



COURSE
CATALOG
2009-2012

MIDDLESEX

County College

CATALOG SUPPLEMENT for 2010-2011

Table of Contents

Introduction	3
Other Accreditations	3
Contact information.....	3
Calendar & General Information	4
Academic Standards.....	5
Expenses, Financial Aid and Scholarships	6-7
Enrollment Services, College Programs and Activities	8
Degree and Certificate Updates.....	9-110
New Degree Programs	111-119
General Education Electives	120-121
Course Updates	122-127
College Governance.....	128

Introduction

This supplement is an update to the 2009-2012 catalog and should be used in conjunction with the material in it. It contains updated information on the academic programs, calendar, tuition and fees and policies for the 2010-2011 academic year. Most changes will appear in **bold print**. However, program requirements, courses, policies, tuition, fees and procedures are subject to change as circumstance and exigencies require. Additional information may be obtained from the appropriate office or the Office of the Registrar.

■ OTHER ACCREDITATIONS

The Nursing program is accredited by the National League for Nursing Accrediting Commission, 3343 Peachtree Road, Suite 500, Atlanta, Georgia 30326. www.NLAC.org

CONTACT INFORMATION

Office	Building	E-Mail	Telephone
Academic Advising Center	Chambers Hall	advising@middlesexcc.edu	732.906.2596
Admissions and Recruitment Office	Chambers Hall	admissions@middlesexcc.edu	732.906.4243
Bursar	Chambers Hall	bursar@middlesexcc.edu	732.906.2572
Corporate and Community Education	West Hall 203	community_ed@middlesexcc.edu	732.906.2556
Counseling and Career Services	Edison Hall	counseling@middlesexcc.edu	732.906.2546
Financial Aid Office	South I	financial_aid@middlesexcc.edu	732.906.2520
Health Services	South II	jdimai@middlesexcc.edu	732.906.2530
The Institute	Instructional Resource Center 205	the_institute@middlesexcc.edu	732.906.4681
Physical Education Department	Physical Education Center	rwisniewski@middlesexcc.edu	732.906.2558
Office of the Registrar	Chambers Hall	registration@middlesexcc.edu	732.906.2523
Testing Center	Johnson Learning Center 229	testing@middlesexcc.edu	732.906.2508

Calendar & General Information

2010 - 2011 ACADEMIC CALENDAR

FALL 2010

August	30	First Day of Obligation, State of the College, Faculty Meetings
	31	Faculty Development Day, Mandatory Day for Faculty
September	1	Change of Program, Advisement by Faculty
	2	Change of Program, Advisement by Faculty
	6	Labor Day – No Classes
	7	Classes Begin – Fall Semester
October	11	Columbus Day – No Classes
November	11	Veteran's Day – No Classes
	25-28	Thanksgiving – No Classes
December	17	Last Day of Classes; Last Day of Faculty Obligation
	17, 18, 20	Specially Scheduled Final Examinations
	22	Winter Recess Begins
	24, 25, 26, 27	Holiday – No Classes (December 25, 2010 is on a Saturday)

WINTERSESSION 2011

December	28	Wintersession Classes Begin (December 28, 29, 30; January 3, 4, 5, 6, 7, 10, 11, 12, 13; snow day make-up session is January 8th)
December	31	No Classes (January 1, 2011 is on a Saturday)
January	1	Holiday - No Classes
	13	Last Day of Wintersession Classes
	17	Winter Recess Ends

SPRING 2011

January	17	Martin Luther King Day
	18	Faculty Meetings; First Day of Faculty Obligation
	19	Change of Program, Advisement by Faculty
	20	Change of Program, Advisement by Faculty
	24	Classes Begin – Spring Semester
February	21	Presidents' Day – No Classes
March	12	Spring Recess Begins – No Classes
	19	Weekend Classes Resume
	21	Regular Classes Resume
April	22	Good Friday – No Classes
	23, 24	No Classes
May	10	Last day of Classes
	10, 11, 12	Specially Scheduled Final Examinations
	16	Last day of Faculty Obligation
	19	Graduation – No Classes

SUMMER 2011

May	16	1st 4-Week Summer I Session A begins
		1st 7-Week Summer I Session C begins
		14-Week Summer II Session F begins
	19	No Classes (Graduation)
	30	Memorial Day – No Classes
	31	Classes Resume
June	9	1st 4-Week Summer I Session A ends
	13	2nd 4-Week Summer I Session B begins
July	4	Independence Day – No Classes
	6	1st 7-Week Summer I Session C ends
	7	2nd 4-Week Summer I Session B ends
	11	2nd 7-Week Summer II Session E begins
	11	3rd 4-Week Summer II Session D begins
August	4	3rd 4-Week Summer II Session D ends
	22	14-Week Summer II Session F ends
	25	2nd 7-Week Summer II Session E ends

Academic Standards and Regulations

PREVIOUS COLLEGE CREDIT

Students who have attended another college must submit official transcripts of all such work to the Office of Admissions and Recruitment. Only letter grades of “C” and above are accepted.

Students seeking transfer credit for courses taken at a foreign institution should submit a course-by-course evaluation from World Education Services (WES) or another evaluation service which is a member of the National Association of Credential Evaluation Services (NACES).

ATTENDANCE

To obtain the maximum benefit from educational opportunities, students must establish habits of regular class attendance. The College values educational growth that results from such class attendance where ideas and concepts, social development, knowledge, and success derive from the interaction of students and faculty. Therefore:

1. Students are expected to attend all classes, laboratories and clinical sessions for which they are enrolled.
2. Students are graded solely on the basis of quality and quantity of work, as stated in the course goals, objectives, and grading requirements distributed by the instructor at the beginning of each term. Students are responsible for all subject matter presented or assigned and should understand that work or tests missed may jeopardize their grades.
3. Students whose absence is caused by personal illness or serious personal matters should contact their instructors and will be allowed to make up work when possible. It is the prerogative of the instructor to excuse absences provided the student will be able to fulfill course requirements. It is the student’s responsibility to arrange promptly with the instructor to make up missed work which has been agreed to by the instructor. Excessive absences may result in not meeting the course objectives and a failing grade as defined in the instructor’s grading requirements.
4. **Failure to attend a class does not constitute a withdrawal. Students who wish to officially withdraw from classes should adhere to College withdrawal policies and procedures.**

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (FERPA)

The Family Educational Rights and Privacy Act of 1974 protects the privacy of education records, establishes the right of students to inspect and review their education records, and provides guidelines for the contesting of inaccurate or misleading data.

Students have the right to inspect and review all education records maintained by the College. The College is not required to provide copies unless, for reasons such as great distance, it is impossible for students to inspect the records.

Students have the right to request that the College correct records believed to be inaccurate or misleading. If the College decides not to amend the record, the student has a right to a formal hearing with the Dean of Enrollment and Student Support Services. After the hearing, if the College still decides not to amend the record, the student has the right to place a statement with the record commenting on the contested information in the record.

The College will not release any confidential information from a student’s record without the written consent of the student, with the exception of the following: to College officials, including contractors and volunteers performing institutional functions, with a legitimate educational interest, to other Institutions at which a student seeks or intends to enroll, to certain government officials in order to carry out lawful functions, to appropriate parties in connection with financial aid to a student, to organizations conducting certain studies for the College, to accrediting organizations, to individuals who have obtained court orders or subpoenas, and to persons who need to know in cases of health and safety emergencies.

The College may disclose directory information without the written consent of the student. Directory information includes the following: name, address, telephone number, email address, dates of attendance, anticipated graduation date, enrollment status, class, previous institutions attended, major field of study, awards, honors (including Dean’s list), degrees/certificates conferred including date, past and present participation in officially recognized activities, student’s photograph and photographic images, height and weight (for athletes only), and date and place of birth.

Students may request the withholding of disclosure of directory information. To ensure that a request is properly processed, it must be submitted on the official “Request to Prevent Disclosure of Directory Information” Form, which is available in the Office of the Registrar. In order to prevent all disclosures of directory information, the official request must be filed prior to the first day of the semester. However, the College will accept requests at any point during the semester. The request will remain in effect until the student submits signed authorization to allow disclosure of directory information. The College assumes that failure on the part of any student to specifically request on the official form the withholding of release of directory information indicates individual approval of disclosure.

Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. Contact the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202.

Expenses, Financial Aid and Scholarships

CHARGEBACK

Middlesex County residents who are taking courses at another community college in New Jersey may have a portion of their tuition paid through the Chargeback process. Middlesex County residents may obtain a Chargeback application from the **Office of the Registrar**. Chargeback applies to students who are matriculated at another NJ community college in a degree program not offered at Middlesex County College or for non-matriculated students in a course(s) not offered at Middlesex County College. To be eligible, students must submit the Chargeback application along with two forms of identification showing permanent domicile in Middlesex County, **acceptance letter, detailed program and course descriptions** and college placement test scores/transcripts indicating completion or that no more than one course of remediation (English, math, reading) is required. Matriculated students will be evaluated on a program-to-program basis. Non-matriculated students will be evaluated on a course-by-course basis. Applications for Chargeback from Middlesex County residents must be received within 30 days of the start of the semester. Non-Middlesex County residents who wish to attend Middlesex County College may also be eligible for Chargeback through their home community college.

FEDERAL GRANTS

Pell Grant Program

- Awards range from **\$200 to \$5,550**.
- The U.S. Department of Education uses a standard formula to determine student eligibility.
- The student is notified via a Student Aid Report (SAR). Academic Competitiveness Grant
- Awards range from \$375 to \$1,300.
- The College determines eligibility based on federal regulations.
- The student is notified via an award letter from the College and on CampusCruiser.

Supplemental Educational Opportunity Grant

- Awards range from \$250 to \$1,000.
- The College determines eligibility based on federal guidelines.
- The student is notified via an award notice from the College.

NEW JERSEY GRANTS

Tuition Aid Grant (TAG)

- Awards range from **\$224 to \$2,456**, based on the previous academic year.
- The NJ Higher Education Student Assistance Authority uses a State formula to determine eligibility.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

Educational Opportunity Fund Program

- Awards range from \$200 to \$525 per semester.
- The College uses State guidelines to determine eligibility.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

Garden State Scholarship Program

- Awards range from \$200 to \$900.
- The NJ Higher Education Student Assistance Authority uses academic achievement guidelines to determine recipients.
- The student is notified via a Student Eligibility Notice (SEN) from the State.

FEDERAL DIRECT LOAN PROGRAM

- Loans range from \$500 to \$10,500.
- Direct Loans are low-interest loans for students and parents to help pay for the cost of a student's education after high school. To apply for a Direct Loan, a student must complete the Free Application For Federal Student Aid (FAFSA).

A student must be enrolled at least half time for a semester, submit all required documents and/or forms, and the direct loan must be originated prior to the last date of the student enrollment. Lastly, students must meet general eligibility requirements for federal student aid programs.
- The Department of Education is the lender for all Direct Loans rather than a bank or other financial institution(s). Direct Loans are repaid after the student leaves college or enrolls less than half time. The interest rate is fixed for repayment of new loans.

There are three types of Direct loans: the Subsidized, Unsubsidized, and Parent Loan (PLUS). Direct Subsidized and Unsubsidized loans are for students who demonstrated financial need, as determined by federal regulations. Direct PLUS loans are low-interest loans available to parents of dependent students. In addition to completing the FAFSA, a Direct Loan Master Promissory Note and entrance interview counseling must be completed. For more information regarding the Direct Loan Program, contact the Financial Aid Office or visit the Direct Loan website at www.studentloans.gov.

EXPENSES

The tuition and fees and other expense amounts below are provided for informational purposes for 2010-2011 and are subject to change.

Tuition and Fees

The College reserves the right to change these rates for subsequent semesters.

- Tuition
Middlesex County Residents\$99.00 per credit or credit equivalent
Out of County Residents\$198.00 per credit or credit equivalent
- Fees
General Service
Middlesex County Residents\$17.50 per credit or credit equivalent
Out of County Residents\$35.00 per credit or credit equivalent
Student Service
Middlesex County Residents \$3.50 per credit or credit equivalent
Out of County Residents\$7.00 per credit or credit equivalent
Technology
Middlesex County Residents\$12.50 per credit or credit equivalent
Out of County Residents\$25.00 per credit or credit equivalent

General Expenses

- Course Fees\$30 to \$170
Per course with clinical, laboratory, computer, or other appropriate non-replaceable materials including energy uses. Refer to the schedule bulletins for specific information.
- Registration Fee Fall/Spring \$25.00 per semester
Winter/Summer \$15.00
- Insurance
Accident/Health and Sickness\$68.00 per year
Required of students registering for 12 or more credits. Students who are covered by their own insurance policy can have the fee waived. The form can be obtained from the Bursar's Office. The waiver must be returned within 10 days from the first day of class or the fee is non-refundable.
Clinical Liability\$36.00
Mandatory annual fee for students enrolled in Dental Hygiene, Dietetic Technology, Medical Laboratory Technology, Nursing, Psychosocial Rehabilitation, Respiratory Care or Radiography Education courses with clinic requirements.

Miscellaneous Fees

These miscellaneous fees are non-refundable.

Application Fee	\$25.00
Curriculum Change Fee	\$10.00
Late Registration Fee	\$40.00
<i>Begins two weeks immediately prior to the first day of classes and continues through the registration period.</i>	
Graduation Application Fee	\$40.00
<i>Students pay this fee only once for each degree or certificate awarded.</i>	
Dishonored Check Fee	\$25.00 per dishonored check
Reinstatement Penalty Fee	\$99.00 per credit
<i>Students who attend class without being properly registered may be subject to a \$99.00 per credit late registration penalty.</i>	

Special Fees

- International Student Fee
All international students must pay\$300.00 per semester
Fall and Spring semester only
- Dental Hygiene Senior Students Licensing Examination Fees
National Board Examination\$300.00 (approximately)
North East Regional Board\$925.00 (approximately)
New Jersey License\$150.00
- Nursing
NRB courses/credit cost determined by RBMC...Fall 2010 and
Spring 2011 cost/credit\$525.00
ATI Testing FeeFall 2011 fees.....\$128.00 for 1st sem;
each semester after \$98.00; for Fall 2010 fees are \$119.00 for 1st sem;
each semester after is \$93.00
NCLEX Predictor Test - Last Semester \$50.00 (approximately)

Program Supplies

These charges are approximate and subject to change.

- Automotive Technology
Tools\$1,800.00
- Dental Hygiene
Instrument Kit.....\$2,000.00 (approx.)
Uniform \$200.00
- Dietetic Technology
Knives \$50.00
Uniform\$75.00
Background Check\$55.00
- Engineering Program
Drawing Kits\$50.00
- Hotel, Restaurant and Institution Management
Knives\$50.00
Uniform..... \$100.00 (approx.)
- Media Arts & Design
A camera with adjustable shutter speed and aperture settings and a non-automatic metering system is required. A secondhand camera in good working condition meeting these specifications may be used.
Art and photographic equipment and supplies\$250.00
- Medical Laboratory Technology
Uniform\$45.00
- Nursing-Joint Program with RBMC
Uniform and equipment \$150.00 (approx.)
- Radiography Education
Uniform\$200.00
- Respiratory Care
Uniform\$100.00

Middlesex County College Fitness Club Rates

- Middlesex County College Students (full and part time)
Individual
Fall or Spring Semester\$25.00
Summer Session\$15.00
Winter Session\$10.00
- Family
Fall or Spring Semester\$70.00
Summer Session\$45.00
Winter Session\$25.00
- Adjuncts, Retirees & Grant Personnel
Individual
Annual.....\$100.00
- Family
Annual.....\$260.00

- All Full-Time Employees, Trustees and HS Academy Instructors
Individual
AnnualFREE
- Family
Annual.....\$260.00
- Middlesex County College Alumni
Individual
Annual.....\$130.00
- Family
Annual.....\$330.00
Family membership will be limited to the individual and three (3) additional family members living in the household. The above rates will be prorated as appropriate for alumni, full-time faculty, staff and grant personnel with contracts of less than one year. Adjuncts must be at the College for four consecutive semesters in order to apply.

Other Athletic Fees

- Swimming Pool
The general public is charged \$5.00 per person per session. Children 5 years of age and under are free. Those 16 years old and under need a parent/guardian in a bathing suit on the pool deck to enter the pool. There is a ratio of two (2) children to one (1) adult.
Rentals-School.....\$70.00/hour
Community nonprofit and county organizations\$80.00/hour
Other groups\$100.00/hour
- Weight Roombefore 4 p.m. free/after 4 p.m. see PE Center
Children under 16 are not permitted in the weight room.
- Racquetball Courts
Monday-Friday
7 a.m. - 4 p.m.\$10.00/hour Middlesex County College community
\$10.00/hour general public
4 - 9 p.m.\$10.00/hour Middlesex County College community
\$20.00/hour general public
Saturday\$10.00/hour Middlesex County College community
\$20.00/hour general public
Each participant is entitled to play with one free guest. Additional guest will be charged \$2.00 each. Middlesex County College community members include registered students charged the student service fee, full-time employees and adjuncts.

PAYMENT POLICY

All tuition and fees must be paid on or before the date shown on the class schedule/invoice. If an employer pays the tuition, the student must submit an employer tuition voucher prior to the payment due date. **Students are obligated for the payment of tuition and fees regardless of whether or not they attend class. A completed withdrawal form must be submitted to the Office of the Registrar. Refunds are determined by the policy below.** Overdue accounts will be referred to a collection agency and all collection costs and fees will be added to the account. If the account is overdue, the student will be prohibited from registering and official transcripts will not be released.

REFUND POLICY

To be eligible for a refund, students must officially drop individual classes, or all classes, prior to the dates specified below. Students who withdraw prior to the first day of classes will receive a full (100 percent) refund of tuition and fees, except the nonrefundable late registration fee. The first day of class is the first day classes are in session for a given semester, not the first day a particular course meets.

A student who withdraws prior to the first day of the second week of classes will receive a 75 percent refund of all tuition and fees, except the non-refundable late registration fee.

A student who withdraws prior to the first day of the third week of classes will receive a 50 percent refund of all tuition and fees, except the non-refundable late registration fee.

Check the online refund withdrawal schedule for specific withdrawal deadlines for each semester at www.middlesexcc.edu. Summer and Wintersession rules vary.

Appeals regarding the College's refund policy must be filed no later than 30 days after the last day of classes for the semester being appealed. Appeals must be documented and submitted to the Office of the Registrar. The Tuition Appeals Committee will review all appeals.

Enrollment Services, College Programs and Activities

ADMISSIONS GUIDELINES

Middlesex is a public college with an open admission policy. Applications are accepted to degree and certificate programs from anyone who holds an official high school diploma or GED, and adults (18 years of age or older) who can demonstrate an ability to benefit from a college education. **Home-schooled students may submit an official home-schooling diploma.**

Some programs have specific entrance requirements and/or limited seating. SAT scores are optional. For questions or additional information, please call the Admissions Office at 732.906.4243.

The majority of programs begin in the Fall, Spring or Summer and can be completed by studying full- or part-time. Applications for most programs are reviewed on a rolling admission basis. The exceptions are those full-time programs beginning only in the Fall semester: Dental Hygiene, Medical Laboratory Technology, Nursing, Radiography Education, and Respiratory Care. These programs have application deadline dates. Automotive Technology starts every even Fall semester.

ADMISSIONS POLICY

9. Transfer Students

Applicants who have attended another college must submit official transcripts of all college and high school work to the Office of Admissions and Recruitment. Transfer credit, subject to the approval of the dean of the division, is generally defined as coursework required in the curriculum and equivalent in content and credit hours to courses offered by Middlesex County College. Only letter grades of "C" and above are accepted.

Students seeking transfer credit for courses taken at a foreign institution should submit a course-by-course evaluation from World Education Services (WES) or another evaluation service which is a member of the National Association of Credential Evaluation Services (NACES).

The College grants transfer credit for certain noncollegiate educational programs in accordance with the recommendation of the American Council on Education contained in *"The National Guide"* or *"A Guide to Educational Programs in Noncollegiate Organizations."* These credits are granted consistent with graduation requirements for college-level courses as determined by appropriate academic departments with the concurrent approvals of the chairperson and dean.

Transfer credit from another institution is listed on the transcript with a "T" grade. Courses completed at another institution will not be applicable for a grade point average recalculation.

Course Time Limits – Major courses are subject to review after five years and all other courses after 10 years. The review procedure also applies to the evaluation of transfer credits.

15. Priority Admission for In-County Residents

This section has been deleted

VETERANS AND MILITARY APPLICANTS

The New Jersey Department of Military and Veterans Affairs, State Approving Agency under Title 38, U.S. Code, Section 1775, for veteran training, approves all degree and certificate programs. Those applicants wishing to obtain governmental educational benefits or any additional information should contact the Office of the Registrar.

Individuals have 10 years from their date of separation from active duty to use their entitlement. Veterans who began active duty between January 1977 and June 30, 1985, may be eligible for veterans benefits if they contributed to the Veterans Education Assistance Program (Chapter 32).

Veterans who began active duty after June 30, 1985 may be eligible for veterans benefits if they participated in the Montgomery G.I. Bill (Chapter 30) or the Active Duty Educational Assistance Program of the Selected Reserve and National Guard (Chapter 1606). Veterans who served on active duty on or after September 11, 2001 may be eligible for the Post-9/11 GI Bill (Chapter 33).

Reservist and National Guard members who were activated for at least 90 days after September 11, 2001 may be eligible for benefits under the Reserve Educational Assistance Program (Chapter 1607). Veterans benefit recipients must apply for admission to a degree or certificate program. Open College-Developmental Plans of Study have been approved by the New Jersey Department of Higher Education, State Approving Agency.

To maintain benefits, veterans must comply with the Standards of Progress established by the College in cooperation with the State Approving Agency. These Standards include degree requirements, standards and regulations and the College's Code of Student Conduct. Failure to observe these regulations will jeopardize the receipt of benefits. Additional information may be found in the College Pathfinder and the schedule bulletins.

The Office of the Registrar certifies the enrollment status of all students who apply for veteran's benefits. Middlesex County College is included in the Education Directory, Part 3: Higher Education.

WITHDRAWAL FROM A COURSE

Students who decide to withdraw from a Fall or Spring course must do so officially.

■ Prior to the first day of class:

Students may drop a course online through CampusCruiser/ WebAdvisor or by completing an ADD/DROP Change Form and submitting it to the Office of the Registrar. Dropping a course at this time has no effect on the Grade Point Average, and the course is not recorded on the permanent academic record.

■ First 10 days from the first day of a Fall or Spring semester:

Students may drop a course in person by using an ADD/DROP Change Form. Withdrawing from a course at this time has no effect on the Grade Point Average, and the course is not recorded on the permanent academic record. For developmental course withdrawal, a signature is required from either the curriculum chair, the dean of the student's division, an academic advisor in the Advising Center or a faculty advisor. All forms must be submitted to the Office of the Registrar.

■ Eleventh day through the end of the withdrawal period:

Students may drop a course in person by using an ADD/DROP Change Form. A grade of "W" will appear on their permanent academic record. For developmental course withdrawal, a signature is required from either the curriculum chair, the dean of the student's division, an academic advisor in the Advising Center or a faculty advisor. All forms must be submitted to the Office of the Registrar. The dropped course will be designated as having been taken one time according to the Repeated Course requirement.

■ After the withdrawal period ends:

A student may appeal to the dean of his or her academic division should withdrawal be necessitated for reasons of health or circumstances beyond the student's control.

■ For all withdrawals:

- Students should retain the copy of the withdrawal form given them by the registrar until final grades are assigned.
- Withdrawal from a developmental course may limit the courses for which you may register next semester.
- Students withdrawing from Fall II or Spring II, Wintersession or Summer Session, should refer to the Academic Calendar on the college's website for deadline dates.
- The withdrawal period ends 10 business days after midterm grades are available. The exact date will be posted each semester throughout the campus.
- International Students who are on F-1 visa/status must meet with an international student counselor before they can withdraw from a class or from the College.
- **Failure to attend a class does not constitute a withdrawal. Students who wish to officially withdraw from classes should adhere to College withdrawal policies and procedures.**

Degree and Certificate Updates

Accounting

ACCOUNTING BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Accounting is one of the most rapidly expanding fields in today's economy. Since it is service oriented, it involves working with people almost as much as with financial records. Accountants not only collect and report financial data, but they also serve as the link between the data and the people who use it.

Can Accounting majors transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn studying Accounting?

They acquire an extensive background in accounting and a strong fundamental knowledge of the major functions of business and industry. They study business law, business organization and management, mathematics and economics.

