers	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.

AVT	2138	Engine Fuel & Fuel Metering	3
AVT	2139	Induction/Exhaust/Cooling	2
AVT	2143	Review & Recommendation	2
AVT	2219	Turbine Engines	4
AVT	2237	Aircraft Inspections	3
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
PHY	1107	Lab for Physics for Technology	0
SCC	1101	First Year Experience	1
OTM		Arts & Humanities Elective	3

Aviation Technology

Program Code: AVIAT.S.AAS • Credit Hours: 68

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.

		Any Aviation Course	23
AVT	1105	Orientation to Aviation	2
AVT	1119	Aviation Meteorology	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	1140	Introduction to Business Aviation	2
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

*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.

Aviation Technology/ Professional Pilot & Airway Science

Program Code: APPAO.S.AAS • 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.

OTM		Arts & Humanities Elective	3
AVT	1105	Orientation to Aviation	2
AVT	1110	Private Pilot Ground School	3
AVT	1119	Aviation Meteorology	2
AVT	1141	Principles of Aviation Leadership	2
AVT	1170	Instrument Pilot Ground School	3
AVT	1224	Instrument Pilot Flight Lab	1
AVT	1254	Flight Simulator Instruction	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	1241	Blind Flying Hazards	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

Biotechnology

Program Code: BTN.S.AAS • Credit Hours: 64-67

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.

OTM		Arts & Humanities Elective	6
OTM		Social & Behavioral Sciences Elective	3
BIO	1107	Human Biology	3
BIS	1120	Introduction to Software 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
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
BIO	1111	General Biology I AND	
BIO	1211	General Biology II OR	
BIO	1171	Principles of Biology I AND	
BIO	1272	Principles of Biology II	8-10
CHE	1111	Introduction to Chemistry I OR	
CHE	1211	General Chemistry I	4-5

*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.

65

Business Information Systems

Program Code: BIS.S.AAS • 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.

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).

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.

OTM		Arts & Humanities Elective	3
OTM		Natural & Physical Sciences Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1120	Introduction to Software Applications	3
BIS	1200	Keyboarding & Document Formatting I	2
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
BIS	1300	Keyboarding & Document Formatting II	2
BIS	1400	Customer Service	3
BIS	2170	Office Simulation	3
BIS	2270	Business Information Systems Internship	2
BIS	2140	Records Management	2
ECO	2160	Principles of Macroeconomics	3
ENG	1101	English Composition I	3
ENG	1199	Textual Editing	3
LAW	1101	Business Law	3
MAT	1120	Business Mathematics	3
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3

Business Information Systems/Medical Office

Program Code: BIMO.S.AAS • Credit Hours: 60

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.

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).

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.

OTM		Natural & Physical Sciences Elective	3
OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1100	Introduction to Computers & Keyboarding	2
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1220	Word Processing Software	3
BIS	1221	Specialized Computer Applications for Health	3
BIS	1250	Specialized Business Software Application	1
BIS	1300	Keyboarding & Document Formatting II	2
BIS	1400	Customer Service	3
BIS	2140	Records Management	2
BIS	2170	Office Simulation	3
BIS	2180	Medical Office Simulation	3
BIS	2270	Business Information Systems Internship	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
MAT	1120	Business Mathematics	3
SCC	1101	First Year Experience	1
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	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.

Business Information Systems/Personal Computer Applications

Program Code: BIPCA.S.AAS • 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.

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).

Career Opportunities

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

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

Business Management

Program Code: GBM.S.AAS • Credit Hours: 64-65

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.

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).

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.

		Management Elective OR Marketing Elective	3
OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Introduction to Software 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 Writing	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
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
MAN	2270	Management Internship OR	
MAN	2279	Business Management Capstone	2-3

Management Electives

ENT	2140	Small Business Finance
ENT	2160	Business Plan Development
MAN	1106	Introduction to Radio Frequency Identification
MAN	1157	Management Applications of Radio Frequency Identification Technology
MAN	2110	Introduction to Project Management
MAN	2140	Human Resource Management

MAN 2144   Negotiation Techniques
MAN 2159   Supply Chain Management Concepts & Applications

Marketing Electives
MRK 2102   Principles of Advertising
MRK 2135   Digital Marketing
MRK 2145   Principles of Retailing
MRK 2220   Solutions Studio
MRK 2225   Sales Fundamentals

Business Management/ Entrepreneurship

Program Code: ENTR.S.AAS • 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.

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).

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.

OTM	Natural & Physical Sciences Elective	3
OTM	Arts & Humanities Elective	3
	Management Elective OR Marketing Elective	3
ACC 1210	Introduction to Financial Accounting	3
ACC 1220	Introduction to Managerial Accounting	3
BIS 1120	Introduction to Software 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 Writing	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 1107	Foundations of Business	3
MAN 2101	Introduction to Supervision	3
MAN 2150	Management & Organizational Behavior	3
MAN 2159	Supply Chain Management Concepts & Applications	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

Management Electives
MAN 1106   Introduction to Radio Frequency Identification
MAN 1157   Management Applications of Radio Frequency Identification Technology
MAN 2110   Introduction to Project Management
MAN 2140   Human Resource Management
MAN 2144   Negotiation Techniques

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

MRK 2102	Principles of Advertising
MRK 2135	Digital Marketing
MRK 2145	Principles of Retailing
MRK 2220	Solutions Studio
MRK 2225	Sales Fundamentals

Business Management/ Supply Chain Management
Program Code: SCM.S.AAS • 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.

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).

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.

OTM	Natural & Physical Sciences Elective	3
OTM	Arts & Humanities Elective	3
ACC 1210	Introduction to Financial Accounting	3
ACC 1220	Introduction to Managerial Accounting	3
BIS 1120	Introduction to Software 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 1107	Foundations of Business	3
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
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
MAN 2270	Management Internship OR	
MAN 2279	Business Management Capstone	2-3

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

Civil Engineering Technology

Program Code: CEGT.S.AAS • Credit Hours: 70

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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

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.

OTM		Social & Behavioral Sciences Elective	3
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 Geographic Information Systems (GIS) & Global Positioning Systems (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

Clinical Laboratory Technology

Program Code: CLT.S.AAS • Credit Hours: 69

Description

The associate degree program in Clinical Laboratory Technology prepares students to enter the workforce as Clinical Laboratory Technicians. In this profession, graduates are responsible for performing routine clinical laboratory tests as the primary analysis making specimen oriented decisions on predetermined criteria, including a working knowledge of critical values. As part of the program, the students will complete a non-paid, supervised health-related practicum in a hospital lab setting. This degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage.

Career Opportunities

Once the student has successfully completed the program and passed the credentialing exam the career opportunities consist of being a Clinical Laboratory Technician, Phlebotomist and Specimen Processor. A bachelor's degree will be required to advance to a Clinical Scientist.

Program Prerequisite(s)

ALH   1101   Introduction to Healthcare Delivery AND
BIO   1121   Human Anatomy & Physiology I AND
SCC   1101   First Year Experience AND
Approval of Department AND Students have a maximum of three opportunities to successfully complete BIO and MAT courses. Students may withdraw or fail, but must successfully complete the course on or before the third attempt. Students are ineligible for admission to the Clinical Laboratory Technology Program after a third unsuccessful course attempt.

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
BIO	2205	Microbiology	4
CHE	1211	General Chemistry I	5
CHE	1221	General Chemistry II	5
CHE	2111	Organic Chemistry I	5
CLT	1200	Introduction to Clinical Laboratory	2
CLT	1203	Lab for Introduction to Clinical Laboratory	0
CLT	2110	Urine & Body Fluid Analysis	2
CLT	2113	Lab for Urine & Body Fluid Analysis	0
CLT	2210	Hematology	2
CLT	2213	Lab for Hematology	0
CLT	2310	Clinical Chemistry	2
CLT	2313	Lab for Clinical Chemistry	0

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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CLT	2410	Clinical Microbiology/Parasitology	4
CLT	2413	Lab for Clinical Microbiology/Parasitology	0
CLT	2510	Immunology/Serology/Immunohematology	2
CLT	2513	Lab for Immunology/Serology/Immunohematology	0
CLT	2610	CLT Practicum I	2
CLT	2710	CLT Practicum II	2
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1450	Introductory Statistics	4
MAT	1470	College Algebra	4
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1

Computer Aided Manufacturing/CNC Technology

Program Code: CAMCT.S.AAS • Credit Hours: 60

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.

OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	3
CAM	1107	Principles of Manufacturing	3
CAM	1109	Fundamentals of Tooling & Machining	3
CAM	1116	Fundamentals of Computer Numerical Control Operations	3
CAM	1141	Shop Floor Calculations I	3
CAM	1142	Shop Floor Calculations II	3
CAM	1214	Computer Numerical Control Mill Programming	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	2214	Advanced Computer Numerical Control (CNC) Applications	3
CAM	2225	Tool Design	3
CAM	2780	Computer Aided Manufacturing Capstone	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	1100	Tooling & Machining Metrology	2
OPT	1113	Coordinate Measurement	3

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

Computer Aided Manufacturing/Precision Machining

Program Code: CAMPM.S.AAS • Credit Hours: 60-64

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.

OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	3
CAM	1107	Principles of Manufacturing	3
CAM	1116	Fundamentals of Computer Numerical Control Operations	3
CAM	1141	Shop Floor Calculations I	3
CAM	1142	Shop Floor Calculations II	3
CAM	1161	Machine Operations Laboratory I	8
CAM	1214	Computer Numerical Control Mill Programming	3
CAM	2114	Jig & Fixture Design	3
CAM	2145	Shop Floor Programming	3
CAM	2225	Tool Design	3
CAM	2781	Precision Machining Capstone	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1110	Math for Technologists	3
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	1100	Tooling & Machining Metrology	2
OPT	1101	Introduction to Operations	3
CAM	1162	Machine Operations Laboratory II OR	
CAM	2700	Computer Aided Manufacturing Internship	4-8

Computer Information Systems/Microsoft Security Specialist

Program Code: MSSC.S.AAS • Credit Hours: 65-66

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.

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).

Career Opportunities

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

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software 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	2510	Microsoft Windows Server Operating System	3
CIS	2515	Windows Network Infrastructure	3
CIS	2520	Windows Directory Services Administration	3
CIS	2630	Securing a 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
SCC	1101	First Year Experience	1
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3

Computer Information Systems/Network Engineering

Program Code: NEEN.S.AAS • Credit Hours: 62-63

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.

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).

Career Opportunities

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

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
CIS	1107	Introduction To Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	2421	Scaling Networks	4
CIS	1140	Information Systems Analysis & Design	3
CIS	1411	Cisco Network Fundamentals	3
CIS	2165	Database Management	3
CIS	2416	Routing & Switching Essentials	4
CIS	2426	Connecting Networks	4
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
SCC	1101	First Year Experience	1
CIS	2178	Computer Information Systems Capstone OR	
CIS	2170	Computer Information Systems Internship	2-3

Computer Information Systems/Secure System Administration

Program Code: NEMA.S.AAS • Credit Hours: 65-66

Description

Students are prepared in problem solving, designing and documenting programs, system and network administration, and computer operating systems. Students learn to manage and configure computers, using various operating systems, to provide critical network services to diverse clients in a secure manner. Security concepts that are vendor neutral and applicable to all system types are discussed; those concepts are then applied to specific systems using various operating systems. The overall objective, to securely and efficiently administer networked systems of client and server machines, is emphasized throughout.

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).

Career Opportunities

Students learn to manage and configure computers, using various operating systems, to provide critical network services to diverse clients in a secure manner. Security concepts that are vendor neutral and applicable to all system types are discussed; those concepts are then applied to specific systems using various operating systems. The overall objective to configure high standards of system and network security is emphasized throughout. Increased recognition of the need for secure systems and networks has provided significantly increased opportunities for those prepared to work in this field.

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software 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	2165	Database Management	3
CIS	2510	Microsoft Windows Server Operating System	3
CIS	2515	Windows Network Infrastructure	3
CIS	2520	Windows Directory Services Administration	3
CIS	2550	Linux Operating System	3
CIS	2630	Securing a Windows Network Environment	3
CIS	2640	Network Security	3

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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
SCC	1101	First Year Experience	1
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3

Computer Information Systems/Software Development

Program Code: SODE.S.AAS • Credit Hours: 62-63

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.

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).

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.

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software 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	1350	Web Site Development with HTML & CSS	3
CIS	2165	Database Management	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
SCC	1101	First Year Experience	1
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3

Computer Information Systems/User Support

Program Code: USSU.S.AAS • Credit Hours: 62-63

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.

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).

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.

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software 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
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
SCC	1101	First Year Experience	1
CIS	2560	Fundamentals of Linux Security OR	
CIS	2640	Network Security	3
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3

Computer Information Systems/Web Development

Program Code: WEDE.S.AAS • Credit Hours: 62-63

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.

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).

Career Opportunities

Today the world wide web dominates much of our daily lives and there is considerable need for those with the skills needed to create, deploy and maintain web content. Nearly every retailer of any size uses dynamic web content to display and sell their products. Other businesses and industries have similar need to host dynamic content regarding their organizations on the web. Those with the skills to manage these sites will have significant opportunities ahead.

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software 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	1350	Web Site Development with HTML & CSS	3
CIS	2165	Database Management	3
CIS	2222	C# Software Development	3
CIS	2250	Web Site Development with php & XML	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
SCC	1101	First Year Experience	1
CIS	2170	Computer Information Systems Internship OR	
CIS	2178	Computer Information Systems Capstone	2-3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.   75

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Construction Management Technology

Program Code: CMO.S.AAS • Credit Hours: 70

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.

OTM		Social & Behavioral Sciences Elective	3
		Construction Elective	2
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
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	2711	Ethics for Engineering Technology Professionals	1
PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1

Construction Electives
CAT 1141	Architectural Blueprint Reading	
CAT 1701	Construction Craft Skills/Concrete	
CAT 1721	Structural Framing Systems	
CAT 1741	Residential Electrical Systems	
CAT 1761	Interior & Exterior Finishes	
CAT 1781	Construction Project	
CAT 1810	Construction Techniques I (NCCER Core)	
CAT 1820	Construction Techniques II (NCCER Level 1)	
CAT 1830	Construction Techniques III (NCCER Level 2)	
CAT 1840	Construction Techniques IV (NCCER Level 3)	
CAT 2561	Advanced Construction Surveying	
CAT 2581	Legal Principles for Surveyors	

Criminal Justice Science/ Corrections

Program Code: CJCO.S.AAS • 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.

OTM		Arts & Humanities Elective	3
		Criminal Justice Elective	3
BIS	1120	Introduction to Software 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 Investigation & Forensic Science	3
CJS	2295	Criminal Justice Science Seminar	4
CJS	2130	Terrorism & Counter-Terrorism	3
CJS	2200	Human Relations, Mediation, & Conflict Resolution	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
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
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1120	Business Mathematics OR	
MAT	1270	Beginning Algebra	3
BIO	1107	Human Biology OR	
CHE	1111	Introduction to Chemistry I OR	
PHY	1100	Introduction to Physics	3-4

Criminal Justice Electives
CJS 1125	Policing	
CJS 1155	Homeland Security Issues & Administration	
CJS 2209	Computer Crime	

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

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Criminal Justice Science/ Law Enforcement

Program Code: CJLE.S.AAS • Credit Hours: 70-71

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.

OTM		Arts & Humanities Elective	3
BIS	1120	Introduction to Software Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1104	Criminal Evidence & Procedure	3
CJS	1105	Criminal Law	3
CJS	1110	Interrogation, Documentation & Testimony	3
CJS	1125	Policing	3
CJS	1155	Homeland Security Issues & Administration	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2200	Human Relations, Mediation, & Conflict Resolution	3
CJS	2205	Introduction to Criminal Investigation & Forensic Science	3
CJS	2209	Computer Crime	3
CJS	2295	Criminal Justice Science Seminar	4
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
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
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1120	Business Mathematics OR	
MAT	1270	Beginning Algebra	3
BIO	1107	Human Biology OR	
CHE	1111	Introduction to Chemistry I OR	
PHY	1100	Introduction to Physics	3-4

Cyber Investigation Technology

Program Code: CYIT.S.AAS • Credit Hours: 70

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.

OTM		Arts & Humanities Elective	3
BIS	1120	Introduction to Software Applications	3
CIS	1107	Introduction To Operating Systems	3
CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1130	Network Fundamentals	3
CIS	2165	Database Management	3
CIS	2550	Linux Operating System	3
CIS	2640	Network Security	3
CIS	2717	A+ Certification IT Technician	3
CIS	2808	Introduction to Computer Forensics	3
CJS	1102	Constitutional Law	3
CJS	1104	Criminal Evidence & Procedure	3
CJS	1105	Criminal Law	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
MAT	1460	Finite Mathematics for Business Analysis	4
MAT	2170	Business Statistics I	4
MAN	2150	Management & Organizational Behavior	3
SCC	1101	First Year Experience	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.   77

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.

Dental Hygiene

Program Code: DEH.S.AAS • Credit Hours: 73

Description

Working as part of a dental team, dental hygienists treat patients needing non-surgical periodontal therapy and radiographs; apply preventive agents, provide intra- and extra-oral exams and oral hygiene instructions. Registered dental hygienists work in private dental offices, public health settings, and in higher education.

The Dental Hygiene program is designed to be completed in five (5) semesters on a full-time basis when the student begins the technical portion of the program. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.5 is required and a grade of C or higher is required in all program courses.

Accreditation

The Dental Hygiene program is fully accredited by the Commission on Dental Accreditation (CODA) through the American Dental Association, located at 211 East Chicago Avenue Chicago, IL 60611-2678 or www.ada.org .

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.

Program Prerequisite(s)

ALH	1101	*Introduction to Healthcare Delivery AND*
BIO	1141	*Principles of Anatomy & Physiology I AND*
BIO	1242	*Principles of Anatomy & Physiology II AND*
DEH	1102	*Introduction to Dental Hygiene AND*
ENG	1101	*English Composition I*

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
DEH	1102	Introduction to Dental Hygiene	1
DEH	1202	Head, Neck & Dental Anatomy	3
DEH	1203	Lab for Head, Neck & Dental Anatomy	0
DEH	1204	Dental Hygiene Instrumentation I	4
DEH	1205	Lab for Dental Hygiene Instrumentation I	0
DEH	1206	Nutrition & Oral Health	2
DEH	1302	Dental Hygiene Instrumentation II	4
DEH	1303	Lab for Dental Hygiene Instrumentation II	0
DEH	1304	Oral Histology & Embryology	1
DEH	1305	Medical Emergencies in Dental Practice	1
DEH	1306	General & Oral Pathology	4
DEH	1308	Dental Radiology	3
DEH	1309	Lab for Dental Radiology	0
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	2
DEH	2503	Lab for Pharmacology & Pain Control in Dental Practice	1
DEH	2504	Dental Hygiene Research	2
DEH	2506	Dental Materials	2
DEH	2507	Lab for Dental Materials	0
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
PSY	1100	General Psychology	3
SOC	1101	Introduction to Sociology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1130	Allied Health Mathematics OR	
MAT	1270	Beginning Algebra	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 • 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 food service 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. It is designed to be completed in five (5) consecutive semesters on a full-time basis. Some students elect to attend on a part-time basis, extending the length of study to three academic years. The curriculum consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The limited enrollment coursework includes 470 hours of unpaid directed practice experiences at area community, food service and health care facilities. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.0 is required, as well as a grade of C or higher in all program courses.

Students of Sinclair's Dietetic and Nutritional Management Program are eligible to become members of the Academy of Nutrition and Dietetics (AND), a nationally recognized organization located at 120 South Riverside Plaza, Suite 200, Chicago Illinois 60606, 1-800-877-1600, www.eatright.org. This specially designed program enables students to enjoy benefits of student AND membership while attending school. Graduates are eligible for active AND membership. Benefits include networking, professional growth, educational enrichment, and developing leadership skills. The graduate is eligible to take the National Credentialing Exam to become a Dietetic Technician, Registered (DTR).

Accreditation

The Dietetic Technician 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).

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 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).

		Dietetics Elective	1
OTM		Arts & Humanities Elective	3
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 Lifecycle	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 Clinical 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 Clinical II	3
DIT	2855	Dietetics Seminar	1
ENG	1101	English Composition I	3
HMT	1101	Basic Culinary Skills	2
HMT	1107	Sanitation & Safety	2
HMT	1112	Food Principles & Preparation	4
PSY	1100	General Psychology	3
MAT	1130	Allied Health Mathematics OR	
MAT	1270	Beginning Algebra	3

Dietetics Electives

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

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

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Early Childhood Education

Program Code: ECE.S.AAS • 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. Students interested in completing this degree program must have a full criminal background investigation completed before enrolling in the final practicum course. A grade of "C" or better is required in all ECE and EDU courses.

Career Opportunities

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

OTM		Any Group	3
OTM		Natural & Physical Sciences Elective	3
OTM		Arts & Humanities Elective	3
		Education Elective	3
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
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
PSY	1100	General Psychology	3
SOC	1101	Introduction to Sociology	3
SOC	2215	Race & Ethnicity	3
MAT	1120	Business Mathematics OR	
MAT	1270	Beginning Algebra OR	
MAT	1410	Numerical Concepts for Teachers	3-4

Education Electives

EDU 1100	Introduction to Education	
EDU 1103	Educational Technology	
EDU 1105	Individuals with Exceptionalities	

Electronics Engineering Technology

Program Code: EET.S.AAS • Credit Hours: 65-66

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 has 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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

Career Opportunities

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

		Electronics Elective	3-4
OTM		Social & Behavioral Sciences Elective	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	2259	Programming for Electronics Technology	4
EET	2261	Microprocessors	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

Electronics Electives

EET	2157	Radio Frequency Identification (RFID) Technology
EET	2252	Advanced Digital Circuits
EET	2257	Radio Frequency Identification (RFID) Capstone
EET	2264	PC Troubleshooting & Repair
EET	2270	Electronics Engineering Technology Internship
EET	2282	Advanced Programmable Logic Controllers
EET	2283	Fundamentals of Lasers

Electronics Engineering Technology/Computer Engineering

Program Code: CETT.S.AAS • Credit Hours: 68

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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

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.

OTM		Social & Behavioral Sciences Elective	3
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	PC 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	Technical Physics	3
SCC	1101	First Year Experience	1

Emergency Medical Services

Program Code: EMSVS.S.AAS • Credit Hours: 66

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.

Program Prerequisite(s)

EMS	1150	*Emergency Medical Technician: Lecture AND*	
EMS	1155	*Laboratory for Emergency Medical Technician AND*	
HIM	1101	*Medical Terminology*	
BIO	1121	Human Anatomy & Physiology I	3
EMS	1150	Emergency Medical Technician: Lecture	5
EMS	1155	Laboratory for Emergency Medical Technician	2
EMS	2100	Applied Anatomy, Physiology & Pathophysiology for Emergency Medical Services 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	2205	Paramedic 5: Integration / Refresher Laboratory	1
EMS	2200	Paramedic 5: Integration / Refresher Lecture	2
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
PSY	1100	General Psychology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1130	Allied Health Mathematics OR	
MAT	1145	Quantitative Literacy OR	
MAT	1440	Excursions in Mathematics	3

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Emergency Medical Services/Fire Science

Program Code: EMSFO.S.AAS • Credit Hours: 66-67

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.

Program Prerequisite(s)

EMS	1150	*Emergency Medical Technician: Lecture AND*	
EMS	1155	*Laboratory for Emergency Medical Technician AND*	
HIM	1101	*Medical Terminology*	

BIO	1121	Human Anatomy & Physiology I	3
EMS	1150	Emergency Medical Technician: Lecture	5
EMS	1155	Laboratory for Emergency Medical Technician	2
EMS	2100	Applied Anatomy, Physiology & Pathophysiology for Emergency Medical Services 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 OR	
FST	1120	Fire Safety Inspector	3-4
FST	2230	Principles of Fire & Emergency Services Safety & Survival	3
HIM	1101	Medical Terminology	2
PSY	1100	General Psychology	3

COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MAT	1130	Allied Health Mathematics OR	
MAT	1440	Excursions in Mathematics OR	
MAT	1445	Quantitative Literacy	3

Environmental Engineering Technology

Program Code: EVT.S.AAS • Credit Hours: 69

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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

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.

OTM		Social & Behavioral Sciences Elective	3
CAT	1501	Construction Surveying	3
CAT	2421	Soil Mechanics	3
CAT	2501	Introduction to Geographic Information Systems (GIS) & Global Positioning Systems (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	Hazardous Waste Operations & Emergency Response (HAZWOPER)	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

Exercise, Nutrition & Sport Sciences

Program Code: EXSC.S.AAS • Credit Hours: 65

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. Students are required to demonstrate competency by earning a C grade or better in all ENS courses for their degree. Students will need to be in good standings before department approval is given for Practicum.

Accreditation

Sinclair Community College's Exercise Science associate degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation for the Exercise Sciences (CoAES). Commission on Accreditation of Allied Health Education Programs 1361 Park Street, Clearwater, FL 33756 727/210-2350.

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 non-school 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.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1132	American Heart Association Heartsaver First Aid	1
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

***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.

ENG	1201	English Composition II	3
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	Exercise, Nutrition & Sports Science Practicum	2
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Mathematics	3
PED	1203	Strength Training	1
PSY	1100	General Psychology	3

Fire Engineering Technology

Program Code: FST.S.AAS • Credit Hours: 60

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	1111	Mechanical Systems Blueprint Reading	1
CHE	1211	General Chemistry I	5
CHE	1251	Lab for General Chemistry I	0
COM	2211	Effective Public Speaking	3
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	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	2230	Principles of Fire & Emergency Services Safety & Survival	3
FST	2260	Advanced Concepts in Structural Fire Protection	3
FST	2270	Fire Science Internship	2
MAT	1470	College Algebra	4
MAT	1570	Trigonometry	3
MET	1371	CAD Concepts using AutoCAD	3
PHY	1141	College Physics I	4
PSY	1100	General Psychology	3

Fire Science Technology/ Fire Administration

Program Code: FAO.S.AAS • Credit Hours: 62

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.

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.

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.

BIS	1120	Introduction to Software Applications	3
CHE	1311	College Chemistry I	4
CHE	1351	Lab for College Chemistry I	0
COM	2211	Effective Public Speaking	3
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	1125	Fire Investigation I	3
FST	2201	Fire Protection Hydraulics & Water Supply	3
FST	2202	Building Construction for Fire Protection	3
FST	2204	Fire Protection Systems	5
FST	2230	Principles of Fire & Emergency Services Safety & 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
HUM	1135	Environmental Ethics	3
MAT	1440	Excursions in Mathematics	3
PSY	1100	General Psychology	3

Health Information Management

Program Code: HIM.S.AAS • Credit Hours: 63

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.

The Health Information Management program is designed to be completed in five (5) semesters on a full-time basis when the student begins the technical portion of the program. Students preferring to complete on a part time basis may take longer than five sequential semesters. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2 and completion of prerequisite courses are required. A grade of C or higher is required in all program courses.

The curriculum includes a professional practice experience (PPE). Each fall term, two cohorts of students begin the technical courses that have limited enrollment. Local cohort students (students who live generally in the 14-county area surrounding Sinclair) are assigned to local PPE sites. The remote cohort students (students living generally outside of the 14-county area surrounding Sinclair) are responsible for securing an appropriate medical facility for their PPE.

Most HIM courses are limited enrollment courses. All courses in the program are available online. Students may enroll in courses face-to-face on campus, online, or a combination. Face-to-face courses on campus are only available during the day. Students are generally required to complete their PPE during daytime business hours.

Employment prospects are excellent throughout the nation. HIM graduates work in hospitals, clinics, 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 program is fully accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Upon successful completion of the HIM program, students are eligible to take the national certification exam to become a Registered Health Information Technician (RHIT).

Career Opportunities

Employment prospects are excellent throughout the nation. HIM graduates work in hospitals, clinics, 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.

Program Prerequisite(s)

BIO	1121	*Human Anatomy & Physiology I AND*	
HIM	1101	*Medical Terminology*	

ALH	1140	Fundamentals of Disease Processes	3
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	3
BIS	1120	Introduction to Software Applications	3
BIS	1221	Specialized Computer Applications for Health Information Management	1
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
COM	2211	Effective Public Speaking OR	
COM	2206	Interpersonal Communication	3
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	3
MAT	1130	Allied Health Mathematics OR	
MAT	1270	Beginning Algebra	3

Heating, Ventilating, Air Conditioning & Refrigeration (HVACR) Engineering Technology

Program Code: HVACR.S.AAS • Credit Hours: 67

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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

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.

		HVACR Elective	6
OTM		Social & Behavioral Sciences Elective	3
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
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

*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.

PHY	1131	Technical Physics	3
SCC	1101	First Year Experience	1

HVACR Electives

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

Hospitality Management & Tourism

Program Code: HMTT.S.AAS • Credit Hours: 61-62

Description

The Hospitality Management & Tourism program prepares students for entry-level positions in restaurants, private clubs, beverage establishments, and general hospitality centers and includes skills in supervision, cost controls, purchasing and human relations.

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).

Career Opportunities

The hospitality/tourism industry is a broad category of fields within the service industry that includes lodging, restaurants, event planning, theme parks, transportation, cruise line, and additional fields within the tourism industry. The hospitality industry is a several billion dollar industry that mostly depends on the availability of leisure time and disposable income. It 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. Top ranked hospitality professionals have almost unlimited possibilities for career satisfaction such as front office managers, restaurant managers, convention services managers, airline attendants, assistant managers, meeting/event planners, car rental agencies, or travel firms.

Program Prerequisite(s)

HMT 1107 Sanitation & Safety

OTM		Arts & Humanities Elective	3
		Language Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
COM	2206	Interpersonal Communication	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1125	Beverage Management	2
HMT	1110	Menu Planning & Table Service Practicum	3
HMT	1150	Meeting & Event Planning	3
HMT	1137	Hospitality Industry Computer Systems	2
HMT	2201	Food Service Equipment, Design & Maintenance	3
HMT	2215	Hospitality Cost Controls	3
HMT	2226	Hospitality Purchasing & Negotiations	3

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

HMT 2227	Hospitality Marketing		2
HMT 2225	Hospitality & Tourism Supervision		3
HMT 2230	Risk & Prevention Management		2
HMT 2291	Hospitality Management & Tourism Cooperative Work Experience		2
HMT 2295	Hospitality Management & Tourism Capstone		3
MRK 2225	Sales Fundamentals		3
SOC 1145	Introduction to Cultural Anthropology		3
ENG 1101	English Composition I OR		
ENG 1131	Business Writing		3
MAT 1120	Business Mathematics OR		
MAT 1470	College Algebra		3-4

Hospitality Management & Tourism/Bakery & Pastry Arts

Program Code: BPAO.S.AAS • Credit Hours: 68

Description

The baking/pastry/confection program at Sinclair Community College prepares its graduates for an exciting career as a pastry chef. Skills learned in a commercial-grade bakery kitchen include proper mixing methods, shaping/sculpting techniques, advanced baking, and the science behind it all. Students will be allowed to showcase their creativity through artisan breads, pastries, chocolate and confection displays, as well as constructing show-stopping wedding cakes. Start today and allow our certified chefs to guide you through graduation and prepare you for an exciting career.

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).

Career Opportunities

Students who graduate from the baking/pastry/confectionery concentration will find employment as a baker, pastry cook, pastry chef, pastry department assistant manager, or bake shop manager.

Program Prerequisite(s)
HMT 1107   Sanitation & Safety

OTM		Arts & Humanities Elective	3
ACC 1210		Introduction to Financial Accounting	3
BIS 1120		Introduction to Software Applications	3
COM 2206		Interpersonal Communication	3
DIT 1108		Nutrition for the Culinary Professional	3
HMT 1102		Kitchen Chemistry	3
HMT 1105		Introduction to the Hospitality & Tourism Industry	2
HMT 1107		Sanitation & Safety	2
HMT 1108		Pastry & Confectionery Basics	4
HMT 1126		Baking I & Restaurant Desserts	4
HMT 1127		Baking II	4
HMT 2118		Artisan Breads	3
HMT 2128		Cake Production & Decoration	4
HMT 2201		Food Service Equipment, Design & Maintenance	2
HMT 2215		Hospitality Cost Controls	3
HMT 2218		Advanced Pastry Skills	3
HMT 2225		Hospitality & Tourism Supervision	3
HMT 2226		Hospitality Purchasing & Negotiations	3
HMT 2230		Risk & Prevention Management	2
HMT 2292		Culinary Arts Option Cooperative Work Experience	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.

MAT	1120	Business Mathematics	3
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
PSY	1100	General Psychology OR	
SOC	1145	Introduction to Cultural Anthropology	3

Hospitality Management & Tourism/Culinary Arts
Program Code: CAO.S.AAS • Credit Hours: 69

Description

The Culinary Arts program provides the basic knowledge a student needs to develop into a certified 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.

Accreditation

The Culinary Arts program 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).

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. Students completing the Pastry concentration would find employment as a baker, pastry cook, pastry chef, pastry department assistant manager, or a bake shop manager. Those completing the Bakery Specialists concentration are typically considered for positions as a baker in a retail bakery organization.

Program Prerequisite(s)

HMT 1107   Sanitation & Safety

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
DIT	1108	Nutrition for the Culinary Professional	3
COM	2206	Interpersonal Communication	3
HMT	1101	Basic Culinary Skills	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1110	Menu Planning & Table Service Practicum	3
HMT	1112	Food Principles & Preparation	4
HMT	1125	Beverage Management	2
HMT	1126	Baking I & Restaurant Desserts	4
HMT	2201	Food Service Equipment, Design & Maintenance	2
HMT	2206	Garde Manger	3

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

HMT	2207	Butchery and Fish Management	2
HMT	2209	Advanced Culinary Skills	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	2
HMT	2292	Culinary Arts Option Cooperative Work Experience	2
MAT	1120	Business Mathematics	3
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
PSY	1100	General Psychology OR	
SOC	1145	Introduction to Cultural Anthropology	3

Hospitality Management & Tourism/Lodging

Program Code: HMTTL.S.AAS • Credit Hours: 62-63

Description

The Hospitality Management & Tourism/Lodging concentration program prepares students for entry- level positions in hotels/lodging organizations, resorts, and includes skills in supervision and human relations.

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).

Career Opportunities

The hospitality/tourism industry in 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 supervisors, front office managers, concierges, owners of bed and breakfasts and team leaders at national resorts.

		Language Elective	3
OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
COM	2206	Interpersonal Communication	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1125	Beverage Management	2
HMT	1136	Front Office Operations	2
HMT	1137	Hospitality Industry Computer Systems	2
HMT	1138	Managing Lodging Operations	2
HMT	1139	Housekeeping Management	2
HMT	1141	Destination Geography	3
HMT	1143	Organization of the Travel Product	3
HMT	1150	Meeting & Event Planning	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2227	Hospitality Marketing	2
HMT	2230	Risk & Prevention Management	2
HMT	2291	Hospitality Management & Tourism Cooperative Work Experience	2
HMT	2295	Hospitality Management & Tourism Capstone	3
MRK	2225	Sales Fundamentals	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.

SOC 1145	Introduction to Cultural Anthropology	3
ENG 1101	English Composition I OR	
ENG 1131	Business Writing	3
MAT 1120	Business Mathematics OR	
MAT 1470	College Algebra	3-4

Hospitality Management & Tourism/Meeting & Event Planning

Program Code: HMTTM.S.AAS • Credit Hours: 63-64

Description

The Hospitality Management & Tourism Meeting & Event Planning program concentration prepares students for entry-level positions in hotels, resorts, convention and visitor centers, corporate centers, private clubs, and meeting and event operations.

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).

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 meeting/event planners for corporate events, association/non-profit events, government events, special events and expositions and large-scale convention business.

	Language Elective	3
OTM	Arts & Humanities Elective	3
ACC 1210	Introduction to Financial Accounting	3
BIS 1120	Introduction to Software Applications	3
COM 2206	Interpersonal Communication	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 1143	Organization of the Travel Product	3
HMT 1150	Meeting & Event Planning	3
HMT 1151	Special Events, Expositions & Festivals	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	2
HMT 2291	Hospitality Management & Tourism Cooperative Work Experience	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.

HMT	2295	Hospitality Management & Tourism Capstone	3
MRK	2225	Sales Fundamentals	3
SOC	1145	Introduction to Cultural Anthropology	3
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
MAT	1120	Business Mathematics OR	
MAT	1470	College Algebra	3-4

Hospitality Management & Tourism/Tourism

Program Code: HMTTT.S.AAS • Credit Hours: 60-61

Description

The Hospitality Management & Tourism/Tourism Concentration prepares students for entry-level positions in hotels, meeting and convention centers, car rental agencies, airline and travel operators and tourism centers and includes skills in travel planning, booking travel for individuals and groups. A short-term certificate as an Airline Flight Attendant is embedded within this degree.

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).

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 at car rental or travel agencies, tour operations, convention and visitors bureaus, hotels and the airline industry.

OTM		Arts & Humanities Elective	3
		Language Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
AVT	1102	Orientation to Inflight Services	2
AVT	1148	Aircrew Emergency Management	4
AVT	1151	Crew Survival & Rescue Techniques	3
AVT	2146	Introduction to Airline Operations	3
COM	2206	Interpersonal Communication	3
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1140	Dimensions of Air Travel	3
HMT	1141	Destination Geography	3
HMT	1143	Organization of the Travel Product	3
HMT	1146	Airline Travel Technology	3
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2227	Hospitality Marketing	2
HMT	2291	Hospitality Management & Tourism Cooperative Work Experience	2
HMT	2295	Hospitality Management & Tourism Capstone	3
SOC	1145	Introduction to Cultural Anthropology	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.

ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
MAT	1120	Business Mathematics OR	
MAT	1470	College Algebra	3-4

Interior Design

Program Code: IND.S.AAS Credit Hours: 65

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.

Accreditation

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

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.