Are there any requirements students must satisfy before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or by completing the appropriate class.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

ACCOUNTING

Associate in Applied Science (A.A.S.) Degree - ACC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ACC 101 Financial Accounting	4	
BUS 101 Business Organization and Management	3	
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
BUS 115 Mathematics of Finance	3	MAT 013 BUS 115, Mathematics of Finance, will satisfy the math requirement. Students considering transfer to a baccalaureate program should consult an academic advisor as to the other math choices.
<hr/>		
<i>Semester II</i>		
ACC 102 Managerial Accounting	4	ACC 101
BUS 201 Business Law I	3	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking	3	
___ ___ General Education Social Science Elective (GE SS)	3	
<hr/>		
<i>Semester III</i>		
ACC 202 Cost Accounting	4	ACC 102
ACC 211 Intermediate Accounting I	4	ACC 102
BUS 202 Business Law II	3	BUS 201
ECO 201 Principles of Economics I	3	A passing score on the algebra portion of the College's placement test or MAT 013.
___ ___ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester IV</i>		
___ ___ Choose one of the following three courses (3 credits each):	3	
ACC 203 Accounting Systems and Procedures		ACC 102
ACC 206 Tax Accounting		ACC 102
ACC 208 Accounting Field Experience		ACC 211 and written permission from the department chairperson and the director of cooperative education and internships.
___ ___ General Education Science Elective (GE MST)	3-4	Students must select a course with the GE MST designation from the following sciences: BIO, CHM, PHY, SCI.
ACC 212 Intermediate Accounting II	4	ACC 211
ECO 202 Principles of Economics II	3	ECO 201
___ ___ General Education Humanities Elective (GE HUM)	3	
OR		
___ ___ General Education Social Science Elective (GE SS)		

Total Credits: 60-67

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLs@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

**FORENSIC ACCOUNTING AND FRAUD EXAMINATION
CERTIFICATE OF ACHIEVEMENT - FAFE.COA**

The Forensic Accounting and Fraud Examination Certificate of Achievement is designed for the person who already has a college degree – Associate's, Bachelor's or higher –

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
ACC 207 Auditing	3	ACC 212 or permission of department chair. This course may be satisfied by acceptable transfer credits or by credit by examination.
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ACC 221 Fraud Examination	3	ACC 207 and CSC 105/CSC 106
ACC 222 Fraud Data Analysis	3	Prerequisite(s): ACC 221 Corequisite(s): ACC 223
ACC 223 Fraud and the Law	3	Prerequisite(s): ACC 221 Corequisite(s): ACC 222
ACC 224 Advanced Fraud Examination	3	ACC 221, ACC 222 and ACC 223

Total Credits: 18

* Students with A.S. or A.A.S. degrees must show that they have taken 18 credits of general education courses. Holder of A.A. degrees are presumed to have satisfied the general education requirement.

** For students with a degree, who are granted transfer credits, this total will be reduced.

NOTE: Not all courses in the Forensic Accounting and Fraud Examination Certificate Achievement program are offered every semester. Please call the Department Chairperson at **732.906.2594** to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey, department chair
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Contact Email: ABLs@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/bam>

Addiction Studies

HISTORY AND SOCIAL SCIENCE DEPARTMENT

Addiction Studies Certificate - AS.CER

The Addictions Studies Certificate provides the educational and practical training hours required by NJ State Law for certification as an Alcohol and Drug Counselor (CADC). Students in the program complete:

- 270 hours of approved alcohol and drug education in certain domain areas
- 300 hours of supervised practical training in alcohol and drug counseling
 - 30 Alcohol and drug abuse self-help group meetings

Students who earn the certificate are in an excellent position to complete the two year work experience requirement. They also have the educational preparation to perform well on the NJ state written and oral examinations.

This certificate offers students an opportunity to enter the field of addiction studies upon graduation and, after completing their supervised work experience, to apply for CADC certification.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
General Education Social Science		
PSY 123 Introduction to Psychology	3	
General Education Diversity		
COM 115 Intercultural Communication OR SOC 205 Diversity and Multiculturalism in U.S. Society	3	
Additional Courses		
PSY 151 Introduction to Addiction Studies	3	Prerequisite(s): PSY 123
PSY 251 Substance Abuse: Pharmacology	3	Prerequisite(s): PSY 151
PSY 235 Abnormal Psychology	3	Prerequisite(s): PSY 123 or permission of department chair
PSY 264 Addiction Counseling	3	Prerequisite(s): PSY 151 and PSY 257
PSY 252 Community and Agency Counseling	3	Prerequisite(s): PSY 151
PSY 257 Counseling Theories and Techniques	3	Prerequisite(s): PSY 123
PSY 265 Addiction Studies Practicum	3	Prerequisite(s): PSY 264 and PSY 257
___ ___ Free Elective	3	

Total Credits: 33

Contact Name: Dr. Steven Barnhart, department chair
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Business Administration Degree (Designed for Transfer)

ACCOUNTING, BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Science (A.S.) Degree

This program parallels the first two years of the bachelor's degree program at a four-year college or university. It is designed to transfer.

Why major in Business Administration?

Students prepare to transfer to a four-year college or university in any field of business after earning their associate degree.

What will students learn if they study Business Administration?

The program is an intensive one that includes challenging mathematics and business courses, as well as sciences and general education.

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or by completing the appropriate class. Students also need a grade of "C" or higher in high school algebra II, geometry and in one year of laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

BUSINESS ADMINISTRATION DEGREE (DESIGNED FOR TRANSFER)

Associate in Science (A.S.) Degree - BUS.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
____ Mathematics Requirement	3-4	
<i>Students must complete a minimum of 6 credits in mathematics in one of the following sequences:</i>		
MAT 123 and MAT 124		MAT 014 (or MAT 014A and MAT 014B) or appropriate score on the College's placement test.
OR		
MAT 129 (or MAT 129A and MAT 129B) and MAT 131 (or MAT 131A and MAT 131B)		Appropriate score on the College's placement test and/or satisfactory score on the diagnostic test, "C" or better in MAT 014 (or MAT 014A and MAT 014B), or departmental approval.
OR		
MAT 131 (or MAT 131A and MAT 131B) and MAT 132		Appropriate score on the College's placement test or diagnostic exam, and MAT 129 (or MAT 129A and MAT 129B).
OR		
MAT 131 (or MAT 131A and MAT 131B) and MAT 285		Appropriate score on the College's placement test or diagnostic exam, and MAT 129 or (MAT 129A and MAT 129B).
ACC 101 Financial Accounting	4	
BUS 101 Business Organization and Management	3	
____ General Education Humanities Elective (GE HUM)	3	
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
____ Mathematics Requirement	3-4	
<i>Second course in mathematics sequence (see mathematics requirement in Semester I above)</i>		
ACC 102 Managerial Accounting	4	ACC 101
ECO 201 Principles of Economics I	3	A passing score on the algebra portion on the College's placement test or MAT 013. Students must complete ECO 201 and ECO 202 to fulfill GE SS requirement.
SPE 121 Fundamentals of Public Speaking	3	
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<i>Semester III</i>		
ECO 202 Principles of Economics II	3	ECO 201 or permission of department chairperson. Students must complete ECO 201 and ECO 202 to fulfill GE SS requirement.
BUS 201 Business Law I	3	
CSC 105 Computer Applications and Systems	3	
____ Business Elective	3	
<i>Recommended business electives are as follows (3 credits each):</i>		
BUS 202 Business Law II		BUS 201
MGT 210 Concepts of Business Management		BUS 101
MKT 201 Marketing I		BUS 101
____ Physical/Health Education Elective	1-3	

Semester IV

___ ___	General Education Humanities Elective (GE HUM)	3	
___ ___	General Education Science Elective (GE MST)	3-4	Students must select a course with the GE MST designation from the following sciences: BIO, CHM, PHY, SCI.
___ ___	Elective	3	
___ ___	Business Elective	3	
<i>Recommended business electives are as follows (3 credits each):</i>			
	BUS 202 Business Law II		BUS 201
	MGT 210 Concepts of Business Management		BUS 101
	MKT 201 Marketing I		BUS 101
___ ___	Business Elective	3	
<i>Recommended business electives are as follows (3 credits each):</i>			
	BUS 202 Business Law II		BUS 201
	MGT 210 Concepts of Business Management		BUS 101
	MKT 201 Marketing I		BUS 101

Total Credits: 60-65

Contact Name: Professor Nancy Bailey, department chair
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Chemistry

CHEMISTRY/PHYSICS DEPARTMENT

Associate in Science (A.S.) Degree

The Chemistry Transfer program parallels the first two years of a baccalaureate degree program at four-year colleges and universities. The Chemistry Transfer degree prepares students to transfer to a four-year college or university to pursue professional careers in chemistry.

What will students learn if they study Chemistry

Pre-Professional?

They will learn the basics of general chemistry and organic chemistry that will prepare them to meet the challenges of pre-professional courses at the upper division colleges and universities.

Are there any requirements students must satisfy before taking courses in the major?

A passing score on the College's placement mathematics test for both Algebra I and Algebra II or MAT 013 and MAT 014 is required for all Chemistry majors. In addition, a high school laboratory chemistry course with a minimum grade of "C" or CHM 010 and a high school laboratory biology course or BIO 010 with a minimum grade of "C" are also required.

Can Chemistry students transfer to four-year colleges and universities?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Dr. Diane Trainor, department chair

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Department Web: <http://www.middlesexcc.edu/academi/chm>

CHEMISTRY OPTION - SCIENCE TRANSFER
Associate in Science (A.S.) Degree - CHM.AS

Below are required courses and recommended course groupings and sequences for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
<i>Semester I</i>		
CHM 121 General Chemistry I – Lecture	3	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
CHM 125 General Chemistry I – Lab	1	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval. Can be taken in two semesters –MAT129A/MAT 129B.
CSC 106 Intermediate PC Applications With Programming	3	CSC 105, CSC 107, or one year of high school computer applications or programming course and MAT 104 or appropriate score on the College's placement test.
Physical/Health Education Elective	1-3	Students may take a health elective (3 credits) in place of Physical Education. However, if the total credits exceed 66 upon graduation, they may not transfer.
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<i>Semester II</i>		
CHM 122 General Chemistry II – Lecture	3	Minimum grade of "C" in CHM 121
CHM 126 General Chemistry II – Lab	1	CHM 121, CHM 125
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 131 Analytical Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or department approval.
____ General Education Humanities Elective (GE HUM)	3	
____ General Education Social Science Elective (GE SS)	3	
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<i>Semester III</i>		
CHM 221 Organic Chemistry I – Lecture	3	CHM 122
CHM 227 Organic Chemistry I – Lab	1	CHM 126
PHY 123 General Physics I – Lecture (GE MST)	3	MAT 129 or MAT 129A/MAT 129B
PHY 125 General Physics I – Lab (GE MST)	1	MAT 129 or MAT 129A/MAT 129B
CHM 219 Classical Volumetric & Spectrophotometric Analysis	5	CHM 118 and MAT 014 or equivalent
____ General Education Humanities Elective (GE HUM)	3	
____ General Education Social Science Elective (GE SS)	3	
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<i>Semester IV</i>		
CHM 222 Organic Chemistry II – Lecture	3	CHM 221, CHM 227
CHM 228 Organic Chemistry II – Lab	1	CHM 126
PHY 124 General Physics II – Lab (GE MST)	3	PHY 123
PHY 126 General Physics II – Lab (GE MST)	1	PHY 125
CHM 220 Methods of Chromatographic Separation	4	CHM 201, CHM 219
____ Technical Elective	4	
	Total Credits: 67	

CHM 219/CHM 220 sequence may be substituted with BIO 123/BIO 124
For students majoring in Pharmacy or Pre-Professional (medical, dental, etc.), biology may be required.

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Civil Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Civil Engineering Technology graduates find employment opportunities in the design, construction and inspection of airports, bridges, water treatment systems, dams, railroads and highway planning and maintenance. Specific job responsibilities include computer-aided design/drafting, material testing, site surveying and cost estimating. Students have several choices with this major. Students can earn the A.A.S. Degree in Civil Engineering Technology, or the Land Surveying Option. The emphasis in this program is on practical applications that provide students with skills that can be used on the job as civil engineering technicians.

Can students transfer to a four-year college or university?

Students may choose to participate in the Joint Admissions Program with the New Jersey Institute of Technology. Many other four-year colleges and universities will apply some or all of the courses taken toward a bachelor's degree.

What will students learn if they study Civil Engineering Technology?

Students acquire a foundation in communications, calculations, and engineering principles along with the specifics of civil engineering. All technical courses provide a balance between theory and practice.

Are there any requirements students must satisfy before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate. Students must also have a grade of "C" or better in high school algebra II and geometry.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the Certificate in three semesters

Questions?

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Contact Email: Tsabol@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

CIVIL ENGINEERING TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - CIT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
MCT 101 Introduction to Technology	2	MAT 013 or passing score on the College's placement test. Corequisite(s): MAT 014
MAT 129A Precalculus Part A	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
CIT 125 Construction Estimating	2	
MEC 123 Technical Graphics/CAD I	3	
_____ General Education Humanities Elective (GE HUM)		
OR _____ General Education Social Science Elective (GE SS)		
	3	
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<i>Semester II</i>		
MAT 129B Precalculus Part B	2	MAT 129A or equivalent
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
CIT 105 Statics for Technicians	3	MCT 101, MAT 129A or MAT 129
CIT 126 Advanced Civil Drawing/CAD II	3	MEC 123
CIT 104 Construction Surveying I	3	MAT 129A or MAT 129
PED ____ Physical Education Elective	1	Students have the option of substituting Health Education Electives in place of the Physical Education Elective.
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<i>Semester III</i>		
MAT 131A Analytic Geometry & Calculus I Part A	2	MAT 129 or MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination or departmental approval. MAT 131 may be substituted for MAT 131A & MAT 131B.
PHY 123 General Physics I – Lecture (GE MST)	3	MAT 129 or MAT 129A/MAT 129B
PHY 125 General Physics I – Lab (GE MST)	1	MAT 129 or MAT 129A/MAT 129B
CIT 203 Strength of Materials	4	CIT 105
CIT 205 Construction Surveying II	3	CIT 104
CIT 216 Soil Mechanics	4	CIT 105
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<i>Semester IV</i>		
MAT 131B Analytic Geometry & Calculus Part B	2	MAT 131A
PHY 124 General Physics II – Lecture (GE MST)	3	PHY 123
PHY 126 General Physics II – Lab (GE MST)	1	PHY 125
CIT 212 Water Resources Technology	4	MAT 129B or MAT 129 and CIT 105
CIT 218 Steel Design	3	CIT 203
CIT 219 Reinforced Concrete Design	3	CIT 203
CIT 260 Civil/Construction Design Project	2	CIT 203, CIT 205, CIT 125 Corequisite(s): CIT 212, CIT 217
Total Credits: 68		

Contact Name: Professor Thomas Sabol, department chair
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Contact Email: Tsabol@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

Computer Science

COMPUTER SCIENCE AND INFORMATION TECHNOLOGY DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

The Computer & Information Systems option leads to the Associate in Applied Science Degree in Computer Science. Students learn object oriented programming in C++ or Java and event driven programming in Visual Basic, client/server architecture, analysis & design of database systems, networking technologies, Windows and LINUX System Administration. Through a cooperative education program, students can gain work experience and earn college credits during their studies at Middlesex County College.

What will students learn if they study Computer Science?

Students learn on PC's running the DOS, Windows, and LINUX operating systems. They learn several programming languages and administration of both LINUX and Windows systems. Students develop problem-solving and communication skills using modern information processing techniques.

Are there any requirements students must satisfy before taking courses in the major?

Algebra II is a prerequisite for all Computer Science majors. Algebra II competency may be verified with a passing score on the College's placement test or by completing the appropriate course. Students must also have a grade of "C" or better in algebra II and geometry.

Why major in Computer & Information Systems - Network Administration & Support Option?

Network Administration and Support Option of the CIS program leads to the Associate in Applied Science Degree in Computer Science. Students learn network administration of Windows and LINUX operating systems. Problem solving skills are taught through the use of the object oriented programming language C++ or Java and the event driven programming Visual Basic. This program prepares students to take the certification tests for a PC Hardware operating systems technology, networking and security and Microsoft Windows MCP (Microsoft Certified Professional). Through a cooperative education program, students can gain work experience and earn college credits during their studies at Middlesex County College.

Can students transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the certificate in one year.

Questions?

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies

Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

COMPUTER AND INFORMATION SYSTEMS

Associate in Applied Science (A.A.S.) - General Degree Option - CSI .AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
CSC 105 Computer Applications and Systems	3	
OR CSC 106 Intermediate PC Applications with Programming	3	CSC 105 or CSC 107 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the College's placement test.
CSC 161 Introduction to Computer Science Using Java	4	MAT 014 or appropriate score on the College's placement test.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 116 College Algebra	3	Prerequisite(s): MAT 014
OR MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval.
OR MAT 129A Precalculus (Part A)	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval.
AND MAT 129B Precalculus (Part B)	2	MAT 129A or equivalent courses
____ General Education Social Science Elective (GE SS)	3	
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<i>Semester II</i>		
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 162 Object Oriented Programming Using Java	4	Prerequisite(s): CSC 161 and MAT 116 or MAT 129 or MAT 129A
CSC 208 Visual BASIC Programming	4	CSC 106 or CSC 161 or CSC 133
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 123 Statistics I	3	MAT 014 or appropriate score on the College's placement test.
OR MAT 131 Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR MAT 131A Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
AND MAT 131B Analytic Geometry and Calculus I (Part B)	2	MAT 131A
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<i>Semester III</i>		
CSC 200 Networking Technologies	3	CSC 110
CSC 236 Data Structures In Java	4	CSC 162 and MAT 116 or MAT 129B or MAT 129
CSC 245 UNIX* and Shell Programming	4	CSC 133 or CSC 161
____ Physical/Health Education Elective	1-3	

Semester IV

CSC 239 Database Concepts	3	CSC 133 or CSC 161
CSC 241 Web Programming	4	CSC 134 or CSC 162
CSC 246 UNIX/ Web Server Administration	3	CSC 245
___ ___ General Education Humanities Elective (GE HUM)	3	
___ ___ <i>Choose Technical Elective listed below:</i>	3	
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
CSC 126 Help Desk Customer Service	3	CSC 105 or CSC 106 and ENG 121
CSC 127 Help Desk Operation	3	CSC 126
CSC 205 Computer Science Work Experience I	3	Completion of all courses in first year of CIS or
CSC 206 Computer Science Work Experience II	3	Network Administration Option.
CSC 248 PC Service and Support	3	CSC 110 and CSC 200
CSC 251 Windows Workstation Administration	3	CSC 200
CSC 252 Windows Server Administration	3	CSC 251
CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
<i>Other Electives:</i>		
CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
MAT 132 Analytic Geometry and Calculus II	4	MAT 131 or equivalent
Science Elective	4	

Total Credits: 61-66

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
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NETWORK ADMINISTRATION AND SUPPORT

Associate in Applied Science (A.A.S.) - Networking Degree Option - CSNN.AAS

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
CSC 105 Computer Applications and Systems	3	
OR CSC 106 Intermediate PC Applications with Programming	3	CSC 105 or CSC 107 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the College's placement test.
CSC 133 Introduction to Computer Science using C++	4	MAT 014 or appropriate score on College's placement test.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 116 College Algebra	3	MAT 014
OR MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR MAT 129A Precalculus (Part A)	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B or departmental approval.
AND MAT 129B Precalculus (Part B)	2	MAT 129A or equivalent courses
____ General Education Social Science Elective (GE SS)	3	
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<i>Semester II</i>		
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 208 Visual BASIC Programming	4	CSC 106 or CSC 133 or CSC 161
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 123 Statistics I	3	MAT 014 or appropriate score on the College's placement test.
OR MAT 131 Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR MAT 131A Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
AND MAT 131B Analytic Geometry and Calculus I (Part B)	2	MAT 131A
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<i>Semester III</i>		
CSC 200 Networking Technologies	3	CSC 110
CSC 245 UNIX and Shell Programming	4	CSC 133 or CSC 161
CSC 251 Windows Workstation Administration	3	CSC 200
PED/HED Physical/Health Education Elective	1-3	
____ Choose Technical Elective listed below:	3	All students should consult a computer science advisor.
Technical Electives:		
CSC 126 Help Desk Customer Service	3	CSC 105 or CSC 106 and ENG 121
CSC 127 Help Desk Operation	3	CSC 126
CSC 205/CSC 206 Computer Science Work Experience I/ II	3	Completion of all courses in first year of CIS or CSC 206 Computer Science Work Experience II Network Administration Option.

CSC 258 Computer Forensics	3	CSC 116 and CSC 245 or written permission of departmental chairperson.
CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
<i>Other Electives:</i>		
CSC 134 Object Oriented Programming using C++	4	Prerequisite(s): CSC 133 and MAT 116 or MAT 129 or MAT 129A Corequisite(s): MAT 126 or MAT 128 or MAT 131 or MAT 131A
CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
CSC 230 Multimedia Production and Authoring Tools	4	CSC 134
CSC 235 Data Structures	4	CSC 134 and MAT 116 or MAT 129 or MAT 129B
CSC 241 Web Programming	4	CSC 134 or CSC 162
MAT 132 Analytic Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B or equivalent
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<i>Semester IV</i>		
CSC 239 Database Concepts	3	CSC 133 or CSC 161
CSC 246 UNIX and Web Server Administration	3	CSC 245
CSC 248 PC Service and Support	3	CSC 200 and CSC 110
CSC 252 Windows Server Administration	3	CSC 251
___ ___ General Education Humanities Elective (GE HUM)	3	

Total Credits: 61-66

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COMPUTER PROGRAMMING CERTIFICATE - CSC.CER

Courses	Credits	Requisites/Comments
CSC 106 Intermediate PC Applications with Programming	3	CSC 105 or CSC 107 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the College's placement test.
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 133 Introduction to Computer Science using C++	4	MAT 014 or appropriate score on College's placement test.
CSC 134 Object Oriented Programming using C++	4	CSC 133 and MAT 116 or MAT 129 or MAT 129A
CSC 235 Data Structures	4	CSC 134 and MAT 116 or MAT 129 or MAT 129B
___ ___ <i>Recommended Computer Science Electives:</i>	3-4	All students should consult a computer science advisor.
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
CSC 211 Programming in JAVA	4	CSC 134 or CSC 162
CSC 241 Web Programming	4	CSC 134 or CSC 162
CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121
<i>The following courses cannot be taken as electives: CSC 105, CSC 107, CSC 108, CSC 109, CSC 115, CSC 117, CSC 165</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 116 College Algebra	3	MAT 014 or MAT 014A and MAT 014B
OR		
MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR		
MAT 129A Precalculus (Part A)	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B or departmental approval.
AND		
MAT 129B Precalculus (Part B)	2	MAT 129A or equivalent courses
OR		
MAT 123 Statistics	3	MAT 014, MAT 014A/MAT 014B or satisfactory score on the College's placement test.
OR		
MAT 131 Analytic Geometry and Calculus I	4	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR		
MAT 131A Analytic Geometry and Calculus I (Part A)	2	MAT 129 or MAT 129A/MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
AND		
MAT 131B Analytic Geometry and Calculus I (Part B)	2	MAT 131A

Total Credits: 33-36

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
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NETWORK ADMINISTRATION CERTIFICATE - CSNN.CER

Courses	Credits	Requisites/Comments
CSC 106 Intermediate PC Applications with Programming	3	CSC 105 or CSC 107 or MCT 101 or one year of high school computer applications or a programming course and MAT 014 or appropriate score on the College's placement test.
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 116 Introduction to Information System Security	3	CSC 105 or CSC 106
CSC 126 Help Desk Customer Service	3	ENG 121, CSC 105 or CSC 106
CSC 200 Networking Technologies	3	CSC 110
CSC 251 Windows Workstation Administration	3	CSC 200
CSC 252 Windows Server Administration	3	CSC 251
____ Technical Electives	3-4	
CSC 125 Web Markup Languages	3	CSC 133 or CSC 161 and MAT 014
CSC 127 Help Desk Operation	3	CSC 126
CSC 133 Introduction to Computer Science Using C++	4	Prerequisite(s): MAT 014 or appropriate score on the College's placement test. Corequisite(s): MAT 116 or MAT 129 or MAT 129A
CSC 161 Introduction to Computer Science Using JAVA	4	MAT 014 or appropriate score on College's placement test. Corequisite(s): MAT 129 or MAT 129A or higher
CSC 208 Visual BASIC Programming	4	CSC 106 or CSC 133 or CSC 161
<i>The following courses cannot be taken as electives: CSC 105, CSC 107, CSC 108, CSC 109, CSC 165,</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 116 College Algebra	3	MAT 014 or MAT 014A and MAT 014B
OR		
MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014 or departmental approval.
OR		
MAT 129A Precalculus (Part A)	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval.
AND		
MAT 129B Precalculus (Part B)	2	MAT 129A or equivalent courses

Total Credits: 33-35

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
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**COMPUTER HELP DESK ADMINISTRATION
CERTIFICATE OF ACHIEVEMENT - CSH.COA**

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 108 Introduction to Internet Applications	2	Prerequisites recommended: Prior completion of one of the following courses: CSC 105 or CSC 106 or CSC 107 or equivalent microcomputer experience.
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
CSC 200 Networking Technologies	3	CSC 110
CSC 126 Help Desk Customer Service	3	ENG 121, CSC 105 or CSC 106
CSC 127 Help Desk Operation	3	CSC 126
SPE 121 Fundamentals of Public Speaking	3	

Total Credits: 20

Certificate Prerequisites

- **CSC 105 - Computer Applications and Systems or CSC 106 - Intermediate PC Applications with Programming**
- ENG 121 - English Composition I

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Computer Science Transfer Degree

COMPUTER SCIENCE DEPARTMENT

Associate in Science (A.S.) Degree

The Computer Science Transfer program leads to the Associate of Science degree and prepares students to transfer to public and private four-year colleges and universities in computer science. Students study topics in computer science such as problem-solving, object-oriented programming using Java, and computer architecture. Calculus, natural science, social science, and humanities are also studied. In the past, many of our students have successfully transferred to the New Jersey Institute of Technology, Rutgers University and other public and private colleges and universities.