		Interior Design Elective	3
CAT	1101	Architectural Drafting	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
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
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
VIS	1100	Design Basics	4
VIS	1110	Design Drawing	4
VIS	1140	Design Processes I	4
ART	2231	Art History: Renaissance through Contemporary Periods OR	
ART	2230	Art History: Ancient through Medieval Periods	3
MAT	1120	Business Mathematics OR	
MAT	1270	Beginning Algebra	3
MRK	2145	Principles of Retailing OR	
MRK	2225	Sales Fundamentals	3

Interior Design Electives

ART	1101	2-D Foundations
ART	1102	3-D Foundations
ART	1111	Drawing I
ART	1141	Introduction to Ceramics
ART	1161	Black & White Darkroom Photography I
ART	2235	History of Photography

ART	2236	History of Women Artists
ART	2237	History of American Art
ART	2238	History of African Art
CAT	1121	Introduction to Revit
CAT	1141	Architectural Blueprint Reading
CAT	1201	Construction Methods & Materials
IND	2297	Special Topics
VIS	1180	History of Design
VIS	1208	Typography
VIS	1250	Print Production
VIS	2270	Design Internship

Mechanical Engineering Technology
Program Code: MEGT.S.AAS • Credit Hours: 69

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.

Accreditation
Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

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.

		Mechanical Engineering Technology Elective	3
OTM		Social & Behavioral Sciences Elective	3
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
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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SINCLAIR
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Mechanical Engineering Technology Electives

MET	1151	Guitar Manufacturing using Science, Technology, Engineering, & Mathematics (STEM) Concepts
MET	1301	SolidWorks Basics
MET	1331	Unigraphics Basics
MET	1351	Solid Edge Basics
MET	1371	CAD Concepts using AutoCAD
MET	2700	Mechanical Engineering Technology Internship
PHY	1142	College Physics II

Medical Assistant Technology
Program Code: MAS.S.AAS • Credit Hours: 60

Description
Medical assistants are multi-skilled professionals who assist physicians with the administrative and clinical aspects of patient care.

The Medical Assistant Technology program is designed to be completed in four (4) semesters on a full-time basis when the student begins the technical portion of the program. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.0 is required, as well as a grade of C or higher in all program courses. The student will be required to complete 315 hours of unpaid practicum during their second year of the program. 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.

The graduate is eligible to take the National Certification Examination to become a Certified Medical Assistant (CMA).

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 1361 Park Street, Clearwater, FL 33756 727/210-2350

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.

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.

Program Prerequisite(s)

ALH	1101	*Introduction to Healthcare Delivery AND*	
SCC	1101	*First Year Experience AND*	
BIO	1121	*Human Anatomy & Physiology I AND*	
MAT	1130	*Allied Health Mathematics*	
		Medical Assistant Technology Elective	3
ALH	1101	Introduction to Healthcare Delivery	2
ALH	1140	Fundamentals of Disease Processes	3
ALH	2201	Survey of Drug Therapy	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	2221	MAS Practicum II	3
MAS	2220	MAS Practicum I	3
MAT	1130	Allied Health Mathematics	3
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1

Medical Assistant Technology Electives

ACC	1210	Introduction to Financial Accounting
BIO	2205	Microbiology
BIS	1120	Introduction to Software Applications
BIS	1221	Specialized Computer Applications for Health Information Management
BIS	1250	Desktop Publishing Software
BIS	2140	Records Management
CIS	2717	A+ Certification IT Technician
COM	2225	Small Group Communication
COM	2235	Principles of Interviewing
DIT	1108	Nutrition for the Culinary Professional
DIT	1111	Nutrition for Health & Fitness
DIT	1525	Human Nutrition
EMS	1100	Emergency Medical Responder Lecture & Laboratory
HIM	2262	Advanced Medical Office Coding
LAW	1101	Business Law
MAN	2110	Introduction to Project Management
MHT	1130	Introduction to Addictive Illness
PSY	1126	Stress Management
PSY	2180	Psychology of Gender
PSY	2200	Lifespan Human Development
PSY	2205	Child Development
PSY	2206	Adolescent & Adult Development
PSY	2228	Psychology in the Workplace
SOC	1101	Introduction to Sociology
SOC	1108	Appalachian Families
SOC	1160	Sociology of Aging
SOC	1216	Sociology of Human Sexuality
SWK	2207	Cultural Competence in a Diverse World

Mental Health Technology
Program Code: MHT.S.AAS • 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 Mental Health Technology program can be completed on a full-time or part-time basis with day and evening options available. If enrolled full-time, it is designed to be completed in five (5) semesters. It consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.0 is required, as well as an informational interview during or after MHT 1200. A grade of C or higher is required in all program courses. The practicum portion of the curriculum provides more than 420 hours of supervised clinical experience.

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

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

		Mental Health Technology Elective	3
OTM		Arts & Humanities Elective	3
ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1120	Business Mathematics	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	2121	Practicum I	5
MHT	2211	Group Dynamics II	3
MHT	2222	Practicum II	5
MHT	2245	Mental Health & the Family	3
PSY	1100	General Psychology	3
PSY	2217	Abnormal Psychology	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.

SOC	1101	Introduction to Sociology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
MHT	2232	Community Support OR	
MHT	2239	Dual Diagnosis	2
PSY	1160	African American Psychology OR	
SOC	2215	Race & Ethnicity OR	
SWK	2207	Cultural Competence in a Diverse World	3

Mental Health Technology Electives

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

Mental Health Technology/ Chemical Dependency

Program Code: MHTCD.S.AAS • 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 program can be completed on a full-time or part-time basis with day and evening options available. If enrolled full-time, it is designed to be completed in five (5) semesters. It consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. Second-year practicum hours can be submitted toward partial employment requirements of the Ohio Chemical Dependency Professionals Board (OCDP). To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.0 is required, as well as a grade of C or higher in all program courses.

Career Opportunities

Current career opportunities are stable. For the last few years, graduates have been able to hire into entry-level positions as Chemical Dependency Counselor Assistants (CDCA) and work on the employment requirement for licensure.

Program Prerequisite(s)

Approval of Department

OTM		Arts & Humanities Elective	3
ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
MAT	1120	Business Mathematics	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	1236	Assessment & Diagnosis of Substance Use Disorders	3
MHT	2105	Psychosocial Methods	3
MHT	2111	Group Dynamics I	3
MHT	2121	Practicum I	5
MHT	2137	Treatment Techniques in Substance Use Disorders	3
MHT	2138	Ethical Issues in Behavioral Healthcare	2

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.

MHT	2211	Group Dynamics II	3
MHT	2222	Practicum II	5
MHT	2235	Family Dynamics of Addiction	3
PSY	1100	General Psychology	3
PSY	2217	Abnormal Psychology	3
SOC	1101	Introduction to Sociology	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
PSY	1160	African American Psychology OR	
SOC	2215	Race & Ethnicity OR	
SWK	2207	Cultural Competence in a Diverse World	3

Nursing
Program Code: NUR.S.AAS • Credit Hours: 61-71

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.

The Nursing program is designed to be completed in six (6) semesters on a full-time basis. The curriculum may be taken on a part time basis, but the nursing courses must be taken in sequence. This degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.5 is required to qualify for entry to limited enrollment courses. A grade of C or higher in all program courses and an overall GPA of 2.0 is required to continue in this course of study.

Advanced Placement for LPNs:
Sinclair offers an advance placement into the nursing program for qualified Licensed Practical Nurses (LPNs). LPNs may substitute BIO 2211 for BIO 1141 and 1242. After successful completion of the LPN Transition courses (NSG 1130 & 1131), ALH 1101, NSG 1100, 1101, and 1102 will be waived. Those students will continue to NSG 2200. For more information, contact the Academic Advising Center at (937)512-3700.

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

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.

Program Prerequisite(s)
Approval of Department

ALH	1101	Introduction to Healthcare Delivery	2
ALH	2202	General Pharmacology	3
BIO	2205	Microbiology	4
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
MAT	1130	Allied Health Mathematics	3
NSG	1111	Introduction to Nursing	1
NSG	2200	Promoting Healthy Responses to Specific Stressors I	4
NSG	2201	Promoting Healthy Responses to Psychosocial Stressors	3
NSG	2202	Promoting Healthy Responses to Specific Stressors II	4
NSG	2203	Promoting Healthy Responses to Maternal/ Child Stressors	5
NSG	2206	Integrated Care	4
NSG	2210	Role Transition	2
NSG	2211	Directed Nursing Practice	2
PSY	1100	General Psychology	3
PSY	2200	Lifespan Human Development	3
BIO	2211	Human Physiology AND	
NSG	1130	Transition to Registered Nursing AND	
NSG	1131	Transition to Registered Nursing II OR	
ALH	1101	Introduction to Healthcare Delivery AND	
BIO	1141	Principles of Anatomy & Physiology I AND	
BIO	1242	Principles of Anatomy & Physiology II AND	
NSG	1100	Human Response Assessment AND	
NSG	1101	Promoting Healthy Responses Through Psychomotor Interventions AND	
NSG	1102	Promoting Healthy Responses to Physiological Stressors	12-22

Occupational Therapy Assistant
Program Code: OTA.S.AAS • 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.

The Occupational Therapy Assistant program is designed to be completed in six (6) semesters on a full-time basis, when the student begins the technical portion of the program. This degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.5 is required.

Accreditation

The Occupational Therapy Assistant 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. www.acoteonline.org/

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.

Program Prerequisite(s)

ALH	1101	*Introduction to Healthcare Delivery AND*
BIO	1107	*Human Biology AND*
BIS	1120	*Introduction to Software Applications AND*
OTA	1101	*Introduction to Occupational Therapy Assistant AND*
SCC	1101	*First Year Experience*

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

OTM		Arts & Humanities Elective	3
ALH	1101	Introduction to Healthcare Delivery	2
BIO	1107	Human Biology	3
BIS	1120	Introduction to Software Applications	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Mathematics	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	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
OTA	2501	Occupational Therapy Assistant Capstone	2
PSY	1100	General Psychology	3
SCC	1101	First Year Experience	1
SOC	1101	Introduction to Sociology	3
SOC	2215	Race & Ethnicity	3

Operations Technology
Program Code: OPT.S.AAS • Credit Hours: 69

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 student will gain practical knowledge as well as the fundamentals. Those who wish to further their studies may transfer to the best four-year colleges and universities.

Accreditation
Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

Career Opportunities
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 can get jobs that range from Management Engineering Technology, Quality Control Technicians and related jobs. Those who wish to further their studies may transfer to the best four year colleges and universities.

		Operations Technology Elective	3
OTM		Arts & Humanities Elective	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	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	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	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	2

OPT	2240	Six Sigma: Green Belt	3
OPT	2251	Supply Chain Operations & Logistics	3
OPT	2780	Operations Technology Capstone	3
PHY	1106	Physics for Technology	3
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

Operations Technology Electives

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

Operations Technology/ Industrial Engineering Technology

Program Code: OPTIO.S.AAS • Credit Hours: 69

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.

Accreditation

Accredited by Engineering Technology Accreditation Commission of ABET, Inc., www.abet.org

Career Opportunities

The Industrial Engineering Technology option of Operations Technology prepares individuals for leadership roles in the operations of business, industry and service organizations with a special emphasis on IET skills. Graduates are employed as Industrial Engineering Technicians, Quality Control Technicians, Production Supervisors, Continuous Improvement Specialists and similar positions. Those who wish to further their studies may transfer to the best four-year colleges and universities.

OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	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	Supervision, Team Leadership & Project Management	3

***Please see your Academic Advisor for information on Ohio Transfer Module and other electives.** 101

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.

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
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

Operations Technology/ Manufacturing

Program Code: OPTMO.S.AAS • Credit Hours: 69

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.

OTM		Arts & Humanities Elective	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	1101	Introduction to Operations	3
OPT	1100	Tooling & Machining Metrology	2
OPT	1110	Operations Work Measurement & Ergonomics	3
OPT	1112	World Class Quality Systems & Procedures	4
OPT	1113	Coordinate Measurement	3
OPT	1125	World Class Operations	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	2780	Operations Technology Capstone	3
PHY	1141	College Physics I	4
SCC	1101	First Year Experience	1
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

Paralegal

Program Code: PAR.S.AAS • Credit Hours: 68

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.

A grade point average of 2.0 is required to enter the Paralegal program. A grade of C is required in all PAR courses. An overall grade point average of at least 2.0 is required to continue in the program, and is required for graduation.

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.

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.

		Introduction to Paralegal Elective	6
OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1120	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 Mathematics	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
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	3

Paralegal Electives

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

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 Therapist Assistant

Program Code: PTA.S.AAS • Credit Hours: 70

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 Physical Therapist Assistant program is designed to be completed in four (4) semesters on a full-time basis when the student begins the technical portion of the program. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. The PTA program adheres to a competitive selection process for entry to the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. Students must complete all of the prerequisites and maintain a cumulative GPA of 2.5 for entry into the limited enrollment courses. A grade of C or higher is required in all program courses, and the PTA courses must be taken in sequence.

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

Career Opportunities

Graduates, once licensed by the State of Ohio, work either full- or part-time 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, assisted living, home health or school-based programs.

Program Prerequisite(s)

ALH	1101	Introduction to Healthcare Delivery AND	
BIO	1211	General Biology II AND	
HIM	1101	Medical Terminology AND	
PHY	1106	Physics for Technology AND	
PTA	1106	Introduction to Physical Therapy	

OTM		Arts & Humanities Elective	3
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
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1270	Beginning Algebra	3

PHY	1106	Physics for Technology	3
PTA	1106	Introduction to Physical Therapy	1
PTA	1110	Professional Issues I	2
PTA	1112	Pathology for Physical Therapist Assistant	3
PTA	1116	Anatomy & Kinesiology	5
PTA	1124	Clinical Procedures I	4
PTA	1129	Therapeutic Exercise	3
PTA	1144	Therapeutic Foundations	3
PTA	2226	Clinical Procedures II	2
PTA	2230	Neuromuscular Rehabilitation	4
PTA	2238	Musculoskeletal Rehabilitation	2
PTA	2211	Clinical Practicum I	2
PTA	2221	Seminar for Clinical Practicum I	1
PTA	2115	Professional Issues II	2
PTA	2234	Practice Management	2
PTA	2212	Clinical Practicum II	2
PTA	2222	Seminar for Clinical Practicum II	1
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
SOC	1101	Introduction to Sociology OR	
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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Radiologic Technology

Program Code: RAT.S.AAS • 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 Health (ODH) Radiologic Licensure Program requirements.

The Radiologic Technology program is designed to be completed in five (5) semesters on a full-time basis when the student begins the technical portion of the program. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. Completion of prerequisites and a cumulative GPA of 2.5 is required, as well as a grade of C or higher is required in all program courses.

Accreditation

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

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.

Program Prerequisite(s)

ALH	1101	*Introduction to Healthcare Delivery AND*
ENG	1101	*English Composition I AND*
HIM	1101	*Medical Terminology AND*
MAT	1470	*College Algebra AND*
RAT	1101	*Introduction to Radiologic Technology*

OTM		Arts & Humanities Elective	3
ALH	1101	Introduction to Healthcare Delivery	2
BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	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
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3
PSY	1100	General Psychology OR	
SOC	1101	Introduction to Sociology	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 • Credit Hours: 61-62

Description

In the Real Estate degree program, students acquire a variety of skills in selling, marketing, leasing, buying, appraising, investing in and managing real property. Courses are offered which are required by the Ohio Division of Real Estate for persons taking the real estate sales examination. Students can select from three tracks: Real Estate Sales, Real Estate Investing or Property Management.

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.

Career Opportunities

Employment opportunities include but are not limited to careers in property management, investing, appraising, abstracting, and real estate sales. According to the Bureau of Labor and Statistics, in 2012, the median pay for real estate brokers and sales agents was $41,990 per year and for property manager the median pay was $56,610. The employment in these areas is expected to grow 11-12% from 2012 to 2022.

OTM		Arts & Humanities Elective	3
ACC	1210	Introduction to Financial Accounting	3
BIS	1410	Business Software Applications	3
COM	2206	Interpersonal Communication	3
FIN	2450	Personal Finance	3
ECO	2180	Principles of Microeconomics	3
LAW	1101	Business Law	3
MAN	2150	Management & Organizational Behavior	3
MAT	1120	Business Mathematics	3
PLS	1232	State & Local Government	3
RES	1101	Real Estate Principles	3
RES	1102	Real Estate Abstracting	4
RES	1201	Real Estate Law	3
RES	1301	Real Estate Finance	1.5
RES	1401	Real Estate Appraisal	1.5
RES	1302	Real Estate Investing	3
RES	1402	Property Management	2
RES	2401	Real Estate Capstone	2
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
MRK	2135	Digital Marketing AND	
MRK	2225	Sales Fundamentals AND	
SOC	1101	Introduction to Sociology OR	
CAT	1201	Construction Methods & Materials AND	
CAT	2411	Building Codes & Construction Law OR	
ACC	1220	Introduction to Managerial Accounting AND	
CAT	1161	Introduction to Civil & Architectural Technology AND	
SOC	1101	Introduction to Sociology	8-9

*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 • 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. The Respiratory Care program is designed to be completed in six (6) semesters on a full-time basis. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. The Respiratory Care program adheres to a competitive selection process for entry to limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.5 is required and an overall grade point average of at least 2.0 is necessary for continuance in the program and graduation.

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: www.coarc.com

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.

Program Prerequisite(s)

BIO	1107	*Human Biology AND*
CHE	1111	*Introduction to Chemistry I AND*
HIM	1101	*Medical Terminology AND*
MAT	1130	*Allied Health Mathematics AND*
RET	1100	*Introduction to Respiratory Care*

OTM		Arts & Humanities Elective	3
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 Mathematics	3
PSY	1100	General Psychology	3
RET	1100	Introduction to Respiratory Care	1
RET	1101	Respiratory Care Fundamentals I	5
RET	1102	Lab for Respiratory Care Fundamentals I	0
RET	1124	Cardiopulmonary Pharmacology	2
RET	1125	Respiratory Care Sciences	4

RET	1201	Respiratory Care Fundamentals II	5
RET	1202	Lab for Respiratory Care Fundamentals II	0
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	2102	Lab for Critical Care I	0
RET	2103	Respiratory Care Clinic III	3
RET	2201	Critical Care II	4
RET	2202	Lab for Critical Care II	0
RET	2203	Respiratory Care Clinic IV	2
RET	2204	Respiratory Care Clinic V	1
RET	2220	Respiratory Care Emergency Preparedness	3
RET	2222	Lab for Respiratory Care Emergency Preparedness	0
RET	2250	Pediatrics & Neonatology	2

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Surgical Technology

Program Code: SUT.S.AAS • 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 Surgical Technology program is designed to be completed in five (5) semesters on a full-time basis when a student begins the technical portion of the program. The degree program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To qualify for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.0 is required, as well as a grade of C or higher in all program courses.

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.

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 students will rotate through the clinical affiliates as scheduled in the course sequence. The standard surgical rotation case requirements that students must achieve is 120 cases, following the AST Core Curriculum, 6th edition.

Career Opportunities

A surgical technologist helps to meet the needs of patients in the operating rooms in a variety of different environments. 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.

Program Prerequisite(s)

BIO	1121	Human Anatomy & Physiology I AND	
BIO	1222	Human Anatomy & Physiology II	
		Surgical Technology Elective	2
OTM		Arts & Humanities Elective	3
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
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Mathematics	3
PSY	1100	General Psychology	3
SUT	1110	Theory & Fundamentals	5
SUT	1117	Laboratory for Theory & 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 Surgical Procedures II	4
SUT	2200	Surgical Procedures III	5
SUT	2207	Directed Practice for Surgical Procedures III	4
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

Surgical Technology Electives

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

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

Program Code: VET.S.AAS • Credit Hours: 69-72

Description

The Associate of Applied Science degree in Veterinary Technology is designed to train Veterinary Technologists to assist Veterinarians in industry, medical centers, and animal hospitals. Careers such as these require trained professionals who have knowledge and skills in all aspects of veterinary medicine. This program provides training in animal husbandry and restraint, nursing, surgical preparation and techniques, drug administration, anesthesia, anatomy, laboratory techniques, and radiography. Preceptorships at various private practices and research institutions provide valuable on-the-job training.

The Veterinary Technology Program consists of open enrollment courses (general education and division specific) and program specific courses with limited enrollment. The open enrollment courses may be taken prior to entry into the limited enrollment courses. To be considered for entry to limited enrollment courses, please see the Applicant Information packet located on the webpage. A cumulative GPA of 2.5 is required, as well as a grade of C or higher in all program courses. Entry to the Veterinary Technology program's limited enrollment courses is based on a competitive selection process. Students wishing to pursue a baccalaureate degree and/or admission into a school of veterinary medicine should meet with an advisor and/or the program director for additional curriculum.

Career Opportunities

An Associate's Degree in Veterinary Technology can be helpful in many different paths, and will open many doors. A graduate from this program; once accredited; will be eligible to sit for the Veterinary Technician National Exam. Those graduates who pass this exam with a score of 75% or better will be eligible to register with the Ohio Veterinary

Medical Licensing Board in order to practice within the State of Ohio. A registered veterinary technician, or RVT, is responsible for assisting the veterinarian in a general practice. His or her job duties may include, but are not limited to: performing dental cleanings and radiologic procedures; surgical and anesthetic assistance; diagnostic laboratory techniques; IV catheter placement; patient monitoring; inventory control; and office staff management. In addition, this degree can be a stepping-stone to a 4-year degree at another institution, and eventually to Veterinary School (an additional 4-year program). It can also make you eligible to gain employment within a classroom or laboratory setting. RVTs are vital to the practice of veterinary medicine, and are in high-demand within the Dayton area at this time.

Program Prerequisite(s)

ALH	1101	Introduction to Healthcare Delivery AND	
BIO	1111	General Biology I OR	
BIO	1171	Principles of Biology I AND	
BIO	1211	General Biology II OR	
BIO	1272	Principles of Biology II AND	
BIO	2205	Microbiology AND	
CHE	1111	Introduction to Chemistry I OR	
CHE	1211	General Chemistry I AND	
ENG	1101	English Composition I AND	
HIM	1101	Allied Health Mathematics AND	
MAT	1130	Allied Health Mathematics (or higher Algebra) AND	
VET	1100	or Approval of Department	

(Waiver if work in vet hospital or graduate of Vet Sciences program)

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1103	Test Taking Strategies	1
BIO	2205	Microbiology	4
BIO	2206	Lab for Microbiology	0
ENG	1101	English Composition I	3
HIM	1101	Allied Health Mathematics	2
MAT	1130	Allied Health Mathematics	3
PHI	2206	Introduction to Ethics	3
PSY	1100	General Psychology	3
VET	1100	Introduction to Animal Sciences	1
VET	1101	Introduction to Vet Tech I	2
VET	1201	Introduction to Vet Tech II	2
VET	2100	Veterinary Technology I	8
VET	2101	Veterinary Technology II	6
VET	2107	Technical Practicum I	2
VET	2200	Veterinary Technology III	8
VET	2207	Technical Practicum II	2
VET	2300	Preceptorship	2
BIO	1111	General Biology I OR	
BIO	1171	Principles of Biology I	4-5
BIO	1211	General Biology II OR	
BIO	1272	Principles of Biology II	4-5
CHE	1111	Introduction to Chemistry I OR	
CHE	1211	General Chemistry I	4-5
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

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Visual Communications

Program Code: VIS.S.AAS • Credit Hours: 68-69

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.

Accreditation

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

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.

		Visual Communications Elective	3-4
ART	1161	Black & White Darkroom Photography I	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I	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	Design Processes I	4
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
MAT	1110	Math for Technologists OR	
MAT	1270	Beginning Algebra	3
ART	2230	Art History: Ancient through Medieval Periods OR	
ART	2231	Art History: Renaissance through Contemporary Periods	3

Visual Communications Electives

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

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

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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 one year certificate programs and short term technical certificates. The technical certificates are much more industry-focused and designed for workforce preparation.

Airframe Aviation Maintenance
Program Code: AAM.S.CRT • 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

Automotive Technology
Program Code: AUT.S.CRT • 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. The Sinclair Automotive Technology programs are 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.

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

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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Automotive Technology (Honda PACT)

Program Code: AUTHO.S.CRT • 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. The Sinclair Automotive Technology programs are 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.

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 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

Business Information Systems/Information Processing

Program Code: BUIP.S.CRT • 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	Introduction to Software Applications	3
BIS	1200	Keyboarding & Document Formatting I	2
BIS	1220	Word Processing Software	3
BIS	1230	Spreadsheet Software	3
BIS	1240	Presentation Software	2
BIS	1260	Database Software	3
BIS	1300	Keyboarding & Document Formatting II	2
BIS	1400	Customer Service	3
BIS	2140	Records Management	2
ENG	1101	English Composition I	3
MAT	1120	Business Mathematics	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3

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Business Information Systems/Medical Office Specialist

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

Business Information Systems/Personal Computers in Business

Program Code: PCB.S.CRT • 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	Introduction to Software 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	2309	Cascading Style Sheets	3
ENG	1101	English Composition I	3
CIS	1714	A+ Operating Systems Troubleshooting OR	
CIS	2717	A+ Certification IT Technician	3
COM	2206	Interpersonal Communication OR	
COM	2225	Small Group Communication	3
MAN	1107	Foundations of Business OR	
MAN	2150	Management & Organizational Behavior	3

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

Program Code: BM.S.CRT • 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	Introduction to Software Applications	3
COM	2211	Effective Public Speaking	3
ECO	2180	Principles of Microeconomics	3
ENG	1131	Business Writing	3
MAN	1107	Foundations of Business	3
MAN	1110	International Business	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MAT	2170	Business Statistics I	4
MRK	2101	Principles of Marketing Management	3
		Business Management Elective	3

Business Management Electives

ENT	2140	Small Business Finance
ENT	2160	Business Plan Development
MAN	1106	Introduction to Radio Frequency Identification
MAN	1157	Management Applications of Radio Frequency Identification Technology
MAN	2110	Introduction to Project Management
MAN	2140	Human Resource Management
MAN	2144	Negotiation Techniques
MAN	2159	Supply Chain Management Concepts & Applications
MRK	2102	Principles of Advertising
MRK	2135	Digital Marketing
MRK	2145	Principles of Retailing
MRK	2220	Solutions Studio
MRK	2225	Sales Fundamentals

Business Transfer

Program Code: BUS.S.CRT • Credit Hours: 30

Description

This certificate is designed for the student who desires to complete Transfer Assurance Guide (TAG) courses to transfer into a four-year business program. This certificate can be used to help students from non-business backgrounds begin preparation for entrance into a Masters of Business Administration (MBA) program by packaging the prerequisite business core courses into a convenient certificate offering. Additionally, students wanting to pursue a two-year business degree or needing to augment current work skills with academic credentials may find this certificate beneficial.

Career Opportunities

Employers more often than in the past require four-year business degrees or evidence that students are in the process of earning these credentials. This certificate serves as a credentialing tool for students to use in their career search, as well as, for currently employed students to show further evidence of growth and academic progress toward a bachelor's degree in business.

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
ENG	1131	Business Writing	3
LAW	1101	Business Law	3
MRK	2101	Principles of Marketing Management	3
OTM		Natural & Physical Sciences Elective	3
OTM		Arts & Humanities Elective	3
OTM		Social & Behavioral Sciences Elective	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.   115

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Computer Aided Manufacturing/Project STEP II
Program Code: CAMPS.S.CRT • Credit Hours: 30-34

Description
A nine-month intensive training program offered by Sinclair Community College in cooperation with the Dayton Region Manufacturers 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. A co-op option is provided for those students who wish to work during their second semester.

Career Opportunities
Project STEP II prepares individuals for entry-level jobs in the tool-and-die industry and machining applications.

CAM	1107	Principles of Manufacturing	3
CAM	1116	Fundamentals of Computer Numerical Control Operations	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 OR	
CAM	2700	Computer Aided Manufacturing Internship	4-8
CAM	2145	Shop Floor Programming	3
MET	1131	Personal Computer Applications for Engineering Technology	1
OPT	1100	Tooling & Machining Metrology	2

Corrections
Program Code: COR.S.CRT • Credit Hours: 32

Description
This certificate is designed to provide the student with the basics necessary for entry-level employment in a correctional environment. All courses can be applied to the Associate of Applied Science 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.

BIS	1120	Introduction to Software 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	2200	Human Relations, Mediation, & Conflict Resolution	3
ENG	1101	English Composition I	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
SPA	1161	Conversational Spanish for Criminal Justice	3

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

Program Code: CYSEC.S.CRT • 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 include 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.

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	2165	Database Management	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

Data Analytics

Program Code: DA.S.CRT • 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.

Program Prerequisite(s)

MAT 1460 Finite Mathematics for Business Analysis

BIS	1120	Introduction to Software 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 • 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	Introduction to Software Applications	3
COM	2211	Effective Public Speaking	3
ECO	2180	Principles of Microeconomics	3
ENG	1131	Business Writing	3
ENT	2140	Small Business Finance	3
ENT	2160	Business Plan Development	3
LAW	1101	Business Law	3
MAN	1107	Foundations of Business	3
MRK	2101	Principles of Marketing Management	3
MAN	2150	Management & Organizational Behavior	3
MRK	2220	Solutions Studio	3

Food Service Management
Program Code: FSM.S.CRT • 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.

Program Prerequisite(s)
HMT 1107   Sanitation & Safety

ACC	1210	Introduction to Financial Accounting	3
BIS	1120	Introduction to Software Applications	3
HMT	1101	Basic Culinary Skills	2
HMT	1105	Introduction to the Hospitality & Tourism Industry	2
HMT	1107	Sanitation & Safety	2
HMT	1110	Menu Planning & Table Service Practicum	3
HMT	1112	Food Principles & Preparation	4
HMT	2225	Hospitality & Tourism Supervision	3
HMT	2226	Hospitality Purchasing & Negotiations	3
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
MAT	1120	Business Mathematics OR	
MAT	1270	Beginning Algebra	3
PSY	1100	General Psychology OR	
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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Law Enforcement
Program Code: CJLES.S.CRT • Credit Hours: 32

Description
This 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. All course in this certificate apply toward the Associate of Applied Science degree in Law Enforcement, if desired.

Career Opportunities
There are openings in local and state law enforcement agencies as well as private investigation and personal protection agencies.

BIS	1120	Introduction to Software 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 Evidence & Procedure	3
ENG	1101	English Composition I	3
ENS	1119	Concepts of Fitness for Criminal Justice	2
SPA	1161	Conversational Spanish for Criminal Justice	3

Paramedic
Program Code: EPST.S.CRT • Credit Hours: 33

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.

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.

Program Prerequisite(s)

BIO	*1107*	*Human Biology OR*	
BIO	*1121*	*Human Anatomy and Physiology I*	
BIO	1107	Human Biology OR	
BIO	1121	Human Anatomy and Physiology I	3
EMS	2100	Applied Anatomy, Physiology & Pathophysiology for Emergency Medical Services 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

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Quality Control Technology

Program Code: QCT.S.CRT • 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
MAT	1280	Technical Mathematics I	4
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	1198	Excel for Engineering Technology	1
OPT	2201	Statistical Process Control	3
OPT	2223	Quality Systems & Auditing	2
OPT	2225	Design & Process Failure Mode & Effects Analyses	1
OPT	2240	Six Sigma: Green Belt	3
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking	3

Supervisory Skills

Program Code: BSP.S.CRT • Credit Hours: 30

Description

The Supervisory Skills certificate is useful to students who need to understand the foundation of supervision, no matter in which discipline they formally study. Engineers, business managers, architects, educators, and many other professionals need to understand how to better supervise employees. This certificate includes coursework that is foundational to understanding business and personnel concepts that will benefit supervisors in any capacity. This certificate is most useful for those who are new to supervision or to those who desire to become supervisors.

ACC	1210	Introduction to Financial Accounting	3
ACC	1220	Introduction to Managerial Accounting	3
BIS	1120	Introduction to Software Applications	3
COM	2211	Effective Public Speaking	3
LAW	1101	Business Law	3
ECO	2160	Principles of Macroeconomics	3
ECO	2180	Principles of Microeconomics	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MRK	2101	Principles of Marketing Management	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 • 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 Writing	3
MAN 1106	Introduction to Radio Frequency Identification	1
MAN 1157	Management Applications of Radio Frequency Identification Technology	2
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
MAT 2170	Business Statistics I	4
MAN 2248	Department of Defense Acquisition Logistics Fundamentals AND	
MAN 2247	Department of Defense Systems Acquisition Management OR	
OPT 2251	Supply Chain Operations & Logistics	3-4

Surveying
Program Code: SUR.S.CRT • Credit Hours: 36

Description
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 1121	Introduction to Revit	3
CAT 1501	Construction Surveying	3
CAT 2431	OSHA Construction Standards	2
CAT 2501	Introduction to Geographic Information Systems (GIS) & Global Positioning Systems (GPS)	2
CAT 2531	Advanced Surveying & Drafting	4
CAT 2581	Legal Principles for Surveyors	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 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.
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Activity Programming

Program Code: ACP.S.STC • 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. Certificate meets the Ohio Board of Health requirement for education as activity program professional. National Council for Certified Activity Professionals awards a certificate for graduates.

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 Programming I	4
MHT	1256	Administration of Activity Programming II	4

Advanced Technical Intelligence

Program Code: ATI.S.STC • 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 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
EGR	1212	Measurement & Signal Intelligence	3

African American Studies

Program Code: AFRE.S.STC • 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
HIS	1105	African-American History	3
HIS	2215	Survey of African History	3
PSY	1160	African American Psychology	3
AFR	1121	Basic Swahili OR	
LIT	2234	Literature of Africa, Asia, & Latin America	3

Aircraft Dispatcher

Program Code: ADSP.S.STC • Credit Hours: 24

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	1105	Orientation to Aviation	2
AVT	1110	Private Pilot Ground School	3
AVT	1119	Aviation Meteorology	2
AVT	1141	Principles of Aviation Leadership	2
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
MET	1131	Personal Computer Applications for Engineering Technology	1

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives. 123

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Airline Flight Attendant

Program Code: AFAS.S.STC • 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 Inflight Services	2
AVT	1148	Aircrew Emergency Management	4
AVT	1151	Crew Survival & Rescue Techniques	3
AVT	2146	Introduction to Airline Operations	3

Appalachian Studies

Program Code: HUM.S.STC • Credit Hours: 15

Description

The short-term technical certificate is designed for students who are planning on using Appalachian Studies to enhance their careers in a variety of disciplines such as: Sociology, Social Work, Education, Government, Health Care, and Public Safety (i.e., fire and police work). The student who pursues this short-term technical certificate will use the certificate to supplement their professional development.

Career Opportunities

This certificate enhances careers in Sociology, Social Work, Education, Government, Health Care, Public Safety and related fields.

HUM	1140	Appalachian Folkways	3
HUM	1141	Appalachian History & Culture	3
HUM	1142	Native American History	3
GEO	1206	Appalachian Environment	3
SOC	1108	Appalachian Families	3

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

Program Code: AM.S.STC • Credit Hours: 26-29

Description

The certificate in Arts Management serves both aspiring arts administrators and those currently working in the field seeking career development opportunities. The certificate includes classes in business, marketing, arts appreciation and experience, including arts internships.

Career Opportunities

This certificate prepares students who are interested in a management position in the fine and performing arts field with the appropriate business skills and arts appreciation background.

COM	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAN	2101	Introduction to Supervision	3
MAN	2150	Management & Organizational Behavior	3
MRK	2135	Digital Marketing	3
MRK	2225	Sales Fundamentals	3
THE	2270	Theatre Internship	1- 4
ART	1110	Art Appreciation - Introduction to Art & Art Media OR	
DAN	1157	Dance Appreciation OR	
MUS	1121	Music Appreciation OR	
THE	1101	Theatre Appreciation	3
ART	1111	Drawing I OR	
ART	1131	Introduction to Sculpture OR	
DAN	1172	Ballet I OR	
DAN	1173	Modern Dance I OR	
DAN	1174	Jazz Dance I OR	
MUS	1101	Introduction to Music OR	
THE	1103	Acting For The Non-Major OR	
THE	1105	Introduction to Theatre OR	
THE	1194	Applied Theatre Technology I	4

Automotive High Performance

Program Code: AHPC.S.STC • 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, motor sports businesses and automotive machine shops. In addition, graduates are also employed as service managers, parts managers, sales representatives or motor sports specialist.

Program Prerequisite(s)

AUT	1108	*Automotive Engine Systems OR*	
AUT	1115	*Automotive Engine Performance I*	

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

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Bakery Specialist

Program Code: BPSE.S.STC • Credit Hours: 17

Description

The Bakery Specialist short-term certificate program 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 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.

Program Prerequisite(s)

HMT 1107	*Sanitation & Safety*	
HMT 1102	Kitchen Chemistry	3
HMT 1107	Sanitation & Safety	2
HMT 1108	Pastry & Confectionery Basics	4
HMT 1126	Baking I & Restaurant Desserts	4
HMT 2128	Cake Production & Decoration	4

Basic Drawing

Program Code: DRWG.S.STC • 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 2216	Life Drawing & Anatomy I OR	
ART 2221	Intermediate Painting - Observation & Concept OR	
ART 2222	Intermediate Painting - The Figure	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 • 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
CIS	1130	Network Fundamentals	3
COM	2206	Interpersonal Communication	3
ENG	1101	English Composition I OR	
ENG	1131	Business Writing	3
CIS	1510	Windows Client Operating System OR	
CIS	2550	Linux Operating System	3
CIS	1714	A+ Operating Systems Troubleshooting OR	
CIS	2711	Enterprise Desktop Support Technician	3

Chemical Dependency Counseling

Program Code: CDC.S.STC • 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.

Program Prerequisite(s)
Approval of Department

MHT	1130	Introduction to Addictive Illness	3
MHT	1236	Assessment & Diagnosis of Substance Use Disorders	3
MHT	2137	Treatment Techniques in Substance Use Disorders	3
MHT	2138	Ethical Issues in Behavioral Healthcare	2
MHT	2235	Family Dynamics of Addiction	3
MHT	2253	Issues in Chemical Dependency	3

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Clinical Phlebotomy

Program Code: CPST.S.STC • 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 proficiencies to practicing health care professionals and students enrolled in health science programs. 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 • 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 & Leadership	3

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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Computer Aided Manufacturing Basic Machining Skills

Program Code: CAMBMS.S.STC • Credit Hours: 12

Description

This short term certificate (STC) is designed to enhance the machining skills of students who have taken machining courses in high school or to allow individuals with little or no experience in machining to quickly obtain a certificate which may in turn qualify them for an entry level position in a machining company. Course work is focused on introductory levels of manual machining and basic operation of CNC machines. This STC is the first half of the Computer Numerical Control Technology short term certificate and will provide students with a milestone of completion and the ability to continue their education up to and including a two year Associate of Applied Science degree in CNC operations.