What will students learn if they study Science Transfer?

They concentrate on the theoretical and applied sciences, and mathematics. These studies prepare students to meet the challenges of advanced study in professional careers.

Are there any requirements that must be satisfied before taking courses in my major?

Algebra I is a prerequisite for all majors. Algebra II competency may be verified with a passing score on the College's placement test. Students must also have a grade of "C" or better in high school algebra II, geometry, laboratory chemistry and one additional year of laboratory science.

Can Computer Science majors transfer to four-year colleges and universities?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

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COMPUTER SCIENCE TRANSFER

Associate in Science (A.S.) Degree - CSC.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
CSC 161 Introduction to Computer Science Using Java	4	MAT 014 or appropriate score on College's placement test.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 131 Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
OR		
MAT 131A Analytic Geometry and Calculus I (Part A)	2	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
AND		
MAT 131B Analytic Geometry and Calculus I (Part B)	2	MAT 131A
___ ___ General Education Science Elective (GE MST)	4	Students should take science courses designated as general education that are numbered 117 or higher and should take a two-course sequence in the same science.
___ ___ Physical/Health Education Elective	1-3	
<i>Semester II</i>		
CSC 162 Object Oriented Programming Using Java	4	CSC 161 and MAT 129 or MAT 129A
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 132 Analytic Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B, or equivalent
___ ___ General Education Science Elective (GE MST)	4	Students should take science courses designated as general education that are numbered 117 or higher and should take a two-course sequence in the same science.
___ ___ Technical Elective	3	CSC 116 or 200 level Computer Science or Science Elective
<i>Semester III</i>		
CSC 263 Computer Organization and Architecture I	3	CSC 161
CSC 236 Data Structures in Java	4	CSC 162, MAT 129 or MAT 129B
MAT 206 Introduction to Discrete Math	4	MAT 132 or approval of department chairperson
___ ___ General Education Social Science Elective (GE SS)	3	
<i>Semester IV</i>		
CSC 264 Computer Organization and Architecture II	3	CSC 263
MAT 210 Linear Algebra	4	MAT 132
___ ___ General Education Social Science Elective (GE SS)	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
Total Credits: 61-63		

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Dental Hygiene

DENTAL AUXILIARIES EDUCATION DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

The program in Dental Hygiene is accredited by the Commission on Dental Accreditation and has been granted the accreditation status of approval. Graduates of this program qualify to take the North East Regional and the National Board Examinations for licensure to practice.

Why major in Dental Hygiene?

The student can become a licensed professional who works under the supervision of a dentist and performs services that detect, prevent and treat diseases of the mouth. Services include performing oral examinations, oral cancer screenings, scaling, root planning, polishing, applying decay preventing agents, taking and processing dental X-rays, and providing patient education in preventive dentistry.

Can students who major in Dental Hygiene transfer to a four-year college or university?

Some colleges and universities such as Thomas Edison, Montclair State University, UMDNJ, and New Jersey City University will apply the courses the student has taken toward a bachelor's degree.

What will students learn by studying Dental Hygiene?

Students will study comprehensive didactic, laboratory and clinic courses in dental hygiene and the dental sciences presented by highly qualified dental hygienists and dentists. State-of-the-art equipment is used in the on-site dental hygiene clinic and laboratories. Students will have additional clinical experiences in local hospitals and public schools. Basic science and general education requirements complete the course of study.

Are there any special requirements that must be satisfied before taking courses in the major?

- Students must be a U.S. citizen or permanent resident who have been permanently domiciled in the state of New Jersey for at least 12 months prior to the first day of classes.
- Students must have a "C" or better in high school laboratory biology and laboratory chemistry or an equivalent college course.
- Algebra 1 is a pre-requisite for all majors. Algebra 1 competency may be verified with a passing score on the College's placement test of completion of the appropriate course. As a result of the student's performance on the College's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program.
- Students must have a cumulative GPA of 2.75. High school GPA will be used if the student has less than 12 college credits at the time of application.
- When students apply, they must take a Health Technologies entrance examination. A minimum overall score of 75% is required to be eligible for admission.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study.

Are there any special requirements once the student is admitted to this major?

Students must meet the academic standards of progress to stay in the program. All DHY courses must be taken at Middlesex County College.

Questions?

Contact Name: Professor Hope Holbeck, department chair

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Contact Email: HHolbeck@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/dental>

DENTAL HYGIENE

Associate in Applied Science (A.A.S.) Degree - DHY.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
BIO 211 Principles of Microbiology	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the College's placement test or MAT 013.
DHY 102 Dental Radiology	2	Credit-by-examination available if the student is licensed to take radiographs in New Jersey.
DHY 105 Oral Anatomy and Histology	4	
DHY 107 Preventive Oral Health Services I	4	
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
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<i>Semester II</i>		
BIO 111 Human Anatomy and Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the College's placement test or MAT 013.
DHY 108 Preventive Oral Health Services II	5	DHY 102, DHY 105, DHY 107 and current CPR certification.
DHY 111 Nutrition and Oral Health	2	DHY 102, DHY 105, DHY 107
DHY 204 Dental Materials	2	DHY 102, DHY 105, DHY 107
DHY 115 Periodontology	2	BIO 211, DHY 102, DHY 105, DHY 107
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
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<i>Summer I</i>		
CHM 107 Principles of General, Organic & Biochemistry	4	One year of high school laboratory chemistry or CHM 010.
BIO 112 Human Anatomy and Physiology II	4	BIO 111
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<i>Semester III</i>		
DHY 203 General and Oral Pathology	2	DHY 108, DHY 111, DHY 204, DHY 115
DHY 207 Dental Health Education	2	DHY 108, DHY 111, DHY 204, DHY 115
DHY 208 Pharmacology	2	Prerequisite(s): CHM 107 Corequisite(s): BIO 112, DHY 203, DHY 207, DHY 211, DHY 215
DHY 211 Preventive Oral Health Services III	5	DHY 108, DHY 111, DHY 204, DHY 115 and current CPR certification.
DHY 215 Advanced Periodontology	1	DHY 108, DHY 111, DHY 204, DHY 115
PSY 123 Introduction to Psychology	3	
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<i>Semester IV</i>		
DHY 210 Community Health	2	DHY 203, DHY 207, DHY 211, DHY 215
DHY 212 Preventive Oral Health Services IV	5	DHY 203, DHY 207, DHY 211, DHY 215 and current CPR certification.
DHY 218 Local Anesthesia and Pain Control	2	DHY 105, DHY 208, DHY 211 Corequisite(s): DHY 212
DHY 224 Dental Hygiene Seminar	1	Prerequisite(s): DHY 107, DHY 108, DHY 211 Corequisite(s): DHY 212
SOC 121 Introduction to Sociology	3	
Physical/Health Education Elective	1-3	
Total Credits: 72-74		

Standards of Progress

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
3. Must achieve a "C" grade or better in all dental hygiene courses in order to progress in the curriculum.
4. An unsatisfactory grade (i.e. a grade less than "C") in any first semester dental hygiene course results in dismissal from the program. The student has the option to reapply to the Dental Hygiene Program. Upon readmission, the student is required to retake DHY 107- Preventative Oral Health Services I in addition to any other failed courses.
5. If a student earns a grade of less than "C" in any dental hygiene course other than the first semester courses, the student may retake the course the next time it is offered, and if space is available in the program for the student to return, Upon returning, the student is also required to retake the Preventative Oral Health Services course that is the co-requisite for the semester they return. Students retaking clinical courses must adhere to the conditions outlined in the Dental Hygiene program's *Policy for Returning Students*. A student may retake a failed dental hygiene course only once; any subsequent failure(s) in the same dental hygiene course will result in dismissal from the Dental Hygiene Program.
6. Students who are dismissed from the Dental Hygiene Program have the option to re-apply.

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Electrical Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Electrical Engineering Technology graduates find employment opportunities in the design, manufacturing and maintenance of everything from nano-bots to supercomputers. Many industries employ electrical engineering technicians including bio-medical, robotics, controls, telecommunication, utilities, audio and consumer electronics, and manufacturing and service of every kind.

Can students who major in Electrical Engineering Technology Transfer to a four-year college or university?

Many four-year colleges and universities will apply many of the courses students have taken toward a bachelor's degree. The College also has a Joint Admissions agreement with The New Jersey Institute of Technology which will allow students, upon graduation from this program, to enter the B.S. in Electrical Engineering Technology program with junior standing.

What will students learn if they study Electrical Engineering Technology?

They develop skills and the understanding of the theory of electronics. Students develop skills in design, analysis, and the manufacture of electronic and computer equipment through courses that combine laboratory and classroom experience. The laboratories are equipped with modern industrial-grade equipment and provide for a great variety of applications of knowledge.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. They can complete the certificate in three semesters.

Questions?

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ELECTRICAL ENGINEERING TECHNOLOGY
Associate in Applied Science (A.A.S.) Degree - ELT.AAS

*Below are required courses and recommended course groupings and sequences for program completion.
 Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
<i>Semester I</i>		
MCT 101 Introduction to Technology	2	MAT 013 or passing score on the College's placement test. Corequisite(s): MAT 014
MAT 129A Precalculus Part A	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A and MAT 129B.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ELT 105 Foundations of Electrical and Electronics Technology	4	MAT 013 or appropriate score on the College's placement test. Corequisite(s): MAT 014 or higher level
MEC 123 Technical Graphics/CAD I	3	
PED ____ Physical Education Elective	1	Students have the option of substituting Health Education electives in place of the Physical Education elective.
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<i>Semester II</i>		
MAT 129B Precalculus Part B	2	MAT 129A or equivalent course
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
ELT 110 Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
ELT 111 Digital Electronics	3	MAT 013 or appropriate score on the College's placement test.
CSC 166 C++ Programming	3	CSC 133 may be substituted for CSC 166
____ General Education Humanities Elective (GE HUM)	3	
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<i>Semester III</i>		
MAT 131A Analytic Geometry and Calculus Part A	2	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval. MAT 131 can be substituted for MAT 131A and MAT 131B.
PHY 123 General Physics I – Lecture (GE MST)	3	MAT 129 or MAT 129A/MAT 129B
PHY 125 General Physics I – Lab (GE MST)	1	MAT 129 or MAT 129A/MAT 129B
ELT 226 Microcomputers	3	ELT 111
ELT 210 Electronic Circuits and Systems	4	ELT 110
ELT 239 Digital/Data Communications and Networking	3	ELT 111
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<i>Semester IV</i>		
MAT 131B Analytic Geometry and Calculus I Part B	2	MAT 131A or equivalent
PHY 124 General Physics II – Lecture (GE MST)	3	PHY 123
PHY 126 General Physics II – Lab (GE MST)	1	PHY 125
ELT 223 Electronic Design and Manufacturing	2	ELT 210, ELT 226
ELT 224 Communication Electronics	3	ELT 110
MCT 220 Robotics and Control Systems	3	ELT 105, MEC 123, MAT 129B or MAT 129
____ General Education Social Science Elective (GE SS)	3	
Total Credits: 66		

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Energy Utility Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Public Service Electric & Gas (PSE&G) has teamed up with Middlesex County College to offer an associate's degree that can help students get started in a career in the electric and gas industry with PSE&G. Through a unique blend of coursework, specialized training, and hands-on work experience, students will acquire the knowledge and skills needed to be a technician in the energy utility industry.

Can students who major in Energy Utility Technology transfer to a four-year college or university?

The major is job-oriented and designed for entrance to industry. However, students can transfer to Thomas Edison State College and earn a B.S. in Energy Utility Technology.

Are there any special requirements that must be satisfied to be accepted into the program?

To be accepted into the program, candidates must successfully pass PSE&G's background check which includes a motor vehicle records search and a criminal background check. A poor driving record and/or certain criminal convictions may disqualify candidates from participating in the program. In addition, students accepted into the program have to successfully pass the company's medical drug screen in order to participate in the program internship.

Are there any requirements that must be satisfied before taking courses in the major?

The program requires that applicants have a high school diploma or equivalent. All new students must take the College's placement test. Based on the results of the test, they may be required to take developmental courses in English and mathematics. Students must also have a valid driver's license and pass a physical examination and drug screening. Students must maintain a "B" grade or better in UTI 101 and a "C" grade or better in UTI 102 and UTI 103 in order to participate in the summer co-op.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

What skills will graduates have?

Upon completion of this program, graduates will be able to:

- Demonstrate an understanding of the energy industry, including the history of providing reliable service and regulatory influences;
- Read schematic electronics diagrams for purposes of testing and development;
- Diagnose combustion problems as they relate to the energy utility industry;
- Use basic electronics test and measurement instruments including multimeters and oscilloscopes to troubleshoot electronics devices;
- Perform piping on residential appliances and gas leak investigation;
- Install and test meters and demonstrate an understanding of electric utility distribution.

Questions?

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ENERGY UTILITY TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - EUT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 107 Mathematics I	3	Appropriate score on the College's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
ELT 105 Foundations of Electrical and Electronics Technology	4	MAT 013 or appropriate score on the College's placement test. Corequisite(s): MAT 014 or higher level
CSC 105 Computer Applications and Systems	3	
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
UTI 101 Introduction to the Energy Utility Industry	3	Prerequisite(s): MAT 013 Corequisite(s): ELT 105, MAT 107
UTI 102 Fundamentals of Gas Combustion	3	UTI 101 (with a grade of "B" or better)
UTI 103 Fundamentals of Power Alternating Current	3	UTI 101 (with a grade of "B" or better), ELT 105, MAT 107
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<i>Summer I</i>		
UTI 201 Energy Utility Co-op Work Experience I	3	400 hours of supervised work experience. Prerequisite(s): UTI 102, UTI 103 (with a grade of "C" or better) and one of the following occupational concentration courses: UTI 104, UTI 105, UTI 106, UTI 107, UTI 108, UTI 109, UTI 110.
UTI___ Energy Utility Elective	4-5	Select from UTI 104, UTI 105, UTI 106, UTI 107, UTI 108, UTI 109, UTI 110.
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<i>Semester III</i>		
PHY 101 Principles of Physics	4	MAT 107 or equivalent
SPE 121 Fundamentals of Public Speaking	3	
ELT/MEC Technical Elective <i>Choose from the following:</i>	3-4	
ELT 110 Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
ELT 111 Digital Electronics	3	MAT 013 or appropriate score on the College's placement test.
MEC 123 Technical Graphics/CAD I	3	
PED ___ Physical Education Elective	1	Students have the option of substituting Health Education electives in place of the Physical Education elective.
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<i>Semester IV</i>		
BUS 101 Business Organization and Management	3	
SCI 116 Introduction to Renewable Energy	3	Prerequisite(s): MAT 107 OR MAT 129 Corequisite(s): ENG 121
ELT/MEC Technical Elective <i>Choose from the following:</i>	3	
ELT 110 Electrical/Electronic Devices and Circuits	4	ELT 105 or equivalent Corequisite(s): MAT 129A or MAT 129
ELT 111 Digital Electronics	3	MAT 013 or appropriate score on the College's placement test.
MEC 123 Technical Graphics/CAD I	3	
___ General Education Humanities (GE HUM) OR General Education Social Science Elective (GE SS)	3	
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<i>Summer II</i>		
UTI 202 Energy Utility Co-op Work Experience II	3	400 hours of supervised work experience. Prerequisite(s): UTI 201 and one of the following occupational concentration courses: UTI 104, UTI 105, UTI 106, UTI 107, UTI 108, UTI 109, UTI 110.
UTI ___ Energy Utility Elective	4-5	Select from UTI 106, UTI 107, UTI 108, UTI 109, UTI 110.

Total Credits: 61-65

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Engineering Science

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Science (A.S.) Degree

Why major in Engineering Science?

Engineers are professionals with competency in mathematics and the physical and technical sciences. For students who enjoy solving problems and working with technical or scientific equipment, and do well in mathematics and science, engineering science is a good choice of major. The college has a transfer agreement with Rutgers College of Engineering and the New Jersey Institute of Technology. Articulation agreements with many other engineering colleges facilitate transfer with full credit.

What will students learn by studying Engineering Science?

They study theoretical and applied science, mathematics, and engineering subjects. They learn to apply mathematics and science to technical operations. Students have the opportunity to study in small groups in an environment with close faculty contact.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course. Students also need a grade of "C" or better in high school algebra II, geometry, advanced algebra, trigonometry, laboratory chemistry and laboratory physics.

Can Engineering Science students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

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ENGINEERING SCIENCE

Associate in Science (A.S.) Degree - ES.AS

*Below are required courses and recommended course groupings and sequences for program completion.
Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
CHM 121 General Chemistry I – Lecture	3	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM010.
CHM 125 General Chemistry I – Lab	1	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM010.
CSC 133 Introduction to Computer Science Using C++	4	MAT 014 or appropriate score on the College's placement test. Corequisite(s): MAT 125 or MAT 129A. MAT 129 can be substituted for MAT 129A & MAT 129B. CSC 133 is not a required course. Students who choose to transfer should consult with their academic advisor to select an appropriate computer science course that will satisfy the transfer institutes requirement.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 131 Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
MEC 119 Graphic Science	2	
____ General Education Social Science Elective (GE SS)	3	
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<i>Semester II</i>		
CHM 122 General Chemistry II – Lecture	3	CHM 121
CHM 126 General Chemistry II – Lab	1	CHM 121, CHM 125
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 132 Analytic Geometry and Calculus II	4	MAT 131, MAT 131B, or equivalent
PHY 133 Analytical Physics I – Lecture	3	Prerequisite(s): One year of high school laboratory physics. Corequisite(s): MAT 131 or equivalent
PHY 135 Analytical Physics I-Lab	1	Prerequisite(s): One year of high school laboratory physics. Corequisite(s): MAT 131 or equivalent
PED ____ Physical Education Elective	1	Students may take a health elective in place of physical education. However, if the total credits exceed 66 upon graduation they may not all transfer.
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<i>Semester III</i>		
____ Technical Elective	3-4	See Technical Electives in list below.
MAT 233 Analytic Geometry and Calculus III	4	MAT 132 or equivalent
MEC 221 Engineering Mechanics I	3	MAT 131 or MAT 131B
PHY 134 Analytical Physics II – Lecture	3	Prerequisite(s):PHY 133 Corequisite(s): MAT 132 or equivalent
PHY 136 Analytical Physics II-Lab	1	Prerequisite(s): PHY 135 Corequisite(s): MAT 132 or equivalent
____ General Education Humanities Elective (GE HUM)	3	
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<i>Semester IV</i>		
____ Technical Elective	4	See Technical Electives in list below.
MAT 234 Differential Equations	4	MAT 233 or approval of department chairperson of mathematics.
PHY 236 Analytical Physics III-Lecture	3	PHY 134, MAT 132
PHY 239 Analytical Physics III-Lab	1	PHY 136 or one year of integral and differential calculus, MAT 132
____ General Education Social Science Elective (GE SS)	3	
OR General Education Humanities Elective (GE HUM)		

Total Credits: 64-65

TECHNICAL ELECTIVES

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CHEMICAL ENGINEERING		
CHM 221 Organic Chemistry I -Lecture AND CHM 227 Organic Chemistry I –Lab	3 1	CHM 122 or equivalent CHM 126 or equivalent
CHM 222 Organic Chemistry I -Lecture AND CHM 228 Organic Chemistry I –Lab	3 1	CHM 221 or equivalent CHM 227 or equivalent
CIVIL ENGINEERING		
ELT 221 Electric Circuits I *	4	MAT 132 or equivalent
MEC 222 Engineering Mechanics II **	3	MEC 221
CIT 253 Mechanics of Materials ***	3	MEC 221
ELECTRICAL ENGINEERING		
ELT 221 Electric Circuits I *	4	MAT 132 or equivalent
ELT 222 Electric Circuits II **	4	ELT 221
MECHANICAL ENGINEERING		
ELT 221 Electric Circuits I *	4	MAT 132 or equivalent
MEC 222 Engineering Mechanics II **	4	MEC 221
CIT 253 Mechanics of Materials ***	3	MEC 221

Total Credits: 64-65

* Only offered in the Fall semester

** Only offered in the Spring semester

*** Only offered in the Summer semester. This is not a required course for graduation; however it may be required at the student's transfer institution.

Contact Name: Professor Thomas Sabol, department chair

Contact Phone: 732.906.2586

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Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

Fashion Merchandising and Retail Management

ACCOUNTING, BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Few areas of employment offer a better outlook for trained personnel. Students will find career opportunities in the areas of fashion merchandising, sales promotion, retail advertising, and supportive retail service. Graduates may find work in department stores, specialty shops, discount stores, as a retailing executive, an assistant buyer, an assistant department manager, an executive trainee, an advertising assistant, or an assistant fashion coordinator.

Can students who major in Fashion Merchandising and Retail Management transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn by studying Fashion Merchandising and Retail Management?

They acquire knowledge in areas of general education, business, retailing and fashion. Students apply classroom theory to on-the-job situations through a cooperative education work experience or internships. Classes prepare them for actual situations in retailing through multimedia instruction and a fully equipped retail laboratory offers students realistic preparation.

Are there any requirements before taking courses in my major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Note: Not all FMR courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

FASHION MERCHANDISING AND RETAIL MANAGEMENT

Associate in Applied Science (A.A.S.) Degree - FMR.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
BUS 101 Business Organization and Management	3	
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
FMR 201 Fashion Merchandise Information	4	Prerequisite(s)/Corequisite(s): BUS 101
MAT 101 Freshman Mathematics I	3	MAT101 is recommended. Students with the appropriate academic prerequisites, in consultation with their academic advisor, should enroll in an appropriate mathematics course.
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
ACC 101 Financial Accounting	4	
BUS 201 Business Law I	3	
MKT 201 Marketing I	3	BUS 101
FMR 207 Retail Advertising, Sales Promotion and Display	3	
<hr/>		
<i>Semester III</i>		
ACC 102 Managerial Accounting	4	ACC 101
MKT 143 Salesmanship	3	
FMR 202 Retail Buying and Merchandising	3	
SPE 121 Fundamentals of Public Speaking	3	
___ ___ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester IV</i>		
ECO 201 Principles of Economics I (GE SS)	3	A passing score on the algebra portion on the College's placement test or MAT 013.
FMR 204 Retail Management	3	BUS 101, FMR 201, FMR 202, FMR 207, MKT 143 AND MKT 201 Corequisite(s): FMR 206
FMR 206 Store Field Experience	3	Senior status or permission of department chairperson
___ ___ General Education Social Science Elective (GE SS)	3	
OR General Education Humanities Elective (GE HUM)		
___ ___ General Education Science Elective (GE MST)	3-4	Students may select courses with the GE MST designation from the following sciences: BIO, CHM, PHY or SCI.

Total Credits: 61-64

Note: Not all major courses are offered every semester both day and evening.
Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey, department chair
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Fine Arts

VISUAL, PERFORMING, AND MEDIA ARTS DEPARTMENT

Associate in Fine Arts (A.F.A.) Degree

The Associate in Fine Arts (A.F.A.) offers the first two years of concentrated study in studio courses for students planning to transfer to a visual arts, theatre, or music baccalaureate program. As a fine arts major, the student may choose to concentrate in either theater, art or music.

What will students learn if they study Fine Arts?

Fine arts will provide a strong foundation in the creative field of choice as well as a well-rounded education with a generous range of liberal arts courses required by baccalaureate fine arts programs. Students create a body of work or enhance skills in a chosen field in ways that will assist them in being accepted into a competitive fine arts program at a four-year institution.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Nadine Heller, department chair

Contact Phone: 732.906.2589

Contact Email: NHeller@middlesexcc.edu

FINE ARTS

Associate in Fine Arts (A.F.A.) Degree

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisites and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
Communications (9 Credits)		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking	3	
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Social Science Elective (GE SS)	3	Choose three credits from courses designated in the course descriptions as GE SS from the following: African-American Studies, Anthropology, Economics, Political Science, Psychology and Sociology.
___ ___ General Education Humanities Elective (GE HUM)	6	Choose six credits in sequence of the same modern language from FRE, GER, ITA, SPA. If students completed at least two years of high school study in one modern language, the level of language will be determined by a placement test (excluding SPA 242).
___ ___ General Education Humanities Elective (GE HUM)	3	Choose three additional credits in humanities from courses designated as GE HUM from the following: African-American Studies, Art, Dance, English, History, Modern Language, Music, Philosophy, Speech, and Theatre.
___ ___ Mathematics and/or Science (GE MST)	6-8	Choose any math and/or science courses with the GE MST designation numbered 101 or above that when combined total 6-8 credits.
___ ___ General Education Diversity Elective (GE DIV)	3	Choose a minimum of three credits from courses designated as GE DIV. If the course is also designated as GE HUM, GE SS, GE MST or it may also be used to satisfy an additional graduation requirement.
CSC 105 Computer Applications or Systems	3	
___ ___ Physical/Health Education Elective	1-3	
___ ___ Elective	3	
___ ___ Fine Arts Degree Option	18-23	See Fine Arts Degree Option on page 43 for Art, Music, or Theatre option requirements

Total Credits: 61-70

FINE ARTS DEGREE: ART OPTION - ART.AFA

Below are required courses.