Career Opportunities

Students who complete this certificate will become eligible for employment at an introductory level in the high tech field of machining. All courses contained within this certificate may be applied towards a degree in CNC operation; a high demand, high paying field.

CAM 1109	Fundamentals of Tooling & Machining	3
CAM 1116	Fundamentals of Computer Numerical Control Operations	3
CAM 1141	Shop Floor Calculations I	3
MET 1131	Personal Computer Applications for Engineering Technology	1
OPT 1100	Tooling & Machining Metrology	2

Computer Aided Manufacturing Precision Machining

Program Code: CAMPM.S.STC • Credit Hours: 17

Description

This certificate is designed to provide basic precision machining skills to workers entering the field of manual machining. It is the first half of the STEP II Certificate and is provided for students who are wishing to enter the workforce with the minimum skill level required to become an effective machinist. All courses in this short term certificate will lead to an AAS degree in Computer Aided Manufacturing Precision Machining Option. Course work focuses on basic machining skills necessary to operate manual lathes, mills and grinders.

Career Opportunities

Prepares individuals for entry level positions in precision machining (manual lathes, mills, grinders).

CAM 1107	Principles of Manufacturing	3
CAM 1141	Shop Floor Calculations I	3
CAM 1161	Machine Operations Laboratory I	8
MET 1131	Personal Computer Applications for Engineering Technology	1
OPT 1100	Tooling & Machining Metrology	2

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Computer Numerical Control Technology

Program Code: CNC.S.STC • Credit Hours: 24

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

Prepares individuals for basic entry level jobs in CNC manufacturing.

CAM 1107	Principles of Manufacturing	3
CAM 1109	Fundamentals of Tooling & Machining	3
CAM 1141	Shop Floor Calculations I	3
CAM 1116	Fundamentals of Computer Numerical Control Operations	3
CAM 1214	Computer Numerical Control Mill Programming	3
CAM 2145	Shop Floor Programming	3
CAM 2204	Computer Numerical Control Lathe Programming	3
MET 1131	Personal Computer Applications for Engineering Technology	1
OPT 1100	Tooling & Machining Metrology	2

Construction Supervisor

Program Code: CNTS.S.STC • Credit Hours: 28

Description

This program is designed for experienced craftspeople of the construction industry to improve their supervisory and leadership skills. Students will receive training to help them understand the building construction industry from a management perspective, including an understanding of building materials and components, the financial aspects of building construction and the management skills necessary to deal with the diverse population of the industry. Heavy emphasis will be placed on safety requirements. Upon completing this program, craftspeople will be qualified to move into management positions in the construction industry.

Career Opportunities

Upon completing this program, craftspeople 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 1161	Introduction to Civil & Architectural Technology	2
CAT 1201	Construction Methods & Materials	5
CAT 1211	Construction Materials Testing	2
CAT 1401	Construction Estimating	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.

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Construction Technician

Program Code: CNTC.S.STC • 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 • 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

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Crime Mapping

Program Code: CJCM.S.STC • Credit Hours: 20

Description

The Crime Mapping 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	Introduction to Software 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)	4

Dietary Manager

Program Code: DMST.S.STC • 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. Students of Sinclair's Dietary Managers Program are eligible to become pre-professional members of the Association of Nutrition & Food Professionals (ANFP), a nationally recognized organization located at 406 Surrey Woods Drive, St. Charles, Illinois 60174, 1-800-323-1908, www.anfponline.org This specially designed program enables students to enjoy benefits of ANFP membership while attending school. Graduates are eligible for professional ANFP membership. Benefits include networking, professional growth, educational enrichment, and developing leadership skills. Completion of the DM Program and a national credentialing exam will enable graduates to become Certified Dietary Managers, Certified Food Protection Professionals (CDM, CFPPs). The DM Program is fully approved by the Association of Nutrition and Food Professionals (ANFP). To apply to the program complete a Sinclair Community College application electronically at http://www.sinclair.edu/admissions/Application/. Indicate your primary education plan is to obtain a short term certificate and choose Dietary Manager-STC as your primary area of interest.

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.

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives.
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DIT	2510	Institutional Foodservice Systems	3
DIT	2515	Foodservice Practicum I	1
DIT	2520	Laboratory for Foodservice Systems	1
DIT	2735	Foodservice Organization & Management	3
DIT	2740	Foodservice Practicum II	1
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	
DIT	2190	Dietary Managers Nutrition Clinical OR	
DIT	2630	Medical Nutrition Therapy Clinical I	3

Digital Systems

Program Code: DS.S.STC • 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

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Drafting and Design

Program Code: DD.S.STC • 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	2211	Effective Public Speaking	3
ENG	1101	English Composition I	3
MAT	1280	Technical Mathematics I	4
MET	1131	Personal Computer Applications for Engineering Technology	1
CAT	1101	Architectural Drafting AND	
CAT	1121	Introduction to Revit AND	
CAT	1131	Introduction to Revit MEP AND	
CAT	2101	CAD Design in Revit AND	
CAT	2111	Building Mechanical & Electrical Systems OR	
MET	1101	Introduction to Engineering Drafting AND	
MET	1201	Introduction to Engineering Design using Inventor AND	
MET	1281	Engineering Design & Development AND	
MET	1301	SolidWorks Basics AND	
MET	1331	Unigraphics Basics AND	
MET	1351	Solid Edge Basics AND	
MET	1371	CAD Concepts using AutoCAD	17-18

Electrical Construction

Program Code: EETEC.S.STC • Credit Hours: 20

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 5 credit hours repeatable credit per year.)

Career Opportunities

Completion of the Electrical Construction certificate prepares the student for work as an electrician.

EET	1181	Electrical Construction I	2-3
EET	1182	Electrical Construction II	2-3
EET	1183	Electrical Construction III	2-3
EET	1184	Electrical Construction IV	2-3

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

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Electrocardiography

Program Code: ELST.S.STC • Credit Hours: 3

Description

This program is intended to provide expanded skills among health care professionals as well as current 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

Emergency Medical Responder

Program Code: EMR.S.STC • 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.

Accreditation

This program is accredited by the Ohio Department of Public Safety, Division of Emergency Medical Services. Graduates of this program are eligible to take the National Registry of Emergency Medical Technicians EMR examination. Contact the EMS office at Sinclair Community College for additional information about accreditation or national testing.

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

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Emergency Medical Technician

Program Code: EBST.S.STC • 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.

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

Energy Technology

Program Code: ENRGY.S.STC • Credit Hours: 25-26

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 DC & AC Circuits	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 AND	
PHY	1110	Lab for 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 • Credit Hours: 28

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. Students must pass all ENS courses with a grade of C or better.

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.

ALH	1132	American Heart Association Heartsaver First Aid	1
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	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

Expanded Functions for Dental Auxiliaries

Program Code: EFDA.S.STC • 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.

Program Prerequisite(s)

Approval of Department

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 • 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.

		Facilities Management Elective	3
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

Facilities Management Electives

CAT	1111	Mechanical Systems Blueprint Reading
CAT	1141	Architectural Blueprint Reading
EGV	1301	Architectural Energy Analysis
EMS	1100	Emergency Medical Responder Lecture & Laboratory
FST	2202	Building Construction for Fire Protection
HVA	1201	Basic HVAC Systems with Cooling
MAN	2155	Management Information Systems

Family Advocate

Program Code: FAMA.S.STC • 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	Introduction to Software 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

Fast Track Programming

Program Cod: FTPA1.S.STC • Credit Hours: 18

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	2212	Java Software Development I	3
CIS	2217	Java Software Development II	3

Fire Department Company Officer

Program Code: FCO.S.STC • 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.

Accreditation

Fire Officer I and II are accredited by the National Board on Professional Firefighter Qualifications Board.

Program Prerequisite(s)
Approval of Department AND
Certified Ohio Firefighter AND
At least three years active duty experience

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.   139

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Fire Department Executive Officer

Program Code: FEO.S.STC • 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.

Program Prerequisite(s)
Approval of Department

FST	2253	Fire Officer III	3
FST	2254	Fire Officer IV	3

Ford Maintenance & Light Repair

Program Code: FMLR.S.STC • 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. The Sinclair Automotive Technology program is master certified by the National Automotive Technicians Education Foundation (NATEF). NATEF was founded as an independent, non-profit organization with a single mission: To evaluate technician training programs against standards developed by the automotive industry. Since 1982, the NATEF process has resulted in certified automotive training programs in all 50 states at the secondary and post-secondary levels.

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	1102	Introduction to Automotive Service	2
AUT	1114	Automotive Electrical/Electronic Systems I	3
AUT	1116	Automotive Steering & Suspension Systems	3
AUT	1146	Automotive Heating Ventilation & Air Conditioning Systems	3
AUT	1165	Automotive Brake 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 • 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

Geographic Information Systems

Program Code: GEOIS.S.STC • Credit Hours: 19

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 the certificate will have the technical skill set in GIS required to perform a variety of entry level positions in a variety of arenas, including, regional and local government agencies, business and community organizations.

CIS	2165	Database Management	3
GEO	1107	Introduction to Geographic Information Systems (GIS)	4
GEO	1209	Introduction to Cartography	4
GEO	2210	Advanced Spatial Analysis	4
MAT	1450	Introductory Statistics	4

Please see your Academic Advisor for information on Ohio Transfer Module and other electives. 141

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Geospatial Technology Programming Specialist

Program Code: GST.S.STC • Credit Hours: 22

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. 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)	4

Healthcare Navigator

Program Code: HCN.S.STC • Credit Hours: 16

Description

This certificate program is designed to prepare students to work as Healthcare Navigators. Healthcare Navigators are part of the health care team assisting people to access resources outside of primary and tertiary care facilities which contribute to treatment compliance and improving overall health. Healthcare Navigators are knowledgeable about community resources, communication and interviewing skills, public and private health care financing.

ALH	1101	Introduction to Healthcare Delivery	2
ALH	1120	Nurse Aide Training	4
ALH	1130	Basic Life Support Training	1
ALH	1150	Healthcare Navigator Clinical	2
COM	2206	Interpersonal Communication	3
HIM	1101	Medical Terminology	2
HIM	1160	Medical Office Coding Concepts	1
SCC	1101	First Year Experience	1

*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 • **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	Introduction to Software Applications	3
CJS	1101	Introduction to Criminal Justice Science	3
CJS	1102	Constitutional Law	3
CJS	1110	Interrogation, Documentation & Testimony	3
CJS	1155	Homeland Security Issues & Administration	3
CJS	2111	Ethics & Professionalism in Criminal Justice	3
CJS	2130	Terrorism & Counter-Terrorism	3
CJS	2205	Introduction to Criminal Investigation & Forensic Science	3
EMS	1100	Emergency Medical Responder Lecture & Laboratory	2
OPT	2211	Industrial Risk Management	2
SCC	1101	First Year Experience	1

Hospitality Reception and Service Specialist

Program Code: HRSS.S.STC • **Credit Hours:** 2

Description

The Hospitality Reception and Service Specialist Short-Term Technical Certificate prepares individuals to work in the luxury service environment, while mastering the importance of soft-skills and strategies to resolve some of the most difficult challenges involving high end hospitality clientele.

Career Opportunities

Upon completing this credential, students will have gained the knowledge for entry level employment as a guest relations associate within an upscale hotel, maître d for a fine dining establishment, receptionist at an established travel firm, or sales associate for a convention bureau. Ultimately, this is the first step toward completing a Degree in Hospitality Management.

HMT	1105	Introduction to the Hospitality & Tourism Industry	2

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Human Resource Management

Program Code: HRMT.S.STC • 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 2450	Personal Finance	3
MAN 2140	Human Resource Management	3
MAN 2144	Negotiation Techniques	3
MAN 2150	Management & Organizational Behavior	3
MAN 2155	Management Information Systems	3

HVAC Light Commercial & Residential Service

Program Code: LCHS.S.STC • 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 DC & AC Circuits	2
EET 1139	Electrical Machinery	3
HVA 1201	Basic HVAC Systems with Cooling	3
HVA 1221	Heating Systems	3
HVA 1241	HVAC Installation Techniques & Practices	4
HVA 1261	HVAC Loads & Distribution for Small Buildings	3
HVA 1401	HVAC Mechanical & Electrical Troubleshooting	4
HVA 1451	Testing, Adjusting & Balancing in HVAC Systems	3
MET 1131	Personal Computer Applications for Engineering Technology	1

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

Program Code: IFPT.S.STC • 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

Industrial Maintenance Technician

Program Code: INDMT.S.STC • Credit Hours: 24

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 DC & AC Circuits	2
EET	1139	Electrical Machinery	3
EET	1166	Industrial Machine Wiring	2
EET	2281	Programmable Logic Controllers	3
EGR	1128	Robotics in Computer Integrated Manufacturing (CIM) Systems	3
EGR	1144	Sensors & Vision Systems	4
EGR	1217	Fluid Power & Control	2
EGR	2231	Troubleshooting of Automated Systems	3
MET	1101	Introduction to Engineering Drafting	2

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

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Industrial Robot Technician

Program Code: IRT.S.STC • Credit Hours: 28

Description

The Industrial Robot Technician certificate provides the knowledge and skills required to meet the needs for technicians in industries that either provide Robots systems for sale or use robots in their production facilities.

Career Opportunities

This certificate program will provide the education and training necessary to operate, program, diagnose, and repair industrial robots. Graduates will qualified to work for original equipment/system suppliers as well as equipment/system end users.

EET	1120	Introduction to DC & AC Circuits	2
EET	1139	Electrical Machinery	3
EET	1166	Industrial Machine Wiring	2
EET	2281	Programmable Logic Controllers	3
EGR	1128	Robotics in Computer Integrated Manufacturing (CIM) Systems	3
EGR	1144	Sensors & Vision Systems	4
EGR	1217	Fluid Power & Control	2
EGR	2231	Troubleshooting of Automated Systems	3
EGR	2250	Electromechanical Repair	4
EGR	2252	Teach Pendant Robot Programming	2

Information Systems Security

Program Code: ISSC.S.STC • 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. Note: Because the specified content in these six courses has been approved, course credit earned by articulated or proficiency cannot be accepted.

Program Prerequisite(s)

CIS	1107	*Introduction To Operating Systems*	
CIS	1107	Introduction To Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	2510	Microsoft Windows Server Operating System	3
CIS	2630	Securing a Windows Network Environment	3
CIS	2640	Network Security	3
CIS	2717	A+ Certification IT Technician	3

IT Fundamentals

Program Code: ITFN.S.STC • Credit Hours: 18

Description

This certificate provides the fundamental courses needed to prepare for any of the multiple Computer Information Systems (CIS) programs or areas of specialization. It allows students to experience introductory courses in various disciplines as preparation for their chosen degree objective. All courses in this certificate apply to the various degree programs in the CIS Department.

Career Opportunities

Entry level positions in various areas including user support, system administration and network management will be available to students completing this certificate. Many employers are quite willing to provide job specific training to employees already possessing the broad technical experiences in this certificate. Students completing this certificate and a specific CIS degree program will be further prepared for specific employment opportunities.

BIS	1120	Introduction to Software 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	2165	Database Management	3

Linux Security & Network Essentials

Program Code: LSNE.S.STC • 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 consultant

Program Prerequisite(s)

CIS	1107	Introduction To Operating Systems	

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.   147

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Manufacturing Management

Program Code: MM.S.STC • 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.

		Operations Technology Elective	3
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

Operations Technology Electives

OPT	1136	Plastics & Composites
OPT	2211	Industrial Risk Management
OPT	2221	Quality Assurance
OPT	2225	Design & Process Failure Mode & Effects Analyses

Measurement & Calibration

Program Code: MTCAL.S.STC • Credit Hours: 22

Description

This short-term certificate provides both theory and practice in measuring parts and processes, analyzing the result and determining the forms of error that contribute to the uncertainty of the measurements. A good measurement system is an underlying requirement for improving quality, throughput and waste problems. This certificate focuses on calibration and dimensional measurements, including coordinate measurements. Pressure, temperature and mass are also covered. This certificate provides sufficient background to pass the ASQ Certified Calibration Technician exam. The courses in this short-term certificate apply directly to the Operations Technology degree.

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	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	1198	Excel for Engineering Technology	1
OPT	2201	Statistical Process Control	3
OPT	2225	Design & Process Failure Mode & Effects Analyses	1
OPT	2267	Quality Certification Review	2

Medical Coding & Billing Specialist

Program Code: MCBS.S.STC • 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 develop skills to accurately determine diagnostic and procedural code number assignments that impact medical reimbursement. Skill sets include application of ICD-10-CM, 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 and have a GPA of 2.0 to receive the Medical Coding & Billing Specialist Certificate.

Career Opportunities

This certificate provides sufficient background to pass the ASQ certified calibration technician exam and prepares individuals for jobs in that field.

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

Medical Office Receptionist

Program Code: MOR.S.STC • 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

Career opportunities 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.

Program Prerequisite(s)

DEV	0012	*Academic Reading AND*
DEV	0020	*Basic Mathematics Part I AND*
DEV	0022	*Basic Mathematics Part II AND*
DEV	0030	*Foundations of Paragraph Writing*

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

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Microsoft Certified Solutions Associate

Program Code: MCSA.S.STC • Credit Hours: 18

Description

This certificate and the associated courses will help students prepare for the certification exams needed to earn the designation of Microsoft Certified Solutions Associate (MCSA). This credential and the technical competence, as demonstrated by the certification exams, will help students earn employment in the areas of Network Management, Network Administration and System Administration.

Career Opportunities

Students completing this short term certificate will be prepared for vendor and/or industry certification exams that are highly desired and valued in the Information Technology field. In turn, these certifications will help prepare students for careers in Network Administration, Network Management, System Administration and other aspects of computer and network management.

CIS	1107	Introduction To Operating Systems	3
CIS	1130	Network Fundamentals	3
CIS	1510	Windows Client Operating System	3
CIS	2510	Microsoft Windows Server Operating System	3
CIS	2515	Windows Network Infrastructure	3
CIS	2520	Windows Directory Services Administration	3

Network Engineering Associate

Program Code: NEA.S.STC • 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.

Program Prerequisite(s)

CIS	*1107*	*Introduction To Operating Systems*

CIS	1107	Introduction To Operating Systems	3
CIS	1411	Cisco Network Fundamentals	3
CIS	2416	Routing & Switching Essentials	4
CIS	2421	Scaling Networks	4
CIS	2426	Connecting Networks	4

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

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Nurse Aide Training

Program Code: NAST.S.STC • 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.

Chapter 3701-19 of the OAC for the State of Ohio establishes the requirements for Ohio's Nurse Aide Training and Competency Evaluation program. These requirements mandate all NAs working on a regular basis in Ohio's LTCFs must complete an Ohio Department of Health-approved 75-hour TCEP and pass a competency evaluation test conducted by the director.

Career Opportunities

Individuals may work as Nurse Aides; Home Health Care Aides or Patient Care Assistants.

Program Prerequisite(s)

DEV	0012	Academic Reading AND
DEV	0030	Foundations of Paragraph Writing AND
DEV	0020	Basic Mathematics Part I AND
DEV	0022	Basic Mathematics Part II

ALH	1120	Nurse Aide Training	4

Ohio Real Estate Sales Associate

Program Code: RESS.S.STC • Credit Hours: 9

Description

This certificate program is designed for the person who is interested in a career in real estate sales. The course work meets the educational requirement of 120 classroom hours for persons to sit for the Ohio real estate license exam: 40 hours of Real Estate Principles and Practices, 40 hours of Real Estate Law, 20 hours of Real Estate Finance, and 20 hours of Real Estate Appraisal. (Further state requirements must also be satisfied.). Seat hour requirements of 120 hours are strictly enforced by state rule. 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 Career Services office provides job search help to the program's graduates.

RES	1101	Real Estate Principles	3
RES	1201	Real Estate Law	3
RES	1301	Real Estate Finance	1.5
RES	1401	Real Estate Appraisal	1.5

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Pharmacy Technician

Program Code: PHT.S.STC • Credit Hours: 26 -27

Description

This program prepares individuals to perform the technical and specialized skills of a pharmacy technician within retail, mail-order, hospital, nursing homes and home health care settings. The program is designed to develop knowledge and understanding of basic pharmacology, maintenance of patient records, drug-product preparation and distribution and recordkeeping. A portion of this program will involve a simulated directed practice comprised of computer simulations and workbook assignments. The program also offers an optional directed practice in a real world pharmacy. A state and federal background check will be required prior to starting the optional real world directed practice. A grade of "C" or better is required in all courses to complete the program. A grade of "B" or better is required in the pharmacy technician core courses to be eligible to participate in the real world directed practice. Upon completion of the program students may take the national Pharmacy Technician Certification Board Examination.

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
HIM	1101	Medical Terminology	2
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 Writing	3
MAT	1130	Allied Health Mathematics OR	
MAT	1270	Beginning Algebra	3

Photographic Technology

Program Code: PHOT.S.STC • 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 Chemistry I	4
MAT	1120	Business Mathematics OR	
MAT	1440	Excursions in Mathematics OR	
MAT	1440	Excursions in Mathematics OR	
MAT	1445	Quantitative Literacy	3

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Powerplant Aviation Maintenance

Program Code: PPAM.S.STC • 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

Professional Communication

Program Code: COM.S.STC • 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	2206	Interpersonal Communication	3
COM	2220	Introduction to Communication Theory	3
COM	2211	Effective Public Speaking	3
COM	2230	Nonverbal Communication	3
COM	2225	Small Group Communication	3
COM	2245	Intercultural 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

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Professional Firefighter

Program Code: PFC.S.STC • 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. State of Ohio Certification from the Ohio Department of Public Safety and National Board on Fire Service Professional Qualifications.

Career Opportunities

Professional firefighter in the State of Ohio.

FST	1102	Firefighter I AND	
FST	1103	Firefighter II Transition OR	
FST	1104	Firefighter II	11

Professional Writing

Program Code: PRW.S.STC • Credit Hours: 16

Description

The Professional Writing Certificate offers appropriate courses for degree-seeking students and professionals interested in improving their writing, editing and computer skills for a future in professional writing or to enhance their marketability. The certificate is especially useful for those in professional and administrative positions in business, hospitality, health and human services.

Career Opportunities

The Professional Writing Short Term Certificate is a valuable addition to many, if not all, majors at Sinclair. Students completing this certificate will learn writing and communication techniques essential in the workplace. Top jobs for students earning this certificate are in the copywriting, marketing, finance, grant, hospitality, legal, technical, health, and business fields. Current research indicates that employers seek candidates who have expertise in writing in a professional setting, and students completing this certificate will acquire a facility with writing and language use in that environment.

BIS	1220	Word Processing Software	3
BIS	1250	Desktop Publishing Software	1
ENG	1101	English Composition I	3
ENG	1131	Business Writing	3
ENG	1199	Textual Editing	3
ENG	2257	Freelance Writing OR	
JOU	2101	Introduction to Journalism	3

*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 • 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
MAN	1157	Management Applications of Radio Frequency Identification Technology	2
MAN	1106	Introduction to Radio Frequency Identification OR	
EET	2157	Radio Frequency Identification (RFID) Technology	1-3

Reimbursement Specialist

Program Code: RMS.S.STC • Credit Hours: 22

Description

The Reimbursement Specialist short-term certificate prepares students to work in a billing office for medical providers. The certificate will focus on preparing students to take the national certification examination to earn the credential Certified Medical Reimbursement Specialist (CMRS) offered by the American Medical Billing Association (AMBA). Students will be expected to complete a practicum experience to obtain this certificate, gaining work and hands-on medical billing skills.

Career Opportunities

The Reimbursement Specialist short-term certificate prepares students to work in a billing office for medical providers. The certificate will focus on preparing students to take the national certification examination to earn the credential Certified Medical Reimbursement Specialist (CMRS) offered by the American Medical Billing Association (AMBA).

ALH	1101	Introduction to Healthcare Delivery	2
BIO	1121	Human Anatomy & Physiology I	3
COM	2206	Interpersonal Communication	3
HIM	1101	Medical Terminology	2
HIM	1201	Introductory Medical Office Coding	4
MAS	1130	Reimbursement Specialist Practicum	2
MAS	2210	Medical Billing Specialist	2
MAT	1130	Allied Health Mathematics	3
SCC	1101	First Year Experience	1

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Residential Technician

Program Code: RTC.S.STC • Credit Hours: 9

Description

This certificate provides the basic education needed to apply for residential technician positions in mental health, addictions, developmental disabilities and other populations. The certificate includes safety of the resident, healthy communication, conflict resolution, knowledge of human services and behavioral health field, and professional and ethical expectations. There is a 105 hour practicum included in the certificate.

Career Opportunities

Residential Services are expanding for mental health, corrections, developmental disabilities and seniors. This program prepares students to meet the minimum expectations to work in this setting. Residential facilities need workers 24 hours a day/7 days a week.

Program Prerequisite(s)

DEV   0012   Academic Reading AND
DEV   0032   Foundations of Essay Writing

ALH	1102	Introduction to Basic Healthcare Practice	1
ALH	1130	Basic Life Support Training	1
MHT	1101	Introduction to Human Services & Behavioral Health	2
MHT	2138	Ethical Issues in Behavioral Healthcare	2
MHT	2225	Residential Technician Practicum	3

Social Service

Program Code: SOCS.S.STC • 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.
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Software Applications for the Professional

Program Code: SA.S.STC • **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.

Program Prerequisite(s)

BIS	1120	*Introduction to Software Applications*

BIS	1120	Introduction to Software 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 • **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

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Specimen Processing

Program Code: SP.S.STC • 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
HIM	1101	Medical Terminology	2
COM	2206	Interpersonal Communication OR	
COM	2211	Effective Public Speaking OR	
COM	2225	Small Group Communication	3

Tax Practitioner

Program Code: TAXP.S.STC • 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 instituted 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	1220	Introduction to Managerial Accounting	3
ACC	1510	Computerized Accounting Systems	3
ACC	2321	Federal Taxation	3
ACC	2322	Advanced Taxation	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 • 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 percent.

Program Prerequisite(s)

BIO	1107	*Human Biology AND*	
		Approval of Department	
BIO	1107	Human Biology	3
ENG	1101	English Composition I	3
HIM	1101	Medical Terminology	2
MAT	1130	Allied Health Mathematics	3
SUT	1101	Tissue Banking I	4
SUT	1107	Lab 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 • Credit Hours: 20-25

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 Communications	1
EET	1120	Introduction to DC & AC Circuits	2
EET	1158	Satellite Tool Kit	2
EET	2220	Avionics & Unmanned Aerial Systems Sensors	4
AVT	2700	Aviation Internship OR	
AVT	2279	Unmanned Aerial Systems Project	2-3
AVT	2143	Review & Recommendation AND	
EET	1164	PC Assembly OR	
AVT	1104	UAS Standards, Regulations & Law AND	
AVT	2150	Crew Resource Management for UAS	2-6

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

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Water Utility Technician

Program Code: WUT.S.STC • Credit Hours: 27

Description

This certificate is designed to prepare students for the Environmental Protection Agency (EPA) certification tests in water distribution and wastewater collection as well as enhance job skills in customer service, GIS mapping, backflow and safety.

Career Opportunities

Completion of this certificate will help enhance the career advancement opportunities in water distribution and wastewater collections of employees within the public sector.

BIS	1400	Customer Service	3
CAT	1431	OSHA Construction Standards 10-Hour	1
COM	2225	Small Group Communication	3
EGV	1610	Water Distribution Systems	3
EGV	1620	GIS Mapping	3
EGV	1630	Wastewater Collection Systems	3
EGV	1640	Introduction to Backflow	1
EGV	1650	Applied Applications for Water & Wastewater	3
FST	1555	Hazardous Waste Operations & Emergency Response (HAZWOPER)	3
MAT	1110	Math for Technologists	3
MET	1131	Personal Computer Applications for Engineering Technology	1

Web Programming

Program Code: WW1.S.STC • Credit Hours: 18

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 22% from 2012 to 2022, much faster than the average for all occupations."

Retrieved Jan 16, 2014: http://www.bls.gov/ooh/Computer-and-Information-Technology/Software-developers.htm

Program Prerequisite(s)

MAT 1270 Beginning Algebra

CIS	1111	Introduction to Problem Solving & Computer Programming	3
CIS	1202	C++ Software Development I	3
CIS	1350	Web Site Development with HTML & CSS	3
CIS	2250	Web Site Development with php & XML	3
CIS	2222	C# Software Development	3
CIS	2640	Network Security	3

Associate of Individualized Study

Program Code: AIS.S.AIS • 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.

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

Interdisciplinary Component
A minimum of 30 semester hours from two distinct areas of study.

Associate of Technical Study

Program Code: ATS.S.ATS • Credit Hours: 63

Description

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.

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

Technical Education
A minimum of 30 semester hours incorporating articulated credit or combining no more than two distinct areas of study.

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Advanced Technical Intelligence

Program Code: ATI.S.ATS • 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

Electrical Trades

Program Code: ELTR.S.ATS • Credit Hours: 62

Description

The International Brotherhood of Electrical Workers (IBEW) National Electrical Contractors Association (NECA) Electrical Apprenticeship program for Inside Wireman is a nationally recognized program provided through the National Joint Apprenticeship and Training Committee (NJATC). Providers of this apprenticeship program in Ohio have partnered with 11 of Ohio's public community colleges to provide pathway to a technical associate degree.

COM 2206	Interpersonal Communication	3
EET 1181	Electrical Construction I	6
EET 1182	Electrical Construction II	6
EET 1183	Electrical Construction III	6
EET 1184	Electrical Construction IV	6
EET 2281	Programmable Logic Controllers	3
EET 2282	Advanced Programmable Logic Controllers	3
ENG 1101	English Composition I	3
MAT 1270	Beginning Algebra	3
MAT 1280	Technical Mathematics I	4
PHY 1100	Introduction to Physics	4
PHY 1131	Technical Physics	3
OTM	Arts & Humanities Elective	6
OTM	Social & Behavioral Sciences Elective	6

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

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Energy Management Technology

Program Code: EGMT.S.ATS • Credit Hours: 72

Description

This program provides students with the skills and knowledge to work in the emerging field of energy management, with an emphasis on performance of energy audits and improving building energy efficiency. Upon completing this program, students will have the ability to perform energy audits, assess energy efficiency and control strategies for energy-consuming equipment, and prepare energy management plans.

Career Opportunities

Students can find employment doing energy audits, building performance testing, and in consulting and sales related to improving energy efficiency of facilities.

CAT	1111	Mechanical Systems Blueprint Reading	1
COM	2211	Effective Public Speaking	3
EET	1120	Introduction to DC & AC 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	1351	Building Performance Training	2
EGV	2101	Solar Photovoltaic Design & Installation	3
EGV	2151	Solar Thermal Systems	3
EGV	2201	Electrical Lighting & Motors	2
EGV	2251	Energy Control Strategies	2
EGV	2301	Commercial & Industrial Assessment	3
EGV	2351	LEED Green Associate Exam Preparation	2
EGV	2780	Energy Management Technology Capstone	4
ENG	1101	English Composition I	3
HVA	1201	Basic HVAC Systems with Cooling	3
HVA	1221	Heating Systems	3
HVA	1261	HVAC Loads & Distribution for Small Buildings	3
HVA	1351	Building Psychrometrics & Load Calculations	4
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
OTM		Social & Behavioral Sciences Elective	3
OTM		Arts & Humanities Elective	3

Health Information Technology

Program Code: HIT.S.ATS • Credit Hours: 71

Description

The Health Information Technology degree will prepare students for careers in management of health information, securing systems and information, troubleshooting hardware, operating systems, and network components, hospital administration. This degree is part of a 2 + 2 with Miami University Regional's Health Information Technology bachelors.

Career Opportunities

This degree prepares student to work in not only health information technology but also in information technology.

BIO	1121	Human Anatomy & Physiology I	3
BIO	1222	Human Anatomy & Physiology II	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	1714	A+ Operating Systems Troubleshooting	3
CIS	2717	A+ Certification IT Technician	3
CIS	2165	Database Management	3
CIS	2640	Network Security	3
CIS	1304	Web Site Development with HTML/JavaScript	3
COM	2211	Effective Public Speaking	3
MAN	2150	Management & Organizational Behavior	3
ENG	1101	English Composition I	3
ENG	1201	English Composition II	3
HIM	1101	Medical Terminology	2
HIM	1204	Medicolegal & Ethics in Healthcare Records	2
HIT		Health Information Technology Elective*	3
HIM	1160	Medical Office Coding Concepts	1
HIM	1165	Drug Classification for Coding	1
MAT	2170	Business Statistics I	4
SOC	1101	Introduction to Sociology	3
PSY	1100	General Psychology	3
SOC	1145	Introduction to Cultural Anthropology	3
MAT	1460	Finite Mathematics for Business Analysis OR	
MAT	1470	College Algebra	4

*Please see your Academic Advisor for information on Ohio Transfer Module and other electives. 163

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This portion of the catalog provides information about the courses offered at Sinclair Community College. A brief description of each course is provided. For details regarding the additional information included with each course, see below.

Course Numbering

Each section begins with a subject followed by a three letter prefix which identifies the subject area of the course. The number identifies the level. Courses in the 1000 series are usually considered first-year courses, while courses in the 2000 series are usually considered second-year courses.

Credit Hours

The number of semester credits for each course is indicated after the course title. Note that the number of credits for a course does not necessarily equal the number of hours that the course meets in one week.

Prerequisites

Prerequisites, if any, are listed at the end of each course description in italics. Prerequisites are established by each department to ensure that the student has an adequate and sufficient background to enroll in the course and achieve success in that course. If there are no prerequisites listed, none are required for the course.

Co-requisites

Sometimes courses must be taken concurrently. If this is the case the courses are designated as corequisites. For example, a biology lecture course and its associated lab course must be taken simultaneously. Lab information is usually noted.

Repeatable

An "R" indicates the course may be repeated for additional credit.

NOTE: Courses described in this catalog are those approved by Sinclair Community College at the time of publication. Inclusion of a course description does not obligate the College to offer the course in any given semester or academic year.

Accounting (ACC)

1100 Small Business Accounting
3 Credit Hour(s)
Survey of financial accounting for non-accounting majors. Accounting concepts, financial statements, internal control, cash, and payroll.

1210 Introduction to Financial Accounting
3 Credit Hour(s)
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. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0012 AND DEV 0020

1220 Introduction to Managerial Accounting
3 Credit Hour(s)
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. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): ACC 1210

1510 Computerized Accounting Systems
3 Credit Hour(s)
This course uses general ledger software and spreadsheets to record, report and analyze accounting information.
Prerequisite(s): ACC 1210 AND BIS 1410

2101 Intermediate Accounting I
3 Credit Hour(s)
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.
Prerequisite(s): ACC 1220 AND ACC 1510

2102 Intermediate Accounting II
3 Credit Hour(s)
Transaction analysis and financial reporting for long-term assets, long-term liabilities and stockholder's equity.
Prerequisite(s): ACC 2101

2211 Cost Accounting
3 Credit Hour(s)
Application of cost accounting concepts and techniques to complex problems in manufacturing accounting and service firms.
Prerequisite(s): ACC 1220 AND ACC 1510

2212 Managerial Accounting & Finance
3 Credit Hour(s)
This course uses accounting and finance concepts to effectively analyze and manage business finances.
Prerequisite(s): ACC 1220

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

2321 Federal Taxation
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ACC 2321

2435 Auditing
3 Credit Hour(s)
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.
Prerequisite(s): ACC 2101

2510 Advanced Accounting
3 Credit Hour(s)
Review of different accounting areas, including investment accounting, consolidation accounting, governmental accounting and partnership accounting. Review of International Accounting Financial Standards.
Prerequisite(s): ACC 2102

African-American Studies (AFR)

1100 African-American Studies
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
2 Credit Hour(s)
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
1 Credit Hour(s)

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.

1103 Test Taking Strategies   R
1 Credit Hour(s)

This course provides strategies and techniques to maximize individual test performance through prioritized learning and focused study time for the Health Sciences programs. Test-taking strategies and techniques are presented using simulated testing situations. Techniques learned will help improve thinking and discrimination skills to enhance test performance.
Prerequisite(s): Approval of Department

1110 Principles of Electrocardiography
3 Credit Hour(s)

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
2 Credit Hour(s)

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
2 Credit Hour(s)

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 un-paid practicum per week. Pre-requisite includes current physical form and immunization documentation.
Prerequisite(s): ALH 1113 AND Completed paperwork (physical; immunizations; student information forms)

1115 Specimen Processing
2 Credit Hour(s)

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.
Prerequisite(s): BIO 1107

1120 Nurse Aide Training
4 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0030 AND Approval of Division Advisor

1122 Pharmacy Technician I
5 Credit Hour(s)

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.
Prerequisite(s): DEV 0022

1123 Pharmacy Technician II
5 Credit Hour(s)

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, non-sterile compounding and inventory control. Course contains a simulated directed practice.
Prerequisite(s): ALH 1122 with a grade of C or better or permission of instructor if repeating ALH 1123

1124 Pharmacy Technician Directed Practice   R
1 Credit Hour(s)

This course will provide the students with real world experience in a pharmacy (i.e. hospital or retail pharmacy). Students will be provided with a valuable learning experience and potential contacts and/or references for employment. This course will also provide the student with additional review for the Pharmacy Technician Certification Board Exam. Students will complete 105 hours of non-paid, supervised directed practice in a hospital or retail pharmacy. Background checks will be required prior to attending the directed practice. Note: This course may be taken concurrently with ALH 1123 - Pharmacy Technician II.
Prerequisite(s): ALH 1122 with a grade of B or better

1130 Basic Life Support Training   R
1 Credit Hour(s)

The American Heart Association (AHA) Basic Life Support for Healthcare Providers is designed to train participants to save lives of victims in cardiac arrest through high-quality cardiopulmonary resuscitation (CPR). This course prepares healthcare professionals to know how to perform CPR in both in- and out-of-hospital settings. The course includes adult, child, and infant rescue techniques, as well as first aid. Those who successfully complete the course will receive an AHA First Aid Provider Card and AHA BLS Provider card, valid for two years.