<u>Courses</u>	<u>Credits</u>	<u>Requisites</u>
ART 109 Drawing OR ART 110 Figure Drawing	3	
ART 123 Art History	3	
ART 124 Art History: Renaissance to Modern	3	
ART 145 Art Fundamentals: Two Dimensions	3	
ART 146 Art Fundamentals: Three Dimensions	3	
ART 148 Art Portfolio	1	One or more three-credit studio art courses selected from the following: ART 105, ART 109, ART 110, ART 145, ART 146, ART 150, ART 201, ART 219, ART 220, ART 221, ART 222, ART 223, ART 224 or permission of department.
ART 149 Art Studio Seminar	1	One or more three-credit studio art courses selected from the following: ART 105, ART 109, ART 110, ART 145, ART 146, ART 150, ART 201, ART 219, ART 220, ART 221, ART 222, ART 223, ART 224 or permission of department.
<i>Plus one of the following (3 credits each):</i>		
ART 221 Painting: Traditional	3	
ART 222 Painting: Contemporary	3	
ART 223 Sculpture Traditional	3	
ART 224 Sculpture Contemporary	3	
_____ <i>Plus one additional art course</i>	3	
	Total Credits: 23	

MUSIC DEGREE OPTION - MUS.AFA

Below are required courses.

<u>Courses</u>	<u>Credits</u>	<u>Requisites</u>
MUS 123 Music History: Traditional OR MUS 124 Music History: Contemporary	3	
MUS 131 Keyboard Studies I	3	
MUS 132 Keyboard Studies II	3	MUS 131
MUS 140 Music Fundamentals	3	
MUS 201 Music Notation and Composition I	3	MUS 140 or passing score on music theory placement test.
MUS 202 Music Notation and Composition II	3	MUS 201
_____ <i>Plus additional music courses to total 3 credits</i>	3	
	Total Credits: 21	

THEATRE DEGREE OPTION - THE.AFA

Below are required courses.

<u>Courses</u>	<u>Credits</u>	<u>Requisites</u>
THE 123 Theatre History OR THE 152 American Musical Theatre	3	
THE 124 Contemporary Theatre	3	
THE 131 Acting I	3	
THE 145 Stagecraft	3	
THE 146 Play Production	3	
_____ <i>Plus additional three credits in theatre or a course selected from the following: Modern Drama, Shakespeare, Oral Interpretation of Literature, Music History, Music Fundamentals or any dance course</i>	3	
	Total Credits: 18	

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Fire Science Technology

CHEMISTRY/PHYSICS DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

This program meets the continuing education needs of professional and volunteer firefighters. It enables firefighters to perform their current duties more effectively and to prepare for greater levels of responsibility within the fire service system.

Can students who major in Fire Science Technology transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn in Fire Science Technology?

Students develop skills and knowledge in protection systems, hydraulics, hazardous materials, building construction and codes, departmental organization, investigation, fire ground strategy and tactics, and fire prevention and inspection.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory chemistry.

How long will it take to complete this degree?

Fire Science courses are offered exclusively in the evening. Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Dr. Diane Trainor, department chair

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Department Web: <http://www.middlesexcc.edu/academi/chm>

FIRE SCIENCE TECHNOLOGY DEGREE
Associate in Applied Science (A.A.S.) Degree - FIRE.AAS

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
FSC 103 Introduction to Fire Protection	3	
SCI 207 Principles of Chemistry & Physics for Fire Science	4	One year of high school laboratory chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a "C" or better in ENG 010.
MAT 107 Mathematics I	3	Appropriate score on the College's placement test, MAT 013 or MAT 013A and MAT 013B, or departmental approval.
____ Physical/Health Education Elective	1-3	
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<i>Semester II</i>		
CSC 105 Computer Applications and Systems	3	CSC 105 or higher
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 108 Mathematics II	3	MAT 107 or equivalent With advisor approval students may select a higher level mathematics sequence.
FSC 204 Building Construction	3	FSC 103 or permission of department chair
____ General Education Humanities Elective (GE HUM)	3	
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<i>Semester III</i>		
FSC 206 Fire Strategy and Tactics	3	FSC 103 or permission of department chair
FSC 207 Hazardous Materials for the Fire Service	3	See department chair
FSC 209 Fire Suppression and Detection Systems	3	FSC 103 or permission of department chair
POS 201 United States State and Local Government	3	
FSC 214 Rescue Company Operations	3	
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<i>Semester IV</i>		
FSC 210 Fire and Arson Investigation	3	FSC 103 or permission of department chair
FSC 212 Fire Prevention and Inspection	3	FSC 103 or permission of department chair
MGT 200 Principles of Supervision	3	MGT 200 is offered in the spring semester only
SCI 104 Technical Communications	1	
____ General Education Humanities Elective (GE HUM)	3	
OR		
General Education Social Science Elective (GE SS)		
____ Elective	3	Recommended EMT 101 or EMP 100
Electives:		
EMT 101 Emergency Medical Technician	3	
EMP 100 Introduction to Emergency Management	3	

Total Credits: 60-62

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Health Science

MEDICAL LABORATORY TECHNOLOGY DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

This program is for any allied health practitioner who holds a certificate or license such as dental, medical and lab assistants, phlebotomists; ultrasound, surgical, and dental technicians; EMTs, paramedics, LPNs, RNs (diploma) and military trained allied health practitioners.

What are the benefits?

Credit for previous study in a specific discipline can be awarded. Students who are a non-degree certified or licensed allied health practitioner or graduate of a certificate or diploma program may be able to earn valuable credits toward a college degree.

What are the requirements for admission to the Health Science program?

Students in the Health Science program must have non-degree certification or licensure in an allied health field. Full- or part-time study is available.

Can students receive credit for previous Allied Health training?

After successful completion of the general education requirements with a GPA of 2.0 or higher, students must submit an original post-secondary school transcript and a current license or certificate as part of the process. The number of credits awarded will be based upon an evaluation of the candidate's prior training and licensure or certification. The director of Health Technology programs and the dean of Science, Mathematics and Health Technologies will conduct the review.

Can students who major in Health Science transfer to a four-year college?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What are the employment opportunities for graduates?

Graduates of Health Science programs have chosen to work in hospital laboratories, private or reference laboratories, pharmaceutical companies, the insurance industry, doctor's offices, HMO's and clinics, veterinarian hospitals, assisted living facilities, long-term care facilities, research and sales. Graduates may use this degree for career advancement or change, to enhance job security, or to satisfy personal fulfillment.

Questions?

Contact Name: Professor Stephen Larkin, department chair

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Department Web: <http://www.middlesexcc.edu/academi/med>

HEALTH SCIENCE

Associate in Applied Science (A.A.S.) Degree - HLTH.AAS

*Below are the General Education requirements for program completion.
Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

Courses	Credits	Requisites/Comments
Semester I		
___ ___ Laboratory Science I	4	One year sequence of lab science requirements satisfied by Biology (BIO 117 & BIO 118 or higher) or Anatomy & Physiology (BIO 111 & BIO 112) or Chemistry (CHM 117 & CHM 118 or higher).
SPE 121 Fundamentals of Public Speaking	3	
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 107 Mathematics I	3	A passing score on the College placement test, MAT 013 or equivalent
Semester II		
___ ___ Laboratory Science II	4	One year sequence of lab science requirements satisfied by Biology (BIO 117 & BIO 118 or higher) or Anatomy & Physiology (BIO 111 & BIO 112) or Chemistry (CHM 117 & CHM 118 or higher).
CSC 107 Computers in Health Technologies	1	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 108 Mathematics II	3	MAT 107
Semester III		
BIO 211 Principles of Microbiology	4	
PSY 123 Introduction to Psychology	3	
___ Physical Education Elective	1	
___ ___ General Education Humanities Elective (GE HUM)	3	
Semester IV		
Allied Health Requirement	** (see note above)	
Electives	** (see note above)	

Allied Health Requirement: (previously completed) 30 (Maximum)**

Students may receive up to 30 credits for previous allied health training.

The determination will be made based upon an evaluation of the total hours of training and the level of training and responsibility. If the training is equivalent to less than thirty credits, the remainder is completed with electives.

Students are not required to complete thirty credits in one semester.

Electives: 24 (Maximum)**

The number of electives will depend on the number of credits approved from previous allied health training.

The student will select electives from a list of courses based on individual goals.

The electives may be taken from Small Business Administration, Psychology, or other courses as approved by the department.

A list of choices can be provided.

Total Credits: 65

Contact Name: Professor Stephen Larkin, department chair

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Hotel, Restaurant and Institution Management

HOTEL, RESTAURANT AND INSTITUTION MANAGEMENT DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

In this program, students acquire the necessary practical and theoretical skills for employment in one of the nation's fastest growing industries. Graduates may be employed as an assistant restaurant manager, hotel/motel assistant manager, front office manager, dining room manager, cafeteria production manager, cook, sous chef or management trainee. They are eligible for certification in several course areas by the American Hotel and Lodging Association and the National Restaurant Association. Students may choose the Hotel-Motel Management Option, the Restaurant Foodservice Management Option, or the Culinary Arts Management Option which prepares students to work in hotels, motels, resorts, restaurants, clubs, cruise ships, catering centers and health care facilities.

Can students who major in Hotel, Restaurant and Institution Management transfer to a four-year college?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor. Many colleges and universities with hotel and restaurant management programs, including Fairleigh Dickinson University, NYU, Montclair State University, Widener University, as well as other schools, will apply the courses taken toward a bachelor's degree.

What do students learn if they study Hotel, Restaurant and Institution Management?

They receive training in restaurant and food service management, hotel-motel management or culinary arts. Those with limited related industry experience are encouraged to enroll in a cooperative work experience seminar that includes paid employment in the final semester. In culinary arts additional training is provided in a culinary externship.

Can students take more than one option in Hotel, Restaurant and Institution Management?

Students with interests in both hotel-motel management and restaurant foodservice management can apply for a dual option.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or by completion of the appropriate course.

How long will it take to complete these programs?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. Certificates may be completed in approximately 14 months and the certificate of achievement in 1-2 semesters.

Can students who take the Culinary Certificate Program also work toward the A.A.S. degree in Restaurant/Foodservice Management?

Yes. All of the culinary courses in the certificate program may be applied to meet the requirements for the A.A.S. degree in the Restaurant/Foodservice option.

Why should students apply for a Certificate?

The Certificate was designed for those individuals who have completed a degree in another discipline and are currently working in the hospitality field. The Certificates were also designed for individuals who do not have a post-secondary education and are interested in the hospitality field or who have several years of experience in the field and need to acquire academic credentials for promotional opportunities.

Questions?

Contact Name: Professor Mary-Pat Maciolek, department chair

Contact Phone: 732.906.2538

Contact Email: MMaciolek@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/hri/indexhri.htm>

CULINARY ARTS MANAGEMENT DEGREE OPTION

Associate in Applied Science (A.A.S.) Degree - HRIC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
<i>Semester I</i>		
CSC 105 Computer Applications and Systems	3	
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
HRI 103 Principles of Food Selection and Preparation	3	
HRI 208 Foodservice Sanitation	3	
MAT 101 Freshman Mathematics I	3	Passing score on the College's placement test, two years of high school mathematics or MAT 013 or permission of department chairperson.
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
HRI 108 Quantity Food Production	3	HRI 103
HRI 109 Professional Culinary Techniques	3	HRI 103 Note: This course is only offered in the spring semester.
HRI 115 Foodservice Operations	3	Note: This course is only offered in the spring semester.
PSY 123 Introduction to Psychology	3	
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<i>Semester III</i>		
HRI 107 Baking Fundamentals	3	
HRI 203 Banquet and Dining Room Management	4	HRI 108 Note: This course is only offered during the day.
HRI 215 Beverage Management	3	Note: This course is only offered in the fall semester.
___ ___ General Education Humanities Elective (GE HUM)	3	
___ ___ General Education Social Science Elective (GE SS)	3	
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<i>Semester IV</i>		
HRI 114 Garde Manager	3	HRI 103 Note: This course is only offered in the spring semester.
HRI 205 Food and Beverage Controls and Purchasing	3	HRI 103
HRI ___ HRI Elective	3	Students can choose from HRI 105, HRI 110, HRI 201, HRI 202, HRI 206, HRI 213, HRI 216, HRI 217, HRI 220 and HRI 250.
___ ___ General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation from the BIO, CHM, PHY and SCI course codes.
___ ___ Physical/Health Education Elective	1-3	
<hr/>		
<i>Summer Session</i>		
HRI 111 Culinary Arts Externship	3	HRI 103, Admission to the Culinary Arts Program. Note: This course is only offered in the summer session.

Total Credits: 62-65

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HOTEL/MOTEL MANAGEMENT DEGREE OPTION

Associate in Applied Science (A.A.S.) Degree - HRIH.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
HRI 101 Introduction to Hotel, Restaurant and Institution Management	3	
HRI 103 Principles of Food Selection and Preparation	3	
HRI 208 Foodservice Sanitation	3	
MAT 101 Freshman Mathematics I	3	Passing score on the College's placement test, two years of high school mathematics or MAT 013 or permission of department chairperson.
___ ___ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester II</i>		
ACC 108 Accounting Practices for Hotels, Restaurants and Institutions	4	Note: This course is only offered in the spring semester.
CSC 105 Computer Applications and Systems	3	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
HRI 108 Quantity Food Production	3	HRI 103
HRI 110 Supervisory Development in the Lodging and Foodservice Industry	3	Note: This course is only offered in the spring semester.
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<i>Semester III</i>		
HRI 201 Hotel-Motel Front Office Operations	3	CSC 105 Note: This course is only offered in the fall semester.
HRI 206 Merchandising for the Hospitality Industry	3	Note: This course is only offered in the fall semester.
HRI 217 Supervisory Housekeeping	3	Note: This course is only offered in the fall semester.
PSY 123 Introduction to Psychology	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
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<i>Semester IV</i>		
HRI 203 Banquet and Dining Room Management	4	HRI 108 Note: This course is only offered during the day.
HRI 216 Hospitality Property Management	3	Note: This course is only offered in the spring semester.
HRI ___ HRI Elective	3	Students can choose from HRI 105, HRI 115, HRI 202, HRI 204, HRI 205, HRI 213, HRI 215, HRI 220 and HRI 250.
___ ___ General Education Science Elective (GE MST)	3	Students must select courses with the GE MST designation and with BIO, CHM, PHY and SCI course codes.
___ ___ General Education Social Science Elective (GE SS)	3	

Total Credits: 63-66

Contact Name: Professor Mary-Pat Maciolek, department chair
Contact Phone: 732.906.2538
Contact Email: MMaciolek@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/hri/indexhri.htm>

HOTEL OPERATIONS CERTIFICATE OF ACHIEVEMENT - HMHO.COA

Below are required courses and recommended course groupings and sequences for program completion.

Courses Credits Requisites/Comments

CSC 105 Computer Applications and Systems	3	
HRI 110 Supervisory Development in the Lodging and Foodservice Industry	3	Note: This course is only offered in the spring semester
HRI 201 Hotel-Motel Front Office Operations	3	CSC 105 Note: This course is only offered in the fall semester
HRI 206 Merchandising for the Hospitality Industry	3	Note: This course is only offered in the fall semester
HRI 216 Hospitality Property Management	3	Note: This course is only offered in the spring semester
HRI 217 Supervisory Housekeeping	3	Note: This course is only offered in the fall semester

Total Credits: 18

Contact Name: Professor Mary-Pat Maciolek, department chair

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Department Web: <http://www.middlesexcc.edu/academi/hri/indexhri.htm>

RESTAURANT/FOODSERVICE MANAGEMENT OPTION

Associate in Applied Science (A.A.S.) Degree - HRIR.AAS

Below are required courses and recommended course groupings and sequences for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
HRI 101 Introduction to Hotel, Restaurant and Institution Management	3	
HRI 103 Principles of Food Selection and Preparation	3	
HRI 208 Foodservice Sanitation	3	
MAT 101 Freshman Mathematics I	3	Passing score on the College's placement test, Two years of high school mathematics or MAT 013 or permission of department chairperson.
____ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester II</i>		
ACC 108 Accounting Practices for Hotels, Restaurants and Institutions	4	Note: This course is only offered in the spring semester
CSC 105 Computer Applications and Systems	3	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
HRI 108 Quantity Food Production	3	HRI 103
HRI 110 Supervisory Development in the Lodging and Foodservice Industry	3	Note: This course is only offered in the spring semester
<hr/>		
<i>Semester III</i>		
HRI 203 Banquet and Dining Room Management	4	HRI 108 Note: This course is only offered during the day.
HRI 206 Merchandising for the Hospitality Industry	3	Note: This course is only offered in the fall semester.
HRI 215 Beverage Management	3	Note: This course is only offered in the fall semester.
PSY 123 Introduction to Psychology	3	
____ General Education Humanities Elective (GE HUM)	3	
<hr/>		
<i>Semester IV</i>		
HRI 202 Facilities Layout and Design	3	Note: This course is only offered in the spring semester
HRI 205 Food and Beverage Cost Controls and Purchasing	3	HRI 103
HRI ____ HRI Elective	3	Students can choose from HRI 105, HRI 115, HRI 201, HRI 204, HRI 213, HRI 216, HRI 217, HRI 220 and HRI 250.
____ General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation and with the BIO, CHM, PHY and SCI course codes.
____ General Education Social Science Elective (GE SS)	3	

Total Credits: 63-66

Contact Name: Professor Mary-Pat Maciolek, department chair
Contact Phone: 732.906.2538
Contact Email: MMaciolek@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/hri/indexhri.htm>

RESTAURANT OPERATIONS CERTIFICATE OF ACHIEVEMENT - HMRO.COA

Below are required courses and recommended course groupings and sequences for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 105 Computer Applications and Systems	3	
HRI 103 Principles of Food Selection and Preparation	3	
HRI 205 Food and Beverage Controls and Purchasing	3	HRI 103
HRI 206 Merchandising for the Hospitality Industry	3	Note: This course is only offered in the fall semester.
HRI 208 Foodservice Sanitation	3	
HRI 215 Beverage Management	3	Note: This course is only offered in the fall semester.

Total Credits: 18

Contact Name: Professor Mary-Pat Maciolek, department chair

Contact Phone: 732.906.2538

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Department Web: <http://www.middlesexcc.edu/academi/hri/indexhri.htm>

Java and Web Programming Certificate of Achievement

COMPUTER SCIENCE DEPARTMENT
Certificate of Achievement

Why complete the certificate of achievement in Java & Web Programming?

This certificate of achievement provides students with an awareness of the internet and the world wide web. Publishing text, pictures, sound, and even video over the internet is becoming easier every day. Individuals who run small businesses with services to sell, and people with stories to share will acquire the necessary skills to publish useful, attractive, and quality web pages. Upon completion of this certificate program, students will be able to create web sites and useful web pages.

Are there any requirements that must be satisfied before students can take courses in the major?

The certificate of achievement is designed for those students with at least two years of college level education, including ENG 121 English Composition I. Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course. Students must have completed CSC 105 or CSC 107 or MCT 101 or demonstrated equivalent proficiency before beginning this certificate.

How long will it take to complete this certificate?

Once students complete developmental coursework (if needed), the certificate may be completed in 1-2 semesters. They can shorten the amount of time by taking courses in the summer and winter sessions.

Why take the certificate of achievement in Information Systems Security?

This certificate of achievement develops technical competence in Information Systems Security, an area that is critical to homeland security with rapidly expanding employment opportunities.

Questions?

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies

Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

**JAVA AND WEB PROGRAMMING
CERTIFICATE OF ACHIEVEMENT - CSWEB.COA**

This Java and Web Programming Certificate of Achievement is designed for those students with at least two years of college education and knowledge of **CSC 161 Introduction to Computer Science In Java and CSC 200 Networking Technologies** using Java or permissions of the chairperson.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 125 Web Markup Languages	3	Prerequisite(s): CSC 133 or CSC 161 and MAT 014
CSC 239 Database System Concepts	3	Prerequisite(s): CSC 133 or CSC 161
CSC 241 Web Programming	4	Prerequisite(s): CSC 134 or CSC 162
CSC 245 UNIX and Shell Programming	4	Prerequisite(s): CSC 133 or CSC 161
CSC 162 Object Orienting Program In Java	4	Prerequisite(s): CSC 161 and MAT 129 or MAT 129A
Total Credits: 18		

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

**JAVA PROGRAMMING
CERTIFICATE OF ACHIEVEMENT - CSJAVA.COA.**

This Certificate of Achievement is designed for those students with at least two years of college education and who have completed courses equivalent to ENG 121 and MAT 129. Successful completion of this certificate prepares students to take entry level jobs as Java programmers.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 161 Introduction to Computer Science in Java	4	MAT 014 or appropriate score on College's placement test. Corequisite(s): MAT 129 or MAT 129A or higher
CSC 162 Object Oriented Programming in Java	4	Prerequisite(s): CSC 161 and MAT 129 or MAT 129A or higher
CSC ____ 200-Level Programming Elective <i>Approved Programming Elective List (4 credits each):</i>	4	
CSC 211 Programming in Java		Prerequisite(s): CSC 134 or 162
CSC 236 Data Structures in Java		Prerequisite(s): CSC 162 and MAT 129 or MAT 129B or written permission of the Department
CSC 241 Web Programming		Prerequisite(s): CSC 134 or 162
CSC 245 UNIX and Shell Programming	4	CSC 133 or CSC 161
Total Credits: 16		

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

**INFORMATION SYSTEMS SECURITY
CERTIFICATE OF ACHIEVEMENT - CSS.COA**

The Information Systems Security Certificate of Achievement is designed for those students with at least two years of college level education who have completed courses equivalent to ENG 121 and MAT 014. Students must complete CSC 105, CSC 134 or CSC 162, and CSC 200 or demonstrate equivalent knowledge prior to beginning the program. Successful completion of this certificate helps prepare students to take the certification test for Information Systems Security.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
CSC 239 Database Concepts	3	CSC 133 or CSC 161
CSC 245 UNIX and Shell Programming	4	CSC 133 or CSC 161
CSC 258 Computer Forensics	3	CSC 116 and CSC 245
____ System Administration Technical Elective (3 credits each):	3	All students should consult a Computer Science Advisor.
CSC 246 UNIX and Web Server Administration		CSC 245
CSC 251 Windows Workstation Administration		CSC 200
CSC 252 Windows Server Administration		CSC 251
CSC 261 Information Technology Management	3	CSC 133 or CSC 161 and CSC 200 and ENG 121

Total Credits: 19

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

WINDOWS/PC SUPPORT CERTIFICATE OF ACHIEVEMENT - CSNT.COA

This Windows/PC Support Certificate of Achievement is designed for students who have completed courses equivalent to ENG121 and MAT 014. Students must complete CSC105 or demonstrate the equivalent proficiency prior to beginning this certificate program.

Successful completion of this certificate helps prepare students to take the certification tests for Microsoft Windows (MCP) and A+ Certification.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
CSC 110 Microcomputer Operating Systems and Architecture	3	CSC 105 or CSC 106
CSC 116 Introduction to Information Systems Security	3	CSC 105 or CSC 106
CSC 200 Networking Technologies	3	CSC 110
CSC 251 Windows Workstation Administration	3	Prerequisite(s): CSC 110 Corequisite(s): CSC 200
CSC 252 Windows Server Administration	3	CSC 251
CSC 248 PC Service and Support	3	CSC 110 and CSC 200
____ Elective Required	3-4	
<i>Recommended Electives:</i>		
CSC 160 Introduction to UNIX for Web Development	3	MAT 014 or higher and CSC 133 or CSC 161 or permission of chairperson.
CSC 245 UNIX and Shell Programming	4	CSC 133 or CSC 161

Total Credits: 21

Contact Name: Marilyn Laskowski-Sachnoff, Dean, Division of Professional Studies
Contact Email: MLaskowski-Sachnoff@middlesexcc.edu

Liberal Arts

Associate in Arts (A.A.) Degree

This program provides graduates a foundation for lifelong intellectual development and a fulfilling life. It also develops a powerful knowledge base and set of critical thinking skills they will use over the course of their professional careers.

Why study the Liberal Arts?

A Liberal Arts education helps students develop a strong and ordered minds as they explore the world's collected wisdom in literature, history, math, science, philosophy and the arts. It teaches them to recognize and construct arguments, to appreciate diverse cultures and perspectives, and to have a sense of humility about lives and minds that have gone before. Its emphasis on language helps the students broaden their cultural perspective and also become more aware of their own identity.