1131 Emergency Cardiac Care
1 Credit Hour(s)

Management of cardiovascular emergencies including the American Heart Association's curriculum in Advanced Cardiac Life Support. Three lab hours per week.
Prerequisite(s): 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   R
1 Credit Hour(s)

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
3 Credit Hour(s)

Pathological changes associated with the most commonly occurring diseases of each body system. Correlates changes with patient's response, diagnostic studies, and treatment modalities.
Prerequisite(s): BIO 1107 OR BIO 1121 OR BIO 1141

1150 Healthcare Navigator Clinical   R
2 Credit Hour(s)

Students will learn about health concepts, resources and skills related to the role and responsibility of Healthcare Navigator. Emphasis on working in community based settings, publicly and privately funded health and social services, broad determinants of heath, communications skills and barriers to health care services and related community resources.
Prerequisite(s): ALH 1101 AND HIM 1101

2201 Survey of Drug Therapy
2 Credit Hour(s)

Overview of the conventional drug classes presenting only the more commonly prescribed preparations primarily emphasizing common effects and indications for use.
Prerequisite(s): BIO 1107

2202 General Pharmacology
3 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): BIO 1121 OR BIO 1141 OR BIO 2211

2220 Pathophysiology
3 Credit Hour(s)

Study of human disease using a system approach emphasizing abnormal physiological processes that result in the signs and symptoms of each disorder.
Prerequisite(s): BIO 1107 OR BIO 1121 OR BIO 1141 OR BIO 2211

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

The study of composition/visual elements with color theory applied to utilizing design principles (using line, shape, texture, value and color) 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
3 Credit Hour(s)

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.

1107 Beginning Photoshop
3 Credit Hour(s)

An introductory course in the Photoshop imaging program. Basic introduction to scanning, capturing and altering images for the art major or non-art major.

1110 Art Appreciation - Introduction to Art & Art Media
3 Credit Hour(s)

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
3 Credit Hour(s)

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. It is strongly recommended that you complete ART 1101 prior to registering for ART 1111. However ART 1101 may be taken concurrently.

1112 Drawing II
3 Credit Hour(s)

Personal expression developed through a variety of two-dimensional media, cubistic techniques, gestural and figure studies. Six studio hours per week.
Prerequisite(s): ART 1111

1121 Beginning Painting I
3 Credit Hour(s)

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.
Prerequisite(s): ART 1111

1122 Beginning Painting II
3 Credit Hour(s)

Personal expression with instruction in 20th-century techniques and concepts. Complex problems in color and composition. Six studio hours per week.
Prerequisite(s): ART 1121

1131 Introduction to Sculpture
3 Credit Hour(s)

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.
Prerequisite(s): ART 1102

1132 Intermediate Sculpture
3 Credit Hour(s)

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.
Prerequisite(s): ART 1131

1133 Figurative Sculpture
3 Credit Hour(s)

Study of the human anatomy of the head and figure as applied to three-dimensional form. Six studio hours per week.
Prerequisite(s): ART 1131

1141 Introduction to Ceramics
3 Credit Hour(s)

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
3 Credit Hour(s)
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.
Prerequisite(s): ART 1141

1161 Black & White Darkroom Photography I
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ART 1161

1170 Non-Silver Photography
3 Credit Hour(s)
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.
Prerequisite(s): ART 1161

1171 Studio Photography
3 Credit Hour(s)
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.
Prerequisite(s): ART 1161

1175 Computer Photography
3 Credit Hour(s)
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.
Prerequisite(s): ART 1161

2111 Intermediate Drawing I
3 Credit Hour(s)
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.
Prerequisite(s): ART 1112

2112 Intermediate Drawing II
3 Credit Hour(s)
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.
Prerequisite(s): ART 2111

2141 Advanced Ceramics
3 Credit Hour(s)
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.
Prerequisite(s): ART 1142

2216 Life Drawing & Anatomy I
3 Credit Hour(s)
Figure drawing with a foundation in anatomical study. Emphasis on proportion as well as design with an application towards mood and expression. Six studio hours per week.
Prerequisite(s): ART 1111

2217 Life Drawing & Anatomy II
3 Credit Hour(s)
Advanced figure drawing with a foundation in anatomical study. Development of mood and content through form and topic. Six studio hours per week.
Prerequisite(s): ART 2216

2221 Intermediate Painting - Observation & Concept
3 Credit Hour(s)
Art as a means of communication, through content and expression. Incorporation of contemporary concepts and styles of art. Six studio hours per week.
Prerequisite(s): ART 1122

2222 Intermediate Painting - The Figure
3 Credit Hour(s)
The figure as the subject of study and how it has been used academically and expressively. Six studio hours per week.
Prerequisite(s): ART 1122

2230 Art History: Ancient through Medieval Periods
3 Credit Hour(s)
Art history from early cave paintings through the Medieval period of Western civilization.

2231 Art History: Renaissance through Contemporary Periods
3 Credit Hour(s)
Art history from the early Italian Renaissance through the contemporary period.

2235 History of Photography
3 Credit Hour(s)
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
3 Credit Hour(s)
A history of women artists from the Middle Ages to the present day, with emphasis on the history of style, and on women's historical roles.

2237 History of American Art
3 Credit Hour(s)
Art history of the United States from the pre-colonial to contemporary periods.

2238 History of African Art
3 Credit Hour(s)
History of African art from ancient to contemporary periods.

2265 Digital Color Photography I
3 Credit Hour(s)
An introduction to the technique of digital color photography, printing techniques, the presentation of digital prints and 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.
Prerequisite(s): ART 1161 AND ART 1175

2266 Digital Color Photography II
3 Credit Hour(s)
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.
Prerequisite(s): ART 2265

2269 Introduction to Printmaking
3 Credit Hour(s)
Examines the philosophy, history and techniques of multiple image preparation including woodcut and intaglio processes. Six studio hours per week.
Prerequisite(s): ART 1111 OR ART 1161 OR VIS 1100 OR VIS 1110 OR VIS 1140

2270 Fine Art Internship
1 Credit Hour(s)
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   R
1 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors AND 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
1 Credit Hour(s)
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.
Prerequisite(s): 50 credit hours earned; 24 of which must be in ART

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
2 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ASL 1101 AND ASL 1228

1111 Beginning American Sign Language I
3 Credit Hour(s)
This course provides a foundation for non-signers 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.
Prerequisite(s): DEV 0032 OR DEV 0044 OR DEV 0082

1112 Beginning American Sign Language II
3 Credit Hour(s)
Continue to study American Sign Language (ASL) grammatical structure, vocabulary, fingerspelling, use of signing space, conversational regulators and introductory aspects of deaf culture.
Prerequisite(s): ASL 1111 AND ENG 1101

1116 Community Resources for the Deaf
2 Credit Hour(s)
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.
Prerequisite(s): ASL 1101 AND ASL 1111

1228 Intermediate American Sign Language I
3 Credit Hour(s)
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.
Prerequisite(s): ASL 1112

1229 Intermediate American Sign Language II
3 Credit Hour(s)
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.
Prerequisite(s): ASL 1228 AND ENG 1101

2201 Interpreting I
3 Credit Hour(s)
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.
Prerequisite(s): ASL 1101 AND ASL 1229

2202 Interpreting II
3 Credit Hour(s)
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.
Prerequisite(s): ASL 2201 AND ENG 1201

2207 Role of the Interpreter
2 Credit Hour(s)
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.
Prerequisite(s): ASL 1102 AND ASL 2202 AND ASL 2232

2212 Specialized Interpreting
3 Credit Hour(s)
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.
Prerequisite(s): ASL 2201 AND ASL 2231

2231 Advanced American Sign Language I
3 Credit Hour(s)
The first advanced course in the study of American Sign Language (ASL) is an intensive study of the linguistic structure of English and American Sign Language (ASL). Students explore the syntactic similarities and differences between the two languages and learn how to find functional equivalence between the two languages.
Prerequisite(s): ASL 1229 AND ENG 1201

2232 Advanced American Sign Language II
3 Credit Hour(s)
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, effect and cultural background.
Prerequisite(s): ASL 2231

2236 Transliterating & Signing Modalities
3 Credit Hour(s)
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 individual 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.
Prerequisite(s): ASL 2201 AND ASL 2232

2261 Practicum I
3 Credit Hour(s)
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.
Prerequisite(s): ASL 2207 AND Restricted to Majors

2262 Practicum II
3 Credit Hour(s)
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.
Prerequisite(s): ASL 2261 AND Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

2300 Educational Interpreting
3 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

Astronomy (AST)

1111 The Solar System
3 Credit Hour(s)
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 sections.
Prerequisite(s): DEV 0024 OR DEV 0050 OR DEV 0074
Co-requisite(s): AST 1117

1112 Stars, Galaxies & the Universe
3 Credit Hour(s)
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 sections.
Prerequisite(s): AST 1111
Co-requisite(s): AST 1118

1117 Lab for the Solar System
1 Credit Hour(s)
Laboratory and field activities to supplement The Solar System. Three lab hours per week.
Co-requisite(s): AST 1111

1118 Lab for Stars, Galaxies & the Universe
1 Credit Hour(s)
Lab and field activities to supplement Stars, Galaxies & the Universe. Three lab hours per week.
Co-requisite(s): AST 1112

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

Automotive Technology (AUT)

1100 Basic Automotive Systems
2 Credit Hour(s)
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
0.5 - 2 Credit Hour(s)

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.

1108 Automotive Engine Systems
4 Credit Hour(s)

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
2 Credit Hour(s)

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
3 Credit Hour(s)

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
4 Credit Hour(s)

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.
Prerequisite(s): AUT 1114

1116 Automotive Steering & Suspension Systems
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1142 Automotive Manual Transmission & Driveline
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1171 Automotive Internship II   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1172 Automotive Internship III   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1173 Automotive Internship IV   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2214 Automotive Electrical/ Electronic Systems II
4 Credit Hour(s)

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.
Prerequisite(s): AUT 1114

2215 Automotive Engine Performance II
4 Credit Hour(s)

Advanced diagnosis and repair of computer controlled fuel delivery, fuel injection, ignition, emission systems and proper use of advanced engine performance diagnostic equipment. Basic handtools required.
Prerequisite(s): AUT 1115

2221 High Performance Engine Blocks & Heads
6 Credit Hour(s)

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.
Prerequisite(s): AUT 1108 OR Approval of Department

2222 High Performance Engine Assembly & Dyno Testing
6 Credit Hour(s)
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.
Prerequisite(s): AUT 1108 OR Approval of Department

2224 High Performance Fuel Induction Systems
5 Credit Hour(s)
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 handtools required. Three classroom, six lab hours per week.
Prerequisite(s): AUT 1115

2226 High Performance Fabrication
4 Credit Hour(s)
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
2 Credit Hour(s)
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.
Prerequisite(s): AUT 2214

2241 Automatic Transmission Systems
4 Credit Hour(s)
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.

2250 Automotive Service Operations
7 Credit Hour(s)
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.
Prerequisite(s): AUT 1108 AND AUT 1114 AND AUT 1115 AND AUT 1116 AND AUT 1146 AND AUT 1165 OR Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

2304 GM Noise Vibration & Harshness
0.5 Credit Hour(s)
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
1 Credit Hour(s)
This class focuses on diagnostic and repair skills required to service GM rear axle (including Getrag) and propeller shaft components.

2309 GM Braking Systems
0.5 Credit Hour(s)
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
1 Credit Hour(s)
This course will develop the knowledge and skills needed to properly diagnose transmission faults related to hydraulic, mechanical and electrical systems that affect transmission operation. Specifics covered in this course include transmission operation, diagnostic procedures and service procedures.

2333 GM Electrical Electronics Terminals & Connectors
0.5 Credit Hour(s)
This course covers connector system identification, terminal, connector and wire harness repair, service information navigation and circuit diagnostics.

2336 GM Entertainment Systems
1 Credit Hour(s)
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
0.5 Credit Hour(s)
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
0.5 Credit Hour(s)
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
0.5 Credit Hour(s)
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
1 Credit Hour(s)
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
0.5 Credit Hour(s)
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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
0.5 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
0.5 Credit Hour(s)

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
2 Credit Hour(s)

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
2 Credit Hour(s)

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.

1104 UAS Standards, Regulations & Law
1 Credit Hour(s)

This course reviews the current legal considerations of Unmanned Aerial Systems (UAS) operations, provides an outlook on future considerations, and informs students on the existing and trends of UAS related standards and regulations.

1105 Orientation to Aviation
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 OR DEV 0044 OR DEV 0062

1106 Airframe Safety Systems
2 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

Prepares students with the knowledge necessary to successfully complete the Federal Aviation Administration (FAA) Private Pilot knowledge exam. Topics include pilot training, aircraft systems, 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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
2 Credit Hour(s)
Prepares students with the knowledge necessary to comprehend the fundamentals of meteorology, analyze weather factors, hazards and in-flight weather conditions as they relate to aircraft and flight performance using aviation meteorology charts and internet weather resources.

1124 Private Pilot Flight Lab
1 Credit Hour(s)
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.
Prerequisite(s): AVT 1110 AND Approval of Department

1128 Powerplant Safety Systems
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
4 Credit Hour(s)
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
4 Credit Hour(s)
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
2 Credit Hour(s)
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
2 Credit Hour(s)
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
4 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)

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).
Prerequisite(s): AVT 1110 AND Approval of Department

1213 Corrosion
3 Credit Hour(s)

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
2 Credit Hour(s)

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
6 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): AVT 1110 AND AVT 1124 Approval of Department

1241 Blind Flying Hazards
1 Credit Hour(s)

Provides pilots with an understanding of spatial disorientation, its causes and prevention and techniques for safe recovery. Two lab hours per week.
Prerequisite(s): DEV 0012 OR DEV 0062 OR DEV 0044 AND DEV 0022 OR DEV 0072

1245 Aviation Law
2 Credit Hour(s)

Prepares students with knowledge of the origins of aviation law, legal terminology and a general understanding of aviation industry laws, legislation and court decisions affecting the aviation community.

1246 Air Traffic Control Communications
1 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): AVT 1170 AND Approval of Department AND $350 Lab Fee

2121 Assembly & Rigging
3 Credit Hour(s)

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
4 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 OR DEV 0062 OR DEV 0044 AND DEV 0022 OR DEV 0072

2126 Reciprocating Engines
7 Credit Hour(s)

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
4 Credit Hour(s)

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
4 Credit Hour(s)

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
3 Credit Hour(s)

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
2 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2146 Introduction to Airline Operations
3 Credit Hour(s)

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.

2150 Crew Resource Management for UAS
1 Credit Hour(s)

Provides students with an introduction to the principles and concepts of crew resource management (CRM) through interactive discussion and scenario based analysis as it relates to UAS operations and the challenge of optimizing the human/machine interface and accompanying flight operations. Discussion and scenario based activities include CRM markers, principles and concepts of CRM, team building, information transfer, problem solving, risk management and decision making, communications process, conflict resolution and maintaining situational awareness when dealing with UAS automated systems.
Prerequisite(s): Restricted to Majors

2157 Aircraft Performance I
2 Credit Hour(s)

Principles of advanced aerodynamics, high-speed flight, takeoff, enroute and landing jet aircraft performance. Operational factors affecting aircraft performance in aircraft dispatch.
Prerequisite(s): AVT 1119

2158 Aircraft Performance II
2 Credit Hour(s)

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.
Prerequisite(s): AVT 1119

2159 Canadair Regional Jet (CRJ) Aircraft Systems
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2166 Practical Dispatch Applications
3 Credit Hour(s)

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.
Prerequisite(s): 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
2 Credit Hour(s)

Principles of aeronautical charts, national airspace system, aircraft navigation instruments, navigational systems and global differences in navigational operations. Air traffic control procedures and pilot responsibilities as they relate to enroute operations, terminal area and radar operations; including instrument departure and approach procedures.
Prerequisite(s): AVT 1119

2168 Dispatcher Oral Preparation
1 Credit Hour(s)

Preparation for the Federal Aviation Administration (FAA) Aircraft Dispatcher Certificate through an in-depth understanding of regulations, meteorology, navigation, aircraft systems, communications, air traffic control, emergency and abnormal procedures and practical dispatch applications. At the completion of the course, students will be prepared for the Federal Aviation Administration Aircraft Dispatcher oral examination.
Prerequisite(s): 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
2 Credit Hour(s)

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.
Prerequisite(s): AVT 1170 AND Approval of Department

2219 Turbine Engines
4 Credit Hour(s)

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
4 Credit Hour(s)

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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 OR DEV 0044 OR DEV 0062

2242 Aircraft Accident Investigation
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 OR DEV 0044 OR DEV 0062

2247 Aerodynamics & Flight Mechanics
3 Credit Hour(s)
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.
Prerequisite(s): PHY 1141

2250 Commercial Pilot Ground
2 Credit Hour(s)
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.
Prerequisite(s): AVT 1110 AND AVT 1170 AND FAA Exam

2258 Flight Instructor Ground
4 Credit Hour(s)
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.
Prerequisite(s): AVT 1110 AND AVT 1170 AND AVT 2250 AND Approval of Department

2263 Commercial Pilot Flight Lab
3 Credit Hour(s)
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.
Prerequisite(s): AVT 1110 AND AVT 1170 AND Approval of Department

2264 Commercial Pilot Single Engine Additional Rating
3 Credit Hour(s)
Provides students with the necessary skill, knowledge and aeronautical experience necessary to meet the requirements for a commercial pilot airplane certificate with single-engine, land additional class rating. Nine (9) lab hours per week.
Prerequisite(s): Approval of Department

2266 Multi Engine Flight Lab
1 Credit Hour(s)
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.
Prerequisite(s): AVT 1224 AND AVT 2263 AND Approval of Department

2269 Flight Instructor Flight Lab
1 Credit Hour(s)
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.
Prerequisite(s): AVT 2258 AND Approval of Department

2275 Instrument Flight Instructor Ground
1 Credit Hour(s)
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.
Prerequisite(s): AVT 1110 AND AVT 1170 AND AVT 2250 AND AVT 2258 AND Approval of Department

2277 Instrument Flight Instructor Flight Lab
1 Credit Hour(s)
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.
Prerequisite(s): AVT 2275 AND Approval of Department

2279 Unmanned Aerial Systems Project
3 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2286 Multi Engine Flight Instructor Flight Lab
1 Credit Hour(s)
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.
Prerequisite(s): AVT 2266 AND Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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 Airline Transport Pilot
3 Credit Hour(s)
Students completing the Airline Transport Pilot course will gain knowledge in the areas of federal aviation regulations, Airline Transport Pilot privileges, advanced aviation weather and sources of weather information, instrument approach charts and enroute charts, aeronautical decision making, effective briefings, automation management, advanced aircraft performance, advanced aircraft systems, and advanced weight and balance scenarios
Prerequisite(s): Approval of Department

2325 Airline Transport Pilot Flight Lab
1 Credit Hour(s)
Students completing the Airline Transport Pilot flight lab course will obtain the flying skills and aeronautical experience necessary to meet the requirements for an Airline Transport Pilot certification with an airplane category, and multi-engine, land class rating. Two lab hours per week.
Prerequisite(s): Approval of Department

2700 Aviation Internship
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Co-op and 2.0 GPA or higher

Biology (BIO)

1101 Body Structure & Function
3 Credit Hour(s)
Basic anatomy and physiology background for medical personnel emphasizing basic principles of body structure and function.

1104 HIV/AIDS
2 Credit Hour(s)
Basic understanding and function of the human immune system and the effects of viruses (HIV/AIDS) on the human immune system.

1107 Human Biology
3 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0030
Co-requisite(s): BIO 1108

1108 Lab for Human Biology
0 Credit Hour(s)
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
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEV 0012 AND DEV 0026 AND DEV 0030
Co-requisite(s): BIO 1117

1117 Lab for General Biology I
0 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0030

1141 Principles of Anatomy & Physiology I
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEV 0012 AND DEV 0026 AND DEV 0030
Co-requisite(s): BIO 1147

1147 Lab for Principles of Anatomy & Physiology I
0 Credit Hour(s)
Lab for the first course in a two semester sequence studying the structure and function of the human body.

1171 Principles of Biology I
5 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0026 AND DEV 0030

1211 General Biology II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): BIO 1111
Co-requisite(s): BIO 1217

1217 Lab for General Biology II
0 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): BIO 1121

1242 Principles of Anatomy & Physiology II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): BIO 1141
Co-requisite(s): BIO 1248

1248 Lab for Principles of Anatomy & Physiology II
0 Credit Hour(s)
Lab for the second course in a two semester sequence studying the structure and function of the human body.

1272 Principles of Biology II
5 Credit Hour(s)
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.
Prerequisite(s): BIO 1171

2205 Microbiology
4 Credit Hour(s)
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.
Prerequisite(s): BIO 1107 OR BIO 1111 OR BIO 1121 OR BIO 1141 OR BIO 1171 OR LPN Diploma
Co-requisite(s): BIO 2206

2206 Lab for Microbiology
0 Credit Hour(s)
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 eukarytoic microbes (fungi, protozoa and helminths) are conducted.

2211 Human Physiology
4 Credit Hour(s)
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.
Prerequisite(s): BIO 1107 OR BIO 1111 OR BIO 1141 OR CHE 1111 OR LPN Diploma

2212 Lab for Human Physiology
0 Credit Hour(s)

2222 Evolution
3 Credit Hour(s)
Emphasis on Charles Darwin, speciation, fossils, radiometric dating, natural selection, mutations, macroevolution, mass extinctions, coevolution, sexual reproduction, human evolution and religious issues.

2225 Ecology
4 Credit Hour(s)
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
4 Credit Hour(s)
Fundamental principles, concepts and techniques of genetics. Lab work includes basic methods of genetic research and analysis. Three classroom, two lab hours per week.
Prerequisite(s): BIO 1111 OR BIO 1171
Co-requisite(s): BIO 2236

2236 Lab for Genetics
0 Credit Hour(s)
Co-requisite(s): BIO 2235

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
2 Credit Hour(s)

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.) Traditional testing (proctored or in Testing Center) is used in all online sections.

1120 Introduction to Software Applications
3 Credit Hour(s)

Use word processing, spreadsheet, database and presentation software applications to create reports, spreadsheets, databases and presentations for business and other applications.

1200 Keyboarding & Document Formatting I
2 Credit Hour(s)

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, students must perform keyboard speed and accuracy on five-minute timed writings of 35 wpm with five or fewer errors.) Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): BIS 1100

1220 Word Processing Software
3 Credit Hour(s)

Beginning to advanced word processing software concepts including editing, formatting, desktop publishing design and editing techniques, document control and automation.
Prerequisite(s): BIS 1120

1221 Specialized Computer Applications for Health Information Management
3 Credit Hour(s)

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. Students will be introduced to Office application software (word processing, spreadsheets, presentation software, and databases,) and specific features of those applications for medical reports, narrating presentations, Autofilters, form creation and software integration will be applied.

1230 Spreadsheet Software
3 Credit Hour(s)

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.
Prerequisite(s): BIS 1120

1240 Presentation Software
2 Credit Hour(s)

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.
Prerequisite(s): BIS 1120

1250 Specialized Business Software Application
1 Credit Hour(s)

Introduction to a specialized business software application such as MS OneNote, MSPublisher, MS Outlook, etc. that will provide an overview of the applications features and common uses.

1260 Database Software
3 Credit Hour(s)

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.
Prerequisite(s): BIS 1120

1300 Keyboarding & Document Formatting II
2 Credit Hour(s)

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, students must perform keyboard speed and accuracy on five-minute timed writings of 50 wpm with five or fewer errors.)
Prerequisite(s): BIS 1200

1400 Customer Service
3 Credit Hour(s)

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
3 Credit Hour(s)

Use word processing, spreadsheet, database and presentation software applications to create reports, spreadsheets, databases and presentations for business applications.

2140 Records Management
2 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): BIS 1220 AND BIS 1230 AND BIS 1240 AND BIS 1250 AND BIS 1260 AND BIS 1300 OR Approval of Department

2180 Medical Office Simulation
3 Credit Hour(s)

Basic principles of office support, bookkeeping, record-keeping and reporting responsibilities pertinent to the medical office and health care agencies.
Prerequisite(s): BIS 1120 AND BIS 1200 AND BIS 2140 AND HIM 1101 AND HIM 1160

2270 Business Information Systems Internship
2 Credit Hour(s)

Students earn credits toward degree requirements for work learning experience. Students establish learning outcomes and

prepare related reports and/or projects each term. Recommended prerequisites: BIS 1220, BIS 1230, BIS 1250, BIS 1260 and BIS 2140. Twenty co-op hours per week.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

Introduction to the major fields in biotechnology and the basic science involved in understanding those fields.

1120 Laboratory Safety & Regulatory Compliance
2 Credit Hour(s)

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.

1130 Biological Reagents Preparation
3 Credit Hour(s)

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 hours per week.
Prerequisite(s): BTN 1120 AND CHE 1111 OR CHE 1211 AND MAT 1470 AND Restricted to Majors
Co-requisite(s): BIO 1131

1131 Lab for Biological Reagents Preparation
0 Credit Hour(s)

1140 Cell Culture
2 Credit Hour(s)

Introduction to cell culturing techniques. One classroom, two lab hours per week.
Prerequisite(s): BIO 1111 AND BTN 1130 AND CHE 1111 AND Restricted to Majors
Co-requisite(s): BIO1141

1141 Lab for Cell Culture
0 Credit Hour(s)

1201 Biotechnology Careers
2 Credit Hour(s)

Discover career opportunities, develop a resume/cover letter and increase interviewing skills for the biotechnology industry.
Prerequisite(s): BTN 1110 AND Restricted to Majors

2210 Protein Purification & Analysis
4 Credit Hour(s)

Introduction to protein purification, isolation quantification and analysis. Two classroom, four lab hours per week.
Prerequisite(s): BIO 1111 AND BTN 1130 AND CHE 1111 AND Restricted to Majors
Co-requisite(s): BIO 2211

2211 Lab for Protein Purification & Analysis
0 Credit Hour(s)

2220 Microbiology & Fermentation Methods
3 Credit Hour(s)

Introduction to fermentation and microbial metabolism. Two classroom, three lab hours per week.
Prerequisite(s): BIO 1111 AND BTN 1130 AND CHE 1111 AND Restricted to Majors

2221 Lab for Microbiology & Fermentation Methods
0 Credit Hour(s)

2230 Molecular Biology Techniques
4 Credit Hour(s)

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 hours per week.
Prerequisite(s): BIO 1111 AND BTN 1130 AND CHE 1111 AND Restricted to Majors
Co-requisite(s): BIO 2231

2231 Lab for Molecular Biology Techniques
0 Credit Hour(s)

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

The course focuses on the study and interpretation of the graphic language used in manufacturing and engineering. This will include principles of: shape description, axonometric projection specifications, symbology and spatial relationships. The student will apply problem solving and critical thinking skills using both standard and automated communication methods. Two classroom, two lab hours per week.
Prerequisite(s): MET 1131 OR OPT 1198

1109 Fundamentals of Tooling & Machining
3 Credit Hour(s)

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.

1110 Advanced Machine Operations
3 Credit Hour(s)

This course will increase students use on manual machines at a higher level so they understand what it takes to complete precision machined parts, and the capabilities of the machines used to produce them. Two classroom, two lab hours per week.
Prerequisite(s): CAM 1107 AND CAM 1109 AND CAM 1141

1116 Fundamentals of Computer Numerical Control Operations
3 Credit Hour(s)

This course will cover machine safety, setup and operation of computer numerical control (CNC) milling machines and lathes. Adjusting tool and work offsets to hold part tolerances on both types of equipment. Calculation of spindle speeds and feed rates. Introduction to basic programming codes and development of CNC programs for three axis mills and two axis lathes. Two classroom, two lab hours per week.

1141 Shop Floor Calculations I
3 Credit Hour(s)
This course applies the principles of arithmetic, algebra and geometry to situations encountered in the machining industry. Two classroom, two lab hours per week.
Prerequisite(s): DEV 0022 OR DEV 0072

1142 Shop Floor Calculations II
3 Credit Hour(s)
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.
Prerequisite(s): CAM 1141

1161 Machine Operations Laboratory I
8 Credit Hour(s)
An introduction to the manufacturing processes used in the tooling and machining industry. Safety, handtools, 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
8 Credit Hour(s)
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.
Prerequisite(s): CAM 1161 AND Approval of Department

1214 Computer Numerical Control Mill Programming
3 Credit Hour(s)
This is an intermediate course covering the development of Computer Numerical Control (CNC) programs for three axis milling machines including spindle controls, tool changes, linear and circular interpolation, drilling and tapping, subroutines, and G&M codes. Setup and operation of milling machines. Adjusting tool and work offsets to hold part tolerance. Two classroom, two lab hours per week.
Prerequisite(s): CAM 1109 OR CAM 1161 AND MET 1131 OR OPT 1198

2114 Jig & Fixture Design
3 Credit Hour(s)
Theory, principles and drawing techniques for the design of jigs and fixtures. Two classroom, two lab hours per week.
Prerequisite(s): CAM 1109 AND CAM 1107

2145 Shop Floor Programming
3 Credit Hour(s)
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.
Prerequisite(s): CAM 1109 OR CAM 1161

2204 Computer Numerical Control Lathe Programming
3 Credit Hour(s)
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. Two classroom, two lab hours per week.
Prerequisite(s): MET 1131 OR OPT 1198 AND CAM 1116

2212 Computer Assisted Programming
3 Credit Hour(s)
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.
Prerequisite(s): CAM 1116 AND CAM 1214

2214 Advanced Computer Numerical Control (CNC) Applications
3 Credit Hour(s)
Course covering the programming, setup and operation of 3, 4 and 5 axis vertical machining centers. Two classroom, two lab hours per week.
Prerequisite(s): CAM 1214 AND CAM 2204 with a grade of C or higher

2225 Tool Design
3 Credit Hour(s)
Design theory, principles and drawing techniques for the tool design industry. Two classroom, two lab hours per week.
Prerequisite(s): CAM 2114

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
1 - 4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2780 Computer Aided Manufacturing Capstone
3 Credit Hour(s)
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.
Prerequisite(s): CAM 2212 AND CAM 2204

2781 Precision Machining Capstone
3 Credit Hour(s)
Assessment of achievement by Precision Machining students in attaining program related outcomes with the completion of a comprehensive project. They will demonstrate the principles and practices of the Precision Machining major. Two classroom, two lab hours per week.
Prerequisite(s): CAM 1162 AND CAM 2114 AND CAM 2145 AND Approval of Department

Civil Architectural Technology (CAT)

1101 Architectural Drafting
3 Credit Hour(s)
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
1 Credit Hour(s)
Reading blueprints of commercial buildings, emphasizing plumbing, electrical, HVAC and fire protection systems. One half classroom, one and one half lab hours per week.
Prerequisite(s): DEV 0010 AND DEV 0024 AND DEV 0032

1121 Introduction to Revit
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1101

1131 Introduction to Revit MEP
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1101 OR CAT 1111 OR CAT 1121

1141 Architectural Blueprint Reading
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0024 AND DEV 0032

1161 Introduction to Civil & Architectural Technology
2 Credit Hour(s)

An introduction to career fields of Architecture and Civil Engineering Technology. Equivalent to Project Lead the Way CEA. One classroom, two lab hours per week.

1201 Construction Methods & Materials
5 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0024

1241 Building Structural Systems
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1101 OR CAT 1201 OR MET 1101

1301 Introduction to Civil Construction CAD
3 Credit Hour(s)

Develop proficiency in CAD software to develop civil-construction working drawings. Proper generation of plans to connect the earth's topography and land records will be emphasized. Two classroom, two lab hours per week.

1401 Construction Estimating
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1101 OR CAT 1201

1501 Construction Surveying
3 Credit Hour(s)

This course uses civil blueprints, surveying equipment and appropriate mathematical concepts to solve construction related problems. Two classroom, three lab hours per week.
Prerequisite(s): MAT 1270 OR MAT 1280 OR MAT 1470 OR MAT 2270 OR appropriate Math placement test score

1701 Construction Craft Skills/ Concrete
6 Credit Hour(s)

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
6 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

An orientation to interior and exterior finishes on frame construction. One classroom, four lab hours per week.

1781 Construction Project
4 Credit Hour(s)

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.
Prerequisite(s): CAT 1701 OR CAT 2431

1810 Construction Techniques I (NCCER Core)   R
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1820 Construction Techniques II (NCCER Level 1)   R
3 Credit Hour(s)

Construction of concrete structures including forming, placing and finishing. May be taken for two semesters. One classroom, four lab hours per week.
Prerequisite(s): CAT 1810 AND Approval of Department

1830 Construction Techniques III (NCCER Level 2) R
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1820 AND Approval of Department

1840 Construction Techniques IV (NCCER Level 3) R
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1830 AND Approval of Department

2101 CAD Design in Revit
5 Credit Hour(s)

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.
Prerequisite(s): CAT 1101 AND CAT 1121 AND CAT 1201

2111 Building Mechanical & Electrical Systems
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1121 OR CAT 1131

2201 Revit Integration
1 Credit Hour(s)

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.
Prerequisite(s): CAT 1121 OR CAT 1131

2297 Special Topics R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1401

2411 Building Codes & Construction Law
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1201

2421 Soil Mechanics
3 Credit Hour(s)

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.
Prerequisite(s): CAT 1211 AND MET 1131 AND MET 2201 OR MEE 2101

2431 OSHA Construction Standards
2 Credit Hour(s)

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)
2 Credit Hour(s)

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.
Prerequisite(s): CAT 1501

2531 Advanced Surveying & Drafting
4 Credit Hour(s)

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.
Prerequisite(s): CAT 1501 AND MAT 1290 OR MAT 1470 OR MAT 2270

2561 Advanced Construction Surveying
2 Credit Hour(s)

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.
Prerequisite(s): CAT 2531 AND MAT 1140 OR MAT 1290 OR MAT 1470 OR MAT 2270

2581 Legal Principles for Surveyors
3 Credit Hour(s)

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 R
1 - 4 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): CAT 1101 AND CAT 1201

2780 Architectural Technology Capstone
4 Credit Hour(s)
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.
Prerequisite(s): CAT 2401 AND CAT 2101 AND CAT 2411 AND CAT 2111 AND CAT 2201 AND EGV 1301 AND EGV 1351 AND Approval of Department

2781 Civil Engineering Technology Capstone
4 Credit Hour(s)
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.
Prerequisite(s): MET 2201 AND CAT 2501 AND CAT 2531 AND CAT 2401 AND Approval of Department

2782 Construction Management Technology Capstone
4 Credit Hour(s)
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.
Prerequisite(s): CAT 2401 AND CAT 2411 AND CAT 2531 AND Approval of Department

Chemistry (CHE)

1111 Introduction to Chemistry I
4 Credit Hour(s)
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 hours per week. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0022 OR DEV 0072
Co-requisite(s): CHE 1151

1121 Introduction to Chemistry II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): CHE 1111
Co-requisite(s): CHE 1161

1151 Lab for Introduction to Chemistry I
0 Credit Hour(s)

1161 Lab for Introduction to Chemistry II
0 Credit Hour(s)

1211 General Chemistry I
5 Credit Hour(s)
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 hours per week.
Prerequisite(s): MAT 1280 OR MAT 1365 OR MAT 1370
Co-requisite(s): CHE 1251

1221 General Chemistry II
5 Credit Hour(s)
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 hours per week.
Prerequisite(s): CHE 1211 AND MAT 1290 OR MAT 1470
Co-requisite(s): CHE 1261

1251 Lab for General Chemistry I
0 Credit Hour(s)

1261 Lab for General Chemistry II
0 Credit Hour(s)

1311 College Chemistry I
4 Credit Hour(s)
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 hours per week. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0022 OR DEV 0072
Co-requisite(s): CHE 1351

1321 College Chemistry II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): CHE 1111 OR CHE 1211 OR CHE 1311
Co-requisite(s): CHE 1361

1351 Lab for College Chemistry I
0 Credit Hour(s)

1361 Lab for College Chemistry II
0 Credit Hour(s)

2111 Organic Chemistry I
5 Credit Hour(s)
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 hours per week.
Prerequisite(s): CHE 1221
Co-requisite(s): CHE 2151

2121 Organic Chemistry II
5 Credit Hour(s)
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 hours per week.
Prerequisite(s): CHE 2111
Co-requisite(s): CHE 2161

2151 Lab for Organic Chemistry I
0 Credit Hour(s)

2161 Lab for Organic Chemistry II
0 Credit Hour(s)

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

2781 Methods & Practice of Teaching Science in Secondary Schools
3 Credit Hour(s)

This course provides the framework for the development of methods and pedagogy for the effective teaching of science content in secondary schools. Designed to immerse the future teacher in the areas of problem solving, science in everyday life, scientific methods, process-oriented learning, scientific inquiry and integrating technology. The development of pedagogical content knowledge as it pertains to the teaching and learning of science is emphasized. Various assessment strategies are introduced including using data to improve student achievement.
Prerequisite(s): BIO 1107 AND CHE 1121 AND MAT 1430 AND PHY 1100

Chinese (CHN)

1100 Conversational Chinese I
3 Credit Hour(s)

A foundation for gaining knowledge about Chinese culture and basic phrases related to simple spoken Chinese, including travel situations.

1105 Conversational Chinese II
3 Credit Hour(s)

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.
Prerequisite(s): CHN 1100

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

Introduction to problem solving techniques used in programming. Students learn to use tools such as flowcharts and pseudocode to plan solutions. Using current programming languages, students will design, code and test programs using the basic structures of sequence, selection and iteration, functions and one dimensional arrays.
Prerequisite(s): MAT 1270

1130 Network Fundamentals
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1111

1202 C++ Software Development I
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1111

1304 Web Site Development with HTML/JavaScript
3 Credit Hour(s)

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 web site publishing and maintenance.