The courses comprising a liberal arts education at Middlesex are the core of all liberal arts programs at the bachelor's level. Students may select the general degree, the most flexible of all our Liberal Arts programs, or by choosing one of the many specialized options.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Competency in Algebra I may be verified with a passing score on the College's placement test or by completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory science.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

LIBERAL ARTS BUSINESS DEGREE OPTION

Liberal Arts Business – Associate in Arts (A.A.) Degree – LABUS.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
ENG 121 English Composition I	3	A passing score on the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
General Education Communication: ____	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
____ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
____ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ____ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses (GE MST). Choose one science course, two math courses, and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106. For their math electives students should choose one of the following sequences: <ul style="list-style-type: none"> • MAT 123, MAT 124 • MAT 129A, MAT 129B, MAT 131A, MAT 131B • MAT 129, MAT 131A, MAT 131B • MAT 129, MAT 131 • MAT 131A, MAT 131B, MAT 132 • MAT 131, MAT 132 • MAT 131A, MAT 131B, MAT 285 • MAT 131, MAT 285
____ Mathematics Elective (GE MST)	3-4	
____ Mathematics Elective (GE MST)	3-4	
____ Science Elective (GE MST)	3-4	
General Education Social Sciences: ____ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
____ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ACC 101 Financial Accounting	4	Prerequisite(s): ACC 101
ACC 102 Managerial Accounting	4	
ECO 201 Principles of Economics I	3	A passing score on the algebra portion on the college's placement test or MAT 013.
ECO 202 Principles of Economics II	3	Prerequisite(s): ECO 201 or permission of department chairperson.
____ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
____ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 60-65

Contact Name: Professor Nancy Bailey, department chair
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Department Web: <http://www.middlesexcc.edu/departments/bam>

LIBERAL ARTS - COMMUNICATION
Liberal Arts Communications - Associate in Arts (A.A.) Degree - LACOM.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication:		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History:		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology:		
___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Sciences:		
___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
___ ___ General Education Social Science Elective (GE SS)	3	
Liberal Arts Electives:		
COM 105 Introduction to Communication Study	3	
COM 110 Interpersonal Communication	3	Prerequisite(s): COM 105
COM 121 Mass Communication Study	3	Prerequisite(s): COM 105
___ ___ <i>Recommended Courses (select one - 3 credits each):</i>	3	
COM 115 Intercultural Communication		Prerequisite(s): COM 105
COM 120 Introduction to Public Relations		
COM 131 Introduction to Broadcasting		
COM 208 Communication Seminar & Field Experience		
COM 210 Radio Broadcasting Production		
LNC 123 Introduction to the Study of Human Language		
SPE 123 Discussion and Debate		
ENG 205 Introduction to Journalism		With permission of the department chair, COM 208 or COM 210 may be replaced with a course relevant to the student's special focus in the communication field which will assist the student in transferring to a four-year college or university in communication.
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Professor Nadine Heller, department chair
Contact Phone: 732.906.2589
Contact Email: NHeller@middlesexcc.edu

LIBERAL ARTS - DANCE
 Liberal Arts Dance - Associate in Arts (A.A.) Degree - LADAN.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication:		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History:		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology:		
___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
___ ___ General Education Social Sciences:		
___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives:		
DAN 131 Elements of Dance	3	
DAN 132 Dance Appreciation	3	
DAN 201 Methods and Modern Techniques in Dance	3	
DAN 202 Improvisation and Composition	3	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Professor Robert Wisniewski, department chair
Contact Phone: 732.906.2558
Contact Email: RWisniewski@middlesexcc.edu

LIBERAL ARTS - EDUCATION

Liberal Arts Education - Associate in Arts (A.A.) Degree - LAEDU.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication:		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History:		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology:		
___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Sciences:		
PSY 123 Introduction to Psychology	3	
PSY 255 Adolescent Psychology OR PSY 223 Child Psychology	3	Prerequisite(s): PSY 123 Prerequisite(s): PSY 123
Liberal Arts Electives:		
PSY 226 Educational Psychology	3	Prerequisite(s): PSY 123
___ ___ Content Area Elective	3	*Choose electives in Liberal Arts content areas from any of the college's two divisions. These include courses with the following designations: AFS, ART, BIO, CHM, COM, DAN, ECO, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POS, PSY, SCI, SOC, SPA, SPE and THE. Consult with your advisor or a transfer counselor for electives related to the four-year college or university you plan to attend.
___ ___ Content Area Elective	3	
___ ___ Content Area Elective	3	
Divisional Elective:		
EDU 121 Introduction to Education	3	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

* Subject area concentrations may be added to the Liberal Arts Education degree by working with an academic advisor to select the 9-credit content area electives in a particular subject area.

Here are some examples:

CONCENTRATION:

Music Concentration:

MUS 123 Music History: Traditional 3

MUS 131 Keyboard Studies I 3

MUS 140 Music Fundamentals 3

Modern Language Concentration:

LNC 123 Introduction to the study of Human Language 3

Choose 6 additional credits in modern language
Additional credits 6 courses that have not been
taken to satisfy the requirements of the degree.

History Concentration:

HIS 221 US History I 3

HIS 222 US History II 3

HIS 256 History of the Twentieth Century 3

English Concentration:

ENG 221 English Literature I 3
(or ENG 225 World Literature II)

Prerequisite(s): ENG 122
Prerequisite(s): ENG 122

ENG 222 English Literature II 3
(or ENG 226 World Literature II)

Prerequisite(s): ENG 122
Prerequisite(s): ENG 122

ENG 212 Children's Literature 3
(or ENG 228 Modern British and American Poetry)

Prerequisite(s): ENG 121
Prerequisite(s): ENG 122

Contact Name: Dr. Steven Barnhart, department chair

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Department web: <http://www.middlesexcc.edu/academi/hss>

LIBERAL ARTS - ENGLISH

Liberal Arts English - Associate in Arts (A.A.) Degree - LAENG.AA.

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Sciences: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social science (GE SS).
Liberal Arts Electives: ___ ___ English Elective ___ ___ English Elective ___ ___ English Elective ___ ___ English Elective	3 3 3 3	Choose four English courses (ENG) numbered 200 or higher that the student is not taking to satisfy other requirements for the degree. All courses have a prerequisite of ENG 122. In addition, courses with a prerequisite should be completed sequentially.
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Daniel Zimmerman, department chair
Contact Phone: 732.906.2591
Contact Email: DZimmerman@middlesexcc.edu

LIBERAL ARTS - GENERAL

Liberal Arts General - Associate in Arts (A.A.) Degree - LAGEN.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	
___ ___ Language Elective General Education Humanities	3	Choose two modern language courses in sequence from either:(GE HUM) FRE, GER, ITA or SPA. For student who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
General Education Mathematics, Science and Technology:		Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Technology Elective (GE MST)	3	
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
___ ___ General Education Social Science Elective (GE SS)	3	
Liberal Arts Electives:		
___ ___ Liberal Arts Elective	3	Choose four courses from the following areas that are not being taken to satisfy other requirements: AFS, ART, BIO, CHM, COM, DAN, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POS, PSY, SOC, SPA, SPE and THE.
___ ___ Liberal Arts Elective	3	
___ ___ Liberal Arts Elective	3	
___ ___ Liberal Arts Elective	3	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course described as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.
Total Credits: 61-66		

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department web: <http://www.middlesexcc.edu/academi/hss>

LIBERAL ARTS - HISTORY

Liberal Arts History - Associate in Arts (A.A.) Degree - LAHIS.AA

Below are required courses for program completion

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities(GE HUM).
___ ___ Language Elective General Education Humanities	3	
___ ___ Language Elective General Education Humanities	3	Choose two modern language courses in sequence From either:(GE HUM) FRE, GER, ITA or SPA. For students who completed at least two of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ___ ___ History Elective	3	Students should choose four History courses (HIS) that they are not taking to satisfy other requirements for the degree.
___ ___ History Elective	3	
___ ___ History Elective	3	
___ ___ History Elective	3	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAD, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - JOURNALISM

Liberal Arts Journalism - Associate in Arts (A.A.) Degree - LAJOU.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one Technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ENG 205 Introduction to Journalism	3	Prerequisite(s): ENG 122 or permission of department chair
ENG 206 Journalism II	3	Prerequisite(s): ENG 205 or permission of department chair
ENG 214 Journalism/Writing Field Experience	3	Prerequisite(s): ENG 205 or ENG 235 or ENG/BUS 240 and permission of department chair. Corequisite(s): ENG 206
___ ___ <i>Recommended Courses (select one - 3 credits each):</i> ENG 235 Creative Writing I	3	Prerequisite(s): ENG 122 or permission of department chair.
ENG 225 World Literature I ENG 226 World Literature II POS 201 US State and Local Government		
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: (GE SS) AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.
Total Credits: 61-66		

Contact Name: Dr. Daniel Zimmerman, department chair.
Contact Phone: 732.906.2591
Contact Email: DZimmerman@middlesexcc.edu

LIBERAL ARTS - MODERN LANGUAGE

Liberal Arts Modern Language - Associate in Arts (A.A.) Degree - LAMLA.AA.

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II ____ General Education Humanities Elective (GE HUM)	3 3 3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
____ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA.
____ Language Elective General Education Humanities (GE HUM)	3	For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
General Education Mathematics, Science and Technology: ____ Technology Elective (GE MST) ____ Mathematics Elective (GE MST) ____ Science Elective (GE MST) ____ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: ____ General Education Social Science Elective (GE SS) ____ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social science (GE SS).
Liberal Arts Electives ____ Modern Language Elective ____ Modern Language Elective ____ Modern Language Elective ____ Modern Language Elective	3 3 3 3	Choose four modern language courses that you not taking to satisfy courses the requirement of the degree. The following courses are recommended. LNC 123 Introduction to the Study of Modern Languages COM 115 Intercultural Communication
____ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
____ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE,GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL,POS, PSY, SSD, SOC, SPA, SPE and THE.
____ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Virgil Blanco, department chair
Contact Phone: 732.906.2529
Contact Email: VBlanco@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/lang>

LIBERAL ARTS - MUSIC
Liberal Arts Music - Associate in Arts (A.A.) Degree - LAMUS.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication:		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History:		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
____ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
____ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in 3sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
____ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology:		
____ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses And one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
____ Mathematics Elective (GE MST)	3-4	
____ Science Elective (GE MST)	3-4	
____ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Science:		
____ General Education Social Sciences Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
____ General Education Social Sciences Elective (GE SS)	3	
Liberal Arts Electives:		
MUS 131 Keyboard Studies I	3	Prerequisite(s): MUS 131
MUS 132 Keyboard Studies II	3	
MUS 140 Music Fundamentals	3	Prerequisite(s): MUS 140 or a passing score on music theory placement test
MUS 201 Music Notation and Composition I	3	
Divisional Elective:		
MUS 202 Music Notation and Composition II	3	Prerequisite(s): MUS 201
____ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
____ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.
Total Credits: 61-66		

Contact Name: Professor Nadine Heller, department chair
Contact Phone: 732.906.2589
Contact Email: NHeller@middlesexcc.edu

LIBERAL ARTS - PHYSICAL EDUCATION/RECREATION

Liberal Arts Physical Education/Recreation -

Associate in Arts (A.A.) Degree - LAPED.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the e descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social science (GE SS).
Liberal Arts Electives: HED 150 Contemporary Health Issues HED 200 Human Sexuality & Family Life PED 225 First Aid, CPR, & Safety Education ___ ___ Physical/Health Education Elective ___ ___ Physical/Health Education Elective ___ ___ Physical/Health Education Elective ___ ___ General Education Diversity Elective (GE DIV)	3 3 3 1 1 1 3	Choose three one-credit activity classes offered by the department.
___ ___ Divisional Elective	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Physical/Health Education Elective	1-3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
	Total Credits: 61-66	Students may satisfy this requirement with any HED or PED course.

Contact Name: Professor Robert Wisniewski, department chair

Contact Phone: 732.906.2558

Contact Email: RWisniewski@middlesexcc.edu

LIBERAL ARTS - POLITICAL SCIENCE

Liberal Arts Political Science - Associate in Arts (A.A.) Degree - LAPOS.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: POS 121 Introductory Government and Policies	3	
POS 220 United States National Government	3	
___ ___ <i>Choose two courses from the following - 3 credits each:</i> ___ ___ POS 201 United States State and Local Government	6	
POS 222 Foreign Governments: A Comparative Analysis		
POS 231 Constitutional Law		Prerequisite(s): POS 121 or POS 201 or POS 220
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - PSYCHOLOGY

Liberal Arts Psychology - Associate in Arts (A.A.) Degree - LAPSY.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST)	3	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Mathematics Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ___ ___ Psychology Elective	3	Students should choose four Psychology courses (PSY) that are not being taken to satisfy other requirements for the degree.
___ ___ Psychology Elective	3	
___ ___ Psychology Elective	3	
___ ___ Psychology Elective	3	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair

Contact Phone: 732.906.2590

Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - SOCIAL AND REHABILITATION SERVICES

Liberal Arts Social and Rehabilitation Services -

Associate in Arts (A.A.) Degree - LASRS.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242. SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: PSY 123 Introduction to Psychology SOC 121 Introduction to Sociology	3 3	
Liberal Arts Electives: SOC 131 Contemporary Social Problems SOC 141 Introduction to Social Work and Social Welfare Policy SOC 205 Minority Groups in U.S. Society SOC 210 Methods of Social Casework and Counseling	3 3 3 3	Prerequisite(s): SOC 121
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - SOCIAL SCIENCES

Liberal Arts Social Sciences - Associate in Arts (A.A.) Degree - LASS.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either (GE HUM) FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ___ ___ Social Science Elective ___ ___ Social Science Elective ___ ___ Social Science Elective ___ ___ Social Science Elective	3 3 3 3	Students should choose four social science courses (POS, PSY, or SOC) that they are taking to satisfy other requirements for the degree.
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - SOCIOLOGY

Liberal Arts Sociology - Associate in Arts (A.A.) Degree - LASOC.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either (GE HUM) FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: ___ ___ Sociology Elective ___ ___ Sociology Elective ___ ___ Sociology Elective ___ ___ Sociology Elective	3 3 3 3	Students should choose four Sociology courses (SOC) that they are not taking to satisfy other requirements for the degree.
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
Contact Phone: 732.906.2590
Contact Email: HSS@middlesexcc.edu or Advising@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - THEATRE

Liberal Arts Theatre - Associate in Arts (A.A.) Degree - LATHE.AA

Below are required courses for program completion.

Courses	Credits	Requisites/Comments
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST)	3 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course. Choose one or two science courses in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
___ ___ Science Elective (GE MST)	3-4	
___ ___ Mathematics or Science Elective (GE MST)	3-4	
General Education Social Sciences: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	
Liberal Arts Electives: THE 145 Stagecraft THE 146 Play Production ___ ___ <i>Choose two of the following courses - 3 credits each:</i> DAN 131 Elements of Dance DAN 132 Dance Appreciation DAN 201 Methods and Modern Techniques in Dance SPE 124 Oral Interpretation THE 105 Introduction to Theatre THE 123 Theatre History THE 124 Contemporary Theatre THE 131 Acting I THE 132 Acting II THE 152 The American Musical	3 3 6	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Professor Nadine Heller, department chair

Contact Phone: 732.906.2589

Contact Email: NHeller@middlesexcc.edu

LIBERAL ARTS - VISUAL ARTS

Liberal Arts Visual Arts - Associate in Arts (A.A.) Degree - LAVA.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an academic advisor. For their technology elective, students should choose either CSC 105 or CSC 106.
General Education Social Sciences: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social science (GE SS).
Liberal Arts Electives: ART 145 Art Fundamentals: Two Dimensions ART 146 Art Fundamentals: Three Dimensions	3 3	
___ ___ <i>Choose two of the following courses - 3 credits each:</i> ART 123 Art History: Ancient to Renaissance ART 124 Art History: Renaissance to Modern ART 125 Art History: Modern to Contemporary	6	
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Professor Nadine Heller, department chair

Contact Phone: 732.906.2589

Contact Email: NHeller@middlesexcc.edu

LIBERAL ARTS - WRITING

Liberal Arts Writing - Associate in Arts (A.A.) Degree - LAWRT.AA

Below are required courses for program completion.

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
General Education Communication: ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SPE 121 Fundamentals of Public Speaking OR SPE 123 Discussion and Debate	3	
General Education History: HIS 121 History of Western Civilization I HIS 122 History of Western Civilization II	3 3	
___ ___ General Education Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as general education humanities (GE HUM).
___ ___ Language Elective General Education Humanities (GE HUM)	3	Choose two modern language courses in sequence from either: FRE, GER, ITA or SPA. For students who completed at least two years of high school study in one modern language, their level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective General Education Humanities (GE HUM)	3	
General Education Mathematics, Science and Technology: ___ ___ Technology Elective (GE MST) ___ ___ Mathematics Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Science Elective (GE MST) ___ ___ Mathematics or Science Elective (GE MST)	3 3-4 3-4 3-4 3-4	Students must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses, one or two math courses and one technology course in consultation with an Academic advisor. For their technology elective students should choose either CSC 105 or CSC 106.
General Education Social Science: ___ ___ General Education Social Science Elective (GE SS) ___ ___ General Education Social Science Elective (GE SS)	3 3	Choose courses designated in the course descriptions as general education social sciences (GE SS).
Liberal Arts Electives: <i>Choose four English courses (ENG) from the following list of (writing-intensive) courses - 3 credits each:</i> ENG 205 Introduction to Journalism ENG 206 Journalism II ENG 235 Creative Writing I ENG 236 Creative Writing II ENG 237 Advanced Writing Workshop ENG 238 Technical Writing ENG 240 Business Communication ENG 260 Scriptwriting	12 3	Prerequisite(s): ENG 122 Prerequisite(s): ENG 205 Prerequisite(s): ENG 122 Prerequisite(s): ENG 122 Prerequisite(s): ENG 122 Prerequisite(s): ENG 122 Prerequisite(s): ENG 122
___ ___ General Education Diversity Elective (GE DIV)	3	Choose one course designated in the course descriptions as general education diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Education Elective	1-3	Students may satisfy this requirement with any HED or PED course.

Total Credits: 61-66

Contact Name: Dr. Daniel Zimmerman, department chair
Contact Phone: 732.906.2591
Contact Email: DZimmerman@middlesexcc.edu

Management

ACCOUNTING, BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Management is a people-oriented career requiring students to have an understanding of the role of management in a complex and dynamic society. For students with experience in a particular field, earning their degree in management may open up employment and promotion opportunities in various aspects of industry, commerce, specialized institutions, and government.

Can students who major in Management transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn if they study Management?

They establish or upgrade their managerial skills. The program is a comprehensive blend of social science theories, organizational behavior and design, classical management theories, managerial processes, functions, and decision-making.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or by completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

MANAGEMENT

Associate in Applied Science (A.A.S.) Degree - MGT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
BUS 101 Business Organization and Management	3	
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 101 Freshman Mathematics I	3	Students with the appropriate academic prerequisites, in consultation with their academic advisor, should elect the appropriate mathematics course. MAT courses with the designation GE MST fulfills the general education elective.
____ General Education Humanities Elective (GE HUM)	3	
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<i>Semester II</i>		
ACC 101 Financial Accounting	4	
ECO 201 Principles of Economics I	3	A passing score on the algebra portion on the College's placement test or MAT 013.
ENG 122 English Composition II	3	A grade of "'C" or better in ENG 121
MGT 210 Concepts of Business Management	3	BUS 101
____ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester III</i>		
ACC 102 Managerial Accounting	4	ACC 101
MGT 214 Operations Management	3	MGT 210
ECO 202 Principles of Economics II	3	ECO 201
MGT 220 Human Resources Management	3	
SPE 121 Fundamentals of Public Speaking	3	
<hr/>		
<i>Semester IV</i>		
BUS 201 Business Law I	3	
MGT 205 Principles of Labor Relations	3	BUS 101 or MGT 220
MGT 216 Seminar in Management Experiences	3	Final course for majors: The following courses are prerequisites for MGT 216: ACC 102, ECO 202, ENG 122, MGT 205, MGT 210, MGT 220. Corequisite(s): MGT 214
____ Recommended Business Elective	3	
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<i>The following Business Electives are recommended for Management Majors - 3 credits each:</i>		
MGT 208 Management Field Experience		MGT 210
MKT 201 Marketing I		BUS 101
____ General Education Science Elective (GE MST)	3-4	Students must select courses with the GE MST designation and with a BIO, CHM, PHY or SCI course code.

Total Credits: 60-63

NOTE: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey, department chair
Contact Phone: 732.906.2594
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Department Web: <http://www.middlesexcc.edu/departments/bam>

Marketing

ACCOUNTING, BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

The distribution of goods and services is one of the fastest growing business fields in the nation. It is especially appropriate for alert, vigorous individuals who are capable of bringing new ideas and talents to a dynamic and diversified business establishment. Career possibilities include employment as a marketing trainee, marketing research assistant, advertising assistant, customer relations representative, or sales representative.

Can students who major in Marketing transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn by studying Marketing?

They acquire a firm base of knowledge of business law and mathematics, accounting, computer applications, and economics. Students also study courses in general education and specific courses in marketing.

Note: Not all MKT courses are offered every semester both day and evening. Students should call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

MARKETING

Associate in Applied Science (A.A.S.) Degree - MKT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ACC 101 Financial Accounting	4	
BUS 101 Business Organization and Management	3	
MAT 101 Freshman Mathematics I	3	Students with the appropriate academic prerequisites, in consultation with their academic advisor, should elect the appropriate mathematics course. Only MAT courses with the designation GE fulfill the General Education elective.
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
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<i>Semester II</i>		
ACC 102 Managerial Accounting	4	ACC 101
BUS 201 Business Law I	3	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MKT 201 Marketing I	3	BUS 101
SPE 121 Fundamentals of Public Speaking	3	
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<i>Semester III</i>		
___ ___ <i>Recommended Business Elective - 3 credits each:</i>	3	
MKT 209 Marketing Field Experience or BUS 202 Business Law II		MKT 201 BUS 201
ECO 201 Principles of Economics I	3	A passing score on the algebra portion of the College's placement test MAT 013.
MKT 202 Marketing II	3	MKT 201
MKT 203 Principles of Advertising	3	BUS 101
___ ___ Physical/Health Education Elective	1-3	
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<i>Semester IV</i>		
ECO 202 Principles of Economics II	3	ECO 201 or permission of department chair
MKT 143 Salesmanship	3	
MKT 206 Marketing Management Seminar	3	Prerequisite(s): MKT 202 Corequisite(s): ACC 102, BUS 201, ECO 201, ENG 122, MKT 203
___ ___ General Education Science Elective (GE MST)	3-4	Students must select a course with the (GE MST) designation from the BIO, CHM, PHY or SCI course code.
___ ___ General Education Humanities Elective (GE HUM)	3	

Total Credits: 60-63

NOTE: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey, department chair
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Department Web: <http://www.middlesexcc.edu/departments/bam>

Mathematics

MATHEMATICS DEPARTMENT

Associate in Science (A.S.) Degree

This program parallels the first two years of a baccalaureate degree program in mathematics. The mathematics major prepares students, upon graduation, to transfer to a four-year college or university to pursue professional careers requiring quantitative reasoning and analytical thinking. Traditional mathematics occupations consist of teaching positions in schools and colleges or research positions in universities or industry. Other related mathematics fields include statistics, survey and market research, operations research, computer systems design and programming, economics and finances, and robotics and aerodynamics. Careers in applied mathematics usually focus on developing mathematical models for technical and scientific data, whether in physics, chemistry, biology, engineering or medicine.

Are there any requirements that must be satisfied before taking courses in the major?

Students must demonstrate proficiency in elementary (MAT 013 or MAT 013A/MAT 013B) and intermediate (MAT 014 or MAT 014A/MAT 014B) algebra, as well as precalculus (MAT 129 or MAT 129A/MAT 129B). In addition, they must successfully complete all courses required by the College's placement tests, and fulfill the science course prerequisites. The science courses of biology and chemistry require a high school laboratory course with a minimum grade of "C" or the equivalent developmental science courses (BIO 010, CHM 010).

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Dr. Maria DeLucia, department chair

Contact Phone: 732.906.2585

Contact Email: MDeLucia@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/mat>

MATHEMATICS SCIENCE TRANSFER

Associate in Science (A.S.) Degree - MAT.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
BIO 123 General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 020. Also appropriate score on the College's placement test or MAT 013.
OR		
CHM 121 General Chemistry I – Lecture	3	MAT 014 and one year of high school chemistry or CHM 010.
CHM 125 General Chemistry I – Lab	1	MAT 014 and one year of high school chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 131 Analytic Geometry & Calculus I	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 129 or MAT 129A/MAT 129B, or departmental approval.
OR		
MAT 131A		To be followed by MAT 131B.
___ ___ General Education Social Science Elective (GE SS)	3	
___ ___ Physical/Health Education Elective	1-3	
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<i>Semester II</i>		
BIO 124 General Biology II	4	BIO 123
OR		
CHM 122 General Chemistry II – Lecture	3	CHM 121
CHM 126 General Chemistry II – Lab	1	CHM 121, CHM 125
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 132 Analytic Geometry & Calculus II	4	MAT 131, MAT 131A/MAT 131B or equivalent
CSC 106 Intermediate Pc Applications with Programming	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
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<i>Semester III</i>		
MAT 233 Analytic Geometry & Calculus III	4	MAT 132 or equivalent
Mathematics Elective	4	Choose from MAT 206, MAT 210, MAT 257, MAT 285
PHY 123 General Physics I – Lecture (GE MST)	3	MAT 129 or MAT 129A/MAT 129B
PHY 125 General Physics I – Lab (GE MST)	1	MAT 129 or MAT 129A/MAT 129B Students may substitute PHY 133/135 - PHY 134/136 for PHY 123/125 - PHY 124/126.
___ ___ Elective	3	Except SSD 101
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<i>Semester IV</i>		
MAT 234 Differential Equations	4	MAT 233 or approval of department chairperson
Mathematics Elective	4	Choose from MAT 206, MAT 210, MAT 257, MAT 285
PHY 124 General Physics II – Lecture (GE MST)	3	PHY 123
PHY 126 General Physics II – Lab (GE MST)	1	PHY 125 Students may substitute PHY 133/135 - PHY 134/136 for PHY 123/125 - PHY 124/126.
___ ___ General Education Humanities Elective (GE HUM)	3	
OR		
___ ___ General Education Social Sciences Elective (GE SS)		

Total Credits: 62-65

Contact Name: Dr. Maria DeLucia, department chair
Contact Phone: 732.906.2585
Contact Email: MDeLucia@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/mat>

Mechanical Engineering Technology

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Mechanical Engineering Technology provides the right combination of theory and hands-on training to prepare students for employment opportunities in the design, manufacture and set-up of mechanical equipment such as engines, power generation and control systems, and manufacturing systems (including robots). Specific job responsibilities include working as a designer, computer aided design/drafting, instrumentation and testing of machines and systems, and developing and troubleshooting manufacturing systems.

Can students who major in Mechanical Engineering Technology transfer to a four-year college or university?

Students may choose to participate in the Joint Admissions Program with the New Jersey Institute of Technology. Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course. Students must also have a grade of "C" or better in high school algebra II and geometry.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Professor Thomas Sabol, department chair

Contact Phone: 732.906.2586

Contact Email: Tsabol@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

MECHANICAL ENGINEERING TECHNOLOGY

Associate in Applied Science (A.A.S.) Degree - MEC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
MCT 101 Introduction to Technology	2	MAT 013 or passing score on the College's placement test. Corequisite(s): MAT 014
MAT 129A Precalculus Part A	2	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "C" or better in MAT 014 or MAT 014A and MAT 014B, or departmental approval. MAT 129 may be substituted for MAT 129A & MAT 129B.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ELT 105 Foundations of Electronics Technology	4	MAT 013 or appropriate score on College's placement test. Corequisite(s): MAT 014 or higher level
MEC 123 Technical Graphics/CAD I	3	
PED ___ Physical Education Elective	1	Students have the option of substituting Health Education electives in the place of the Physical Education Elective.
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<i>Semester II</i>		
MAT 129B Precalculus Part B	2	MAT 129A or equivalent courses
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
CIT 105 Statics for Technicians	3	MCT 101, MAT 129A or MAT 129
MEC 125 Advance Mechanical Drawing/CAD II	3	MEC 123
MEC 130 Manufacturing Process & Materials	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
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<i>Semester III</i>		
MAT 131A Analytic Geometry & Calculus I Part A	2	MAT 129 or MAT 129B or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval. MAT 131 may be substituted for MAT 131A and MAT 131B.
PHY 123 General Physics I – Lecture (GE MST)	3	MAT 129 or MAT 129A/MAT 129B
PHY 125 General Physics I – Lab (GE MST)	1	MAT 129 or MAT 129A/MAT 129B
CIT 203 Strength of Materials	4	CIT 105
MEC 228 Kinematics Design	3	MEC 123 and MAT 129B or MAT 129
MEC 250 Solid Modeling	3	MEC 123
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<i>Semester IV</i>		
MAT 131B Analytic Geometry & Calculus I Part B	2	MAT 131A
PHY 124 General Physics II – Lecture (GE MST)	3	PHY 123
PHY 126 General Physics II – Lab (GE MST)	1	PHY 125
MEC 204 Fluid Mechanics	4	CIT 105, MAT 129B or MAT 129
MEC 260 Mechanical Design Project	2	Prerequisite(s): CIT 203, MEC 228 Corequisite(s): MEC 204, MCT 220
MCT 220 Robotics and Control Systems	3	ELT 105, MEC 123, MAT 129B or MAT 129
___ ___ General Education Social Science Elective (GE SS) 3		

Total Credits: 66

Contact Name: Professor Thomas Sabol, department chair
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Media Arts & Design

VISUAL, PERFORMING, AND MEDIA ARTS DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

In this program, students combine digital and darkroom commercial photography, or course work in advertising and graphic design with business and general education. The program emphasizes hands-on experience in the laboratory or studio to develop both creative ability and the technical skills essential to commercial art and photography careers. It prepares students for a career as a commercial artist or photographer in advertising agencies, company advertising departments, publishing companies, photography studios, color reproduction laboratories, printing firms, or retail establishments. The faculty who teach major courses have professional experience in the fields of commercial art and photography as well as in marketing and business.

Can students transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Why major in Media Arts & Design?

There is a growing need for graphic artists, designers and photographers. Students who choose the A.A.S. degree options in Advertising/Graphic Design, or Professional Commercial Photography will gain hands-on experience with state-of-the-art equipment used by professional designers and photographers. Small class sizes allow students to work on individual as well as team projects, finding creative solutions to design problems, just as they would in the professional art and design fields. Students will develop their own e-portfolios of creative work which will assist them in securing employment, starting their own business, or continuing their education in the field.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

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ADVERTISING GRAPHIC DESIGN DEGREE OPTION

Associate in Applied Science (A.A.S.) Degree - MADAD.AAS

Below are required courses and recommended course groupings and sequences for program completion.

NOTE: As not all courses are offered every semester, it is important to follow the recommended sequence below.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
CSC 105 Computer Applications & Systems	3	
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAD 107 Photography I	3	
MAD 113 Two-Dimensional Design	3	
MAD 117 Freehand Drawing	3	
____ Physical/Health Education Elective	1-3	
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<i>Semester II</i>		
ART 104 History of Photography OR ART 124 Art History: Renaissance to Modern OR ART 125 Art History: Modern and Contemporary	3	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAD 108 Photography II	3	MAD 107
MAD 114 Three-Dimensional Design	3	MAD 113 and MAD 117
MAD 118 Graphic Design Skills	3	MAD 113 and MAD 117
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<i>Semester III</i>		
BUS 101 Business Organization and Management OR SBM 120 Small Business Administration	3	Students who take SBM 120 need special permission to enroll in MKT 203.
AGD 213 Typography	3	All MAD courses
AGD 219 Digital Graphics	3	All MAD courses.
____ Mathematics or Science (3 credit) General Education Requirement (GE MST)	3	MAT 101 or higher level mathematics course OR any General Education 3-credit science course. Students who are planning to on to a four-year school should discuss their choices with an academic advisor.
____ General Education Humanities Elective (GE HUM) OR General Education Social Science Elective (GE SS)	3	Select any General Education Elective from the Humanities (GE HUM) or the Social Sciences (GE SS)
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<i>Semester IV</i>		
AGD 212 Advertising Design	3	AGD 213 and AGD 219
AGD 214 Print Production	3	AGD 213 and AGD 219
AGD 280 Portfolio	3	All MAD courses and six credits of AGD courses. Corequisite(s): the remaining six credits of AGD courses
MKT 143 Salesmanship OR MKT 203 Principles of Advertising	3	BUS 101
____ General Education Social Science Elective (GE SS)	3	
Total Credits: 61-63		

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PROFESSIONAL COMMERCIAL PHOTOGRAPHY

Associate in Applied Science (A.A.S.) Degree - MADPH.AAS

Below are required courses and recommended course groupings and sequences for program completion.

NOTE: As not all courses are offered every semester, it is important to follow the recommended sequence below.

Courses	Credits	Requisites / Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
CSC 105 Computer Applications & Systems	3	
MAD 107 Photography I	3	
MAD 113 Two Dimensional Design	3	
MAD 117 Freehand Drawing	3	
____ Physical/Health Education Elective	1-3	
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<i>Semester II</i>		
ART 104 History of Photography	3	
OR		
ART 124 Art History: Renaissance to Modern		
OR		
ART 125 Art History: Modern and Contemporary		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAD 108 Photography II	3	MAD 107
MAD 114 Three-Dimensional Design	3	MAD 113 and MAD 117
MAD 118 Graphic Design Skills	3	MAD 113 and MAD 117
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<i>Semester III</i>		
BUS 101 Business Organization and Management	3	
OR		
SBM 120 Small Business Administration		Students who take SBM 120 need special permission to enroll in MKT 203.
PCP 221 Color Photography	3	MAD 107, MAD 108
PCP 225 Commercial Photography	3	MAD 107, MAD 108
____ Mathematics or Science (3 credit)		
General Education Requirement (GE MST)	3	MAT 101 or higher level mathematics course OR any General Education 3-credit science course. Students who are planning to go on to a four-year school should discuss their choices with an academic advisor.
____ General Education Humanities (GE HUM) OR		
General Education Social Science Elective (GE SS)	3	Select any General Education Elective from the Humanities (GE HUM) or the Social Sciences (GE SS)
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<i>Semester IV</i>		
MKT 143 Salesmanship	3	
OR		
MKT 203 Principles of Advertising		BUS 101
PCP 224 Digital Imaging	3	MAD 107, MAD 108
PCP 226 ProfessionalStudio Photography	3	MAD 107, MAD 108.
PCP 280 Portfolio	3	MAD 107, MAD 108 and a minimum of 2 PCP courses Corequisite(s): the remaining six credits of PCP courses.
____ General Education Social Science Elective (GE SS)	3	

Total Credits: 61-63

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Medical Laboratory Technology

MEDICAL LABORATORY TECHNOLOGY DEPARTMENT

The Program in Medical Laboratory Technology is accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS).

Associate in Applied Science (A.A.S.) Degree

Qualified personnel are needed to work for laboratories, research laboratories, pharmaceutical companies, veterinary laboratories, as well as sales and quality control. Students can find positions in hospitals and reference laboratories. Technicians perform scientific analyses that facilitate physicians' diagnoses and treatment of diseases.

What will students learn if they study Medical Laboratory Technology?

Students receive an integrated experience, with lectures and laboratory practices, both on-campus and in clinical facilities off-campus. They learn how to test specimens accurately and swiftly, with the highest ethical standards.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course. Students must have a "C" or better in high school laboratory biology and laboratory chemistry. As a result of the student's performance on the College's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. Students who register for an average of 17 credits each semester can complete the degree in two years. Students must register for the summer session following their first year.

Are there any special requirements once the student is admitted to this major?

He or she must meet the academic standards of progress outlined on the next page to stay in the program.

Questions?

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MEDICAL LABORATORY TECHNOLOGY
Associate in Applied Science (A.A.S.) Degree - MED.AAS

*Below are required courses and recommended course groupings and sequences for program completion.
 Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
BIO 117 Biology I ₁	4	Appropriate score on the College's placement test or MAT 013 and one year high school laboratory science or BIO 010 or CHM 010.
CHM 117 Chemistry I ₁	4	MAT 013 or appropriate score on the College's placement test and one year of high school laboratory science or departmental approval.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 107 Mathematics I ₂	3	Appropriate score on the College's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval.
MED 101 Introduction to Medical Laboratory I	2	Admission to the Medical Laboratory Technology program required or departmental approval. MED 101 is only offered in the fall.
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<i>Semester II</i>		
BIO 118 Biology II ₁	4	BIO 117
CHM 118 Chemistry II ₁	4	CHM 117
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 108 Mathematics II ₂	3	MAT 107
MED 102 Introduction to Medical Laboratory II	3	BIO 117, CHM 117, ENG 121, MAT 107, MED 101. MED 102 is only offered in the spring.
PSY 123 Introduction to Psychology	3	
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<i>Semester III</i>		
MED 210 Medical Laboratory Technology I ₃	6	BIO 118, CHM 118, ENG 122, MAT 108, MED 102, and departmental approval. MED 210 is only offered in the summer.
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<i>Semester IV</i>		
MED 211 Medical Laboratory Technology II ₅	8	MED 210. MED 211 is only offered in the fall.
BIO 211 Principles of Microbiology ₄	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the College's placement test or MAT 013.
CHM 201 Principles of Organic Chemistry	4	CHM 118 or equivalent
Physical Education Elective	1	
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<i>Semester V</i>		
CHM 202 Biochemistry	4	CHM 201
MED 212 Medical Laboratory Technology III ₅	8	MED 211, BIO 211. MED 212 is only offered in the spring.

Total Credits: 71

- 1 BIO 123-BIO 124 and **CHM 121/CHM 125 - CHM 122/CHM 126** may be substituted for BIO 117-BIO 118, CHM 117-CHM 118 for students who meet those course prerequisites and with the chairperson's written approval.
- 2 MAT 123-MAT 124 or MAT 129-MAT 131 may be substituted for MAT 107-MAT 108 for students who have completed two or more years of high school Algebra, with the Chairperson's written approval.
- 3 This is an eight week, 40 hour/week summer clinical practicum.
- 4 BIO 221 may be substituted for BIO 211.
- 5 This includes a 16 hour/week clinical practicum.

Medical Laboratory Technology Department Standards of Progress

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all the Medical Laboratory and science courses. Those not attaining these levels of achievement will be dropped from the program.
3. May retake a science or Medical Laboratory course only once and obtain a passing grade. (i.e. "C" or better) Repeating a Medical Laboratory course is subject to the restrictions as outlined below in #6.
4. Any student achieving a grade less than a "C" in a clinical MED course may not continue in the program. The clinical course with the deficient grade must be repeated, subject to the restrictions of the program as outlined below in #6. Any student failing the practicum portion of the course will fail the course.
5. Must complete the MED sequence of MED 210, MED 211, MED 212, in consecutive sequential semesters as offered, i.e. MED 210 in summer, MED 211 in fall, and MED 212 in spring.
6. A break in the sequence of MED 210, MED 211, MED 212 for any reason will require the student to reapply. Readmission to the MED course(s) will be determined by seat availability.
7. Formal sanctions for cheating in any course will result in dismissal from the MLT program.
8. The goals of the program are consistent with the college's mission of developing competencies for employment and continuing education.

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Nursing

Associate in Science (A.S.) Degree

This program prepares students for entry-level positions in nursing and for taking the National Council Licensure Examination for Registered Nurses (NCLEX-RN). It has been approved by the New Jersey State Board of Nursing, the New Jersey Council of Presidents, and the National League for Nursing Accrediting Commission (NLNAC).

What is the pass rate for the NCLEX?

The pass rate for the NCLEX is as follows:

Class of 2009 – 97.44% Class of 2010 - *Pending*

What is the role of Raritan Bay Medical Center (RBMC)?

Raritan Bay Medical Center (RBMC) is the primary clinical site for the Nursing program.

Are there any special requirements that must be satisfied before taking courses in the major?

- An applicant must be a U.S. citizen or permanent resident who has been permanently domiciled in the state of New Jersey for at least one year prior to the application process.
- Students must have a "B" or better in high school laboratory biology and laboratory chemistry or an equivalent college course.
- Algebra 1 is a pre-requisite for all majors. Algebra 1 competency may be verified with a passing score on the College's placement test of completion of the appropriate course. As a result of the student's performance on the College's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program.
- Students must have a cumulative GPA of 2.75. High school GPA will be used if the student has less than 12 college credits at the time of application.
- When students apply, they must take a Health Technologies entrance examination. A minimum overall score of 75% is required to be eligible for admission.

How long will it take to complete this degree?

The standard duration of this Associate Degree program is four semesters (two years). Many students elect to take the science and general education courses required in the program before entry into the program. However, the four nursing courses **must be taken in sequence** and still require four semesters before graduation. Each nursing course may require Monday through Friday attendance.

Are there any special requirements once the student is admitted to this major?

The student must maintain a GPA of 2.0 or higher and meet the academic standards of progress to stay in the nursing program.

Are there additional requirements after graduation to be eligible for licensure?

The New Jersey State Board of Nursing requires that an applicant for licensure as a registered nurse must submit to the Board evidence, in such form as the Board may prescribe, that the applicant is of good moral character, is not a habitual user of drugs and never been convicted or has not pleaded nolo contendere, non vult contendere or non vult to an indictment, information or complaint alleging a violation of any Federal or State law relating to narcotic drugs. Application for licensure may be denied by the Board if violations exist. All licensure candidates must undergo a criminal history record background check, including fingerprinting prior to the issuance of the license.

Can students who major in Nursing transfer to a four-year college or university?

The courses students take may be applied to the Bachelor of Science (BSN) Degree. Any final decision regarding transfer courses will be made by the receiving college. MCC develops articulation agreements that make the transfer process as seamless as possible.

Questions?

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NURSING Associate in Science (A.S.) Degree - NRB.AS

*Below are required courses and recommended course groupings and sequences for program completion.
Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
BIO 111 Human Anatomy & Physiology I	4	Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the College's placement test or MAT 013.
ENG 121 English Composition I	3	Prerequisite(s): A passing score on the College's placement test or a grade of "C" or better in ENG 010.
PSY 123 Introduction to Psychology	3	
CSC 107 Computers in Health Technologies	1	Students may take other CSC courses with department chairperson's permission.
NRB 121 Nursing Concepts in Health and Wellness	7	Corequisite(s): BIO 111, ENG 121, PSY 123 Prerequisite(s): American Heart Association BLS Certification for the Healthcare provider
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<i>Semester II</i>		
BIO 112 Human Anatomy & Physiology II	4	Prerequisite(s): BIO 111
PSY 232 Life-Span Development	3	Prerequisite(s): PSY 123
ENG 122 English Composition II	3	Prerequisite(s): A grade of "C" or better in ENG 121
NRB 122 Nursing Concepts in Health Alterations I	9	Prerequisite(s): NRB 121; BIO 111; PSY 123 Corequisite(s): BIO 112; PSY 232
<hr/>		
<i>Semester III</i>		
BIO 211 Principles of Microbiology	4	Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the College's placement test or MAT 013.
HRI 214 Nutrition Fundamentals for Nursing	3	Prerequisite(s): NRB 122, BIO 112
NRB 221 Nursing Concepts Applied to Families	9	Prerequisite(s): NRB 122, PSY 232, BIO 112 Corequisite(s): BIO 211, HRI 214
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<i>Semester IV</i>		
____ General Education Humanities Elective (GE HUM)	3	
____ General Education Elective (GE COM, GE DIV, GE HUM, GE MST or GE SS)	3	
PED/HED Physical/Health Education Elective	1-3	
NRB 222 Nursing Concepts in Health Alterations II	10	Prerequisite(s): NRB 221; BIO 112 and BIO 211; HRI 214
Total Credits: 70-72		

Standards of Progress:

- Prior to matriculation, a nursing student must undergo a complete history and physical examination and be in compliance with the MCC and Nursing Department policy on immunizations.
- A student is required to have a criminal background check and drug test performed with satisfactory results acceptable by MCC and the Nursing Department and/or participating clinical facility as a condition of admission, initial enrollment and/or continued enrollment. An offer of admission will not be final and enrollment not permitted until the completion of a satisfactory criminal background check. Admission may be denied or rescinded or enrollment terminated based on the results of the criminal background check and drug test.
- Maintain a cumulative GPA of 2.0.
- Achieve a "C" grade or better in all nursing courses in order to progress in the curriculum. A "C" in nursing is 77-84.
- Achieve a "C" grade or better for all science courses in the nursing program. If a student receives a grade less than "C" in any science course of the nursing program, the student is allowed to repeat one science course only once. Any other unsatisfactory science grades will result in program dismissal.
- An unsatisfactory grade (i.e. a grade less than "C") in NRB 121 results in dismissal from the Nursing Program. The student has the option to reapply to the program once.**
- If a student earns a grade less than "C" in any nursing course other than NRB 121, the student may retake the course once and must achieve a grade of "C" or better; any subsequent failure(s) in a nursing course will result in a dismissal from the Nursing Program.
- Attendance and participation in all scheduled learning activities of the program are expected.**
- Students must adhere to the policies of MCC and affiliated health care agencies.
- A student should complete the nursing program within three years of beginning enrollment in the first nursing course, unless written allowance by the nursing director or dean is provided.
- A student who does not successfully complete the major nursing sequence under the above conditions may not continue in the program.
- Prior to graduation, the student must achieve a passing score on a NCLEX predictor test.

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Paralegal Studies

ACCOUNTING BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Paralegals are trained specialists who, under the supervision of an attorney, perform a wide variety of legal tasks. These tasks may include legal research, law office management and preparation of legal documents. Only an attorney may provide legal services directly to the public. Students can earn the Associate in Applied Science which prepares graduates for employment in law offices, corporate legal departments, legal services corporations, state government offices, title companies and federal and state courts. Students who have already earned an A.A., A.S., A.A.S., B.A. or B.S. degree can earn the certificate. Students with one of these degrees plus three years of full-time paralegal work experience can earn the **Certificate of Achievement.**

Can students who major in Paralegal Studies transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

Are there any requirements that must be satisfied before taking courses in the major?

Students must either have a high school diploma or have passed an equivalency examination. Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

What are the objectives of this program?

1. Provide a rigorous, flexible program for the quality education of the occupationally competent paralegal.
2. Provide a paralegal education program that leads to the opportunity for employment of its graduates by a wide range of employers.
3. Provide paralegals with a well-rounded, balanced education founded on a beneficial mix of general education, theory, and practical courses, stressing understanding and reasoning rather than rote learning of facts.
4. Support the general principle of ethical legal practice, professional responsibility and the prohibitions against the unauthorized practice of law by non-lawyers.
5. Provide an educational program that is responsive to the needs of the State of New Jersey and contributes to the advancement of legal professionals.
6. Provide a program that instills respect for the legal profession and its foundations, institutions, and quest for justice.
7. Maintain equality of opportunity in the educational program without discrimination or segregation on the grounds of race, color, religion, national origin or sex. The program's overall objective is to provide quality education for paralegals so that they might assist the legal profession in rendering more personal, economical services to a greater number of persons.

How are these objectives met?

1. Through flexible curriculum planning which stresses a balance among General Education courses, law related courses, legal specialty courses, and electives.
2. Through continual assessment of the need for the program as evidenced by the legal profession's response to regular surveys and the ability of the program to place graduates.
3. By keeping the enrollment of the program to a size that will ensure a good student-teacher ratio and give graduates a good chance for paralegal employment. This is determined in the same method as number 2 above.
4. By providing the program with a well qualified full-time director with the necessary time to devote to the extensive administrative duties of the position.

When students complete the program, what skills will they have ?

1. Use the law library, including encyclopedias, reporter systems, digests, and practice manuals, including updating sources; utilize computer-assisted research including WESTLAW, reporter systems, statutes, administrative codes, updating sources and extended databases.
2. Understand and use rules governing courts and basic litigation procedures including telephone technique, client interviews, complaints, interrogatories, and motions.
3. Use forms and filing procedures relevant to typical legal proceedings.
4. Use forms and filing procedures in real and personal property transactions, including Real Estate Settlement Procedures Act.

NOTE: For students matriculating in this program, degree credit will not ordinarily be given for any course designated PLS which was completed more than six years prior to completion of the degree program.

Questions?

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PARALEGAL STUDIES

Associate in Applied Science (A.A.S.) Degree - PL.AAS

*Below are required courses and recommended course groupings and sequences for program completion.
Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comments</u>
<i>Semester I</i>		
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
PLS 100 Introduction to the Paralegal Profession	2	
PLS 101 Legal Research	3	Prerequisite(s) or corequisite(s): ENG 121 & PLS 100
PLS 113 Legal Writing	2	Prerequisite(s) or corequisite(s): ENG 121, PLS 100 and PLS 101
____ General Education Social Science Elective (GE SS)	3	
<i>Semester II</i>		
PLS 121 Advanced Legal Research	2	Prerequisite(s): PLS 100, PLS 101, PLS 113, CSC 105 or CSC 106
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
PLS 104 Property Transactions	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 110 Litigation Procedure	4	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 111 Contracts & the Uniform Commercial Code	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 123 Advanced Legal Writing	2	PLS 100, PLS 101, PLS 113
<i>Semester III</i>		
PLS 108 Torts	3	PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 112 Business Organizations & Government Regulation	3	PLS 100, PLS 101, PLS 111, PLS 113 and PLS 121
____ Paralegal Electives	3	
<i>Choose one of the following courses required -3 credits each:</i>		
PLS 105 Family Law		PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 106 Wills and Estate Administration		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 109 Criminal Law and Procedure		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 208 Paralegal Field Experience		Prerequisite(s): PLS 100, PLS 101, PLS 110, PLS 113, PLS 121, and PLS 104 or PLS 108 or PLS 109 and permission of the program director.
SPE 121 Fundamentals of Public Speaking	3	
____ Physical/Health Education Elective	1-3	
BUS 115 Mathematics of Finance	3	BUS 115 will satisfy the math requirement. Students considering transfer to a baccalaureate program should consult an academic advisor as to other math choices.