1350 Web Site Development with HTML & CSS
3 Credit Hour(s)

HyperText Markup Language (HTML) and Cascading Style Sheets (CSS) are widely used technologies to create and display content on the web. HTML is the primary language used for creating web pages including basic text formatting, linking between pages and adding images and other media. CSS is a styling language that enables the separation of content from style and provides precision control over the display including layout, colors and fonts. Students will learn to apply best practices for web design and create sites that enhance the usability and interactivity of the pages.

1411 Cisco Network Fundamentals
3 Credit Hour(s)

The focus of this course is on the fundamentals of networking. Students will learn both the practical and conceptual skills that build the foundation for understanding basic networks. Students will examine human and network communications to see the parallels between them. They will also understand the layers, functions and services associated with the two major models (OSI and TCP/IP) used to plan and implement networks. The various network devices, addressing schemes and media used in modern networks will be examined.

1510 Windows Client Operating System
3 Credit Hour(s)

Installing and administering systems that incorporate the current Microsoft desktop operating system. Administering shared resources including files, folders and printers; installing, managing and troubleshooting hardware devices; monitoring and optimizing system performance and reliability; implementing network protocols and configuring security elements.
Prerequisite(s): CIS 1107 AND CIS 1130 OR CIS 1411

1714 A+ Operating Systems Troubleshooting
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1107

2165 Database Management
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1111 OR GEO 1107

2170 Computer Information Systems Internship   R
2 Credit Hour(s)

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.
Prerequisite(s): CIS 1107 OR CIS 1111 OR CIS 1411 OR CIS 2510 AND Approval of Department

2178 Computer Information Systems Capstone
3 Credit Hour(s)

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.
Prerequisite(s): CIS 2515 AND CIS 2520 OR CIS 2416 AND CIS 2421 OR CIS 2207 AND CIS 2212 OR CIS 2309 AND CIS 2314

2207 C++ Software Development II
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1202

2212 Java Software Development I
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1111

2217 Java Software Development II
3 Credit Hour(s)

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.
Prerequisite(s): CIS 2212

2222 ASP.NET with C#
3 Credit Hour(s)

This course introduces server side web programming to develop web applications based on ASP.NET technologies with Visual Studio. Students will learn how to develop ASP.NET applications employing web forms and data controls. Visual Studio will be used to develop these applications; Microsoft SQL Server will be used for database manipulations.
Prerequisite(s): CIS 1202 AND CIS 1350

2250 Web Site Development with php & XML
3 Credit Hour(s)

HyperText Preprocesser (php) is a server-side scripting language and is used with the eXtensible Markup Language (XML) and its related technologies (XML Schema, XSL and XSLT) to create web sites. This course introduces students to these technologies. Emphasis is placed on programming techniques required to create dynamic web pages using the php scripting language features. In addition, XML techniques are used to enhance web site creation. Students will be able to design, code, test, debug and create a dynamic web site using the php scripting language with XML.
Prerequisite(s): CIS 2165 AND CIS 1350

2268 Introduction to Oracle
3 Credit Hour(s)

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.
Prerequisite(s): CIS 2165

2269 Data Analytics Theory & Solutions
3 Credit Hour(s)

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.
Prerequisite(s): CIS 2165 AND MAT 2170

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1304

2314 Web Programming with Hypertext Preprocessor (php)
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1304 AND CIS 2165

2319 Extensible Markup Language (XML)
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1304 AND CIS 2165

2416 Routing & Switching Essentials
4 Credit Hour(s)
This course focuses on the operation of routers and switches in a small network. Students will describe switching technologies and protocols such as VLAN Trunking Protocol (VTP), Rapid Spanning Tree Protocol (RSTP) and others. Students will learn to configure switched and routed LANs and VLANs; Access Control Lists (ACLs); and routing table entries using IPv4 and IPv6.
Prerequisite(s): CIS 1411 must be completed within the past two years

2421 Scaling Networks
4 Credit Hour(s)
The course focuses on the advanced operations of routers and switches. Students will learn to manage network services for both IPv4 and IPv6 including various protocols including STP and Cisco VLAN Trunk Protocol (VTP). Other routing protocols (RIP, OSPF, EIGRP) and the Cisco IOS configuration files will be presented.
Prerequisite(s): CIS 2416 must be completed within the past two years

2426 Connecting Networks
4 Credit Hour(s)
This course focuses on the Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. In this course, students will learn different WAN technologies and their benefits; the operations and benefits of Virtual Private Networks (VPNs); and, various network architectures. Students will be able to configure and troubleshoot serial connections, broadband connections and IPSec operations. They will also learn to monitor and troubleshoot network

operations using syslog, SNMP and NetFlow.
Prerequisite(s): CIS 2416 AND CIS 2421 must be completed within the past two years

2510 Microsoft Windows Server Operating System
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1107 AND CIS 1130 OR CIS 1411

2515 Windows Network Infrastructure
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1510 AND CIS 2510

2520 Windows Directory Services Administration
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1510 AND CIS 2510

2550 Linux Operating System
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1107 AND CIS 1130 OR CIS 1411

2560 Fundamentals of Linux Security
3 Credit Hour(s)
This course is designed for existing and prospective Linux system administrators as well as IT administrators interested in learning the fundamentals of Linux security.
Prerequisite(s): CIS 2550

2630 Securing a Windows Network Environment
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1510 AND CIS 2510

2635 Microsoft SQL Server Administration
3 Credit Hour(s)
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.
Prerequisite(s): CIS 2165 AND CIS 2510

2640 Network Security
3 Credit Hour(s)
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 ComptTIA Security + exam.
Prerequisite(s): CIS 1107 AND CIS 1130 OR CIS 1411

2711 Enterprise Desktop Support Technician
3 Credit Hour(s)
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.
Prerequisite(s): CIS 1107 AND CIS 1714

2717 A+ Certification IT Technician
3 Credit Hour(s)

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.
Prerequisite(s): CIS 1107

2808 Introduction to Computer Forensics
3 Credit Hour(s)

Computer forensics is the study of obtaining and analyzing evidence/information for use as evidence in civil, criminal or administrative cases.
Prerequisite(s): CIS 1130 AND CIS 2640 AND CIS 2717 Note: 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
3 Credit Hour(s)

Overview of the criminal justice system and an analysis of the interdependence of its components, including legislative, law enforcement, prosecution, court and correctional systems. Examination of responsibilities of professionals in each of these systems, including ethical and legal responsibilities.
Prerequisite(s): DEV 0010 AND DEV 0030

1102 Constitutional Law
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1104 Criminal Evidence & Procedure
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1105 Criminal Law
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1106 Transition Skills
3 Credit Hour(s)

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
3 Credit Hour(s)

Development of communication skills applicable to criminal justice professionals. Emphasis on interviewing, interrogation, documentation of evidence in various documents, forms, reports and oral testimony.
Prerequisite(s): ENG 1101 AND CJS 1101

1125 Policing
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1155 Homeland Security Issues & Administration
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0030

1165 Corrections
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1181 Private Security Training Academy
3 Credit Hour(s)

Academic and physical skills training (105 hours classroom, 50 hours psychomotor - including 20 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.

1197 Corrections Full Service Jails/Basic Correction Officer Academy
3 Credit Hour(s)

Mandated Ohio Attorney General/Ohio Peace Officer Training Academy training for individuals to attain certification for performing corrections officer functions in full-service jail facilities. Not open to the general student population. Consists of minimum 158 mandated classroom hours

of both academic/physical training.
Prerequisite(s): Approval of Training Academy Coordinator

2111 Ethics & Professionalism in Criminal Justice
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

2130 Terrorism & Counter-Terrorism
3 Credit Hour(s)
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
3 Credit Hour(s)
Survey of case management theories and approaches for criminal offenders. Understanding of intervention strategies for different types of offenders in institutional and community-based correctional programs.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

2200 Human Relations, Mediation, & Conflict Resolution
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0030

2205 Introduction to Criminal Investigation & Forensic Science
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

2209 Computer Crime
3 Credit Hour(s)
Overview of criminal investigation of crimes committed in conjunction with computer technology. Types of crimes, prosecution and prevention strategies.
Prerequisite(s): DEV 0012 AND DEV 0030

2270 Criminal Justice Science Internship
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 AND Approval of Department

2280 Basic Peace Officer Training I
14 Credit Hour(s)
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.
Prerequisite(s): 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
12 Credit Hour(s)
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.
Prerequisite(s): CJS 2280 with a grade of C or better

2295 Criminal Justice Science Seminar
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

Clinical Laboratory Technology (CLT)

1200 Introduction to Clinical Laboratory
2 Credit Hour(s)
The course will introduce students to the terms, concepts, procedures, and equipment used in a professional medical laboratory. One classroom, three lab hours per week.
Co-requisite(s): CLT 1203

1203 Lab for Introduction to Clinical Laboratory
0 Credit Hour(s)

2110 Urine & Body Fluid Analysis
2 Credit Hour(s)
The course will provide instruction on the structure and function of the kidney, renal pathology and the principles, sources of error and interpretation of test results in urinalysis. Principles of CSF and serous fluid analysis are covered. One classroom, two lab hours per week.
Prerequisite(s): CHE 2111 AND Restricted to Majors
Co-requisite(s): CLT 2113

2113 Lab for Urine & Body Fluid Analysis
0 Credit Hour(s)

2210 Hematology
2 Credit Hour(s)

The course will introduce the students to the theory and practical application of routine and special hematology procedures, both manual and automated; red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. One classroom, three lab hours per week.
Prerequisite(s): CHE 2111 AND Restricted to Majors
Co-requisite(s): CLT 2213

2213 Lab for Hematology
0 Credit Hour(s)

2310 Clinical Chemistry
2 Credit Hour(s)

The course will introduce the students to the theory and application of human biochemistry and principles of chemistry techniques used in the analysis of blood and other body fluids. One classroom, two lab hours per week.
Prerequisite(s): CHE 2111 AND Restricted to Majors
Co-requisite(s): CLT 2313

2313 Lab for Clinical Chemistry
0 Credit Hour(s)

2410 Clinical Microbiology/ Parasitology
4 Credit Hour(s)

Basic concepts of microbiology with emphasis on microbial pathogenesis and immunity. Medically important microorganisms including bacteria, fungi, viruses, rickettsia, protozoa, and the diseases which they produce. This course will also introduce students to the basic knowledge of the physical and chemical properties of clinically significant micro-organisms, the emphasis will be on describing phenotypic characteristics of clinically relevant organisms and the principles of antimicrobial action. Three classroom, three lab hours per week.
Prerequisite(s): BIO 1272 OR BIO 2205 AND Restricted to Majors
Co-requisite(s): CLT 2413

2413 Lab for Clinical Microbiology/ Parasitology
0 Credit Hour(s)

2510 Immunology/Serology/ Immunohematology
2 Credit Hour(s)

This course is an introduction to the principles of immunology, covering the broad areas of the body's defense mechanisms, the nature of the mammalian immune system and the immune response, and discusses immunological disease states of auto-immunity, tumor immunology, transplant immunology, immunodeficiency, and the theory behind immunoassays used in the laboratory environment. One classroom, two lab hours per week.
Prerequisite(s): CLT 2410 AND Restricted to Majors
Co-requisite(s): CLT 2513

2513 Lab for Immunology/ Serology/Immunohematology
0 Credit Hour(s)

2610 CLT Practicum I
2 Credit Hour(s)

Practical training in clinical chemistry, and medical microbiology under the direction of National Accrediting Agency for the Clinical Laboratory Sciences (NAACLS)-approved/ accredited hospital internship program personnel.
Prerequisite(s): CLT 2110 AND CLT 2210 AND CLT 2310 AND CLT 2410 AND Restricted to Majors

2710 CLT Practicum II
2 Credit Hour(s)

Practical training in hematology, urinalysis, Serology, and immunohematology under the direction of National Accrediting Agency for the Clinical Laboratory Sciences (NAACLS)-approved/accredited hospital internship program personnel.
Prerequisite(s): CLT 2510 AND CLT 2610 AND Restricted to Majors

Communication (COM)

2201 Introduction to Mass Communication
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2206 Interpersonal Communication
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2211 Effective Public Speaking
3 Credit Hour(s)

Designed to improve speaking and listening skills through the study and application of public speaking structure, content and style.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2220 Introduction to Communication Theory
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2225 Small Group Communication
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2230 Nonverbal Communication
3 Credit Hour(s)

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.
Prerequisite(s): COM 2206 OR COM 2225

2235 Principles of Interviewing
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 AND Any other college level English course

2245 Intercultural Communication
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2270 Communication Internship   R
1 - 4 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND 12 hours of COM or JOU courses

2278 Communication Capstone
1 Credit Hour(s)

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.
Prerequisite(s): 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
3 Credit Hour(s)

Theories, principles and skills of public relations in organizations and in society, integrating organizational communication and management practices.

2287 Effective Listening
3 Credit Hour(s)

Development of effective listening skills. Practical experience in comprehensive, empathic, critical and appreciative listening. Solid foundation in relevant listening theory.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044 OR Any other college level English course

2290 Introduction to Broadcasting
3 Credit Hour(s)

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.
Prerequisite(s): COM 2201

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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   R
1 Credit Hour(s)

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   R
1 Credit Hour(s)

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   R
1 Credit Hour(s)

Performance opportunity for students of Middle Eastern Dance. Students learn and develop their own choreographies and perform as an ensemble in a public performance.
Prerequisite(s): DAN 2262

1155 Dance History
3 Credit Hour(s)

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
3 Credit Hour(s)

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   R
1 Credit Hour(s)

Basic fundamentals and theory of Middle Eastern dance for beginning students. Class work consists of hip work, isolations, rhythm, history and cultural comparisons.

1172 Ballet I   R
3 Credit Hour(s)

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   R
3 Credit Hour(s)

Basic fundamentals and theory of Modern Dance for beginning students. Two classroom, two lab hours per week.

1174 Jazz Dance I   R
3 Credit Hour(s)

Introduction of the fundamentals of Jazz dance technique for the beginning student. Two classroom, two lab hours per week.

1175 Tap Dance I   R
3 Credit Hour(s)

Basic fundamentals of Tap dance technique for the beginning student. Two classroom, two lab hours per week.

2262 Intermediate Middle Eastern Dance   R
1 Credit Hour(s)

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.
Prerequisite(s): DAN 1162

2272 Ballet II   R
3 Credit Hour(s)

Intermediate ballet level. Working knowledge of basic barre and center work required.
Prerequisite(s): DAN 1172

2273 Modern Dance II   **R**
3 Credit Hour(s)
Intermediate Modern Dance technique building upon a working knowledge of elementary Modern Dance technique. Two classroom, two lab hours per week.
Prerequisite(s): DAN 1173

2274 Jazz Dance II   **R**
3 Credit Hour(s)
Intermediate Jazz Dance level stressing techniques and styles needed for performance. Two classroom, two lab hours per week.
Prerequisite(s): DAN 1174 AND Approval of Department

2275 Tap Dance II   **R**
3 Credit Hour(s)
Intermediate Tap dance techniques stressing advanced technical proficiency needed for performance. Two classroom, two lab hours per week.
Prerequisite(s): DAN 1175

2297 Special Topics   **R**
0.5 - 9 Credit Hour(s)
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
1 Credit Hour(s)
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
3 Credit Hour(s)
Gross anatomy of the head and neck region including the oral cavity. Morphology and function of permanent and primary dentition. Two classroom, two lab hours per week.
Prerequisite(s): BIO 1141 AND BIO 1242 AND Restricted to Majors
Co-requisite(s): DEH 1203

1203 Lab for Head, Neck & Dental Anatomy
0 Credit Hour(s)

1204 Dental Hygiene Instrumentation I
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): ALH 1101 AND BIO 1242 AND DEH 1102 AND Restricted to Majors
Co-requisite(s): DEH 1205

1205 Lab for Dental Hygiene Instrumentation I
0 Credit Hour(s)

1206 Nutrition & Oral Health
2 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

1302 Dental Hygiene Instrumentation II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEH 1204 AND DEH 1206 AND Restricted to Majors
Co-requisite(s): DEH 1303

1303 Lab for Dental Hygiene Instrumentation II
0 Credit Hour(s)

1304 Oral Histology & Embryology
1 Credit Hour(s)
Microscopic anatomy of the human cell and tissues. Embryologic development of the head and neck. Histology of tooth development.
Prerequisite(s): Restricted to Majors

1305 Medical Emergencies in Dental Practice
1 Credit Hour(s)
Principles of general first aid and managing medical emergencies in dental practice. Two lab hours per week.
Prerequisite(s): DEH 1202 AND DEH 1203 AND American Heart Association Health Care Provider BLS
Co-requisite(s): DEH 1303

1306 General & Oral Pathology
4 Credit Hour(s)
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.
Prerequisite(s): DEH 1202 AND DEH 1203 AND Restricted to Majors

1308 Dental Radiology
3 Credit Hour(s)
Scientific principles of radiation, radiographic production and patient management in dental practice. Two classroom, two lab hours per week.
Prerequisite(s): DEH 1202 AND DEH 1203 AND Restricted to Majors
Co-requisite(s): DEH 1309

1309 Lab for Dental Radiology
0 Credit Hour(s)

2297 Special Topics   **R**
0.5 - 9 Credit Hour(s)
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
1 Credit Hour(s)
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.
Prerequisite(s): DEH 1302 AND Restricted to Majors
Co-requisite(s): DEH 2403

2403 Dental Hygiene Clinic I
1 Credit Hour(s)
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.
Prerequisite(s): DEH 1302 AND Restricted to Majors

2405 Computer Applications in Dentistry
1 Credit Hour(s)
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.
Prerequisite(s): ALH 1101 AND Restricted to Majors

2502 Pharmacology in the Dental Practice
2 Credit Hour(s)
Overview of the conventional drug classes with emphasis on the actions, effects and indications for those used in the dental practice.
Prerequisite(s): DEH 2402 AND DEH 2403 AND Restricted to Majors
Co-requisite(s): DEH 2503

2503 Pain Control in the Dental Practice
1 Credit Hour(s)
Laboratory and clinical training in the administration of local anesthesia and nitrous oxide sedation.
Prerequisite(s): DEH 2402 AND DEH 2403 AND Restricted to Majors
Co-requisite(s): DEH 2502

2504 Dental Hygiene Research
2 Credit Hour(s)
Overview of statistical terminology needed to evaluate research literature and prepare and present dental hygiene research papers.
Prerequisite(s): Restricted to Majors

2506 Dental Materials
2 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEH 2403 AND Restricted to Majors
Co-requisite(s): DEH 2507

2507 Lab for Dental Materials
0 Credit Hour(s)

2508 Clinical Dental Hygiene II
2 Credit Hour(s)
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.
Prerequisite(s): DEH 2402 AND Restricted to Majors
Co-requisite(s): DEH 2509

2509 Dental Hygiene Clinic II
3 Credit Hour(s)
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.
Prerequisite(s): DEH 2403 AND Restricted to Majors
Co-requisite(s): DEH 2508

2601 Community Dental Health
1 Credit Hour(s)
Introduction to community and public health concepts and community health education. Two lab hours per week.
Prerequisite(s): Restricted to Majors

2602 Clinical Dental Hygiene III
1 Credit Hour(s)
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.
Prerequisite(s): DEH 2508 AND Restricted to Majors
Co-requisite(s): DEH 2603

2603 Dental Hygiene Clinic III
3 Credit Hour(s)
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.
Prerequisite(s): DEH 2509 AND Restricted to Majors
Co-requisite(s): DEH 2602

2604 Dental Hygiene Practice
1 Credit Hour(s)
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.
Prerequisite(s): DEH 2509 AND Restricted to Majors

Developmental Language Arts (DEV)

0010 Fundamentals of Reading
3 Credit Hour(s)
Develop reading skills with an emphasis on strategies to acquire vocabulary, recognition of main ideas and supporting details, general comprehension of paragraphs and articles and oral and written summaries.
Prerequisite(s): Placement Test Score

0012 Academic Reading
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0010 OR Placement test score

0030 Foundations of Paragraph Writing
3 Credit Hour(s)
Introduction to basic paragraph writing (topic sentence, body sentences, concluding sentence) and the principles of correct grammar, usage, punctuation and mechanics.
Prerequisite(s): Placement Test Score

0032 Foundations of Essay Writing
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0030 OR Placement Test Score

0040 Accelerated Reading
5 Credit Hour(s)

Through individual and collaborative activities, course will prepare students for college level reading and will introduce basic critical reading and thinking strategies and a variety of study skills that promote student development and achievement.
Prerequisite(s): DEV 0040 OR student must test into the Accuplacer range of 48-53 for Reading

0044 Advanced Developmental Reading & Writing
5 Credit Hour(s)

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.
Prerequisite(s): DEV 0010 AND DEV 0030 OR Placement Test Score

0054 Accelerated English
2 Credit Hour(s)

This is an accelerated developmental writing course, paired with English Composition I, emphasizing the writing process, including invention, drafting, revision, and editing. Students collaborate to write more effective essays, showing evidence of analysis, critical thinking, and cohesion of thought. Students also work closely with online resources, as they work towards fluency in style and mechanics.
Prerequisite(s): DEV 0012 OR DEV 0062 OR Placement Test Score
Co-requisite(s): ENG 1101

0060 Fundamentals of Reading Boot Camp
1 Credit Hour(s)

Intensive review of material in DEV 0010. 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. Intended for the student who tests highly in the range for DEV 0010, or who nearly passed DEV 0010.
Prerequisite(s): Placement test score

0062 Academic Reading Boot Camp
1 Credit Hour(s)

Intensive review of course content of DEV 0012. 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. Intended for student who tests high on the placement test for DEV 0012 or nearly passed DEV 0012.
Prerequisite(s): DEV 0010 OR DEV 0060 OR Placement test score

0080 Foundations of Paragraph Writing Boot Camp
1 Credit Hour(s)

Intensive review of content of DEV 0030. This course is an introduction to basic paragraph writing (topic sentence, body sentences, concluding sentence) and the principles of correct grammar, usage, punctuation, and mechanics. Designed for one who tests near the upper end of placement test for DEV 0030, or as a review for one who almost passed DEV 0030.
Prerequisite(s): Placement test score

0082 Foundations of Essay Writing Boot Camp
1 Credit Hour(s)

Intensive review of the introduction to the fundamentals of essay writing (content of DEV 0032), including the stages of the composing process; review of the grammatical principles governing correctness and effectiveness of expression. Designed for students who test near placement in ENG 1101, or who nearly passed DEV 0032.
Prerequisite(s): DEV 0030 OR DEV 0080 OR Placement test score

Developmental Mathematics (DEV)

0020 Basic Mathematics Part I
2 Credit Hour(s)

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.
Prerequisite(s): Placement Test Score

0022 Basic Mathematics Part II
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0020 OR DEV 0070 OR Placement Test Score

0024 Introduction to Algebra Part I
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0022 OR Placement Test Score

0026 Introduction to Algebra Part II
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0024 OR Placement Test Score

0050 Accelerated Introduction to Algebra
2 Credit Hour(s)

An accelerated course combining both DEV 0024 and DEV 0026. Course will provide an introduction to rational numbers, simplifying expressions, solving equations, and algebra applications (percents, comparisons, and geometry).
Prerequisite(s): DEV 0022 OR Accuplacer score of 61-120 on Arithmetic portion and 20-30 on Algebra portion

0070 Basic Mathematics Part I Boot Camp
1 Credit Hour(s)

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. Whole Numbers - Concepts and Computations Fractions - Concepts and Computations Problem-solving with Whole Numbers and Fractions Estimation Exponents/Square Roots of Perfect Squares Study Skills and Strategies for Mathematics.
Prerequisite(s): Placement Test

0072 Basic Mathematics Part II Boot Camp
1 Credit Hour(s)
Intensive review of course content of DEV 0022. Designed for one who almost tests into DEV 0024. Course provides review of basic arithmetic skills in fractions, basic instruction into the meaning and use of signed numbers, decimals, and percentages with an emphasis on problem-solving situations. Designed for student who places near the top of placement score for DEV 0022, or who nearly passed 0022.
Prerequisite(s): DEV 0020 OR Placement test score

0074 Introduction to Algebra I Boot Camp
1 Credit Hour(s)
Intensive review of basic algebra skills, signed numbers, order of operations. expressions, equations, percents and percent applications. Designed for student who places near the top of placement score for DEV 0024, or who nearly passed 0024.
Prerequisite(s): DEV 0022 OR DEV 0072 OR Placement test score

0076 Introduction to Algebra II Boot Camp
1 Credit Hour(s)
Intensive review of course content for DEV 0026. Review of basic algebra skills, signed numbers, order of operations. expressions, equations, percents, geometry formulas and applications. Intended for students who are near the top of the placement test for DEV 0076, or who nearly passed DEV 0026.
Prerequisite(s): DEV 0024 OR DEV 0074 OR Placement test score

Dietetics Technology (DIT)

1105 Introduction to Dietetics
1 Credit Hour(s)
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 1-2 field trips.

1108 Nutrition for the Culinary Professional
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1111 Nutrition for Health & Fitness
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1143 Healthy Cooking   R
1 Credit Hour(s)
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
1 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0024 AND DEV 0032 OR DEV 0044

1630 Nutrition in the Lifecycle
3 Credit Hour(s)
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.
Prerequisite(s): DIT 1525

1635 Community Nutrition
3 Credit Hour(s)
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
1 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0020
Co-requisite(s): DIT 2190

2190 Dietary Managers Nutrition Clinical
2 Credit Hour(s)
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.
Co-requisite(s): DIT 2180

2240 Education Methods & Materials
2 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): HMT 1112

2510 Institutional Foodservice Systems
3 Credit Hour(s)
This course incorporates food delivery and production systems, facility and materials management, menu planning, food and non-food procurement, cost and quality control methods. Food safety and sanitation principles will be applied.
Prerequisite(s): HMT 1112
Co-requisite(s): DIT 2515

2515 Foodservice Practicum I
1 Credit Hour(s)
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.
Co-requisite(s): DIT 2510

2520 Laboratory for Foodservice Systems
1 Credit Hour(s)
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.
Co-requisite(s): DIT 2510

2625 Medical Nutrition Therapy I
3 Credit Hour(s)
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.

2630 Medical Nutrition Therapy Clinical I
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): DIT 2510 AND DIT 2515 AND DIT 2520
Co-requisite(s): DIT 2740

2740 Foodservice Practicum II
1 Credit Hour(s)
Hands-on experience completed in an institutional foodservice setting. Covers five major aspects of human resource management: planning, organizing, directing, controlling and 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.
Co-requisite(s): DIT 2735

2845 Medical Nutrition Therapy II
3 Credit Hour(s)
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.
Prerequisite(s): DIT 2625 AND Restricted to Majors
Co-requisite(s): DIT 2850

2850 Medical Nutrition Therapy Clinical II
3 Credit Hour(s)
Clinical component covering topics in Medical Nutrition Therapy II: cancer, childhood obesity, disorders of the lower gastrointestinal tract, gallbladder, liver, renal diseases. 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.
Prerequisite(s): DIT 2630 AND Restricted to Majors
Co-requisite(s): DIT 2845

2855 Dietetics Seminar
1 Credit Hour(s)

Capstone course prepares students for national credentialing dietetic technician examination/employment. Reviews Food and Nutrition, Food Service 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.
Prerequisite(s): Restricted to Majors

2860 Credentialing Exam Review   R
1 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

Early Childhood Education (ECE)

1100 Introduction to Early Childhood Education
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 OR DEV 0062 AND DEV 0030 OR DEV 0080

1101 Introductory Child Development
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 OR DEV 0062 AND DEV 0030 OR DEV 0080

1200 Observation & Assessment
3 Credit Hour(s)

Observing, documenting and assessing young children in programs of early education and care. Center observations required.
Prerequisite(s): ECE 1100 AND ECE 1101 AND ENG 1101

1201 Curriculum & Planning
3 Credit Hour(s)

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.
Prerequisite(s): ECE 1100 AND ECE 1101 AND ENG 1101

2100 Language, Literacy & Interaction with Young Children
3 Credit Hour(s)

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.
Prerequisite(s): ECE 1200 AND ECE 1201 AND ENG 1201

2101 Creative Experiences
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): ECE 1200 AND ECE 1201 AND MAT 1120 OR MAT 1270 OR MAT 1410

2200 Families, Communities & Schools
3 Credit Hour(s)

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.
Prerequisite(s): ECE 2100 AND ECE 2101 AND ECE 2102 AND SOC 2215

2201 Guidance of Young Children
3 Credit Hour(s)

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.
Prerequisite(s): ECE 2100 AND ECE 2101 AND ECE 2102 AND PSY 1100

2202 Teaching Techniques
3 Credit Hour(s)

Directed practice experience in the Sinclair Community College Early Childhood Education Centers. One classroom, ten directed practice hours per week.
Prerequisite(s): ECE 2100 AND ECE 2101

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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.

2300 Inclusion
3 Credit Hour(s)

Philosophical, historical and legal foundations. Inclusion of learners with special needs. Learning characteristics, instructional and behavioral strategies. Team members, collaboration with family and professionals.
Prerequisite(s): ECE 2200 AND ECE 2201 AND ECE 2202

2301 Early Childhood Education Practicum
4 Credit Hour(s)

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.
Prerequisite(s): ECE 2202 AND Restricted to Majors

Economics (ECO)

2160 Principles of Macroeconomics
3 Credit Hour(s)

Basic economic principles with macro sequence. Interrelationship of households, business and government with an examination of Keynesian theory, fiscal policy and monetary policy. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0012 AND DEV 0020

2180 Principles of Microeconomics
3 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0012 AND DEV 0020

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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 Technology (EET)

1116 Electronics Schematics & Fabrication
4 Credit Hour(s)

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 D.C. & A.C. Circuits
2 Credit Hour(s)

Introduction to direct and alternating current circuits, power, three phase and test equipment. One classroom, two lab hours per week.
Prerequisite(s): DEV 0024 OR DEV 0074

1131 Digital Electronics
5 Credit Hour(s)

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.
Prerequisite(s): EET 1116

1139 Electrical Machinery
3 Credit Hour(s)

Basic principle, theory, operation and characteristics of common D.C. and A. C. machinery. Two classroom, two lab hours per week.
Prerequisite(s): EET 1120

1150 D.C. Circuits
4 Credit Hour(s)

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.
Prerequisite(s): MAT 1270

1155 A.C. Circuits
4 Credit Hour(s)

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.
Prerequisite(s): EET 1150

1158 Satellite Tool Kit
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1164 PC Assembly
4 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): EET 1120

1181 Electrical Construction I R
2 - 3 Credit Hour(s)

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 R
2 - 3 Credit Hour(s)

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.
Prerequisite(s): EET 1181

1183 Electrical Construction III R
2 - 3 Credit Hour(s)

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.
Prerequisite(s): EET 1182

1184 Electrical Construction IV R
2 - 3 Credit Hour(s)

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.
Prerequisite(s): EET 1183

1198 Digital Technology
2 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): EET 1131 OR MAN 1106

2201 Electronic Devices & Circuits
5 Credit Hour(s)

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.
Prerequisite(s): EET 1155

2220 Avionics & Unmanned Aerial Systems Sensors
4 Credit Hour(s)

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
3 Credit Hour(s)

Parallel and serial input-output devices, analog-to-digital converters, digital-to-analog converters, communication protocals, programmable logic devices, and hardware description languages. Two classroom, two lab hours per week.
Prerequisite(s): EET 1131

2257 Radio Frequency Identification (RFID) Capstone
3 Credit Hour(s)

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.
Prerequisite(s): EET 2157

2259 Programming for Electronics Technology
4 Credit Hour(s)

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.
Prerequisite(s): EET 2201 AND EET 1131

2261 Microprocessors
4 Credit Hour(s)

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.
Prerequisite(s): EET 1131

2264 PC Troubleshooting & Repair
4 Credit Hour(s)

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.
Prerequisite(s): EET 1164

2270 Electronics Engineering Technology Internship
1 - 4 Credit Hour(s)

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
4 Credit Hour(s)

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.
Prerequisite(s): EET 2201 AND EET 2261

2281 Programmable Logic Controllers
3 Credit Hour(s)

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.
Prerequisite(s): EET 1120 OR EET 1131

2282 Advanced Programmable Logic Controllers
3 Credit Hour(s)

Demonstrate the use of control and set analog I/O, bit and project based programming, control servos with analog & 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.
Prerequisite(s): EET 2281

2283 Fundamentals of Lasers
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): Acceptance into EFDA program

1202 Expanded Functions for Dental Auxiliaries I
6 Credit Hour(s)

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.
Prerequisite(s): EFD 1102

1203 Lab for Expanded Functions for Dental Auxiliaries I
0 Credit Hour(s)

Laboratory experiences in advanced remedial 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.
Prerequisite(s): EFD 1102

1302 Expanded Functions for Dental Auxiliaries II
6 Credit Hour(s)

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.
Prerequisite(s): EFD 1202 AND Restricted to Majors

1303 Lab for Expanded Functions for Dental Auxiliaries II
0 Credit Hour(s)

Laboratory experiences in advanced remedial 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.
Prerequisite(s): Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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)

1101 Introductory Mathematics for Engineering Applications
4 Credit Hour(s)

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, three lab hours per week.
Prerequisite(s): MAT 1290 OR MAT 1570

1111 Introduction to Nanotechnology
3 Credit Hour(s)

Introduction to nanotechnology and its application to engineering systems, emphasizing basic principles, materials, measurement tools, fabrication techniques, and applications. Two classroom, two lab hours per week.

1121 Introduction to the Intelligence Community
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department
Co-requisite(s): ERG 1122

1122 Fundamentals of Remote Sensing in Intelligence
3 Credit Hour(s)
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.
Prerequisite(s): MAT 1280 AND Approval of Department
Co-requisite(s): ERG 1121

1128 Robotics in Computer Integrated Manufacturing (CIM) Systems
3 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): EET 1120 AND EGR 1128

1201 Introduction to Spectral Sensing with Applications in Intelligence
3 Credit Hour(s)
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.
Prerequisite(s): EGR 1121 AND Approval of Department
Co-requisite(s): ERG 1202

1202 Introduction to Radar
3 Credit Hour(s)
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.
Prerequisite(s): EGR 1122 AND MAT 1280 AND Approval of Department
Co-requisite(s): ERG 1201

1211 Introduction to Large Area Surveillance
3 Credit Hour(s)
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.
Prerequisite(s): EGR 1202 AND Approval of Department AND Secret Clearance

1212 Measurement & Signal Intelligence
3 Credit Hour(s)
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.
Prerequisite(s): EGR 1202 AND Approval of Department AND Secret Clearance

1217 Fluid Power & Control
2 Credit Hour(s)
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) control of fluid power components. One classroom, three lab hours per week.

2211 Nanotechnology Applications & Fabrications Techniques
3 Credit Hour(s)
Discussions and examples of applications of nanotechnology in Biology, Physics, Chemistry, Medical, Material science, and Engineering. Introduction to nanofabrication tools, clean room and scanning electron microscope (SEM) via remote lab demonstrations.
Prerequisite(s): EGR 1111

2215 Control Systems
3 Credit Hour(s)
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.
Prerequisite(s): EET 1198 AND EET 1139

2231 Troubleshooting of Automated Systems
3 Credit Hour(s)

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.
Prerequisite(s): EET 2281 AND EGR 1128

2244 Automation & Control Devices
3 Credit Hour(s)

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.
Prerequisite(s): EET 2281 AND EGR 1144

2250 Electromechanical Repair
4 Credit Hour(s)

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.
Prerequisite(s): EGR 2252

2252 Teach Pendant Robot Programming
2 Credit Hour(s)

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.
Prerequisite(s): EGR 1128

2256 Automated Data Acquisition Systems
3 Credit Hour(s)

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.
Prerequisite(s): EET 1198 AND EGR 2252 AND EGR 2261

2261 Engineering Problem Solving using "C" & "C++"
4 Credit Hour(s)

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.
Prerequisite(s): MAT 1280 OR MAT 1470

2270 Automation & Control Internship   R
1 - 4 Credit Hour(s)

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 semester. Ten hours work per week per credit hour.

2278 Automation & Control Capstone
3 Credit Hour(s)

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.
Prerequisite(s): EGR 2231 AND EGR 2252 AND EET 2282

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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 & Energy Engineering Technology (EGV)

1101 Alternate & Renewable Energy Sources
3 Credit Hour(s)

Overview of past, recent and current research to find viable alternative sources of energy. Examples include water, wind, solar, bio-mass, alternative liquid fuels and introduction to fuel cell technology. Study of applied technologies in the context of how to relieve complete dependence on petrochemical-based products. A case study approach to learning is used. Two classroom, two lab hours per week.