Semester IV

ECO 201 Economics I	3	A passing score on the algebra portion on the College's placement test or MAT 013.
PLS 225 Portfolio Project for Paralegals	1	PLS 100, PLS 101, PLS 104, PLS 108, PLS 110, PLS 111, PLS 112, PLS 113, PLS 121. Prerequisite(s) or corequisite(s): PLS 121
_____ Paralegal Electives	3	
Choose one of the following courses - 3 credits each:		
PLS 105 Family Law		PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 106 Wills and Estate Administration		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 109 Criminal Law and Procedure		Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121
PLS 208 Paralegal Field Experience		Prerequisite(s): PLS 100, PLS 101, PLS 110, PLS 113, PLS 121, and PLS 104 or PLS 108 or PLS 109 and permission of the program director.
_____ General Education Humanities Elective (GE HUM)	3	
_____ General Education Science Elective (GE MST)	3-4	

Total Credits: 63-66

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Contact Phone: 732.906.2594 / 732.906.2576
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Department Web: <http://www.middlesexcc.edu/departments/bam>

PARALEGAL STUDIES CERTIFICATE - PLC.CER

*The Paralegal Studies Certificate is designed for the person who already has a college degree - Associate's, Bachelor's or higher.
The Program is approved by the American Bar Association and the College is a member of the American Association for Paralegal Education.*

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
PLS 100 Introduction to the Paralegal Profession	2	
PLS 101 Legal Research	3	Prerequisite(s) or corequisite(s): ENG 121 (or waiver) and PLS 100
PLS 113 Legal Writing	2	Prerequisite(s) or corequisite(s): ENG 121 (or waiver), PLS 100 and PLS 101
PLS 121 Advanced Legal Research	2	Prerequisite(s): PLS 100, PLS 101, PLS 113
PLS 123 Advance Legal Writing	2	Prerequisite(s): PLS 100, PLS 101, PLS 113
PLS ___ Electives (see below)	14	
Total Credits: 31**		

PARALEGAL ELECTIVES

Select one of the following electives - students may choose to take more than **14 credits of electives**.

Courses	Credits	Requisites/Comments
PLS 104 Property Transactions	4	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 105 Family Law	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 106 Wills and Estate Administration	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 108 Torts	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 110 Litigation Procedure	4	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 111 Contract and the Uniform Commercial Code	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 112 Business Organizations and Government Regulations	3	Prerequisite(s): PLS 100, PLS 101, PLS 113, PLS 111 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 109 Criminal Law and Procedure	3	Prerequisite(s): PLS 100, PLS 101, PLS 113 Prerequisite(s) or corequisite(s): PLS 121 and PLS 123
PLS 225 Portfolio Project for Paralegals	3	Prerequisite(s): PLS 100, PLS 101, PLS 113, PLS 121, PLS 123 and 15 additional credits of paralegal courses (PLS courses) and permission of the PLS program director of department chair

* Holders of A.S. and A.A.S. degrees must show that they have taken 18 credits of general education courses.

Holders of A.A. degrees are presumed to have satisfied the general education requirement.

** For students who are granted transfer credits, total will be reduced

NOTE: Not all PLS courses are offered every semester, both day and evening. Please call the department chairperson at 732.906.2576 to discuss course offerings for future semesters.

Contact Name: Professor Nancy Bailey, department chair / Professor Jean Volk, assistant chair

Contact Phone: 732.906.2594 / 732.906.2576

Contact Email: ABL5@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

Physics

CHEMISTRY/PHYSICS DEPARTMENT

Associate in Science (A.S.) Degree

This program parallels the first two years of baccalaureate degree programs in physics related fields. The major prepares graduates to transfer to a four-year college or university to pursue studies in physics, applied physics, computational physics, astronomy, astrophysics, geology, meteorology, material sciences, and other related fields.

What will students learn if they study Science Transfer?

Students concentrate on theoretical and applied physics, and mathematics. This prepares them to meet the challenges of advanced physics in professional careers.

Are there any requirements that must be satisfied before taking courses in the major?

Students must have a grade of "C" or better in high school algebra II, geometry, advanced algebra and trigonometry, laboratory chemistry and laboratory physics. They must also pass the College's placement test.

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Dr. Diane Trainor, department chair

Contact Phone: 732.906.2587

Contact Email: DTrainor@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/chm>

PHYSICS - SCIENCE TRANSFER

Associate in Science (A.S.) Degree - PHY.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses Credits Requisites / Comments

Semester I

CHM 121 General Chemistry I – Lecture	3	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
CHM 125 General Chemistry I – Lab	1	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 131 Analytical Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
____ General Education Social Science Elective (GE SS)	3	
____ Physical/Health Education Elective	1-3	

Semester II

CHM 122 General Chemistry II - Lecture	3	CHM 121
CHM 126 General Chemistry II - Lab	1	CHM 121, CHM 125
MAT 132 Analytical Geometry and Calculus II	4	MAT 131, MAT 131A/MAT 131B, or equivalent
PHY 133 Analytical Physics I – Lecture	3	Prerequisite(s): One year of high school laboratory physics. Corequisite(s): MAT 131 or equivalent.
PHY 135 Analytical Physics I – Lab	1	Prerequisite(s): One year of high school laboratory physics. Corequisite(s): MAT 131 or equivalent.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121

Semester III

MAT 210 Linear Algebra	4	MAT 132
MAT 233 Analytical Geometry and Calculus III	4	MAT 132 or equivalent
PHY 134 Analytical Physics II – Lecture	3	Prerequisite(s): PHY 133 Corequisite(s): MAT 132 or equivalent.
PHY 136 Analytical Physics II – Lab	1	Prerequisite(s): PHY 135 Corequisite(s): MAT 131 or equivalent.
____ General Education Humanities Elective (GE HUM)	3	

Semester IV

MAT 234 Differential Equations	4	MAT 233 or approval of department chair of Mathematics
PHY 236 Analytical Physics III – Lecture	3	Prerequisite(s): MAT 132 and PHY 134
PHY 239 Analytical Physics III – Lab	1	Prerequisite(s): MAT 132 and PHY 136 or one year of integral or differential calculus.
CSC 106 Intermediate PC Applications with Programming	3	
____ General Education Social Science Elective (GE SS)	3	
OR		
____ General Education Humanities Elective (GE HUM)		
____ General Education Science Elective	3-4	Select from CHM 221 (lecture) with CHM 227 (lab), SCI 155, SCI 157, SCI 158, SCI 256 or a course with permission of the department chairperson. Please see catalog for appropriate prerequisites.

Total Credits: 62-65

Contact Name: Dr. Diane Trainor, department chair
Contact Phone: 732.906.2587
Contact Email: DTrainor@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/chm>

Process Technology

CHEMISTRY/PHYSICS DEPARTMENT

Associate in Applied Science (A.A.S.)

Process Technology is a job-oriented program, preparing students for career opportunities in all process-related industries as process technicians. Process technologies such as food, pharmaceutical, oil & gas, chemical and petrochemical, paper mills, and power generation plants all employ process technicians.

What will students learn if they study Process Technology?

They learn how to monitor and control mechanical, physical and/or chemical changes throughout many processes to produce a final product made from raw materials. Process technicians are responsible for start up, maintenance, troubleshooting, and shutdown of process equipment.

Upon successful completion of this program, students will know how to analyze, evaluate, and communicate process-related data, understand various processes, troubleshoot process equipment and instruments, and maintain a safe and healthy work environment.

Are there any requirements that must be satisfied before taking courses in my major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the College's placement test or completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

Questions?

Contact Name: Dr. Diane Trainor, department chair

Contact Phone: 732.906.2587

Contact Email: DTrainor@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/chm>

PROCESS TECHNOLOGY
Associate in Applied Science (A.A.S.) Degree - PRT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
CHM 117 Chemistry I	4	Appropriate score on the College's placement test of MAT 013 and one year of high school laboratory science, CHM 010 or departmental approval. Students may substitute CHM 121/ CHM125 – CHM 122/CHM 126 for CHM 117-CHM 118 if they have completed a high school chemistry laboratory course.
MAT 107 Mathematics I	3	Appropriate score on the College's placement test, MAT 013 or MAT 013A/MAT 013B or departmental approval. Students may substitute MAT 123-MAT 124 or MAT 129-MAT 131 for MAT 107-MAT 108.
CSC 105 Computer Applications and Systems	3	
CPT 100 Introduction to Chemical Process Technology	3	
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
MAT 108 Mathematics II	3	MAT 107
ENV 220 Principles of Occupational Safety/Health	4	CHM 117 or equivalent
CPT 205 Process Technology Instrumentation	3	CHM 117, CPT 100
___ ___ Physical/Health Education Elective	1-3	
___ ___ General Education Social Science Elective (GE SS)	3	
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<i>Semester III</i>		
SPE 121 Fundamentals of Public Speaking	3	
CPT 206 Process Technology Equipment	4	CHM 117, CPT 100
CPT 210 Process Technology Systems	4	CPT 100
PHY 101 Principle of Physics	4	MAT 107 or equivalent
___ ___ Technical Electives:	3-4	
CHM 118 Chemistry II	4	CHM 117 A continuation of CHM 117
UTI 109 Introduction to Gas Distribution	3	UTI 102
<hr/>		
<i>Semester IV</i>		
CPT 212 Process Technology Operations	4	CPT 100
CPT 214 Process Technology Quality	3	CPT 100
CPT 226 Process Technology Co-Op Ed	3	CPT 100, CPT 205
___ ___ Technical Electives:	3-4	
CHM 118 Chemistry II	4	CHM 117 A continuation of CHM 117
UTI 109 Introduction to Gas Distribution	3	UTI 102

Total Credits: 63-67

Contact Name: Dr. Diane Trainor, department chair
Contact Phone: 732.906.2587
Contact Email: DTrainor@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/academi/chm>

Psychosocial Rehabilitation and Treatment

JOINT PROGRAM WITH THE UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY PSYCHIATRIC REHABILITATION AND COUNSELING PROFESSIONS DEPARTMENT Associate in Science (A.S.) Degree

This is an exciting and innovative field in which service providers assist people in obtaining the skills, support and resources they will need to achieve success and satisfaction in their living, learning, working and social environments. The overall goals of this field are promotion of recovery, community integration, and improved quality of life for people coping with psychiatric disabilities. Graduates can transfer all of their credits to the UMDNJ-Kean University Bachelor of Science Degree Program in Psychiatric Rehabilitation & Psychology.

What will students learn if they study Psychosocial Rehabilitation and Treatment?

Courses focus on imparting the knowledge, practical skills and attitudes needed to provide support and services to people with psychiatric disabilities in a variety of community settings that provide social, vocational, residential and case management services.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency must be satisfied with a passing score on the College's placement test or completion of the appropriate course. Students must have a "C" or better in one year of a high school laboratory science. As a result of the student's performance on the College's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program. PSR majors need to complete 18 credits of general education and Introduction to Psychosocial Rehabilitation (PSR 101) before beginning the professional phase of the program (PSR 102 and beyond).

Can students transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

How long will it take to complete this degree?

The degree can be completed in five semesters. Part time study is also an option.

Are there any special requirements once the student is admitted to this major?

Students must meet the academic standards of progress outlined on the next page to stay in the program. They must meet with the program director each semester prior to registration.

Questions?

Contact Name: Professor Nora Barrett, department chair
Contact Phone: 732.906.4177
Contact Email: barretnm@umdnj.edu

PSYCHOSOCIAL REHABILITATION AND TREATMENT

Associate in Science (A.S.) Degree - PSR.AS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
CSC 105 Computer Applications and Systems	3	
PSY 123 Introduction to Psychology	3	
MAT 116 College Algebra	3	MAT 014, MAT 014A/MAT 014B or equivalent
PHI 123 Ethics	3	
____ Physical/Health Education Elective	1-3	
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<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SOC 121 Introduction to Sociology	3	
PSY ____ Psychology Elective (GE SS or GE DIV)	3	Choose one course designated as general education Social Science (GE SS) or general education diversity (GE DIV)
PSR 101 Introduction to the Principles of Psychosocial Rehabilitation	3	
BIO 106 Human Biology, Biomedical Issues and Society	4	Appropriate score on the College's placement test or MAT 013 and one year high school laboratory science or a 3 credit college-level science course with a grade of "C" or better.
____ General Education Humanities Elective (GE HUM)	3	
<p>NOTE: A minimum of 18 General Education credits and PSR 101 must be taken before entering the professional phase of the program (i.e. PSR 102 and beyond). Students in the professional phase of the program register through UMDNJ and pay the current UMDNJ undergraduate tuition rate and fees. Most PSR courses are offered on the UMDNJ Scotch Plains Campus.</p>		
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<i>Semester III</i>		
<i>Spring</i>		
PSR 102 Communication Techniques in Interviewing and Counseling	3	
PSR 103 Introduction to Group Dynamics	3	
PSR 104 Clinical Principles in Psychosocial Rehabilitation and Treatment	3	
<hr/>		
<i>Semester IV</i>		
<i>Fall</i>		
PSR 207 Community Resource Management	3	Corequisite(s): PSR 210
PSR 210 Clinical Practicum in PSR I	6	PSR 101, PSR 102, PSR 103, PSR 104
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<i>Semester V</i>		
<i>Spring</i>		
PSR 209 Emerging Topics in Psychosocial Rehabilitation and Treatment	3	Corequisite(s): PSR 211
PSR 211 Clinical Practicum in PSR II	6	PSR 210

Total Credits: 62-64

Standards of Progress:

1. Must achieve a "C" or better in all PSR courses
2. May retake a PSR course only once and obtain a passing grade (i.e. "C" or better)

Contact Name: Professor Nora Barrett, department chair

Contact Phone: 732.906.4177

Contact Email: barretnm@umdnj.edu

Radiography Education

RADIOGRAPHY EDUCATION

Associate in Applied Science (A.A.S.) Degree

The program in Radiography is fully accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and the NJ DEP Radiologic Technology Board of Examiners.

Why major in Radiography Education?

There is a national demand for individuals trained in this allied health discipline. Positions are available in hospitals, industry, with private physicians and chiropractors, and clinics. Related jobs can be found in x-ray equipment, manufacturing firms and medical supply companies. Graduates qualify to take the American Registry of Radiologic Technologists Board examination for National Registration as well as New Jersey State Licensure.

What do students learn by studying Radiography Education?

Extensive study in radiographic principles provides students with comprehensive theoretical and practical knowledge and skills. Instruction takes place in well-equipped classrooms, small group study areas and a laboratory area containing three energized radiographic units with an associated film processing room. The laboratory is also equipped to provide experience in computed radiography, Direct Digital Radiography (DDR) and Patient Archive and Communication Systems (PACS). Clinical practical experience is provided by rotations at affiliated hospitals providing the "hands-on" experience necessary to perform the tasks of an entry-level radiographer. The curriculum also includes the general education and science courses required for the Associate in Applied Science degree.

Are there any requirements that must be satisfied before taking courses in the major?

- Students must be a U.S. citizen or permanent resident who have been permanently domiciled in the state of New Jersey or the borough of Staten Island, New York* for at least one year prior to the application process.
- Students must have a "C" or better in high school laboratory biology or an equivalent college course and students must also have a "C" or better in either laboratory chemistry or laboratory physics or an equivalent college course. For admission to the Radiology program your grade in laboratory physics may be substituted for laboratory chemistry however, laboratory chemistry remains a pre-requisite for admission into the program.
- Algebra 1 is a pre-requisite for all majors. Algebra 1 competency may be verified with a passing score on the College's placement test of completion of the appropriate course. As a result of the student's performance on the College's placement test, he or she may need developmental coursework. All developmental coursework must be completed before they will be considered for admission to the program.
- Students must have a cumulative GPA of 2.75. High school GPA will be used if the student has less than 12 college credits at the time of application.
- When students apply, they must take a Health Technologies entrance examination. A minimum overall score of 75% is required to be eligible for admission.

*Middlesex County College has a New York Regents accredited clinical training affiliation with a Staten Island, NY hospital.

Can a student transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

How long will it take to complete this degree?

In accordance with NJ State law, this program runs for a minimum of 24 consecutive months. Students must register for major coursework in the summer session of both years. Students can complete the degree in a two-year period.

Once the student is admitted to this major, are there any special requirements?

Students must meet the academic standards of progress outlined to progress through the curriculum. Students are also required to have completed CPR for health care providers, a criminal background check, a five panel non-DOT drug screening and complete the health physical and required immunizations prior to entering the clinical practice phase of the program.

Questions?

Contact: the Radiography Education Department at 732.906.2583

RADIOGRAPHY EDUCATION - CAREER TRACK

Associate in Applied Science (A.A.S.) Degree - RADC.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
RAD 128 Basic Medical Principles	4	
RAD 141 Radiographic Positioning, Anatomy & Pathology I	2	
RAD 142 Radiographic Positioning Laboratory I	1	
RAD 171 Radiographic Imaging and Science I	4	
RAD 190 Clinical Orientation	1	Prerequisite(s): CPR certification for health care professionals, criminal background check, five panel non-DOT drug screening and have completed the health physical and required immunizations.
BIO 131 Human Structure and Function	4	Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the College's placement test or MAT 013.
____ General Education Social Science Elective (GE SS)	3	
<i>Semester II</i>		
RAD 139 Radiation Protection and Biology	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 143, RAD 144, RAD 172, RAD 210
RAD 143 Radiographic Positioning, Anatomy & Pathology II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 144 Radiographic Positioning Laboratory II	1	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 172 Radiographic Imaging and Science II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 210
RAD 210 Clinical Practicum I	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 172
____ General Education Mathematics Elective (GE MST)	3	
____ General Education Elective	3	
<i>Summer Session I</i>		
RAD 145 Radiographic Positioning, Anatomy & Pathology III	3	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 146
RAD 146 Radiographic Positioning Laboratory III	1	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 145

<i>Summer Session II</i>		
RAD 220 Clinical Practicum II	2	Prerequisite(s): RAD 145, RAD 146
<i>Semester III</i>		
RAD 247 Radiographic Positioning, Anatomy & Pathology IV	2	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 248, RAD 273
RAD 248 Radiographic Positioning Laboratory IV	1	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 273
RAD 275 Radiographic Physics and Equipment Maintenance	3	Prerequisite(s): RAD 145, RAD 146, RAD 172, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 248
RAD 230 Clinical Practicum III	2	Prerequisite(s): RAD 220 Corequisite(s): RAD 247, RAD 248, RAD 273
ENG 121 English I	3	A passing score on the College's placement test Or a grade of "C" or better in ENG 010.
____ General Education Humanities Elective (GE HUM)	3	
<i>Semester IV</i>		
RAD 250 Clinical Practicum IV	3	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 256, RAD 285
RAD 256 Radiographic Seminar I	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 285
RAD 285 Advanced Radiographic Imaging	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 256
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
____ Physical/Health Education Elective	1-3	
CSC 107 Computers in Health Technologies	1	
<i>Summer Session I</i>		
RAD 260 Clinical Practicum V	3	Prerequisite(s): RAD 250, RAD 256, RAD 285
<i>Summer Session II</i>		
RAD 257 Radiographic Seminar II	2	Prerequisite(s): RAD 256, RAD 260

Total Credits: 71-73

Standards of Progress:

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all Radiography courses in order to progress through the curriculum.
3. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
4. Must complete the Radiography Education program in no fewer than two and no more than five consecutive years from the point of admission to the full-time program track. Students who do not complete the major Radiography course under these conditions may not continue in the program.

RADIOGRAPHY EDUCATION – TRANSFER TRACK

Associate in Applied Science (A.A.S.) Degree - RADT.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
RAD 128 Basic Medical Principles	4	
RAD 141 Radiographic Positioning, Anatomy & Pathology I	2	
RAD 142 Radiographic Positioning Laboratory I	1	
RAD 171 Radiographic Imaging & Science I	4	
RAD 190 Clinical Orientation	1	Prerequisite(s): CPR certification for health care professionals, criminal background check, five panel non-DOT drug screening and have completed the health physical and required immunizations.
BIO 111 Human Anatomy & Physiology I	4	Prerequisite(s): One year of high school Laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the College's placement test or MAT 013.
____ General Education Social Science Elective (GE SS)	3	
<i>Semester II</i>		
RAD 139 Radiation Protection and Biology	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 143, RAD 144, RAD 172, RAD 210
RAD 143 Radiographic Positioning, Anatomy & Pathology II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 144 Radiographic Positioning Laboratory II	1	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 144, RAD 172, RAD 210
RAD 172 Radiographic Imaging & Science II	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 210
RAD 210 Clinical Practicum I	2	Prerequisite(s): RAD 128, RAD 141, RAD 142, RAD 171, RAD 190 Corequisite(s): RAD 139, RAD 143, RAD 144, RAD 172
BIO 112 Human Anatomy & Physiology II	4	Prerequisite(s): BIO 111 A continuation of BIO 111. A study of the Structure and function of the body is continued by examining the endocrine, reproductive, circulatory, digestive, respiratory and excretory systems.

<i>Summer Session I</i>		
RAD 145 Radiographic Positioning, Anatomy & Pathology III	3	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 146
RAD 146 Radiographic Positioning Laboratory III	1	Prerequisite(s): RAD 139, RAD 143, RAD 144, RAD 172, RAD 210 Corequisite(s): RAD 145
<i>Summer Session II</i>		
RAD 220 Clinical Practicum II	2	Prerequisite(s): RAD 145, RAD 146
<i>Semester III</i>		
RAD 247 Radiographic Positioning, Anatomy & Pathology IV	2	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 248, RAD 273
RAD 248 Radiographic Positioning Laboratory IV	1	Prerequisite(s): RAD 145, RAD 146, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 273
RAD 275 Radiographic Physics and Equipment Maintenance	3	Prerequisite(s): RAD 145, RAD 146, RAD 172, RAD 220 Corequisite(s): RAD 230, RAD 247, RAD 248
RAD 230 Clinical Practicum III	2	Prerequisite(s): RAD 220 Corequisite(s): RAD 247, RAD 248, RAD 273
ENG 121 English I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
____ General Education Humanities Elective (GE HUM)	3	
____ General Education Mathematics Elective (GE MST)	3	
<i>Semester IV</i>		
RAD 250 Clinical Practicum IV	3	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 256, RAD 285
RAD 256 Radiographic Seminar I	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 285
RAD 285 Advanced Radiographic Imaging	2	Prerequisite(s): RAD 230, RAD 247, RAD 248, RAD 273 Corequisite(s): RAD 250, RAD 256
CSC 107 Computers in Health Technologies	1	
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
____ Physical/Health Education Elective	1-3	
<i>Summer Session I</i>		
RAD 260 Clinical Practicum V	3	Prerequisite(s): RAD 250, RAD 256, RAD 285
<i>Summer Session I</i>		
RAD 257 Radiographic Seminar II	2	Prerequisite(s): RAD 256, RAD 260

Total Credits: 72-74

Standards of Progress:

1. Maintain a cumulative grade point average of 2.0.
2. Must achieve a "C" grade or better in all Radiography courses in order to progress through the curriculum.
3. Must achieve a "C" grade or better in all science courses to satisfy degree requirements.
4. Must complete the Radiography Education program in no fewer than two and no more than five consecutive years from the point of admission to the full-time program track. Students who do not complete the major Radiography course under these conditions may not continue in the program.

Contact Name: Radiography Education Department

Contact Phone: 732.906.2583

Department Web: <http://www.middlesexcc.edu/academi/rad>

Small Business Management/ Entrepreneurial Studies

ACCOUNTING, BUSINESS AND LEGAL STUDIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Small Business Management/Entrepreneurial Studies is for people who intend to start, or who already operate a small business. This program can help students who have a skill or idea – and want to be their own boss – to realize their goal of running a successful business. The degree program incorporates General Education courses with the Small Business Management curriculum. The certificate is designed for those with no prior college course work and includes English composition with the Small Business Management curriculum. The certificate of achievement program is geared toward people who already hold a College degree and intend to operate a small business.

Can students who major in Small Business Management/Entrepreneurial Studies transfer to a four-year college or university?

Articulation agreements with public and private institutions offer students who earn the A.A.S. degree the opportunity to transfer all of their coursework to the four-year institution. Students in specialized programs, or who earn an A.A.S. degree should discuss the transfer process with an advisor.

What will students learn if they study Small Business Management/Entrepreneurial Studies?

They will study the elements that are necessary for a thriving business: business plan, capital needs, marketing strategies, legal and tax issues, forms of ownership, employee management, new technologies, sales, marketing and new product development. They will acquire skills particular to entrepreneurs but transferable to the general business environment.

NOTE: Not all SBM courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Students may satisfy this requirement with a grade of "C" or better in high school Algebra I. Algebra I competency may be verified with a passing score on the College's placement test or by the completion of the appropriate course.

How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions. Some major courses in the Small Business Management program may only be offered in the evenings and not every semester.

Questions?

Contact Name: Professor Nancy Bailey, department chair

Contact Phone: 732.906.2594

Contact Email: ABLS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/bam>

SMALL BUSINESS MANAGEMENT/ENTREPRENEURIAL STUDIES

Associate in Applied Science (A.A.S.) Degree - SBUS.AAS

Below are required courses and recommended course groupings and sequences for program completion.