1201 Weatherization Training
2 Credit Hour(s)

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
3 Credit Hour(s)

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
2 Credit Hour(s)

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
2 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0032 AND MET 1131 AND MAT 1280 OR MAT 1370 AND CHE 1111 OR CHE 1211 OR CHE 1311

1610 Water Distribution Systems
3 Credit Hour(s)

Examination of the basic concepts pertaining to the operation and maintenance of water and wastewater treatment plants. Students will become familiar with analyzing and solving operational problems, operator performance, contingency procedures, and water treatment equipment. This course is designed to prepare students to sit for EPA Operator Certifications. Two lecture, two lab hours per week.
Prerequisite(s): DEV 0012

1620 GIS Mapping
3 Credit Hour(s)

Examination of geographic information systems (GIS) as they relate to water and wastewater treatment, collection, and distribution systems. Students are exposed to theoretical and practical application of GIS devices and mapping software. Two classroom, two lab hours per week.
Prerequisite(s): DEV 0012

1630 Wastewater Collection Systems
3 Credit Hour(s)

Examination of topics related to the operation and maintenance of wastewater collection systems (WWCS). The course will cover basic concepts related to the inspection, testing, cleaning of pipes, maintenance, underground repair, new construction, administration, and organization of WWCS. Designed to prepare students to sit for Ohio EPA Operator Certifications. Two classroom, two labs hours per week.
Prerequisite(s): DEV 0012

1640 Introduction to Backflow
1 Credit Hour(s)

Examination of backflow prevention concepts designed to meet the Ohio Administrative Code (OAC) 3745-95 Backflow Prevention and Cross Connection Control requirements. A water supply employee may be eligible to sit for the State of Ohio Department of Commerce Certified Backflow Technician exam. One half classroom hour, one and one half lab hours per week.
Prerequisite(s): DEV 0012

1650 Applied Applications for Water & Wastewater
3 Credit Hour(s)

Examination of the basic concepts pertaining to the operation and maintenance of water and wastewater treatment plants. Students will become familiar with analyzing and solving operational problems, operator performance, contingency procedures, and water treatment equipment. Designed to prepare students to sit for Ohio EPA Operator Certifications.
Prerequisite(s): EGV 1610 AND EGV 1620

2101 Solar Photovoltaic Design & Installation
3 Credit Hour(s)

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
3 Credit Hour(s)

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
2 Credit Hour(s)

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.
Prerequisite(s): EET 1120 AND EGV 1251 AND PHY 1100 OR PHY 1131 OR PHY 1141 OR PHY 2201

2251 Energy Control Strategies
2 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

This course covers methods of collecting data (utility, envelope, mechanical systems, 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
2 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): EGV 1551

2700 Energy Management Technology Internship
1 - 4 Credit Hour(s)
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
1 - 4 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2781 Environmental Engineering Technology Capstone
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

Emergency Medical Services (EMS)

1100 Emergency Medical Responder Lecture & Laboratory
2 Credit Hour(s)
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.
Prerequisite(s): At least 18 years of age

1150 Emergency Medical Technician: Lecture
5 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 OR DEV 0062 AND DEV 0030 OR DEV 0080 AND Approval of Division Advisor AND 18 years of age
Co-requisite(s): EMS 1155

1155 Laboratory for Emergency Medical Technician
2 Credit Hour(s)
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.
Co-requisite(s): EMS 1150

1175 Emergency Medical Technician Refresher
2 Credit Hour(s)
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. This course will meet a total of 16 lecture hours and 32 laboratory hours.

2100 Applied Anatomy, Physiology & Pathophysiology for Emergency Medical Services Provider
3 Credit Hour(s)
This course provides the fundamental anatomy, physiology and pathophysiology information necessary to understand the care of the sick and injured at the paramedic level.
Prerequisite(s): BIO 1107 AND Approval of Department

2105 Paramedic 1: Lecture
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2110 Paramedic 1: Laboratory
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2125 Paramedic 2: Lecture
5 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2130 Paramedic 2: Laboratory
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2135 Paramedic 2: Clinical
2 Credit Hour(s)

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. Fourteen practicum hours per week.
Prerequisite(s): Approval of Department

2150 Paramedic 3: Lecture
5 Credit Hour(s)

The paramedic student will explore management of the trauma patient and an in-depth discussion of the medical patient including assessment and management.
Prerequisite(s): Approval of Department

2155 Paramedic 3: Laboratory
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2160 Paramedic 3: Clinical
1 Credit Hour(s)

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. All students

must complete a 112-hour field experience/ambulance assignment. Seven practicum hours per week.
Prerequisite(s): Approval of Department

2175 Paramedic 4: Lecture
2 Credit Hour(s)

This course is a complaint based approach to patient care. Students will focus on integrating pathology, assessment and patient care knowledge in the care of patients with multiple pathologies. Four classroom hours per week for eight weeks.
Prerequisite(s): Approval of Department

2180 Paramedic 4: Field Experience
1 Credit Hour(s)

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. All students must complete a 112-hour field internship. Seven practicum hours per week.
Prerequisite(s): Approval of Department

2200 Paramedic 5: Integration/Refresher Lecture
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2205 Paramedic 5: Integration/Refresher Laboratory
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2250 Paramedic Refresher
3 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Paramedic

2305 Critical Care Paramedic 2
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Paramedic

2310 EMS Management 1
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1101

2315 EMS Management 2
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1101

English (ENG)

1101 English Composition I
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0032 OR DEV 0044 OR Placement test score

1131 Business Writing
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0032 OR Placement Test Score

1160 Advanced Vocabulary
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1201

1199 Textual Editing
3 Credit Hour(s)

Strategies to achieve a clear, concise, cohesive and emphatic writing style; sentence structure; contemporary grammar and usage.
Prerequisite(s): ENG 1101

1201 English Composition II
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1101

2245 Introduction to Linguistics
3 Credit Hour(s)

The study of language, how it is described, acquired and used, including the structure of language and its sociocultural impact.
Prerequisite(s): ENG 1201

2255 Creative Writing: Poetry
3 Credit Hour(s)

Writing and critical reading of poetry. Manuscript form, publication and market information.

2256 Creative Writing Fiction
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1101

2257 Freelance Writing
3 Credit Hour(s)

Freelance writing covers magazine, newspaper and Internet article writing. It emphasizes generating, researching and developing nonfiction prose.
Prerequisite(s): ENG 1101

2259 Novel Writing
3 Credit Hour(s)

Novel writing covers advanced study of traditional novel elements in a workshop setting, including the mechanics of manuscript submission.
Prerequisite(s): ENG 2256

2260 Memoir Writing
3 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

Advanced Composition focuses on sophisticated techniques of expository writing and the refinement of style.
Prerequisite(s): ENG 1201

Exercise, Nutrition & Sports Science (ENS)

1110 First Aid & CPR   R
2 Credit Hour(s)

This course provides comprehensive study of Cardiopulmonary Resuscitation and first aid techniques and procedures used in emergency response and treatment along with bloodborne pathogens and sport safety training. Successful completion of this course will result in national certification.

1112 Introduction to Physical Education
3 Credit Hour(s)

Historical and philosophical foundations of physical education, including an emphasis on licensure, professional and national standards.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1114 Introduction to Sport & Recreation Management
3 Credit Hour(s)

Historical, sociological and philosophical foundations of sport, including an emphasis on professional opportunities, application of management and organizational concepts.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1116 Introduction to Exercise Science & Health Promotion
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1118 Lifetime Physical Fitness & Wellness
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1119 Concepts of Fitness for Criminal Justice
2 Credit Hour(s)
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.
Prerequisite(s): Restricted to Criminal Justice Science majors

1212 Fundraising & Sport Budgeting
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

1214 Personal & Community Health Behavior
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): BIO 1121

2314 Sport Promotions
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032

2316 Motor Development & Motor Learning
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

2318 Fitness Assessment & Exercise Prescription
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0022 AND DEV 0044

2412 Integration of Physical Education for Elementary Educators
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0044

2414 Foundations of Coaching
3 Credit Hour(s)
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.
Co-requisite(s): ENS 2415

2415 Coaching & Leadership
3 Credit Hour(s)
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.
Co-requisite(s): ENS 2414

2416 Certification Preparatory Course
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ENS 2318

2419 Health Promotion, Fitness & Sport Programming
3 Credit Hour(s)
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.
Prerequisite(s): ENS 1118

2420 Concepts of Lifestyle Coaching
3 Credit Hour(s)
This course provides the student with the principles and practices of coaching psychology. Core coaching skills along with approaches and guidelines for helping clients develop visions, set goals, make plans and track progress for healthy lifestyles.
Prerequisite(s): ENS 1214

2471 Exercise, Nutrition & Sports Science Practicum
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

Entrepreneurship (ENT)

2140 Small Business Finance
3 Credit Hour(s)
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.
Prerequisite(s): MAN 2150

2160 Business Plan Development
3 Credit Hour(s)
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.
Prerequisite(s): MAN 1107 AND MAN 2101 AND MRK 2220 AND ENT 2140

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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)

English as a Second Language (ESL)

0120 Reading & Writing Basics
4 Credit Hour(s)
This beginning course focuses on developing basic reading comprehension and basic grammar and writing skills. Students will be able to write simple sentences, questions, and complete personal information forms. Common everyday vocabulary, spelling, and punctuation will be developed.

0125 Basic Speaking & Listening
4 Credit Hour(s)
This beginning course focuses on developing basic skills in pronunciation, listening, and speaking. This course will provide practice in pronunciation and comprehension of informal and academic situations.

0130 ESL Reading & Writing I
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Placement Test Score

0135 ESL Reading & Writing II
4 Credit Hour(s)
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.
Prerequisite(s): ESL 0130 AND ESL 0150 AND Approval of Department AND Placement Test Score

0140 ESL Listening & Speaking I
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Placement Test Score

0145 ESL Listening & Speaking II
4 Credit Hour(s)
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.
Prerequisite(s): ESL 0130 AND ESL 0140 AND Approval of Department AND Placement Test Score

0150 ESL Basic
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Placement Test Score

0170 ESL Intermediate
4 Credit Hour(s)
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.
Prerequisite(s): ESL 0150 AND Approval of Department OR Placement Test Score

0190 ESL Advanced
4 Credit Hour(s)
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.
Prerequisite(s): ESL 0130 AND ESL 0140 AND ESL 0170 AND Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

Finance (FIN)

2450 Personal Finance
3 Credit Hour(s)
Overview of the theories, concepts, principles, and processes of personal financial management, with an emphasis on everyday financial decision making.

French (FRE)

1100 Conversational French
3 Credit Hour(s)
A foundation for gaining knowledge about French culture and basic phrases related to simple spoken French and travel situations.

1101 Elementary French I
4 Credit Hour(s)
A foundation for gaining basic knowledge of French grammar, speaking, writing, reading and cultural knowledge.

1102 Elementary French II
4 Credit Hour(s)
Continuing French grammar skills, verbs in the future conditional and subjunctive tenses, speaking, writing, reading and cultural knowledge.
Prerequisite(s): FRE 1101

2201 Intermediate French I
3 Credit Hour(s)
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): FRE 1102

2202 Intermediate French II
3 Credit Hour(s)
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.
Prerequisite(s): FRE 2201

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
2 Credit Hour(s)
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
5 Credit Hour(s)
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.
Prerequisite(s): FST 1100 AND Approval of Fire Coordinator

1102 Firefighter I
6 Credit Hour(s)
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.
Prerequisite(s): Approval of Fire Coordinator

1103 Firefighter II Transition
5 Credit Hour(s)
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.
Prerequisite(s): FST 1101 OR FST 1102 AND Approval of Department

1104 Firefighter II
11 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1111 Fire Behavior & Combustion
3 Credit Hour(s)
This course explores the theories and fundamentals of how and why fires start, spread and are controlled. Also included in this course are related engineering and fire science principles.

1112 Principles of Emergency Services
3 Credit Hour(s)
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
3 Credit Hour(s)
This course provides fundamental knowledge relating to the field of fire prevention.

1115 Fire Apparatus & Equipment
3 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1125 Fire Investigation I
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): FST 1125 AND Approval of Department

1555 Hazardous Waste Operations & Emergency Response (HAZWOPER)
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
5 Credit Hour(s)
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
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2206 Fire Strategy & Tactics
3 Credit Hour(s)

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).
Prerequisite(s): FST 1101 AND Approval of Department

2209 Fire Service Instructor
4 Credit Hour(s)

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.
Prerequisite(s): FST 1101 AND Approval of Department

2228 Human Behavior & Fire
3 Credit Hour(s)

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
3 Credit Hour(s)

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.

2251 Fire Officer I
5 Credit Hour(s)

Management, supervision and leadership of the fire company. This course meets the requirements of National Fire Protection Association 1021, Fire Officer I.
Prerequisite(s): FST 1101 AND Minimum of three years as an active duty firefighter

2252 Fire Officer II
3 Credit Hour(s)

Management, supervision, leadership and command of multi-company operations. This course meets the requirements of National Fire Protection Association 1021, Fire Officer II.
Prerequisite(s): FST 2251

2253 Fire Officer III
3 Credit Hour(s)

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.
Prerequisite(s): FST 2252

2254 Fire Officer IV
3 Credit Hour(s)

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.
Prerequisite(s): FST 2253

2260 Advanced Concepts in Structural Fire Protection
3 Credit Hour(s)

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   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
4 Credit Hour(s)

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)
4 Credit Hour(s)

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. Three classroom, two lab hours per week.

1201 World Regional Geography
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
4 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): GEO 1107 AND MAT 1450 OR MAT 2170 AND BIS 1260 OR CIS 2165

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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.

German (GER)

1100 Conversational German
3 Credit Hour(s)
A foundation for gaining knowledge about Germanic culture and basic phrases related to simple spoken German, including travel situations.

1101 Elementary German I
4 Credit Hour(s)
Foundation for understanding, speaking, reading, and writing German. Work outside of class and/or in the language laboratory is required.

1102 Elementary German II
4 Credit Hour(s)
Continued understanding, speaking, reading and writing German beyond the discourse level. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): GER 1101

2201 Intermediate German I
3 Credit Hour(s)
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/

or in the language laboratory is required.
Prerequisite(s): GER 1102

2202 Intermediate German II
3 Credit Hour(s)
Intermediate-level composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): GER 2201

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
4 Credit Hour(s)
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 hours per week.
Co-requisite(s): GLG 1111

1111 Lab for General Geology I
0 Credit Hour(s)

1201 General Geology II
4 Credit Hour(s)
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 hours per week.
Prerequisite(s): GLG 1101
Co-requisite(s): GLG 1211

1211 Lab for General Geology II
0 Credit Hour(s)

1301 Geologic Field Trips
4 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
2 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 Equivalent

1110 Health Information Processing
3 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1160 Medical Office Coding Concepts
1 Credit Hour(s)
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.
Prerequisite(s): HIM 1101

1165 Drug Classification for Coding
1 Credit Hour(s)
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.
Prerequisite(s): HIM 1101 AND BIO 1107 OR BIO 1121 OR BIO 1141

1201 Introductory Medical Office Coding
4 Credit Hour(s)
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.
Prerequisite(s): HIM 1101 AND BIO 1121

1204 Medicolegal & Ethics in Healthcare Records
2 Credit Hour(s)
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.
Prerequisite(s): DEV 0012

1217 Alternative Health Records & Registries
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1110 AND Restricted to Majors

2110 Ambulatory Coding
4 Credit Hour(s)
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.
Prerequisite(s): HIM 1201 AND Restricted to Majors

2144 Quality Improvement, Statistics & Research
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1110 AND BIS 1120 AND MAT 1130 OR MAT 1270 AND Restricted to Majors

2145 Health Information Resource Management
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1110 AND BIS 1120

2165 Healthcare Data in Reimbursement
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1110 AND HIM 1201 AND Restricted to Majors

2211 Inpatient Coding
4 Credit Hour(s)
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.
Prerequisite(s): HIM 2110 AND Restricted to Majors

2233 Healthcare Information Systems
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1110 AND Restricted to Majors

2252 Professional Practice Experience
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2262 Advanced Medical Office Coding
3 Credit Hour(s)
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.
Prerequisite(s): HIM 1201 AND BIO 1222

2278 Health Information Management Capstone
1 Credit Hour(s)
A variety of specially designed projects, student oral presentations, case studies, simulations, interviewing, resumes and two mock accreditation exams. Two lab hours per week.
Prerequisite(s): HIM 2145 AND Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
Development of the people of the United States in political, social, economic and cultural areas from Reconstruction to the present.

1105 African-American History
3 Credit Hour(s)
Contributions of African-Americans to the institutions and culture of the United States from 1619 to the present.

1111 Western Civilization I
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
A survey of Latin American history and culture 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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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.

Hospitality Management Technology (HMT)

1101 Basic Culinary Skills
3 Credit Hour(s)
This course is an introduction to food preparation techniques and culinary theory. Basic concepts of kitchen organization and operation, basic terminology, use of standardized recipes, weights and measures, product evaluation, recipe conversion, food composition and introduction to commercial equipment and work methods. American Culinary Federation competency skills included. HMT 1107 must be completed prior to registering for this course or may be taken at the same time. One classroom, four lab hours per week.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032 OR DEV 0022 AND DEV 0044

1102 Kitchen Chemistry
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032

1105 Introduction to the Hospitality & Tourism Industry
2 Credit Hour(s)
This course will provide an overview of the Hospitality and Tourism Industry. Topics include in-depth views of the restaurant and culinary industry, lodging industry, meeting and events, tourism, casinos, cruise-lines and more. Hospitality Interactive simulation, My Hospitality Lab, and service scenarios will provide an experience of fun socialistic learning. Successful students of this course will receive a Hospitality Reception and Service Specialist short term certificate.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032

1107 Sanitation & Safety
2 Credit Hour(s)
Sanitation and safety involves key concepts such as harmful micro-organisms, contamination and food-borne illnesses, the nine steps within the flow of food from supplier to service, minimum internal cooking temperatures/times for proteins, food safety management systems, sanitary facilities and pest management control. Students must successfully pass a national sanitation exam to pass the course. Students who are culinary or baking majors may not register for kitchen lab courses without a current servsafe certification.
Prerequisite(s): DEV 0012 AND DEV 0032

1108 Pastry & Confectionery Basics
4 Credit Hour(s)
Theory and practice of pastry and confectionery for the hotel and restaurant industry, applying the fundamentals of baking science to the preparation of a variety of products. The use and care for the baking equipment normally found in the bakeshop or baking area. One classroom, six lab hours per week.
Prerequisite(s): HMT 1102 AND HMT 1126

1110 Menu Planning & Table Service Practicum
3 Credit Hour(s)
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 hours per week and a total of thirty (30) lab hours to be conducted as part of the Tartan Terrace Dining Room service experience.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032

1112 Food Principles & Basic Preparation
4 Credit Hour(s)
Preparation of culinary cuisine with a wide variety of plate production techniques including soups, sauces, vegetables, fruits, grains, salads, meats, game, poultry, fish and seafood. Apply food pairing, plating, and garnishing techniques to culinary cuisine. Skill training based on American Culinary Federation competencies. Includes recipe conversion, product evaluation and maintenance of a safe, sanitary kitchen. One classroom, six lab hours per week.
Prerequisite(s): HMT 1101 AND HMT 1107 AND HMT 2201 AND HMT 2207 Note: HMT 2201 AND HMT 2207 may be taken concurrently with HMT 1112

1125 Beverage Management
2 Credit Hour(s)

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.
Prerequisite(s): HMT 1105

1126 Baking I & Restaurant Desserts
4 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0032
Co-requisite(s): HMT 1107

1127 Baking II & Barista Basics
4 Credit Hour(s)

This course gives students a practical experience of more advanced and complicated techniques required by the baking and pastry industry. It will also provide students with more advanced techniques in preparing designer pastries, foundations of artisan breads, cake decorating, and assembling two tiered cakes. This course will also cover barista training and gourmet coffee pairings. One classroom, six lab hours per week.
Prerequisite(s): HMT 1102 AND HMT 1126

1136 Front Office Operations
2 Credit Hour(s)

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and account settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations.
Prerequisite(s): HMT 1105

1137 Hospitality Industry Computer Systems
2 Credit Hour(s)

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.
Prerequisite(s): HMT 1105 AND BIS 1120

1138 Managing Lodging Operations
2 Credit Hour(s)

This course provides an understanding of the General Manager's role in both small and large hotels. Addresses each department, including sales and marketing, maintenance, security, human resources. Features lodging green initiatives, revenue optimization, and a better understanding of the complexity with regard to overseeing an entire property.
Prerequisite(s): HMT 1105 AND HMT 1136

1139 Housekeeping Management
2 Credit Hour(s)

This course provides students with the principles of housekeeping management as they apply specifically to the hospitality industry. Housekeeping is critical to the success of today's lodging operations and this course will illustrate what it takes to direct day-to-day operations of this department, from big-picture management issues to technical details for cleaning each area.
Prerequisite(s): HMT 1105

1140 Dimensions of Air Travel
3 Credit Hour(s)

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.
Prerequisite(s): HMT 1105 OR Approval of Department

1141 Destination Geography
3 Credit Hour(s)

Study of important tourism destinations around the world. The course discusses recreational, cultural, economic and social significance.

1143 Organization of the Travel Product
3 Credit Hour(s)

Study of travel/tourism industry products and procedures, including cruises, rail, motorcoach, tours, car rentals, resort and hotel features and travel insurance.
Prerequisite(s): HMT 1105

1146 Airline Travel Technology
3 Credit Hour(s)

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.
Prerequisite(s): HMT 1140 AND HMT 1105

1150 Meeting & Event Planning
3 Credit Hour(s)

This course teaches students meeting and event basics such as negotiation and contracts, marketing, trade-shows, sponsorships, technology utilization, and post-event activities.
Prerequisite(s): HMT 1105

1151 Special Events, Expositions & Festivals
3 Credit Hour(s)

This course specializes in weddings, social events, parties, receptions, grand openings, expositions, and festivals. Students will learn strategies for building floor plans, pricing, and religious/cultural values that could affect the protocol of an event.
Prerequisite(s): HMT 1150

2118 Artisan Breads
3 Credit Hour(s)

An in depth study of artisan baking training in proper mixing, kneading, and baking techniques to make a wide variety of crusty breads from around the world. Students will use healthy bread production techniques and whole grains, sour levain starters, poolish's, and sour ryes, to make all classic breads. Six lab hours per week.
Prerequisite(s): HMT 1102 AND HMT 1107 AND HMT 1126

2128 Cake Production & Decoration
4 Credit Hour(s)

Students will gain an understanding of cake fundamentals, production methods, along with icing and decorating techniques used in commercial baking operations resulting in a creative display of multi-tiered cakes. One classroom, six lab hours per week.
Prerequisite(s): HMT 1107

2201 Food Service Equipment, Design & Maintenance
2 Credit Hour(s)

This course provides students with skills to perform maintenance, cleaning, and sanitation of commercial kitchen equipment typically found in restaurants for the purposes of avoiding costly repairs and maintaining longevity. Layout of equipment in terms of efficiency and cost is also a part of this course. One classroom,

two lab hours per week.

2206 Garde Manger
3 Credit Hour(s)

Introduction of Garde Manger discipline, including tools and equipment, preparation of pâtés, terrines, mousse, galantines, hors d'oevres and canapes. Demonstrate basic skills in charcuterie, carving of edible and non-edible showpieces, garnishes, ice carvings, chaud-froid and aspics. Includes buffet and plate presentation. One classroom, six lab hours per week.
Prerequisite(s): HMT 1112

2207 Butchery & Fish Management
2 Credit Hour(s)

Students will fabricate primal cuts of meat, poultry, fish, and game with emphasis given to portion control, purchasing, costing, and utilization of byproducts. The product produced in this course will be used in menu development for the Tartan Terrace Restaurant. Four lab hours per week.
Prerequisite(s): HMT 1101

2209 Advanced Culinary Skills
3 Credit Hour(s)

Capstone course in Culinary Arts which students will prepare seven course meals. The course involves preparation of classical and contemporary cuisine, including American Regional cuisine. Students will develop a menu, set purchase specs, and perform cost calculations. Once this is completed, students will then prepare various appetizers, soups, salads, entrees and desserts from the menus they have created and serve the cuisine prepared in a chef's table style at the Tartan Terrace Restaurant. Six lab hours per week.
Prerequisite(s): HMT 1110 AND HMT 1112 AND HMT 1126 AND HMT 2206 AND HMT 2215 AND HMT 2226

2215 Hospitality Cost Controls
3 Credit Hour(s)

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.
Prerequisite(s): HMT 1105 AND ACC 1210

2218 Advanced Pastry Skills
3 Credit Hour(s)

Advanced pastry and confectionery techniques, including laminated doughs, candy making, plate and platter displays and an introduction of sugar work. Six lab hours per week.
Prerequisite(s): HMT 1108 AND HMT 1126 AND HMT 1127 AND HMT 2118 AND HMT 2128

2225 Hospitality & Tourism Supervision
3 Credit Hour(s)

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.
Prerequisite(s): HMT 1105

2226 Hospitality Purchasing & Negotiations
3 Credit Hour(s)

Food service functions regarding negotiations, laws, buying, science, packaging, distribution, ingredient process, storage, organization, cost controls, security and sustainability.
Prerequisite(s): HMT 1105 AND HMT 1110

2227 Hospitality Marketing
2 Credit Hour(s)

Organization of the marketing concepts in the hospitality and tourism industry, utilizing all aspects necessary to build a marketing plan.
Prerequisite(s): HMT 1105

2230 Risk & Prevention Management
2 Credit Hour(s)

This course will cover the broad task of protecting guests, non-guests, employees and assets. Topics will include security, property access, perimeter control, alarm systems, communication systems, closed circuit television, computer security, employment screening, terrorism, emergency procedures and general safety procedures.
Prerequisite(s): HMT 1105 AND DEV 0012 AND DEV 0032

2291 Hospitality Management & Tourism Cooperative Work Experience
2 Credit Hour(s)

This course is a co-op credit experience which requires students to be employed at a work site that coincides with his/her degree option. The goal of this course is for students to apply concepts learned throughout his/her educational experience to a practical work environment. Students are required to complete a minimum of 20 HMT semester hours in his/her concentration prior to registering for this course.
Prerequisite(s): Approval of Department

2292 Culinary Arts Option Cooperative Work Experience
2 Credit Hour(s)

This course is a co-op credit experience which requires students to be employed at a work site that coincides with his/her degree option. A minimum of 20 work hours per week is required. The goal of this course is for students to apply concepts learned throughout his/her educational experience to a practical work environment. A minimum of 25 HMT semester hours in his/her concentration is required prior to registering for this course.
Prerequisite(s): Approval of Department

2295 Hospitality Management & Tourism Capstone
3 Credit Hour(s)

Application of previously learned hospitality management and tourism concepts through case study, readings and discussion of contemporary issues.
Prerequisite(s): HMT 2225 AND HMT 2291

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.

1132 Holocaust & Genocide
3 Credit Hour(s)

Explores the concept of genocide primarily through the prism of the 20th Century Holocaust perpetrated by Nazi Germany. The course addresses the background, progress and historical context of the Nazi holocaust, as well as other genocides, and the philosophy and psychology of "racial purity."

1135 Environmental Ethics
3 Credit Hour(s)

Overview of philosophical and ethical dimensions of the environmental crisis, such as environmental politics, animal rights and nonwestern views.

1140 Appalachian Folkways
3 Credit Hour(s)

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
3 Credit Hour(s)

An examination of various facets of life in Appalachia, including history, culture, economics, politics, education and religion.

1142 Native American History
3 Credit Hour(s)

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
3 Credit Hour(s)

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
1 - 3 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
4 Credit Hour(s)

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.
Prerequisite(s): HVA 1201

1261 HVAC Loads & Distribution for Small Buildings
3 Credit Hour(s)

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 labs hours per week.
Prerequisite(s): DEV 0010 AND DEV 0022

1301 Air & Water Distribution Systems
4 Credit Hour(s)

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.
Prerequisite(s): MET 1131 AND MAT 1270 AND HVA 1201

1351 Building Psychrometrics & Load Calculations
4 Credit Hour(s)

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 labs hours per week.
Prerequisite(s): MET 1131 AND HVA 1201 AND MAT 1270

1401 HVAC Mechanical & Electrical Troubleshooting
4 Credit Hour(s)
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.
Prerequisite(s): HVA 1201 AND HVA 1221 AND EET 1120

1451 Testing, Adjusting & Balancing in HVAC Systems
3 Credit Hour(s)
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.
Prerequisite(s): HVA 1201 AND HVA 1301 OR HVA 1261

2201 HVAC Systems
4 Credit Hour(s)
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.
Prerequisite(s): HVA 1301 AND HVA 1351

2251 Primary HVAC Equipment Operation & Selection
3 Credit Hour(s)
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.
Prerequisite(s): HVA 1201

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): HVA 1301 AND EET 1120 AND MET 1131

2700 HVACR Engineering Technology Internship
1 - 4 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): HVA 2201 AND HVA 2301

Interior Design (IND)

1180 History of Interior Design
3 Credit Hour(s)
Examination of the stylistic development of interior design, domestic furniture and furnishings from classical times to the present.
Prerequisite(s): DEV 0032 OR DEV 0044 OR DEV 0054 OR DEV 0082

1230 Residential Design
4 Credit Hour(s)
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.
Prerequisite(s): VIS 1100 AND VIS 1110

1234 Materials & Textiles
3 Credit Hour(s)
Overview of specifications, relative costs, performance properties and installation methods of materials, including textiles used in interior design.

1240 Color Theory
3 Credit Hour(s)
Course will cover Josef Albers color theory, the effect of light on color and color psychology, including forecasting and trends.

2130 Non-Residential Design
4 Credit Hour(s)
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.
Prerequisite(s): CAT 1101 AND IND 1230 AND IND 1234

2135 Rendering
3 Credit Hour(s)
Drawing and computer-aided drawing technique development to aid in the visualization of materials, color and lighting of a three-dimensional interior space.
Prerequisite(s): VIS 1110 AND VIS 1140

2140 Sustainable Design
4 Credit Hour(s)
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.
Prerequisite(s): CAT 1101

2260 Interior Design Portfolio
4 Credit Hour(s)
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.
Prerequisite(s): IND 2130 AND IND 2135 AND IND 2140

2297 Special Topic   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ENG 1101

2203 Reporting & Writing for Media
3 Credit Hour(s)
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.
Prerequisite(s): JOU 2101

2270 Journalism Internship   R
1 - 4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
A foundation for gaining knowledge about Japanese culture and basic phrases related to simple spoken Japanese, including travel situations.

1105 Conversational Japanese II
3 Credit Hour(s)
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.
Prerequisite(s): JPN 1100

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
2 Credit Hour(s)
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.

1104 Employment Law
3 Credit Hour(s)
This course will provide the student with an understanding of current legal issues in the area of employer/employee relations. Emphasis is placed on legal issues that arise in the employment relationship, employment discrimination issues and federal and state regulations applicable to employment law. The use of current events is emphasized to reinforce areas covered in the course materials.

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
A chronological survey of major writers of English poetry, drama and prose from the beginnings through the eighteenth century (through 1785).

2202 British Literature II
3 Credit Hour(s)
A chronological survey of major writers of English poetry, drama and prose from 1785 to the present.

2205 Modern Short Story
3 Credit Hour(s)
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).
Prerequisite(s): ENG 1101 AND Approval of Department

2211 American Literature I
3 Credit Hour(s)
A chronological survey of major writers of American poetry, drama and prose from the Colonial Period through the Civil War (through 1865).

2212 American Literature II
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ENG 1101

2230 Great Books of the Western World
3 Credit Hour(s)
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.
Prerequisite(s): ENG 1201

2234 Literature of Africa, Asia, & Latin America
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
A study of the themes, techniques and styles of science fiction, fantasy and horror fiction.
Prerequisite(s): ENG 1101

2267 Mythology in Literature
3 Credit Hour(s)
Mythology in Literature emphasizes analysis of the relationship between myths and literature to show how religion, culture and folktales intertwine.

2270 Introduction to Shakespeare
3 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ENG 1101

Management (MAN)

1106 Introduction to Radio Frequency Identification
1 Credit Hour(s)
Overview of the technology of Radio Frequency Identification (RFID). Applications, terminology. Introduction of global standards and case studies discussed.

1107 Foundations of Business
3 Credit Hour(s)
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
3 Credit Hour(s)
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
2 Credit Hour(s)
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.
Prerequisite(s): MAN 1106

2101 Introduction to Supervision
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): MAN 2150

2144 Negotiation Techniques
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): MAN 2150

2159 Supply Chain Management Concepts & Applications
3 Credit Hour(s)
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.
Prerequisite(s): MAT 1470 AND MAN 2150

2247 Department of Defense Systems Acquisition Management
2 Credit Hour(s)
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 Acquisition Logistics Fundamentals
2 Credit Hour(s)
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.
Prerequisite(s): MAN 2247

2270 Management Internship
2 Credit Hour(s)
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.
Prerequisite(s): BIS 1120 AND MAN 2150 AND MRK 2101 AND MAT 2170 AND additional nine hours of MAN/MRK courses

2279 Business Management Capstone
3 Credit Hour(s)
Assessment of achievement by Business Management degree students in attaining program outcomes by employing reflective learning through demonstration of management-related principles and practices.
Prerequisite(s): BIS 1120 AND MRK 2101 AND MAN 2150 AND MAT 2170 AND an additional nine hours of MAN/MRK courses

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): ALH 1101 AND SCC 1101

1102 Clinical Medical Assisting I
3 Credit Hour(s)
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.
Prerequisite(s): BIO 1121 AND Approval of Department

1103 Clinical Medical Assisting II
4 Credit Hour(s)
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.
Prerequisite(s): MAS 1102 AND MAT 1130 OR MAT 1270 AND Restricted to Majors

1110 Administrative Medical Assisting I
2 Credit Hour(s)
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.
Prerequisite(s): ENG 1101

1130 Reimbursement Specialist Practicum
2 Credit Hour(s)
Student will complete seven (7) hours per week of non-paid directed practice at a medical billing facility in order to obtain practical knowledge with medical reimbursement procedures. Students will, as part of this course, attend a one hour lecture per week in order to prepare to sit for the national credentialing certificate, Certified Medical Reimbursement Specialist.
Prerequisite(s): Approval of Department Co-requisite(s): MAS 2210

2201 Clinical Medical Assisting III
4 Credit Hour(s)
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.
Prerequisite(s): MAS 1103 AND ALH 1140 AND ALH 2202 AND Restricted to Majors

2202 Medical Assisting Capstone
1 Credit Hour(s)
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.
Prerequisite(s): MAS 2201 AND MAS 2210 AND Restricted to Majors

2210 Medical Billing Specialist
2 Credit Hour(s)

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.
Prerequisite(s): HIM 1201

2220 MAS Practicum I
3 Credit Hour(s)

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, fourteen practicum hours per week.
Prerequisite(s): MAS 1103 AND MAS 1110 AND Restricted to Majors

2221 MAS Practicum II
3 Credit Hour(s)

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, fourteen practicum hours per week.
Prerequisite(s): MAS 2201 AND MAS 2210 AND MAS 2220

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0024 OR DEV 0050 OR DEV 0074 AND with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1120 Business Mathematics
3 Credit Hour(s)

Review of arithmetic, mathematics of finance, mathematics of trade, payroll, taxes, insurance, elementary statistics. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0024 OR DEV 0050 OR DEV 0074 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1130 Allied Health Mathematics
3 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0024 OR DEV 0050 OR DEV 0074 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1270 Beginning Algebra
3 Credit Hour(s)

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. Traditional testing

(proctored or in Testing Center) is used in all online sections.
Prerequisite(s): DEV 0026 OR DEV 0050 OR DEV 0076 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1280 Technical Mathematics I
4 Credit Hour(s)

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.
Prerequisite(s): MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1290 Technical Mathematics II
4 Credit Hour(s)

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.
Prerequisite(s): MAT 1280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1295 Technical Mathematics III
5 Credit Hour(s)

Trigonometric identities, radical expressions, analytic geometry and the conic sections, polar coordinates, limits, differentiation, integration and numerical methods. Scientific calculator required.
Prerequisite(s): MAT 1290 With a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1340 Mathematical Reasoning
4 Credit Hour(s)

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.
Prerequisite(s): DEV 0026 OR DEV 0050 OR DEV 0076 with a grade of C or better or satisfactory score on the Sinclair Community College mathematics placement test.

1355 Intermediate Algebra I
3 Credit Hour(s)

Factoring; operations with polynomials and rational expressions; solving second-degree equations by factoring; operations with rational expressions; solving equations with rational expressions.

Prerequisite(s): MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1365 Intermediate Algebra II
3 Credit Hour(s)

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.

Prerequisite(s): MAT 1355 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1370 Intermediate Algebra
5 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): MAT 1270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1410 Numerical Concepts for Teachers
4 Credit Hour(s)

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.

Prerequisite(s): 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
4 Credit Hour(s)

Introduction to the concepts of using functions to model data, basic probability and basic statistics as appropriate for early- and middle-childhood teachers. An inquiry- and activity-based approach is used to explore linear and quadratic functions, linear inequalities, modeling data with functions, probability concepts, descriptive statistics and basic inferential statistics.

Prerequisite(s): MAT 1410 with a grade of C or better

1430 Geometry & Measurement for Teachers
4 Credit Hour(s)

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.

Prerequisite(s): MAT 1420 with a grade of C or better

1440 Excursions in Mathematics
3 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): MAT 1365 OR MAT 1370 OR MAT 1340 with a grade of D or better in MAT 1365 or MAT 1370 or with a grade of C or better in MAT 1340 or satisfactory score on the Sinclair Community College mathematics placement test

1445 Quantitative Literacy
3 Credit Hour(s)

The course will explore various applications of mathematics in the social, finance, health and environmental fields with emphasis on developing informational, technological, logical, and visual reasoning skills. Topics from numeracy, probability and statistics,

finance, mathematical modeling with linear, statistical, and exponential functions, and other areas of mathematics will be covered.

Prerequisite(s): MAT 1340 with a grade of C or better OR MAT 1365 OR MAT 1370 with a grade of D or better

1450 Introductory Statistics
4 Credit Hour(s)

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.

Prerequisite(s): 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
4 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): MAT 1365 OR MAT 1370 with a grade of C or better or satisfactory score on the Sinclair Community College mathematics placement test

1470 College Algebra
4 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): MAT 1365 OR MAT 1370 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1570 Trigonometry
3 Credit Hour(s)

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.

Prerequisite(s): MAT 1470 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

1580 Precalculus
5 Credit Hour(s)

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.

Prerequisite(s): MAT 1290 OR MAT 1365 OR MAT 1370 With a grade of C or better

2160 Calculus for Business & Economics
5 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): 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
4 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): 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
3 Credit Hour(s)

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. Traditional testing (proctored or in Testing Center) is used in all online sections.

Prerequisite(s): MAT 2170 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2270 Calculus & Analytic Geometry I
5 Credit Hour(s)

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.

Prerequisite(s): 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
5 Credit Hour(s)

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.

Prerequisite(s): MAT 2270 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2290 Calculus & Analytic Geometry III
5 Credit Hour(s)

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.

Prerequisite(s): MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
4 Credit Hour(s)

Solutions and applications of ordinary differential equations including separable, exact, homogeneous and non-homogeneous linear equations and others. Numerical approximation methods as well as substitutions, the total differential, separation of variables, integrating factors, undetermined coefficients, variation of parameters, Laplace Transforms and power series methods are covered.

Prerequisite(s): MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2320 Linear Algebra
3 Credit Hour(s)

Systems of linear equations, matrices, determinants, linear transformations, Euclidean n-space, coordinate vectors, abstract vector spaces, dimension and rank, eigenvalues and eigenvectors.

Prerequisite(s): MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2330 Differential Equations & Linear Algebra
5 Credit Hour(s)

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.

Prerequisite(s): MAT 2280 with a grade of C or better or satisfactory score on Sinclair Community College mathematics placement test

2570 Discrete Mathematics
4 Credit Hour(s)

Discrete Mathematics for Computer Science. Topics include formal logic, proofs, sets, combinatorics, graphs, trees, Boolean algebras, and base-n arithmetic.
Prerequisite(s): MAT 1460 OR MAT 1470 with a C grade or better

Mechanical Engineering (MEE)

2101 Statics for Engineers
3 Credit Hour(s)

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.
Prerequisite(s): MAT 2270 AND PHY 2201

2201 Thermodynamics for Engineers
3 Credit Hour(s)

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. Two classroom, two lab hours per week.
Prerequisite(s): MAT 2280

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

Stress and deformations, torsions, shear and moments in beams, stresses in beams, beam deflections, combined stresses and eccentric loading. This course is calculus based. Two classroom, two lab hours per week.
Prerequisite(s): MEE 2101

2401 Dynamics for Engineers
3 Credit Hour(s)

Kinematics of particles and rigid bodies; acceleration, work, energy, impulse and momentum of particles and rigid bodies. Two classroom, two lab hours per week.
Prerequisite(s): MEE 2101

Mechanical Engineering Technology (MET)

1101 Introduction to Engineering Drafting
2 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): MAT 1270

1131 Personal Computer Applications for Engineering Technology
1 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0022 AND DEV 0030

1151 Guitar Manufacturing using Science, Technology, Engineering, & Mathematics (STEM) Concepts
3 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): MET 1131 AND MAT 1280 OR MAT 2270

1201 Introduction to Engineering Design using Inventor
3 Credit Hour(s)

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. Two classroom, two lab hours per week.
Prerequisite(s): MAT 1270

1241 Principles of Engineering
2 Credit Hour(s)

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.
Prerequisite(s): MET 1201 AND MAT 1280 OR MAT 1470

1281 Engineering Design & Development
2 Credit Hour(s)

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.
Prerequisite(s): MET 1241

1301 SolidWorks Basics
3 Credit Hour(s)

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.
Prerequisite(s): MET 1101

1331 NX (Unigraphics) Basics
3 Credit Hour(s)

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.
Prerequisite(s): MET 1101

1351 Solid Edge Basics
3 Credit Hour(s)

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.
Prerequisite(s): MET 1101

1371 CAD Concepts using AutoCAD
3 Credit Hour(s)

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
3 Credit Hour(s)

The laws and application of the principles of thermodynamics as they apply to internal combustion engines, steam cycles and refrigeration. Two classroom, two lab hours per week.
Prerequisite(s): PHY 1141 OR PHY 2201

2151 Material Science
3 Credit Hour(s)

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, thermosetting, ceramics, composites and glasses are included. Two classroom, two lab hours per week.
Prerequisite(s): MET 1101 AND PHY 1131 OR PHY 1141 AND CHE 1111

2201 Statics
3 Credit Hour(s)

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.
Prerequisite(s): MAT 1290 OR MAT 1570 AND PHY 1131 OR PHY 1141 AND MET 1161

2251 Strength of Materials
3 Credit Hour(s)

Stress and deformations, torsions, shear and moments in beams, stresses in beams, beam deflections, combined stresses. This course is algebra based. Two classroom, two lab hours per week.
Prerequisite(s): MET 2201 OR MEE 2101

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): MET 2201 OR MEE 2101

2351 Dynamics
3 Credit Hour(s)

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.
Prerequisite(s): MET 2201 OR MEE 2101

2401 Machine Design
3 Credit Hour(s)

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.
Prerequisite(s): MET 2251 AND PHY 1131

2700 Mechanical Engineering Technology Internship   R
1 - 4 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): COM 2206 OR COM 2211 OR COM 2225 AND ENG 1101

2780 Mechanical Engineering Technology Capstone
4 Credit Hour(s)

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.
Prerequisite(s): MET 2101 AND MET 2151 AND MET 2201 AND MET 2251 AND MET 1301 AND MAN 2110

Mental Health Technology (MHT)

1101 Introduction to Human Services & Behavioral Health
2 Credit Hour(s)

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.

Prerequisite(s): DEV 0012 OR DEV 0062 AND DEV 0032 OR DEV 0054 OR DEV 0082 OR DEV 0044

1130 Introduction to Addictive Illness
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012 OR DEV 0062 AND DEV 0032 OR DEV 0054 OR DEV 0082 OR DEV 0044

1155 Administration of Activity Programming I
4 Credit Hour(s)
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
2 Credit Hour(s)
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.
Prerequisite(s): MHT 1101

1201 Interviewing Skills
3 Credit Hour(s)
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.
Prerequisite(s): MHT 1101 AND Restricted to Majors

1203 Professional Documentation
1 Credit Hour(s)
Functional, legal and ethical aspects of documentation including mechanics of writing problem statements, intake and progress notes. Documentation systems.
Prerequisite(s): MHT 1101 AND Restricted to Majors

1236 Assessment & Diagnosis of Substance Use Disorders
3 Credit Hour(s)
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.
Prerequisite(s): MHT 1130 AND Restricted to Majors

1256 Administration of Activity Programming II
4 Credit Hour(s)
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).
Prerequisite(s): MHT 1155

2105 Psychosocial Methods
3 Credit Hour(s)
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).
Prerequisite(s): MHT 1200 AND PSY 2217 AND Restricted to Majors

2111 Group Dynamics I
3 Credit Hour(s)
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 hours per week.
Prerequisite(s): MHT 1201 AND Restricted to Majors
Co-requisite(s): MHT 2112

2112 Lab for Group Dynamics I
0 Credit Hour(s)

2121 Practicum I
5 Credit Hour(s)
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.
Prerequisite(s): MHT 1201 AND Restricted to Majors

2137 Treatment Techniques in Substance Use Disorders
3 Credit Hour(s)
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.
Prerequisite(s): MHT 1236 AND Restricted to Majors

2138 Ethical Issues in Behavioral Healthcare
2 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

2211 Group Dynamics II
3 Credit Hour(s)
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 hours per week.
Prerequisite(s): MHT 2111 AND Restricted to Majors
Co-requisite(s): MHT 2212

2212 Lab for Group Dynamics II
0 Credit Hour(s)

2222 Practicum II
5 Credit Hour(s)

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.
Prerequisite(s): MHT 2121 AND Restricted to Majors

2225 Residential Technician Practicum
3 Credit Hour(s)

Students in this course will demonstrate professional knowledge and skills for the residential technician including safety, health, communication, cultural diversity, residential services and the role of the residential staff. Two classroom, seven practicum hours per week at the agency for full 16-week semester. Four classroom, fourteen practicum hours per week for 8-week term.
Prerequisite(s): DEV 0012 AND DEV 0032 All other required courses must be taken prior to or in conjunction with MHT 2225

2232 Community Support
2 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

2235 Family Dynamics of Addiction
3 Credit Hour(s)

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.
Prerequisite(s): MHT 1130 AND Restricted to Majors

2239 Dual Diagnosis
2 Credit Hour(s)

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.
Prerequisite(s): MHT 1130 AND Restricted to Majors

2245 Mental Health & the Family
3 Credit Hour(s)

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.
Prerequisite(s): ENG 1101 AND MHT 2105 AND Restricted to Majors

2250 Child & Adolescent Mental Health
3 Credit Hour(s)

Mental health and mental ill-health issues related to childhood and adolescents. Etiology and treatment approaches.

2252 Issues in Behavioral Health   R
1 - 3 Credit Hour(s)

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   R
1 - 3 Credit Hour(s)

Current research and issues regarding special populations. Trends and best practices in addictions.

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): ECO 2180

2102 Principles of Advertising
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)
Fundamentals of music theory including notation of pitches, rhythms, scales, intervals, triads and chords.

1102 Introduction to Aural Skills
3 Credit Hour(s)
Fundamentals of sight singing, dictation, ear training including reading, hearing and notating rhythms, melodies and intervals.

1103 Sight-Singing for Singers
1 Credit Hour(s)
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.

1109 Introduction to Music Education
2 Credit Hour(s)
Aspects of professional music teaching and pedagogy including teaching methodologies and philosophies; elements of learning and teaching; variety of professional organizations and their resources will be introduced.
Prerequisite(s): ENG 1201 AND Approval of Department AND Restricted to Majors

1110 Music Technology for Music Majors
1 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): MUS 1101 AND Approval of Department
Co-requisite(s): MUS 1110

1112 Aural Skills I
1 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1113 Music Theory II
3 Credit Hour(s)
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.
Prerequisite(s): MUS 1111

1114 Aural Skills II
1 Credit Hour(s)
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.
Prerequisite(s): MUS 1101

1115 Piano for Music Majors I
1 Credit Hour(s)
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.
Prerequisite(s): MUS 1101

1116 Piano for Music Majors II
1 Credit Hour(s)
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.
Prerequisite(s): MUS 1115

1117 Vocal Diction I
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Instructor

1118 Vocal Diction II
2 Credit Hour(s)
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.
Prerequisite(s): MUS 1117 AND Approval of Instructor

1119 Secondary Voice   R
1 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1121 Music Appreciation
3 Credit Hour(s)
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
3 Credit Hour(s)
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.

1123 World Music
3 Credit Hour(s)
A course that describes and analyzes historical-social elements of western culture, non-western culture, and the global interdependence of groups and individuals as seen in the music(s) of these various cultures.

1131 Chorale   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Instructor

1133 Chamber Choir   R
1 Credit Hour(s)

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.
Prerequisite(s): Audition required

1135 Women's Ensemble   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Instructor

1137 Men's Ensemble   R
1 Credit Hour(s)

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.
Prerequisite(s): Audition and/or Approval of Instructor

1139 Contemporary Gospel Ensemble   R
1 Credit Hour(s)

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.
Prerequisite(s): Audition/Permission of Instructor

1141 Wind Symphony   R
1 Credit Hour(s)

Concentration on instrumental problems and techniques. Development of large and small group wind repertoire. Public performance is a major part of course activities.
Prerequisite(s): Audition required

1143 Concert Band   R
1 Credit Hour(s)

Concentration on instrumental problems and techniques. Development of large concert band repertoire. Public performance is a major part of course activities.
Prerequisite(s): Audition

1145 Classical Guitar Ensemble   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Instructor

1147 Jazz Ensemble   R
1 Credit Hour(s)

Big band jazz ensemble open to college and community musicians. Concerts and appearances are scheduled during academic year.
Prerequisite(s): Audition required

1149 Jazz Combo   R
1 Credit Hour(s)

Small jazz group, limited to ten or fewer players. Development of basic jazz performance skills, including improvisation. Concerts scheduled near end of terms.
Prerequisite(s): Audition

1151 Concert Handbell Choir   R
1 Credit Hour(s)

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.
Prerequisite(s): Audition required

1153 Piano Ensemble   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Instructor

1171 Piano Class
3 Credit Hour(s)

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
3 Credit Hour(s)

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   R
1 Credit Hour(s)

Fundamental study of guitar playing techniques. Students must provide their own acoustic instruments. (Electric guitars are not appropriate.)

1174 Guitar Class II   R
1 Credit Hour(s)

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.)
Prerequisite(s): MUS 1173

1500 Applied Piano for Non-Majors   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1501 Applied Voice for Non-Majors   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1502 Applied Classical Guitar for Non-Majors   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1503 Applied Flute for Non-Majors   R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1504 Applied Clarinet for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1505 Applied Saxophone for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1506 Applied Oboe for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1507 Applied Bassoon for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1508 Applied Trumpet for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1509 Applied Trombone for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1510 Applied French Horn for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1511 Applied Baritone Horn for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1512 Applied Tuba for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1513 Applied Violin for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1514 Applied Viola for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1515 Applied Cello for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1516 Applied String Bass for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1517 Applied Percussion for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1518 Applied Organ for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1519 Applied Harpsichord for Non-Majors R
1 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1520 Applied Popular Guitar for Non-Majors   R
1 Credit Hour(s)

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.

Prerequisite(s): Approval of Department

1521 Applied Electric Bass for Non-Majors   R
1 Credit Hour(s)

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.

Prerequisite(s): Approval of Department

1522 Applied Jazz Drumming for Non-Majors   R
1 Credit Hour(s)

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.

Prerequisite(s): Approval of Department

1523 Applied Jazz Piano for Non-Majors   R
1 Credit Hour(s)

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.

Prerequisite(s): Approval of Department

2111 Music Theory III
3 Credit Hour(s)

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.

Prerequisite(s): MUS 1113

2112 Aural Skills III
1 Credit Hour(s)

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.

Prerequisite(s): MUS 1114

2113 Music Theory IV
3 Credit Hour(s)

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.

Prerequisite(s): MUS 2111

2114 Aural Skills IV
1 Credit Hour(s)

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.

Prerequisite(s): MUS 2112

2115 Piano for Music Majors III
1 Credit Hour(s)

Third semester of a four-semester sequence for nonpianist music majors. Transposition and harmonization are emphasized.

Prerequisite(s): MUS 1116

2116 Piano for Music Majors IV
1 Credit Hour(s)

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.

Prerequisite(s): MUS 2115

2117 Survey of Musical Styles I
3 Credit Hour(s)

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.

Prerequisite(s): MUS 1112 AND ENG 1201 AND Approval of Department

2118 Survey of Musical Styles II
3 Credit Hour(s)

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.

Prerequisite(s): MUS 2117 AND Approval of Department

2210 Conducting Fundamentals
2 Credit Hour(s)

Fundamentals of conducting music ensembles with emphasis on basic baton technique, meters, cueing, addressing different styles, conducting terminology and score reading.

Prerequisite(s): MUS 1113 AND Approval of Department

2211 Handbell Choir Conducting
1 Credit Hour(s)

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   R
1 Credit Hour(s)

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   R
1 Credit Hour(s)

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

Prerequisite(s): Instructor Approval

2261 Applied Music Practicum R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2297 Special Topics   **R**
0.5 - 9 Credit Hour(s)
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   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2501 Applied Piano for Majors II   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2502 Applied Voice for Majors I   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2503 Applied Voice for Majors II   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2504 Applied Classical Guitar for Majors I   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2505 Applied Classical Guitar for Majors II   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2506 Applied Flute for Majors I   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2507 Applied Flute for Majors II   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2508 Applied Clarinet for Majors I   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2509 Applied Clarinet for Majors II   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2510 Applied Saxophone for Majors I   **R**
2 Credit Hour(s)
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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2511 Applied Saxophone for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2512 Applied Oboe for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2513 Applied Oboe for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2514 Applied Bassoon for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2515 Applied Bassoon for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2516 Applied Trumpet for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2517 Applied Trumpet for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2518 Applied French Horn for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2519 Applied French Horn for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2520 Applied Baritone Horn for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2521 Applied Baritone Horn for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2522 Applied Trombone for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2523 Applied Trombone for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2524 Applied Tuba for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2525 Applied Tuba for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2526 Applied Violin for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2527 Applied Violin for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2528 Applied Viola for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2529 Applied Viola for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2530 Applied Cello for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2531 Applied Cello for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2532 Applied String Bass for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2533 Applied String Bass for Majors II   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2534 Applied Percussion for Majors I   R
2 Credit Hour(s)

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.

Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2535 Applied Percussion for Majors II   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2536 Applied Organ for Majors I   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2537 Applied Organ for Majors II   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2538 Applied Harpsichord for Majors I   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2539 Applied Harpsichord for Majors II   R
2 Credit Hour(s)

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.
Prerequisite(s): Approval of Department AND Approval of Division Advisor AND Restricted to Majors

2600 General Ensemble   R
1 Credit Hour(s)

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).
Prerequisite(s): Approval of Department OR Approval of Instructor

Nursing (NSG)

1100 Human Response Assessment
4 Credit Hour(s)

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 seven (37) lab, and eight (8) clinical hours per semester.
Prerequisite(s): Acceptance in Nursing Program Co-requisite(s): NSG 1101

1101 Promoting Healthy Responses Through Psychomotor Interventions
2 Credit Hour(s)

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.
Prerequisite(s): Acceptance into Nursing Program Co-requisite(s): NSG 1100

1102 Promoting Healthy Responses to Physiological Stressors
8 Credit Hour(s)

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. Sixty (60) class, forty five (45) lab, and 135 clinical hours per semester.
Prerequisite(s): NSG 1100 AND NSG 1101 AND BIO 2205 AND BIO 1242

1111 Introduction to Nursing
1 Credit Hour(s)

This course is designed to introduce students to the field of nursing and explore nursing as a personal career choice. An overview of practice areas, essential functions, basic ethical and legal responsibilities and professional behaviors expected of registered nurses and nursing students. Students are introduced to program learning outcomes and experiences within the nursing curriculum and create a personal developmental plan for individual success in nursing.

1130 Transition to Registered Nursing
4 Credit Hour(s)

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.
Prerequisite(s): Current Ohio LPN License AND Acceptance into the LPN-RN Track
Co-requisite(s): NSG 1131

1131 Transition to Registered Nursing II
4 Credit Hour(s)

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. Integrates nursing principles and refines psychomotor interventions to support or correct physiological stressors. Thirty (30) class, twenty two (22) lab, and sixty eight (68) clinical hours per semester.
Prerequisite(s): NSG 1130 AND Current Ohio LPN License AND Acceptance into the LPN-RN Track
Co-requisite(s): NSG 1130

2200 Promoting Healthy Responses to Specific Stressors I
4 Credit Hour(s)

Applies knowledge of responses to specific stressors related to metabolic function, surgery, nutrition, and elimination. Begins application of decision-making and clinical judgment, management of nursing care, and resource management. Thirty (30) class, twenty two (22) lab, and sixty eight (68) clinical hours per half semester.
Prerequisite(s): NSG 1102 OR NSG 1131 AND COM 2206 AND ALH 2202
Co-requisite(s): NSG 2201

2201 Promoting Healthy Responses to Psychosocial Stressors
3 Credit Hour(s)

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, fifteen (15) lab hours, and thirty (30) clinical hours per half semester.
Prerequisite(s): NSG 1102 OR NSG 1131 AND ALH 2202 AND COM 2206
Co-requisite(s): NSG 2200

2202 Promoting Healthy Responses to Specific Stressors II
4 Credit Hour(s)

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. Thirty (30) class, twenty two (22) lab, and sixty eight (68) clinical hours per half semester.
Prerequisite(s): NSG 2200 AND NSG 2201 AND PSY 2200
Co-requisite(s): NSG 2203

2203 Promoting Healthy Responses to Maternal/Child Stressors
5 Credit Hour(s)

Analyzes responses of the childbearing family during maternity cycle. Uses nursing process to promote health in mother and infant. Analyzes responses to stressors related to women's reproductive functions. Analyzes responses of child/family to hospitalization and illness. Adapts interventions to developmental needs of child. Forty five (45) class hours, twenty two (22) lab hours, and sixty eight (68) clinical hours per half semester.
Prerequisite(s): NSG 2200 AND NSG 2201 AND PSY 2200
Co-requisite(s): NSG 2202

2206 Integrated Care
4 Credit Hour(s)

Integrates critical thinking to make clinical judgments necessary to care for patients/families responding to complex or life-threatening stressors of circulation, renal, hepatic, shock, and oxygenation. Discusses early detection of changes in patient responses and the role of the nurse in emergencies. Thirty (30) class hours, twenty two (22) lab hours, and sixty eight (68) clinical hours.
Prerequisite(s): NSG 2202 AND NSG 2203
Co-requisite(s): NSG 2210

2210 Role Transition
2 Credit Hour(s)

Provides the theoretical information to facilitate transition to beginning Associate Degree Nurse. Integrates roles and responsibilities of the nurse with principles of care of a group of patients/families. Analyzes concepts of communication, conflict resolution, and health care delivery systems. Emphasizes responsibility,

accountability, and professional development. Thirty (30) class hours per half semester.
Prerequisite(s): NSG 2202 AND NSG 2203
Co-requisite(s): NSG 2206

2211 Directed Nursing Practice
2 Credit Hour(s)

Moves the individual from nursing student to beginning Associate Degree Nurse through a directed nursing practice. Applies concepts related to the professional role of the nurse in health promotion/disease prevention, management of care for a group of patients, clinical judgment, interpersonal relationships, responsibility, and accountability in the clinical setting. One hundred fifty (150) directed practice hours per half semester.
Prerequisite(s): NSG 2202 AND NSG 2203

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
2 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1101

1112 World Class Quality Systems & Procedures
4 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1100

1125 World Class Operations
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1101

1136 Plastics & Composites
3 Credit Hour(s)

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
1 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1101 AND OPT 1198

2205 Manufacturing Processes
3 Credit Hour(s)

Students will gain a basic understanding of manufacturing processes within a safe working environment.
Prerequisite(s): OPT 1101

2206 Value Analysis
2 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1101

2208 Engineering Technology Economics & Cost Analysis
3 Credit Hour(s)

Basic economic cost concepts, decisions, analysis and evaluations as applied to engineering design, production, maintenance and quality control.
Prerequisite(s): OPT 1198 AND MAT 1280

2211 Industrial Risk Management
2 Credit Hour(s)

This course provides a comprehensive approach to the factors that contribute to safe and environmentally sound practices in business and industry.

2216 Facilities Planning
3 Credit Hour(s)

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.
Prerequisite(s): OPT 2205

2221 Quality Assurance
3 Credit Hour(s)

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.
Prerequisite(s): OPT 2201

2223 Quality Systems & Auditing
2 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): OPT 1101

2240 Six Sigma: Green Belt
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): OPT 1125 OR MAN 2155

2267 Quality Certification Review   R
2 Credit Hour(s)

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
1 - 4 Credit Hour(s)

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
3 Credit Hour(s)

Application of Operations Technology Principles, using student teams for real or laboratory simulations of operations processes. Two classroom, two lab hours per week.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

Assessment of achievement by Operations Technology students in attaining program-related outcomes by completing a project demonstrating principles and practices of the major.
Prerequisite(s): Approval of Department

Occupational Therapy Assistant (OTA)

1101 Introduction to Occupational Therapy Assistant
2 Credit Hour(s)

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
2 Credit Hour(s)

Human development as a personal and universal experience; development of the self as an effective therapeutic tool.
Prerequisite(s): Restricted to Majors

1202 Functional Anatomy
3 Credit Hour(s)

Functional anatomy of neurological and musculoskeletal systems. Analysis of nervous systems, major joint and muscle groups involved in daily living tasks such as dressing, bathing, grooming, eating, cooking and housekeeping.
Prerequisite(s): Restricted to Majors

1251 Developmental Lab
3 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

1261 Directed Practice I
3 Credit Hour(s)

Introduction to people with physical, psychosocial and/or developmental disabilities. Using a holistic approach, observations will be documented in traditional occupational therapy note writing 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.
Prerequisite(s): Restricted to Majors
Co-requisite(s): OTA 1201 AND OTA 1251

1301 Disease Processes
2 Credit Hour(s)

The effect of the features of major diseases and syndromes treated in the field of occupational therapy on occupational performance.
Prerequisite(s): OTA 1201 AND Restricted to Majors

1302 Cultural Competency
2 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

1351 Evaluation Techniques
3 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

1361 Directed Practice II
3 Credit Hour(s)

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 the following semester. Two classroom, five directed practice hours per week.
Prerequisite(s): Restricted to Majors
Co-requisite(s): OTA 1301 AND OTA 1353

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
2 Credit Hour(s)
Theories, models of practice and frames of reference that provide the foundation for the practice of occupational therapy.
Prerequisite(s): Restricted to Majors

2451 Treatment Techniques I
3 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

2461 Clinical Practicum I
3 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors
Co-requisite(s): OTA 2401 AND OTA 2451 AND OTA 2501 AND OTA 2551

2501 Occupational Therapy Assistant Capstone
2 Credit Hour(s)
Oral and written case presentations demonstrating skills and knowledge necessary for success in the clinical phase of the curriculum.
Prerequisite(s): Restricted to Majors

2551 Treatment Techniques II
2 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

2560 Clinical Affiliation I
2 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

2561 Clinical Issues I
1 Credit Hour(s)
Facilitation of increased practical knowledge and problem-solving skills to address professional, ethical, legal and social issues within clinical practice.
Prerequisite(s): Restricted to Majors
Co-requisite(s): OTA 2560

2662 Clinical Affiliation II
2 Credit Hour(s)
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.
Prerequisite(s): OTA 2560 AND OTA 2561 AND Restricted to Majors

2663 Clinical Issues II
1 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors
Co-requisite(s): OTA 2662

Paralegal (PAR)

1101 Paralegal Principles
3 Credit Hour(s)
The paralegal's role in the legal system is introduced. The function of case law, statutes, administrative regulations, constitutions and court rules are explored.
Prerequisite(s): Restricted to Majors AND Approval of Department
Co-requisite(s): PAR 1102

1102 Legal Technology
1 Credit Hour(s)
This course develops student paralegal skills in introduction to the technology used by paralegals in law firm environments.
Prerequisite(s): Restricted to Majors AND Approval of Department
Co-requisite(s): PAR 1101

1103 Litigation
3 Credit Hour(s)
Introduction to the civil system, courts, torts and civil pleadings. The student will develop skills in drafting basic pleadings. Note: This course may be taken concurrently with PAR 1101 and PAR 1102.
Prerequisite(s): PAR 1101 AND PAR 1102 Restricted to Majors AND Approval of Department

1201 Legal Research & Writing
3 Credit Hour(s)
This course develops student skills in researching Ohio's legal resources, writing legal memos and letters and using the Ohio Manual of Citations. Note: This may be taken concurrently with PAR 1103.
Prerequisite(s): PAR 1101 AND PAR 1102 Restricted to Majors

1202 Advanced Legal Technology
1 Credit Hour(s)
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.
Prerequisite(s): PAR 1102 AND Restricted to Majors

1203 Advanced Litigation
3 Credit Hour(s)
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.
Prerequisite(s): PAR 1103 AND Restricted to Majors

1204 Real Estate Law
3 Credit Hour(s)
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.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)

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.
Prerequisite(s): PAR 1201 AND Restricted to Majors

2302 Family Law
3 Credit Hour(s)

This course develops student paralegal skills in preparation of documents in a domestic relations practice, including pleadings and forms.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2303 Probate Law
3 Credit Hour(s)

Summary and full administration of probate estates, adoptions, guardianships, name changes and minor settlements.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2304 Paralegal Ethics
3 Credit Hour(s)

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.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2401 Paralegal Internship
3 Credit Hour(s)

Application of skills in a legal environment. Professionalism, resumes and interviewing skills. One classroom, fourteen practicum hours per week.
Prerequisite(s): PAR 1203 AND PAR 2301 AND PAR 2304 AND Restricted to Majors AND Approval of Department

2501 Juvenile Law
1 Credit Hour(s)

Juvenile delinquency, child custody, child support and matters relating to juveniles in the justice system.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2502 Employment Discrimination
1 Credit Hour(s)

Employee rights in the work place, including civil rights, Title VII, age discrimination and sexual harassment.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2503 Intellectual Property
1 Credit Hour(s)

Existing resources will be used. Podium classroom with individual student computer access required. Sinclair Library legal resources needed. Student Lexis/Nexis ID required.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2504 Bankruptcy Law
2 Credit Hour(s)

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.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2505 Criminal Law
2 Credit Hour(s)

This course develops student paralegal skills in analyzing Ohio criminal law and Ohio criminal procedures and preparing criminal trial procedure documents.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2506 Business Organizations
3 Credit Hour(s)

This course develops student paralegal skills in the organization, operation and dissolution of business organizations..
Prerequisite(s): PAR 1103 AND Restricted to Majors

2507 Legal Interviewing Skills
1 Credit Hour(s)

This course develops student paralegal skills in client and witness interviews, including using interpersonal skills and identifying ethical concerns.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2508 Appellate Procedure
1 Credit Hour(s)

This course develops student paralegal skills in initiating criminal and civil appeals. Requirements for ordering transcripts and organizing appellate briefs.
Prerequisite(s): PAR 1103 AND Restricted to Majors

2511 Online Legal Research
1 Credit Hour(s)

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.
Prerequisite(s): PAR 1201 AND Restricted to Majors

Physical Education (PED)

1101 Introduction to Swimming
1 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): PED 1101

1103 Beginning Scuba Diving
1 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): PED 1103 OR Approval of Department

1105 Lifeguard Training
3 Credit Hour(s)

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.
Prerequisite(s): PED 1102

1106 Water Safety Instructor
3 Credit Hour(s)

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.
Prerequisite(s): PED 1101

1107 Golf
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): PED 1115 OR Approval of Department

1117 Social Dance
1 Credit Hour(s)

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
1 Credit Hour(s)

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.

1121 Fencing
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)

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
1 Credit Hour(s)
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
1 Credit Hour(s)
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
1 Credit Hour(s)
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
1 Credit Hour(s)
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
1 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
Basic nature of philosophy, its relationship to physical and social sciences and theology and its value to the individual.

2206 Introduction to Ethics
3 Credit Hour(s)
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
3 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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
4 Credit Hour(s)
A survey of motion, forces, energy, thermodynamics, properties of matter, electricity and magnetism for nonscience majors. Three classroom, three lab hours per week.
Prerequisite(s): DEV 0024 OR DEV 0074 OR DEV 0050
Co-requisite(s): PHY 1110

1104 Sound, Light & Modern Physics
4 Credit Hour(s)
A survey of sound, light, color, atomic and nuclear physics and special relativity for nonscience majors. Three classroom, three lab hours per week.
Prerequisite(s): PHY 1100 OR PHY 1141
Co-requisite(s): PHY 1119

1106 Physics for Technology
3 Credit Hour(s)
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 hours per week.
Prerequisite(s): DEV 0024 OR DEV 0074 OR DEV 0050

1107 Lab for Physics for Technology
0 Credit Hour(s)

1110 Lab for Introduction to Physics
0 Credit Hour(s)

1119 Lab for Sound, Light & Modern Physics
0 Credit Hour(s)

1131 Technical Physics
3 Credit Hour(s)
Algebra-based mechanics including kinematics, dynamics, statics, work, energy, power, rotational motion and fluids. Two classroom, two lab hours per week.
Prerequisite(s): MAT 1280

1141 College Physics I
4 Credit Hour(s)
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.
Prerequisite(s): MAT 1470 OR MAT 1580

1142 College Physics II
4 Credit Hour(s)
Algebra-based university-parallel course in oscillations, waves, sound, optics, electricity, magnetism and electromagnetism. Three classroom, three lab hours per week.
Prerequisite(s): PHY 1141

1161 Scientific Thought & Method
3 Credit Hour(s)
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.
Prerequisite(s): MAT 1270

2201 General Physics I
5 Credit Hour(s)
Fundamentals of mechanics including kinematics, dynamics, work and energy, momentum, oscillations, gravity, fluids, waves and sound, thermodynamics and kinetic theory, using calculus as appropriate. Four classroom, three lab hours per week.
Prerequisite(s): MAT 2270
Co-requisite(s): PHY 2207

2202 General Physics II
5 Credit Hour(s)
Electrostatics, D.C. conduction and circuits, magnetism, electromagnetic induction, quantum mechanics, optics and special relativity. Calculus used extensively. Four classroom, three lab hours per week.
Prerequisite(s): PHY 2201 AND MAT 2280
Co-requisite(s): PHY 2208

2207 Lab for General Physics I
0 Credit Hour(s)

2208 Lab for General Physics II
0 Credit Hour(s)

2210 Problem Solving in Physics with Matlab
2 Credit Hour(s)
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.
Prerequisite(s): MAT 1470 OR MAT 1290

2211 Introduction to Computational Methods
3 Credit Hour(s)
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.
Prerequisite(s): MAT 1470

2212 Introduction to Modeling & Simulation
3 Credit Hour(s)
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.
Prerequisite(s): MAT 1570

2220 Introduction to Computational Physics
4 Credit Hour(s)
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.
Prerequisite(s): MAT 2280 AND PHY 2202

2245 Concepts in Physics
4 Credit Hour(s)
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.
Prerequisite(s): MAT 1420

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
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
3 Credit Hour(s)
Principles and techniques of international politics, including theories, organizations and different world perspectives.

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
3 Credit Hour(s)
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
2 Credit Hour(s)
This course will engage students in the process of preparing a portfolio for a specific Sinclair course describing and documenting learning gained from experience. Upon completion, the portfolio may be evaluated and college credit is awarded to the extent the learning is college equivalent.

1130 ATS/AIS Degree Development
1 Credit Hour(s)
Development of the individual degree plan of study to be followed for successful completion of the ATS or AIS degree.
Prerequisite(s): Approval of Prior Learning Assessment Coordinator

2700 Prior Learning Internship
1 - 6 Credit Hour(s)
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.
Prerequisite(s): Permission of Co-op

2780 ATS/AIS Capstone
2 Credit Hour(s)
Assessment of achievement by ATS/AIS students in attaining degree plan outcomes through a self-identified problem, reflective learning or portfolio.
Prerequisite(s): PRL 1130 AND Approval of Prior Learning Assessment Coordinator

Psychology (PSY)

1100 General Psychology
3 Credit Hour(s)
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.
Prerequisite(s): DEV 0012

1160 African American Psychology
3 Credit Hour(s)
Multidisciplinary study of theories, cultural themes and psychological constructs used to further promote understanding of thoughts, feelings and behaviors of African-Americans.

2126 Stress Management
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2180 Psychology of Gender
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2200 Lifespan Human Development
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2205 Child Development
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2206 Adolescent & Adult Development
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2214 Drugs & Behavior
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2217 Abnormal Psychology
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2218 Principles of Counseling
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2220 Personality Psychology
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2225 Social Psychology
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2228 Industrial Organizational Psychology
3 Credit Hour(s)
Introduction to the theories and practices of psychology in the workplace, including human resource management, organizational science, and human factors engineering. Specific topics include motivation and satisfaction, group decision making and development, leadership, workplace politics, employee selection and training, work-related stress, performance appraisal systems, and organizational improvement.
Prerequisite(s): PSY 1100

2235 Behavioral Science Research Methods
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100

2236 Behavioral Science Statistics
3 Credit Hour(s)
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.
Prerequisite(s): PSY 1100 AND PSY 2235

2242 Educational Psychology
3 Credit Hour(s)
Principles of learning and development applied to educational settings emphasizing research-supported development of effective learning in varied educational environments.
Prerequisite(s): PSY 1100

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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 Therapist Assistant (PTA)

1106 Introduction to Physical Therapy
1 Credit Hour(s)
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
2 Credit Hour(s)
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.
Prerequisite(s): HIM 1101 AND Admission to Program AND Restricted to Majors

1112 Pathology for Physical Therapist Assistant
3 Credit Hour(s)
Recognize and manage physiological responses in body systems related to physical interventions in commonly treated pathological conditions.
Prerequisite(s): BIO 1121 AND Admission to Program AND Restricted to Majors

1116 Anatomy & Kinesiology
5 Credit Hour(s)
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.
Prerequisite(s): BIO 1121 AND Admission to Program AND Restricted to Majors

1124 Clinical Procedures I
3 Credit Hour(s)
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.
Prerequisite(s): Restricted to Majors

1129 Therapeutic Exercise
4 Credit Hour(s)
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, nine lab hours per week.
Prerequisite(s): PTA 1116 AND Restricted to Majors

1144 Therapeutic Foundations
3 Credit Hour(s)
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.
Prerequisite(s): PTA 1116 AND Restricted to Majors

2115 Professional Issues II
2 Credit Hour(s)
Understanding physical, cognitive, and psychosocial concepts of the aging process, professional ethics and caring. Exploration of specialty and niche areas of physical therapy practice.
Prerequisite(s): PTA 2238 AND Restricted to Majors

2211 Clinical Practicum I
2 Credit Hour(s)
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 seven weeks.
Prerequisite(s): PTA 2238 AND Restricted to Majors

2212 Clinical Practicum II
2 Credit Hour(s)
Advanced 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 seven weeks.
Prerequisite(s): PTA 2211 AND Restricted to Majors

2221 Seminar for Clinical Practicum I
1 Credit Hour(s)
Integration of didactic and clinical skills and their application of principles in the clinical setting.
Prerequisite(s): PTA 2238 AND Restricted to Majors

2222 Seminar for Clinical Practicum II
1 Credit Hour(s)
Integration of didactic and clinical skills and their application of principles in the clinical setting.
Prerequisite(s): PTA 2211 AND Restricted to Majors

2226 Clinical Procedures II
2 Credit Hour(s)
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.
Prerequisite(s): PTA 1116 AND PTA 1144 AND Restricted to Majors

2230 Neuromuscular Rehabilitation
4 Credit Hour(s)
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.
Prerequisite(s): PTA 1144 AND Restricted to Majors

2234 Practice Management
2 Credit Hour(s)

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.
Prerequisite(s): PTA 2238 AND Restricted to Majors

2238 Musculoskeletal Rehabilitation
2 Credit Hour(s)

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, three lab hours per week.
Prerequisite(s): PTA 1129 AND Restricted to Majors

2240 Clinical Procedures Review
1 Credit Hour(s)

Review of curricular course content with required competency of technical skills based on courses being remediated.
Prerequisite(s): Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
2 Credit Hour(s)

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
1 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

1121 Radiographic Procedures I
5 Credit Hour(s)

Radiographic anatomy, equipment manipulation, positioning and image analysis of the thorax, abdomen and appendicular skeleton. Four classroom, three lab hours per week.
Prerequisite(s): Restricted to Majors
Co-requisite(s): RAT 1127

1127 Lab for Radiographic Procedures I
0 Credit Hour(s)

1131 Patient Care in Radiologic Technology
4 Credit Hour(s)

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 hours per week.
Prerequisite(s): Restricted to Majors
Co-requisite(s): RAT 1137

1137 Lab for Patient Care in Radiologic Technology
0 Credit Hour(s)

1212 Clinical Practicum II
2 Credit Hour(s)

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.
Prerequisite(s): RAT 1111 AND Restricted to Majors

1222 Radiographic Procedures II
5 Credit Hour(s)

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 hours per week.
Prerequisite(s): RAT 1121 AND Restricted to Majors
Co-requisite(s): RAT 1228

1228 Lab for Radiographic Procedures II
0 Credit Hour(s)

1241 Radiologic Sciences I
3 Credit Hour(s)

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 hours per week.
Prerequisite(s): RAT 1121 AND Restricted to Majors

1247 Lab for Radiologic Sciences I
0 Credit Hour(s)

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): RAT 1212 AND Restricted to Majors

2415 Radiographic Pathology
3 Credit Hour(s)

Introductory concepts of disease processes and etiologies with emphasis on radiographic appearances and exposure factor compensation.
Prerequisite(s): Restricted to Majors

2423 Radiographic Procedures III
3 Credit Hour(s)

Radiographic considerations related to geriatric, pediatric, advanced imaging procedures and modalities. Includes analysis of human anatomical structures using various anatomical planes.
Prerequisite(s): RAT 1222 AND Restricted to Majors

2442 Radiologic Sciences II
4 Credit Hour(s)

Principles of digital imaging technology to include applications in exposure formulation, image quality factors and variables, and image management

processes. Three classroom, two lab hours per week.
Prerequisite(s): RAT 1241 AND Restricted to Majors
Co-requisite(s): RAT 2448

2448 Lab for Radiologic Sciences II
0 Credit Hour(s)

2514 Clinical Practicum IV
3 Credit Hour(s)
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.
Prerequisite(s): RAT 2413 AND Restricted to Majors

2526 Capstone in Radiologic Technology
4 Credit Hour(s)
Synthesis of current knowledge of radiologic technology concepts, professional development including certification and licensure requirements , ethical/legal responsibilities and transition from student to radiographer.
Prerequisite(s): Restricted to Majors
Co-requisite(s): RAT 2514

2543 Radiologic Sciences III
2 Credit Hour(s)
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.
Prerequisite(s): RAT 2442 AND Restricted to Majors

2640 Computed Tomography Practicum   R
1 - 4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2641 Principles of Computed Tomography
2 Credit Hour(s)
Basic instrumentation and application concepts, including computer and x-ray unit components and their application to

protocols for acquiring sectional images of various body systems.
Prerequisite(s): Approval of Department

2643 Principles of Magnetic Resonance Imaging
2 Credit Hour(s)
Basic physics concepts involving the generation and construction of human planar images using magnetic resonance imaging technology.
Prerequisite(s): Approval of Department

2644 Applications of Magnetic Resonance Imaging
2 Credit Hour(s)
Magnetic resonance imaging procedures including patient preparation, positioning, imaging protocol, instrumentation and archiving.
Prerequisite(s): RAT 2643 AND Approval of Department

2645 Magnetic Resonance Imaging Practicum   R
1 - 4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2647 Principles of Mammography
3 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

2649 Mammography Practicum R
1 - 4 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

Religion (REL)

1111 Eastern Religions
3 Credit Hour(s)
Introduction to Far Eastern religions and cultural traditions, including beliefs, practices, stories and rituals, and historical context.

1112 Western Religions
3 Credit Hour(s)
Introduction to Western religions and cultural traditions, including beliefs, practices, stories, rituals and historical context.

1135 American Religious Movements
3 Credit Hour(s)
Examination of the history of unique American religious movements and their impact on our culture and thought.

2204 Great Books: The Bible & Western Culture
3 Credit Hour(s)
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
3 Credit Hour(s)
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   R
0.5 - 9 Credit Hour(s)
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)

1100 Introduction to Real Estate
3 Credit Hour(s)
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. This course is not an approved pre-licensing course.

1101 Real Estate Principles
3 Credit Hour(s)

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. Seat hour requirements strictly enforced by state rule.

1102 Real Estate Abstracting
4 Credit Hour(s)

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
3 Credit Hour(s)

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. Seat hour requirements strictly enforced by state rule.

1301 Real Estate Finance
1.5 Credit Hour(s)

Exploration of the institutions, methods, instruments and procedures involved in the financing of real estate, mortgage market and effects of government monetary/ fiscal policy, the requirements for loan application, loan closing process, and defaults and foreclosures.

1302 Real Estate Investing
3 Credit Hour(s)

An analytical approach to investment in real estate. Financing, tax considerations, appraisal, internal rate of return, acquisitions and exchanges. Case studies are used to provide examples of investment analysis techniques.

1401 Real Estate Appraisal
1.5 Credit Hour(s)

Methodology of neighborhood, sites and building analysis, three basic techniques of appraising and the theory underlying these techniques.

1402 Property Management
2 Credit Hour(s)

Management of residential, business, and commercial properties. Topics presented are real estate taxes, public relations, leasing, accounting and insurance.

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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 Real Estate Capstone
2 Credit Hour(s)

Apply knowledge and practice skills acquired in real estate courses concerning principles, law, finance, appraisal, investing and property management through the use of case studies, simulations and role playing.
Prerequisite(s): RES 1101 AND RES 1102 AND RES 1201 AND RES 2301 AND RES 2302

Respiratory Care (RET)

1100 Introduction to Respiratory Care
1 Credit Hour(s)

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.
Prerequisite(s): DEV 0012 AND DEV 0032 OR DEV 0044

1101 Respiratory Care Fundamentals I
5 Credit Hour(s)

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 hours per week.
Prerequisite(s): RET 1100 AND Restricted to Majors
Co-requisite(s): RET 1102

1102 Lab for Respiratory Care Fundamentals I
0 Credit Hour(s)

1124 Cardiopulmonary Pharmacology
2 Credit Hour(s)

Actions, effects, dosages and indications for drug classes commonly used to treat pulmonary and cardiovascular diseases.
Prerequisite(s): CHE 1111 AND Restricted to Majors

1125 Respiratory Care Sciences
4 Credit Hour(s)

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.
Prerequisite(s): BIO 1107

1201 Respiratory Care Fundamentals II
5 Credit Hour(s)

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 laboratory hours per week.
Prerequisite(s): RET 1101 AND Restricted to Majors
Co-requisite(s): RET 1202 AND 1203

1202 Lab for Respiratory Care Fundamentals II
0 Credit Hour(s)

1203 Respiratory Care Clinic I
3 Credit Hour(s)

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.
Prerequisite(s): RET 1101 AND Restricted to Majors

1205 Cardiopulmonary Disease Processes
3 Credit Hour(s)

Diseases and disorders affecting the cardiopulmonary systems emphasizing diagnosis, selection and implementation of therapeutic modalities and the role of the respiratory care practitioner in treatment.
Prerequisite(s): RET 1101 AND Restricted to Majors

1301 Respiratory Care Fundamentals III
3 Credit Hour(s)

Diseases and disorders affecting the cardiopulmonary systems emphasizing diagnosis, selection and implementation of therapeutic modalities and the role of the respiratory care practitioner in treatment.
Prerequisite(s): RET 1201 AND Restricted to Majors
Co-requisite(s): RET 1303

1303 Respiratory Care Clinic II
1 Credit Hour(s)

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.
Prerequisite(s): RET 1201 AND Restricted to Majors

2101 Critical Care I
5 Credit Hour(s)

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 hours per week.
Prerequisite(s): RET 1301 AND Restricted to Majors
Co-requisite(s): RET 2102 AND RET 2103

2102 Lab for Critical Care I
0 Credit Hour(s)

2103 Respiratory Care Clinic III
3 Credit Hour(s)

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.
Prerequisite(s): RET 1301 AND Restricted to Majors

2201 Critical Care II
4 Credit Hour(s)

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 hours per week.
Prerequisite(s): RET 2101 AND Restricted to Majors
Co-requisite(s): RET 2202 AND RET 2203 AND RET 2204

2202 Lab for Critical Care II
0 Credit Hour(s)

2203 Respiratory Care Clinic IV
2 Credit Hour(s)

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.
Prerequisite(s): RET 2101 AND Restricted to Majors

2204 Respiratory Care Clinic V
1 Credit Hour(s)

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.
Prerequisite(s): RET 2101 AND Restricted to Majors

2220 Respiratory Care Emergency Preparedness
3 Credit Hour(s)

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 hours per week.
Prerequisite(s): RET 2101 AND RET 2250 AND Restricted to Majors
Co-requisite(s): RET 2222

2222 Lab for Respiratory Care Emergency Preparedness
0 Credit Hour(s)

2250 Pediatrics & Neonatology
2 Credit Hour(s)

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.
Prerequisite(s): Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

A foundation for gaining knowledge about Russian culture and basic phrases related to simple spoken Russian, including travel situations.

1105 Conversational Russian II
3 Credit Hour(s)

Develops conversational skills to a greater degree of complexity, covering more situations. Promotes free expression in Russian within more specific and complex cultural contents.
Prerequisite(s): RUS 1100

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
1 Credit Hour(s)

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. Two lab hours per week.
Prerequisite(s): DEV 0010 AND DEV 0030

Sociology (SOC)

1101 Introduction to Sociology
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0010 AND DEV 0030

1108 Appalachian Families
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

1117 Popular Culture
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

1216 Sociology of Human Sexuality
3 Credit Hour(s)

A critical analysis of the interrelatedness of sociological, cultural, biological, psychological and religious factors influencing attitudes towards sexuality.

1219 Global Poverty
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

2205 Social Problems
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

2208 Sociology of American Cities
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

2214 Applied Population Demography
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

2226 Criminology
3 Credit Hour(s)

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.
Prerequisite(s): SOC 1101

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

A foundation for gaining knowledge about Hispanic culture and basic phrases related to simple spoken Spanish, including travel situations.

1101 Elementary Spanish I
4 Credit Hour(s)

Foundation for understanding, speaking, reading and writing Spanish. Work outside of class and/or in the language laboratory is required.

1102 Elementary Spanish II
4 Credit Hour(s)

Foundation for understanding, speaking, reading, and writing Spanish. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): SPA 1101

1161 Conversational Spanish for Criminal Justice
3 Credit Hour(s)
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
3 Credit Hour(s)
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): SPA 1102

2202 Intermediate Spanish II
3 Credit Hour(s)
Reviews and extends basic principles through composition and conversation, stressing fluency. Work outside of class and/or in the language laboratory is required.
Prerequisite(s): SPA 2201

2297 Special Topics   R
0.5 - 9 Credit Hour(s)
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
4 Credit Hour(s)
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.
Prerequisite(s): BIO 1107 AND Restricted to Majors
Co-requisite(s): SUT 1107

1107 Lab for Tissue Banking I
1 Credit Hour(s)
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.
Prerequisite(s): BIO 1107 AND Restricted to Majors
Co-requisite(s): SUT 1101

1110 Theory & Fundamentals
5 Credit Hour(s)
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.
Prerequisite(s): ALH 1101 AND BIO 1121 AND BIO 1222 AND COM 2206 OR COM 2211 AND HIM 1101 AND ENG 1101 AND Restricted to Majors
Co-requisite(s): SUT 1117

1117 Laboratory for Theory & Fundamentals
1 Credit Hour(s)
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, vital signs and surgical case management. Three lab hours per week.
Prerequisite(s): ALH 1101 AND BIO 1211 AND BIO 1222 AND COM 2206 OR COM 2211 AND HIM 1101 AND ENG 1101 AND Restricted to Majors
Co-requisite(s): SUT 1110

1120 The Surgical Process
2 Credit Hour(s)
Applies 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.
Prerequisite(s): BIO 2205 AND PSY 1100 AND SUT 1110 AND Restricted to Majors
Co-requisite(s): SUT 1127

1127 Directed Practice for the Surgical Process
4 Credit Hour(s)
Implements the surgical process in the operating room for basic abdominal surgeries. Twenty directed practice hours per week.
Prerequisite(s): Restricted to Majors
Co-requisite(s): SUT 1120

2101 Tissue Banking II
2 Credit Hour(s)
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.
Prerequisite(s): SUT 1101 AND Restricted to Majors
Co-requisite(s): SUT 2107

2107 Practicum for Tissue Banking II
2 Credit Hour(s)
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.
Prerequisite(s): SUT 1101 AND Restricted to Majors
Co-requisite(s): SUT 2101

2110 Surgical Procedures I
2 Credit Hour(s)
Discusses specific surgical procedures of the gastrointestinal and biliary systems.
Prerequisite(s): BIO 2205 AND SUT 1120 AND SUT 1127 AND Restricted to Majors
Co-requisite(s): SUT 2117

2117 Directed Practice for Surgical Procedures I
4 Credit Hour(s)
Implements the surgical process in the operating room for general surgery procedures. Twenty directed practice hours per week.
Prerequisite(s): BIO 2205 AND SUT 1120 AND SUT 1127 AND Restricted to Majors
Co-requistion(s): SUT 2110

2120 Surgical Procedures II
5 Credit Hour(s)
Discusses OB-GYN, genitourinary, ophthalmic, ear/nose/throat, head and neck, oral, plastic, vascular and neuro surgical procedures. Explains the role of the scrub technologist when intraoperative emergencies occur.
Prerequisite(s): ALH 2201 AND SUT 2110 AND SUT 2117 AND Restricted to Majors
Co-requisite(s): SUT 2127

2127 Directed Practice Surgical Procedures II
4 Credit Hour(s)

Implements the surgical process in the operating room for OB-GYN, Genitourinary, Eye-Ear-Nose-Throat, Opthalmology, Plastics, Vascular and Neuro surgical procedures. Twenty hours of directed practice per week.
Prerequisite(s): ALH 2201 AND SUT 2110 AND SUT 2117 AND Restricted to Majors
Co-requisite(s): SUT 2120

2200 Surgical Procedures III
5 Credit Hour(s)

Discusses specific orthopedic, cardiothoracic, 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.
Prerequisite(s): ALH 1140 AND MAT 1130 AND SUT 2120 AND SUT 2127 AND Restricted to Majors
Co-requisite(s): SUT 2207

2207 Directed Practice for Surgical Procedures III
4 Credit Hour(s)

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.
Prerequisite(s): ALH 1140 AND MAT 1130 AND SUT 2120 AND SUT 2127 AND Restricted to Majors
Co-requisite(s): SUT 2200

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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 Surgical Technology Review
2 Credit Hour(s)

This course will offer the Surgical Technology major the opportunity to review all program content in preparation for the national certification exam. Provides systematic review of all course material with related exams similar in design to the Certified Surgical Technologist (CST) Exam.
Prerequisite(s): SUT 2120 AND SUT 2127 Restricted to Majors

Social Work (SWK)

1206 Introduction to Social Work
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0010 AND DEV 0030

1213 Introduction to Social Welfare
3 Credit Hour(s)

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. Forty-eight hour agency observation required.

2207 Cultural Competence in a Diverse World
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0010 AND DEV 0030

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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
3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

1106 Stagecraft
2 Credit Hour(s)

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.
Prerequisite(s): DEV 0022
Co-requisite(s): THE 1107

1107 Lab for Stagecraft
1 Credit Hour(s)

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. Three lab hours per week.
Co-requisite(s): THE 1106

1111 Acting I
3 Credit Hour(s)

Basic training and practice in vocal, physical and creative processes used by the actor. One classroom, four lab hours per week.

1116 Stage Lighting Fundamentals
2 Credit Hour(s)

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.
Co-requisite(s): THE 1117

1117 Lab for Stage Lighting Fundamentals
1 Credit Hour(s)
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. Three lab hours per week.
Co-requisite(s): THE 1116

1118 Costume Fundamentals
2 Credit Hour(s)
Basic training in fundamental concepts and practices of costume design and construction.
Co-requisite(s): THE 1119

1119 Lab for Costume Fundamentals
1 Credit Hour(s)
Laboratory must be taken with THE 1118. Three lab hours per week.
Co-requisite(s): THE 1118

1120 Stage Make-up
2 Credit Hour(s)
Basic training in fundamental concepts and practices of stage make-up application. Four lab hours per week.

1194 Applied Theatre Technology I   **R**
1 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1196 Applied Theatre Technology II   **R**
1 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1198 Applied Theatre Technology III   **R**
1 Credit Hour(s)
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.
Prerequisite(s): Approval of Department

1199 Applied Theatre Performance   **R**
1 Credit Hour(s)
Applied Theatre Performance provides the student the opportunity to receive credit for practical experience.
Prerequisite(s): Approval of Department

1213 The Audition Process
3 Credit Hour(s)
Training and practice in current theatre audition techniques. Emphasis on choosing the audition piece, performing variety of auditions and cold readings. Includes the development of resume, cover letter and headshots for the actor. One classroom, four lab hours per week.
Prerequisite(s): THE 1111 with a C or better AND Approval of Department

2114 Voice & Movement for the Actor
3 Credit Hour(s)
Introduces the techniques of training the body and voice for the stage. Designed to bring about an awareness of the physical instrument through sound and movement. One classroom, four lab hours per week.
Prerequisite(s): THE 1213 with a C or better AND Approval of Department

2201 History of Theatre I
3 Credit Hour(s)
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
3 Credit Hour(s)
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.
Prerequisite(s): THE 2201

2206 Script Analysis
3 Credit Hour(s)
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.
Prerequisite(s): THE 1105 AND with a grade of C or better

2214 Introduction To Stage Combat
3 Credit Hour(s)
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.

2215 Acting Shakespeare
3 Credit Hour(s)
Script and character and the performance of selected Shakespearean scenes, monologues and soliloquies. Two classroom, two lab hours per week.
Prerequisite(s): THE 1111

2216 Acting II
3 Credit Hour(s)
Intermediate training and practice in vocal, physical and creative processes used by the actor. One classroom, four lab hours per week.
Prerequisite(s): THE 2114 with a grade of C or better AND Approval of Department

2220 Theatre Portfolio
2 Credit Hour(s)
Process for creating a theatre resume and portfolio: development of presentation and interview skills.
Prerequisite(s): Approval of Department

2240 Stage Management
3 Credit Hour(s)
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.
Prerequisite(s): THE 1105

2255 Theatre Workshop   **R**
1 - 3 Credit Hour(s)
Focused on a specialized area in theatre. This course is designed to bring together performance, direction and design/technology.
Prerequisite(s): Approval of Department

2270 Theatre Internship   R
1 - 4 Credit Hour(s)

Students earn credit toward certificate requirements for work learning experience related to the discipline of theatre. Students establish learning outcomes related to theatre and prepare reports and/or projects each term, detailing how the experience allowed for the application of theatre theory and/or skills. One (1) credit hour will be earned for a minimum of seven (7) practicum hours per week.
Prerequisite(s): Approval of Department

2296 Applied Theatre Technology IV   R
1 - 3 Credit Hour(s)

Advanced practical experience in theatre design and technology. Participation in department production required. Assignments made through department faculty and staff.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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   R
1 - 3 Credit Hour(s)

Further advanced practical experience in theatre design and technology. Participation in department production required. Assignments made through department faculty and staff.
Prerequisite(s): Approval of Department

2299 Theatre Practicum: Performance   R
1 - 3 Credit Hour(s)

This course provides the student who is interested in the performance aspects of production the opportunity to receive credit for practical experience.
Prerequisite(s): Approval of Department

Veterinary Technology (VET)

1100 Introduction to Animal Sciences
1 Credit Hour(s)

An introduction to a variety of employment opportunities available to those wishing to work with animals. The course will cover such topics as Veterinary Medicine, Work with Food and Fiber Animals, Wildlife, Zoo and Exotic Animals, Animal Retail and Services, and Research and Laboratory Animals.

1101 Introduction to Vet Tech I
2 Credit Hour(s)

History, development and responsibilities of a veterinary technologist. Introduce such topics such as comparative anatomy, laboratory techniques, animal husbandry, common diseases and surgical techniques; while focusing on the basics of safe animal restraint, behavioral cues of animals, common vaccines and medications, and expectations for employment. One classroom, three lab hours per week.

1201 Introduction to Vet Tech II
2 Credit Hour(s)

Continues the discussion on the responsibilities of the veterinary technologist. Introduces surgical technique and the application and monitoring anesthesia, safe radiologic practices, further laboratory techniques, care and monitoring of small animals, exotics, and large animals, and further emphasizes preventive care. One classroom, three lab hours per week.
Prerequisite(s): VET 1101

2100 Veterinary Technology I
8 Credit Hour(s)

Develops an understanding for the role diagnostic testing plays in the treatment of animals. Discusses the techniques employed to retrieve, handle, and evaluate laboratory samples. Develops the student's understanding of sterile technique, surgical technique and assistance, and anesthesia application and monitoring. Identifies and discusses the use of radiology, pharmacology, and records management in veterinary medicine. This is a lecture course with some hands -on applications. Eight classroom hours per week.
Prerequisite(s): VET 1201 AND VET 2107 Restricted to Majors

2101 Veterinary Technology II
6 Credit Hour(s)

Discussion of anatomy and physiology of multiple species. Proper use of medical and common terminology when discussing animal anatomy. Development and understanding of different physiologies on disease development, diagnoses, and treatment of animals Discusses the care and keeping of companion animals, farm animals, equines, exotic animals, and laboratory animals.
Prerequisite(s): VET 1201 AND VET 2107 Restricted to Majors

2107 Technical Practicum I
2 Credit Hour(s)

Practicum course in which the student is paired with a screened veterinary practice in order to develop beginning practical skills within a hospital setting. Fourteen (14) practicum hours per week in a Veterinary Practice.
Prerequisite(s): VET 1201 AND Restricted to Majors

2200 Veterinary Technology III
8 Credit Hour(s)

Continues to help develop an understanding of the need for diagnostic testing to determine the best way to treat large and exotic animals. Discussion of techniques employed to retrieve, handle, and evaluate samples. Continued discussion of the use of radiology, pharmacology, and records management in Veterinary Medicine. Advances the student's understanding of sterile technique, surgical technique and assistance, and anesthesia application, monitoring, and recovery in animals.
Prerequisite(s): Restricted to Majors

2201 Surgical Principles II
4 Credit Hour(s)

Advances the student's understanding of sterile technique, surgical technique and assistance and anesthesia application and monitoring in the large animals, exotics and laboratory animals. This will be a lecture course with four (4) classroom hours per week.
Prerequisite(s): VET 1201 AND MAT 1130 AND Restricted to Majors

2207 Technical Practicum II
2 Credit Hour(s)

Practicum course in which the student is paired with a screened veterinary practice in order to advance practical skills within a hospital setting. Included are observational experiences to large, laboratory, and exotic animal facilities to advance experience with a wide variety of animals. Fourteen (14) practicum hours per week in a veterinary practice.
Prerequisite(s): VET 2107 AND Restricted to Majors

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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.
Prerequisite(s): VET 1201 AND Restricted to Majors

2300 Preceptorship
2 Credit Hour(s)

During this 8-week period, each student will be partnered with 3 different screened veterinary hospitals. Within each practice, students will uphold proper professional attire and attitude and perform duties as set to them by the practice. This will be an unpaid preceptorship with 28 hours expected per week within the hospitals. The student will meet weekly with the instructor to discuss progress and concerns.
Prerequisite(s): VET 2207 AND Restricted to Majors AND Approval of Department

Visual Communication (VIS)

1100 Design Basics
4 Credit Hour(s)

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
4 Credit Hour(s)

Introduction to design drawing techniques as applied to visual communications, including stylization, perspective, shading and rendering. Two classroom, four lab hours per week.

1140 Design Processes I
4 Credit Hour(s)

Introduction to the design development process including hand sketching, creation of thumbnails, computer illustration, imaging, photo manipulation, page layout and composition techniques using industry-based software.

1180 History of Design
3 Credit Hour(s)

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.
Prerequisite(s): DEV 0032 OR DEV 0044 OR DEV 0054 OR DEV 0082

1208 Typography
4 Credit Hour(s)

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.
Prerequisite(s): VIS 1100 AND VIS 1140

1218 Design Processes II
4 Credit Hour(s)

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.
Prerequisite(s): VIS 1140

1250 Print Production
4 Credit Hour(s)

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.
Prerequisite(s): VIS 1140

2110 Design Principles
4 Credit Hour(s)

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.
Prerequisite(s): VIS 1110 AND VIS 1208 AND VIS 1250 AND VIS 1218

2120 Design Applications I
4 Credit Hour(s)

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.
Prerequisite(s): VIS 1110 AND VIS 1208 AND VIS 1250 AND VIS 1218

2160 Design Applications II
4 Credit Hour(s)

Advanced application of design principles. Emphasis will be placed on creating fully developed digital media. Two classroom, four lab hours per week.
Prerequisite(s): VIS 2110 AND VIS 2120

2260 Visual Communications Portfolio
4 Credit Hour(s)

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.
Prerequisite(s): VIS 2110 AND VIS 2120

2270 Design Internship   R
1 - 3 Credit Hour(s)

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.
Prerequisite(s): Approval of Department

2297 Special Topics   R
0.5 - 9 Credit Hour(s)

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.

The purpose of these policies and procedures is to help students succeed at Sinclair. Please carefully review and address any questions to instructors or the contacts provided.
This catalog is meant to serve as a guide and contains information for the academic year 2014 - 2015.

The college reserves the right to appeal, change, or amend rules, regulations, tuition and fees, and may withdraw, add to, or modify the policies, courses and programs listed herein.

For current information:

- (937) 512-3000

- 1-800-315-3000

- www.sinclair.edu

Adding/Dropping Courses

Before adding or withdrawing from one or more classes, students should consult an academic advisor, and if using financial aid to pay tuition, the Financial Aid & Scholarships office. Financial aid status of any student may be affected by withdrawing from one or more classes.

A student who registers for 12 or more credit hours is considered full time. A student who registers for 11 credit hours or less is considered part time. Students may withdraw online or in person.

- 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 Academic Calendar at: **www.sinclair.edu**

- Complete the Drop/Add/Withdrawal Form available in the office of Registration & Student Records, Dayton Campus, Building 10, Second Floor or at any Regional Center.

  - A copy of the processed Withdrawal Form will be mailed to the student. This is proof of withdrawal and should be kept for the student's records. Failure to follow one of these processes means the student will receive a grade, usually an F/Z, in the class.

- Withdraw online through **my.sinclair.edu**
- To drop or withdraw from all classes for the term, students may also use the Call Center, (937) 512-3000, 1-800-315-3000.

Note to Veterans:
- Veteran education benefits will be affected by withdrawal from one or more classes.
- Veterans should first contact the Veteran Services office in person at the Dayton Campus, Building 10, Room 10324 or via email at: **veterans@sinclair.edu**

Financial Aid Add/Drop Census Date Policy (see Financial Aid page15)

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.

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 VA 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 any of the regional 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. VA educational benefits may not be use 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. Students requiring accommodations should make appropriate assessment arrangements with the Office of Disability Services. English as a Second Language students should meet with the ESL Coordinator prior to assessment to determine the appropriate assessment steps.

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.

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

A student is required to select a single program of study. In order to change from one academic program to another, a student should meet with an academic advisor/coach or faculty advisor. The advisor will make the change; end other programs that are no longer being pursued, and ensure the student fully understands any implications or consequences that may occur as a result of such changes. Students may also initiate this process online by completing the Change Academic Program Form at: **http://www.sinclair.edu/services/advising/chprog/index.cfm**. Any change in academic program will be indicated on the student 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 any of the regional 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.

Degree Audit

Degree audit is a process that indicates the student's 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 (**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:

- 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 pace of completion calculations for financial aid satisfactory academic progress 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 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.

Grade	Quality Points		
A	Excellent	4	90 - 100%
B	Good	3	80 - 89%
C	Average	2	70 - 79%
D	Passing	1	60 - 69
F	Failure	0	0 - 59
Z	Non-Attendance	0	0 - 59
S	Satisfactory	0	
U	Unsatisfactory	0	
I	Incomplete	0	
Y	Proficiency Credit	0	
W	Withdrawal	0	
P	Pass	0	
N	Progress	0	
IP	In Progress	0	
X	Audit	0	

Grades not used in calculation of grade point averages

AA	Articulation Agreement
AP	Advanced Placement
CL	College Level Examination Program (CLEP)
CT	Career Tech Credit Transfer
DS	DANTES (DSST) (Standardized Subject Test)
WC	WEBCAPE
Y	Proficiency Credit
-	No grade was assigned

Dean's List

To be eligible for the Dean's List in any term, students must have:

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

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

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
  If the term GPA is 2.0 or above, the student will remain on Academic Probation.

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 cumulative grade point average for satisfactory academic progress evaluation.*

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.

Graduation honors are also noted on the transcript. Sinclair awards "graduation honors" for a cumulative grade point average of 3.4 to 3.899. The college awards "high honors" for a cumulative grade point average of 3.900 and above.

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.

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), Janet Jones, Office of Human Resources, Sinclair Community College, 444 West Third Street, Dayton, Ohio 45402-1460. 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.

Honors Program

Academic Honors offers many rewards:

- Availability of Sinclair Academic Excellence Scholarships
- Opportunity to participate in Service Learning
- Academic challenge and personal enrichment
- Honors designation on transcript
- Special commendation as an Honors Scholar after completing required courses
- Attendance at regional meetings of Honors students and faculty from other colleges and universities
- Better preparation for entering baccalaureate and advanced programs
- Increased opportunities for financial aid and membership in honor organizations like Phi Theta Kappa
- Scholarships and/or transfer articulations with Miami University, University of Dayton, Wright State University.

Students can participate in Honors in two ways:

Individual Honors Courses

Students with a 2.8 GPA may enroll in individual Honors courses whether or not they plan to become Honors Scholars. To receive Honors credit, a student must earn a minimum of "B" in the course.

What honors courses will be offered next term? Ask your instructor! Any course on campus or online beyond the DEV level may be taken with an Honors option, with the approval of the instructor and the department chair. To find courses, you can now search the online bulletin by keyword. Enter "honors" in the search box under keyword and a list of courses offering honors options will come up. Please send corrections/addition /deletions to: **derek.petrey@sinclair.edu**

Honors Scholars Program

Students may apply to become Honors Scholars. We interview every term. Upon acceptance, scholars undertake to complete four honors experiences while maintaining an overall 3.25 GPA. Two of the four honors courses must be in different disciplines and one course must be Interdisciplinary. The interdisciplinary requirement may be waived if courses are taken from four different disciplines.

In addition to other financial aid and scholarships, Honors Scholars may apply for up to six Academic Excellence Scholarships on a per-term basis during their time in the program.

Honors Scholars are required to fulfill a Service Learning requirement before completing the program. Students will perform unpaid community service as part of a selected Honors course or just on their own. Students seeking help in choosing a service project are encouraged to contact Sinclair's Service Learning office at, **www.sinclair.edu/about/slearning**

Find the application and other Honors Program forms at:
www.sinclair.edu/departments/honors/forms/

More details about Service Learning visit:
www.sinclair.edu/departments/honors/particip/servicelearning

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.

- 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 applies to all math courses with an MAT course designation except for MAT 1110, MAT 1120, and MAT 1130.

Students registering for an MAT course are required to have completed the prerequisite course not more than one calendar year prior to the semester in which they are taking the given MAT class. This means the prerequisite course must have been taken in one of the three consecutive semesters (including summer) immediately prior to the semester in which they want to take the given MAT

class. For example, in order to register for MAT 1270 in the fall of 2014, a student must have taken the prerequisite course (DEV 0026) no earlier than the fall 2013 semester.

Students whose prerequisites for MAT courses were completed more than one calendar year ago should see an academic advisor for assistance in registering for an MAT course.

NOTE: *This policy does NOT apply to math courses with a DEV course designation. It also does not apply to courses offered by other departments that have an MAT course as a prerequisite.*

Payment Plan

FACTS Tuition Payment Plan (available from Nelnet Business 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: **http://facts.sinclair.edu**

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 any of the regional centers.

To change a social security number, students must bring a copy of their card to Registration & Student Records or at any of the regional centers.

Veterans must report any change to the Veteran Services office in person, Dayton Campus, Building 10, Room 10324 or via email at: **veterans@sinclair.edu**

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 any of the regional 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 AP Program (**http://apcentral.collegeboard.com**) offers high school students the opportunity to earn college credit by providing examinations in 35 introductory courses in 20 fields. 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. 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.

College Level Examination Program (CLEP)
The College Board (**http://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. DSST exams are not given at Sinclair, but they are given at test sites in Dayton and across the nation. To have DSST scores reported to Sinclair Community College, the school code is 9309. For DSST scores that have not been reported to Sinclair, contact Prometric for an official transcript at: **http://www.getcollegecredit.com/test_takers/**

American Council on Education (ACE)
ACE provides access to transcripts for several of its programs (**http://www.acenet.edu/nationalguide**). 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 your training translated into college credit.
For ACE military evaluations, your ACE military transcript should be sent directly to the Office of Registration and Student Records. Specific course equivalency is established by the department chairperson responsible for the subject area requested and course credit awarded is considered transfer credit. Additional information about the ACE military evaluation 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 record.
- 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; they range from $65-$110 and above.

- Department approval may be required to take a proficiency examination.
- A proficiency examination cannot be taken until a student has completed a Sinclair Community College application and paid the appropriate fees.
- A student must have successfully completed course prerequisites before taking the proficiency examination. Exceptions to this requirement are made at the discretion of the department chairperson.
- A proficiency examination cannot be taken, nor credit awarded, for any course in the same term in which the student is enrolled for that same course.
- A proficiency examination can be taken only once for any course. A proficiency exam grade can replace the previous grade, if the student has taken the course only once.
- A student will be awarded an A, B, C, D, or F grade for a proficiency examination; however, only an A, B, or C grade will be recorded on the student's transcript.
- Proficiency examinations do not apply toward the college residency requirements.
- Proficiency fees are NON-REFUNDABLE.
- Proficiency examination grades will be recorded on the student's transcript with a notation that clearly shows which grades are the result of taking Proficiency examinations.
- Grades for proficiency examinations are not always transferrable.
- 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. To prepare the portfolio, students must enroll in PRL 1100, Prior Learning Portfolio Development (2 credit hours). Students work with a faculty member to create individual portfolios.

Articulated Credit

Documentation of professional training, including copies of licenses, certifications, or other credentials requiring passing an exam, should be submitted to Prior Learning Assessment in the Academic Advising Center (11346). The appropriate departmental chairperson will determine, on a case-by-case basis, if any course credit can be awarded based on this documentation. This course credit will to be added to your official Sinclair record.

NOTE: *These courses are not always transferable to other colleges, but they count toward fulfilling Sinclair graduation requirements.*

Post Secondary Enrollment Options (PSEO) Class Policy

Sinclair Community College reserves the right to limit participation in any class based on such circumstances as extraordinary lab or technical fees, age, safety issues, excessive course load or academic probation.

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 VA educational benefits, a student must submit a copy of the readmission petition to Veteran Services in person, Dayton Campus, Room 10324, or via email to* **veterans@sinclair.edu***, 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 will be issued without further action by students (see refund 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 any of the regional 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 at:
www.sinclair.edu/services/bursar/refunds/tr
Follow the steps accordingly. Financial aid may be affected. Please refer to **Withdrawal & Return Title IV Funds.**
- 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. If payment was made by a credit or debit card the refund will be issued back to the card used for payment.

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.

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.

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.

The Tartan Card (Student I.D.)

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/services/tartancard**

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/services/tartancard** 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 any of the regional centers.

Information about additional services that may be available when using the Tartan card can be found at: **www.sinclair.edu/services/tartancard**

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 any of the regional centers.
- A financial hold on your student account will prevent you from receiving transcripts.

Tobacco Restriction

To comply with state law, smoking is prohibited on the campus of Sinclair Community College except in officially designated locations.

Additionally, Sinclair restricts the use of any smokeless tobacco products, electronic cigarettes, or product intended to mimic tobacco products to these officially designated locations.

This policy is not intended to govern the use of nicotine patches, pills or gum.

Smoking is prohibited right outside the doorways and where in-take vents for the College ventilation system are located.

Approved designated areas for smoking are identified by the presence of a smoking receptacle. Smokers and users of tobacco products must use the receptacles provided for disposal of waste and for smoking materials. Smoking is prohibited in any other area of the campus.

On the Dayton Campus 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.

The designated area for the Courseview Campus Center in Mason is on the lawn area at the east corner of Building A (between Buildings A and B). All areas of the regional centers in Huber Heights, Englewood and Preble County are smoke-free in compliance with the YMCA buildings with which the centers share space.

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, visit: **www.sinclair.edu/services/registration/dates**.

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

A

B

C

Parking   Student Parking, Lot A, Fifth Street | Visitor Parking, corner of Fourth and Perry streets

Walkways   The student Parking Garage (Lot A and Buildings 1-7 and 9-14 are connected on the third floor with a services of covered walkways. Building 1-8 and the Library are also connected at the Basement or Lower Level.

Reading Room Numbers

Room 5111	is	Building 5	Floor 1	Room 111
Room 8025	is	Building 8	Lower Level	Room 025
Room 11346	is	Building 11	Floor 3	Room 346

Academic Advising
Building 11, Room 11346
(937) 512-3700

Financial Aid & Scholarships
Building 10, Room 10324
(937) 512-3000

New Student Enrollment Center
Building 10, Fourth Floor Lobby, (937) 512-3444

Placement Testing
Building 10, Room 10445
(937) 512-3000

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

Registration & Student Records
Building 10, Second Floor
(937) 512-3000

Student I.D. Cards
Registration, Building 10, Second Floor

West First Street

N⬆

West Second Street

Sinclair Community College
Dayton, Ohio

West Third Street

Ponitz Sinclair Center

Receiving · 6 · 7 · Bookstore · 12

Library · 1 · 10 · 11

PAC · 8 · 5 · Blair Hall 2 · 3 · Parking Lot C

4 · West Fourth Street

Great Miami River

Parking Lot B · 16 · Lot L · 15 · Parking Lot LL · Parking Lot E

17 · CIL 14 · 9 · Lot EE · JJ · J

West Fifth Street

Student & Visitor Parking Garage Lot A · 13 · 19 · Court Street · Parking Lot I

West Fifth Street

Moore Tech. Center · Parking Lot K · West Sixth Street

Parking Lot M · 20

Parking Lot F & G · 35 Eaker Street

Eaker Street

Franklin Street

West Washington Street

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