Courses may have prerequisite and corequisite requirements. Check course descriptions for details.

Courses	Credits	Requisites/Comments
<i>Semester I</i>		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
BUS 101 Business Organization and Management	3	
MAT 101 Freshman Mathematics	3	Appropriate score on the College placement test, MAT 013 or departmental approval
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
____ General Education Social Science Elective (GE SS)	3	
<hr/>		
<i>Semester II</i>		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
SBM 110 Accounting for Small Business	4	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 120 Small Business Management	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 130 Marketing and Sales for Small Business	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SPE 121 Fundamentals of Public Speaking	3	
<hr/>		
<i>Semester III</i>		
BUS 201 Business Law I	3	
SBM 210 Advertising and Promotion for Small Business	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 220 Leadership and Supervision	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
____ Business Elective	3	Courses with MKT or MGT for which students have the appropriate preparation are recommended or see department chair.
ECO 201 Principles of Economics I	3	A passing score on the algebra portion of the College placement test or MAT 013
____ Physical/Health Education Elective	1-3	
<hr/>		
<i>Semester III</i>		
SBM 230 Risk and Financial Management	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 240 Co-Op/Internship in Small Business	3	Senior status in SBM curriculum or written permission of department chairperson.
SBM 250 Seminar in Entrepreneurial Studies	3	BUS 101, SBM 110, SBM 120, SBM 130, SBM 210 or permission of department chairperson. Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
____ General Education Science Elective (GE MST)	3-4	Students may elect courses with a GE MST designation in BIO, CHM, PHY or SCI for which they have the appropriate academic preparation.
____ General Education Humanities Elective (GE HUM)	3	Any course designated as GE HUM

Total Credits: 62-65

Contact Name: Professor Nancy Bailey, department chair
Contact Phone: 732.906.2594 Contact Email: ABL5@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/bam>

**SMALL BUSINESS MANAGEMENT/ENTREPRENEURIAL STUDIES
CERTIFICATE - SBUS.CER**

*Below are required courses for program completion. Courses may have prerequisite and corequisite requirements.
Check course descriptions for details. Assumes Basic Skills and Math requirements are satisfied.*

<u>Courses</u>	<u>Credits</u>	<u>Requisites/Comment</u>
BUS 101 Business Organization and Management	3	
CSC 105 Computer Applications and Systems	3	Students may select an alternate Computer Science (GE MST) course for which they have appropriate academic advisement and preparation in mathematics, such as CSC 106.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
____ General Education Social Science Elective (GE SS) OR ____ General Education Humanities Elective (GE HUM)	3	Choose one course designated as a general education Social Science (GE SS) or a general education Humanities (GE HUM).
SBM 110 Accounting for Small Business	4	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 120 Small Business Management	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 130 Marketing and Sales for Small Business	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 210 Advertising and Promotion for Small Business	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 230 Risk and Financial Management	3	Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.
SBM 250 Seminar in Entrepreneurial Studies	3	BUS 101, SBM 110, SBM 120, SBM 130, SBM 210 or permission of department chairperson. Note: Not all major courses are offered every semester both day and evening. Please call the department chair at 732.906.2594 to discuss course offerings for future semesters.

Total Credits: 31

Contact Name: Professor Nancy Bailey, department chair
Contact Phone: 732.906.2594
Contact Email: ABL5@middlesexcc.edu
Department Web: <http://www.middlesexcc.edu/departments/bam>

New Degree Programs

Biology

BIOLOGY DEPARTMENT

Associate in Science (A.S.) Degree

Students choose from one of three biology curricula: traditional biology major, pre-professional and biotechnology. These curricula parallel the first two years of a baccalaureate degree in biology. The traditional Biology option prepares students, upon graduation, to transfer to a four-year college or university to pursue a career in biology related fields such as molecular biology, cell biology, physiology, microbiology, biochemistry, ecology or biology education.

Students interested in pre-medicine, pre-dentistry, pre-chiropractic, pre-veterinary, physical therapy, and physician's assistant may major in the Biology Pre-Professional option. The students choosing the Biotechnology option acquire knowledge in inorganic and organic chemistry, genetics, microbiology, cell biology and molecular biology as well as achieving competence in laboratory techniques and instrumentation that are relevant to the biotechnology industry.

■ What will students learn if they study Biology Transfer, Biology Pre-Professional, or Biotechnology Degree Options?

They concentrate on the theoretical and applied sciences, and mathematics. Their studies prepare them to meet the challenges of advanced study in professional careers.

■ Are there any requirements that must be satisfied before taking courses in the major?

A passing score on the College's placement mathematics test for both Algebra I and Algebra II or MAT 013 and MAT 014 is required for all biology majors. In addition, a high school laboratory biology course with a minimum grade of "C" or BIO 010 and a high school laboratory chemistry or CHM 010 with a minimum grade of "C" are also required.

■ Can Biology majors transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

■ How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

■ Questions?

Contact Name: Dr. Trace Gerow, department chair

Contact Phone: 732.906.2592.

Contact Email: TGerow@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/bio>

BIOTECHNOLOGY OPTION - SCIENCE TRANSFER

Associate in Science (A.S.) Degree – BIOTC.AS

*Below is required courses and recommended course groupings and sequences for program completion.
Courses may have prerequisites and corequisites requirements.*

Courses	Credits	Requisites / Comments
Semester I		
BIO 123 General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 020. Also appropriate score on the College's placement test or MAT 013 or MAT 013A/MAT 013B
CHM 121 General Chemistry I Lecture	3	MAT 014 or MAT014A/MAT014B or appropriate score on the College's placement test and one year of high school laboratory chemistry or CHM 020.
CHM 125 General Chemistry I Lab	1	CHM 121
ENG 121 English Composition I	3	A passing score on the College Placement Test or a grade of 'C' or better in ENG 010.
MAT 131 Analytic Geometry And Calculus I	4	MAT 129 or MAT 129A/129B or appropriate score on the College's placement test and/or satisfactory score on the Diagnostic Examination, or departmental approval
___ ___ PED/HED Physical /Health Ed Elective	1-3	
Semester II		
BIO 124 General Biology II	4	BIO 123
CHM 122 General Chemistry II	3	CHM 121
CHM 126 General Chemistry II Lab	1	CHM 125
ENG 122 English Composition II	3	A grade of 'C' or better in ENG 121.
MAT 132 Calculus II	4	MAT 131 or appropriate score on the College's placement test and/or satisfactory score on the Diagnostic Examination, or departmental approval
BIO 132 Introduction To Biotechnology: Concepts and Issues	1	BIO 123
Semester III		
BIO-228 Genetics	4	BIO 124, CHM 122 and CHM 126 or permission of Department Chairperson
BIO 229 Cell Biology	4	BIO 123, CHM 121 and CHM 125
OR		Co-requisite (s): CHM 122 and CHM 126
BIO 221 Microbiology	3	BIO 124, CHM 122 and CHM 126
CHM 221 Organic Chemistry I Lecture	1	CHM 122 and CHM 126 or equivalent
CHM 227 Organic Chemistry I Lab	3	Co-requisite (s): CHM 221
___ ___ General Education Social Science Elective (GE SS)	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
Semester IV		
CHM 222 Organic Chemistry II Lecture	3	CHM 221
CHM 228 Organic Chemistry II Lab	1	CHM 227
___ ___ General Education Social Science Elective (GE SS)	3	
OR		
___ ___ General Education Humanities Elective (GE HUM)	3	
CSC 106 Intermediate PC Applications With Programming	3	MAT 014
BIO 251 Introduction To Biomolecules And Molecular Biology -Lecture	3	Prerequisite(s): CHM 221, CHM 227, BIO 123 and BIO 124 Co-requisite(s): CHM 222, CHM 228 and BIO 252 Or permission from department chair
BIO 252 Introduction To Biomolecules and Molecular Biology - Lab	1	BIO 251 or permission from department chair

Total Credits: 64 - 66

Contact Name: Dr. Trace Gerow, department chair

Contact Phone: 732.906.2592.

Contact Email: TGerow@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/academi/bio>

Liberal Arts

Associate in Arts (A.A.) Degree

This program provides graduates a foundation for lifelong intellectual development and a fulfilling life. It also develops a powerful knowledge base and set of critical thinking skills they will use over the course of their professional careers.

■ Why study the Liberal Arts?

A Liberal Arts education helps students develop strong and ordered minds as they explore the world's collected wisdom in literature, history, math, science, philosophy and the arts. It teaches them to recognize and construct arguments, to appreciate diverse cultures and perspectives, and to have a sense of humility about lives and minds that have gone before. Its emphasis on language helps students broaden their cultural perspective and also become more aware of their own identity.

The courses comprising a liberal arts education at Middlesex are the core of all liberal arts programs at the bachelor's level. Students may select the general degree, the most flexible of all our Liberal Arts programs, or by choosing one of the many specialized options.

■ Are there any requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Competency in Algebra I may be verified with a passing score on the College's placement test or by completion of the appropriate course. Students must also have a grade of "C" or better in one year of high school laboratory science.

■ How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

LIBERAL ARTS - AFRICAN-AMERICAN STUDIES

Associate in Arts (A.A.) Degree – LAAFA.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication		
ENG 121 English Composition I	3	A passing score on the writing portion of the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121.
SPE 121 Fundamentals of Public Speaking	3	
OR		
SPE 123 Discussion and Debate		
General Education History		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
General Education Humanities		
___ ___ Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as General Education Humanities (GE HUM). Recommended: ENG 227 <i>Literature in Black America</i>
___ ___ Language Elective (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. If you completed at least two years of high school study in one modern language, your level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective (GE HUM)	3	
General Education Mathematics, Science and Technology		
___ ___ Technology Elective (GE MST)	3	You must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses (GE MST), one or two math courses (GE MST) and one technology course, in consultation with an academic advisor. For your technology elective, choose either CSC 105 or CSC 106.
___ ___ Math Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Math or Science Elective (GE MST)	3-4	
General Education Social Science		
___ ___ Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social science (GE SS).
___ ___ Social Science Elective (GE SS)	3	
Liberal Arts Electives		
AFS 121 Introduction to African American Studies	3	
AFS 123 Introduction to African Civilizations	3	
AFS 231 African-American History	3	
PSY 163 Psychology of the African American Experience	3	
___ ___ General Education Diversity Elective	3	Choose one course designated in the course (GE DIV) descriptions as General Education Diversity (GE DIV).
Divisional Elective		
HIS 202 Ancient Egypt's History	3	
___ ___ Physical/Health Ed Elective	1-3	You may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair
 Contact Phone: 732.906.2590
 Contact Email: HSS@middlesexcc.edu
 Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - EARLY CHILDHOOD EDUCATION

Associate in Arts (A.A.) Degree – LAECE.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication		
ENG 121 English Composition I	3	A passing score on the writing portion of the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121.
SPE 121 Fundamentals of Public Speaking	3	
OR		
SPE 123 Discussion and Debate		
General Education History		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
General Education Humanities		
ENG 225 World Literature I	3	ENG 121
(Or ENG 226 World Literature II)		
___ ___ Language Elective (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. If you completed at least two years of high school study in one modern language, your level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective (GE HUM)	3	
General Education Mathematics, Science and Technology		
___ ___ Technology Elective (GE MST)	3	Take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses (GE MST), one or two math courses (GE MST) and one technology course, in consultation with an academic advisor. For your technology elective, choose either CSC 105 or CSC 106.
___ ___ Math Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Math or Science Elective (GE MST)	3-4	
General Education Social Science		
PSY 123 Introduction to Psychology	3	
PSY 223 Child Psychology	3	Prerequisite: Introduction to Psychology PSY 123
Liberal Arts Electives		
EDU 207 Introduction to Early Childhood Education	3	
PHI 123 Ethics	3	
PSY 226 Educational Psychology	3	Prerequisite: Introduction to Psychology PSY 123
SOC 224 Marriage and the Family	3	
Divisional Elective		
EDU 208 Creative Activities for Young Children	3	
___ ___ General Education Diversity Elective	3	Choose one course designated in the course descriptions as General (GE DIV) Education Diversity (GE DIV).
___ ___ Physical/Health Ed Elective	1-3	You may satisfy this requirement with any HED or PED course except PED 270.
Total Credits: 61-66		

Contact Name: Dr. Steven Barnhart, department chair
 Contact Phone: 732.906.2590
 Contact Email: HSS@middlesexcc.edu
 Department web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - GENOCIDE AND THE HOLOCAUST

Associate in Arts (A.A.) Degree – LAGNH.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication		
ENG 121 English Composition I	3	A passing score on the writing portion of the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121.
SPE 121 Fundamentals of Public Speaking	3	
OR		
SPE 123 Discussion and Debate		
General Education History		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
General Education Humanities		
___ ___ Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as General Education Humanities (GE HUM). Recommended: ENG 122H <i>Writing About Survival</i>
___ ___ Language Elective (GE HUM)	3	Choose two modern language courses in sequence from either FRE, GER, ITA or SPA.
___ ___ Language Elective (GE HUM)	3	If you completed at least two years of high school study in one modern language, your level of language will be determined by a placement test excluding SPA 242.
General Education Mathematics, Science and Technology		
___ ___ Technology Elective (GE MST)	3	You must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses (GE MST), one or two math courses (GE MST) and one technology course, in consultation with an academic advisor For your technology elective, choose either CSC 105 or CSC 106.
___ ___ Math Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Math or Science Elective (GE MST)	3-4	
General Education Social Science		
___ ___ Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social science (GE SS).
___ ___ Social Science Elective (GE SS)	3	
Liberal Arts Electives		
HIS 124 History of Civilization in the Third World	3	
HIS 245 History of Major world Religions	3	
HIS 256 History of the Twentieth Century	3	
HIS 260 Dimensions of Prejudice, Genocide and the Holocaust	3	
___ ___ General Education Diversity Elective	3	Choose one course designated in the course descriptions as General (GE DIV) Education Diversity (GE DIV).
Divisional Elective		
PSY 222 Social Psychology	3	Prerequisite: Introduction to Psychology PSY 123
___ ___ Physical/Health Education Elective	1-3	You may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair.
 Contact Phone: 732.906.2590
 Contact Email: HSS@middlesexcc.edu
 Department Web: <http://www.middlesexcc.edu/departments/hss>

LIBERAL ARTS - PHILOSOPHY

Associate in Arts (A.A.) Degree – LAPHI.AA

Below are required courses for program completion.

Courses	Credits	Requisites / Comments
General Education Communication		
ENG 121 English Composition I	3	A passing score on the writing portion of the college's placement test or a grade of "C" or better in ENG 010.
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121.
SPE 121 Fundamentals of Public Speaking	3	
OR		
SPE 123 Discussion and Debate		
General Education History		
HIS 121 History of Western Civilization I	3	
HIS 122 History of Western Civilization II	3	
General Education Humanities		
___ ___ Humanities Elective (GE HUM)	3	Choose one course designated in the course descriptions as General Education Humanities (GE HUM). Choose two modern language courses in sequence from either FRE, GER, ITA or SPA. If you completed at least two years of high school study in one modern language, your level of language will be determined by a placement test excluding SPA 242.
___ ___ Language Elective (GE HUM)	3	
___ ___ Language Elective (GE HUM)	3	
General Education Mathematics, Science and Technology		
___ ___ Technology Elective (GE MST)	3	You must take 12-15 credits in general education mathematics, science, and technology courses. Choose one or two science courses (GE MST), one or two math courses (GE MST) and one technology course, in consultation with an academic advisor. For your technology elective, choose either CSC 105 or CSC 106.
___ ___ Math Elective (GE MST)	3-4	
___ ___ Science Elective (GE MST)	3-4	
___ ___ Math or Science Elective (GE MST)	3-4	
General Education Social Science		
___ ___ Social Science Elective (GE SS)	3	Choose courses designated in the course descriptions as general education social science (GE SS).
___ ___ Social Science Elective (GE SS)	3	
Liberal Arts Electives		
PHI 121 Philosophy	3	
PHI 122 Logic	3	
PHI 123 Ethics	3	
HIS 245 History of Major World Religions	3	
___ ___ General Education Diversity Elective	3	Choose one course designated in the course descriptions as General (GE DIV) Education Diversity (GE DIV).
___ ___ Divisional Elective	3	Choose one course from the following areas: AFS, ART, ASL, BIO, CHM, CJU, COM, COR, DAN, EDU, ENG, FRE, GER, HED, HIS, ITA, LNC, MAT, MUS, PED, PHI, PHY, POL, POS, PSY, SSD, SOC, SPA, SPE and THE.
___ ___ Physical/Health Ed Elective	1-3	You may satisfy this requirement with any HED or PED course except PED 270.

Total Credits: 61-66

Contact Name: Dr. Steven Barnhart, department chair.

Contact Phone: 732.906.2590

Contact Email: HSS@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/hss>

Technical Studies

ENGINEERING TECHNOLOGIES DEPARTMENT

Associate in Applied Science (A.A.S.) Degree

Under New Jersey Pathways Leading Apprentices to a College Education (NJ Place), community colleges, organized labor and several state agencies have developed a program to award college credit for registered apprenticeships in the construction trades. Through a unique blend of coursework, specialized training and hands-on-work experience, students will acquire the knowledge and skills to succeed in their chosen profession and earn an associate degree.

■ Why major in Technical Studies?

The Associate in Applied Science Degree in Technical Studies provides an opportunity for students to earn credits for apprenticeship training programs in the building and construction trades, based upon the American Council on Education (ACE) review and evaluation of the program. The earned credits will be applied to the degree. For further information about how apprenticeship credits may be applied to an A.A.S. degree, visit: www.njplace.com.

■ Can students who major in Technical Studies transfer to a four-year college or university?

The major is job-oriented and designed for entrance into the workplace. However, students can transfer to a four-year college and apply the courses taken at MCC towards a bachelor's degree.

■ Are there any special requirements that must be satisfied before taking courses in the major?

Algebra I is a prerequisite for all majors. Algebra I competency may be verified with a passing score on the college's placement test or by completing the appropriate class.

■ How long will it take to complete this degree?

Once students complete developmental coursework, if needed, and complete the apprenticeship requirements, the degree can be completed in two years of full-time study.

■ Are there any special requirements once the student is admitted to the major?

Students will submit satisfactory completion of the apprenticeship program to be eligible for credits. A maximum of 25 credits will be awarded.

■ Questions?

Contact Name: Professor Thomas Sabol, department chair

Contact Phone: 732.906.2586

Contact Email: Tsabol@middlesexcc.edu

Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

TECHNICAL STUDIES

Associate in Applied Science (A.A.S.) Degree – TECH.AAS

Admission to the Technical Studies, AAS program is restricted. An individual must be enrolled in or have graduated from an American Council on Education recommended and approved Federal Bureau Apprenticeship Training Program in order to be eligible for admission to the Associate in Applied Science Degree in Technical Studies.

Below are required courses and recommended course groupings and sequences for program completion.

Courses	Credits	Requisites / Comments
Semester I		
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
CSC 105 Computer Applications and Systems OR CSC 106 Intermediate PC Applications with Programming MAT 107 Mathematics I	3	Prerequisite(s): Appropriate score on the College Placement Test, MAT013, MAT013A/MAT013B, or department approval. Students in consultation with their Academic Advisor should select a mathematics course that will fulfill the requirements/prerequisites for the Technical Electives chosen.
___ ___ Technical Elective	3-4	Technical Electives may be selected from any of the following areas: Accounting (ACC), Business (BUS), Computer Science (CSC), or Engineering Technologies (CIT, CMT, ELT, MCT, MEC) for which they have the appropriate academic prerequisites.
Semester II		
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
PHY 101 Principles of Physics	4	Students may select courses offered by the Biology, Chemistry or Physics Departments for which they have the appropriate academic prerequisites.
___ ___ Technical Elective	3-4	Prerequisite(s): MAT 107, Mathematics I. Technical Electives may be selected from any of the following areas: Accounting (ACC), Business (BUS), Computer Science (CSC), or Engineering Technologies (CIT, CMT, ELT, MCT, MEC) for which they have the appropriate academic prerequisites.
Semester III		
___ ___ Social Science General Education Elective (GE SS)	3	Check College catalog for courses designated as General Education Social Science (GE SS)
___ ___ Technical Elective	3-4	Technical Electives may be selected from any of the following areas: Accounting (ACC), Business (BUS), Computer Science (CSC), or Engineering Technologies (CIT, CMT, ELT, MCT, MEC) for which they have the appropriate academic prerequisites.
___ ___ Physical/Health Education Elective	1-3	
Semester IV		
SPE 121 Fundamentals of Public Speaking	3	
___ ___ General Education Humanities (GE HUM) OR Social Science (GE SS) Elective	3	Check College catalog for courses designated as Humanities (GE HUM) or Social Science (GE SS)
___ ___ Technical Elective	3-4	Technical Electives may be selected from any of the following areas: Accounting (ACC), Business (BUS), Computer Science (CSC), or Engineering Technologies (CIT, CMT, ELT, MCT, MEC) for which they have the appropriate academic prerequisites.

Transfer Credit for Technical Courses – ACE Approved Courses 25 Maximum

Technical Studies credits will be awarded for military or apprenticeship training programs in the Building and Construction trades, based upon the American Council on Education (ACE) review and evaluation of the program and their recommendations for awarding academic credit for successful completion of those programs. These credits will be placed on the student's transcript when documentation of satisfactory completion is presented by an official of the apprenticeship program and after the student matriculates into the Technical Studies Program, and has completed 25 credits of course work at Middlesex County College. From 3 to 25 transfer credits may be awarded for successful completion of the apprenticeship program, and will be awarded based upon ACE review and recommendations. Students with fewer than 25 ACE approved transfer credits are required to select classes from the accepted technical electives listed above.

Total Credits: 63 Minimum

Contact Name: Professor Thomas Sabol, department chair
 Contact Phone: 732.906.2586
 Contact Email: Tsabol@middlesexcc.edu
 Department Web: <http://www.middlesexcc.edu/departments/engineeringtech>

General Education Electives

SCIENCE

BIO 103	Plants, People & Culture	[3]
BIO 104	Mysteries of the Microbial World	[3]
BIO 105	Heredity, Evolution & Society	[4]
BIO 106	Human Biology, Biomedical Issues and Society	[4]
BIO 108	Essentials of Human Anatomy and Physiology	[4]
BIO 111	Human Anatomy & Physiology I	[4]
BIO 112	Human Anatomy & Physiology II	[4]
BIO 117	College Biology I	[4]
BIO 118	College Biology II	[4]
BIO 119	Biology for Lab Technology I	[4]
BIO 120	Biology for Lab Technology II	[4]
BIO 123	General Biology I	[4]
BIO 124	General Biology II	[4]
BIO 131	Human Structure & Function	[4]
BIO 140	Ecology	[3]
BIO 211	Principles of Microbiology	[4]

CHM 107	Principles of Chemistry	[4]
CHM 117	Chemistry I	[4]
CHM 118	Chemistry II [4]	[4]
CHM 121	General Chemistry I LEC	[3] *
CHM 125	General Chemistry I LAB	[1] *
CHM 122	General Chemistry II LEC	[3] *
CHM 126	General Chemistry II LAB	[1] *
CHM 201	Principles of Organic Chemistry	[4]
CHM 202	Biochemistry	[4]
CHM 203	Principles of Organic Chemistry	[3]
CHM 223	Organic Chemistry I	[4]
CHM 224	Organic Chemistry II	[4]

PHY 101	Principles of Physics	[4]
PHY 115	College Physics I	[4]
PHY 116	College Physics II	[4]
PHY 123	General Physics I LEC	[3] *
PHY 125	General Physics I LAB	[1] *
PHY 124	General Physics II LEC	[3] *
PHY 126	General Physics II LAB	[1] *
PHY 133	Analytical Physics I LEC	[3] *
PHY 135	Analytical Physics I LAB	[1] *
PHY 134	Analytical Physics II LEC	[3] *
PHY 136	Analytical Physics II LAB	[1] *
PHY 236	Analytical Physics III LEC	[3] *
PHY 239	Analytical Physics III LAB	[1] *

SCI 116	Introduction to Renewable Energy	
SCI 155	Introduction to Geology	[4]
SCI 156	Introduction to Astronomy	[4]
SCI 157	Introduction to Meteorology	[4]
SCI 158	Planetary Astronomy	[4]
SCI 160	Essentials of Oceanography	[4]
SCI 204	Concepts of Physical Science	[3]
SCI 206	Introduction to Forensic Science	[3]
SCI 220	Forensic Science	[4]
SCI 256	Stellar & Galactic Astronomy	[4]

[number of credits]

* Must register for both LEC and LAB

COMPUTER SCIENCE

CSC 105	Computer Applications & Systems
CSC 106	Intermediate Applications and Programming

DIVERSITY

AFS 123	Introduction to African Civilizations
AFS 231	African-American History

COM 115	Intercultural Communication
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ENG 225	World Literature I
ENG 226	World Literature II
ENG 227	Literature of Black America
ENG 239	Women in Literature
ENG 250	Gay and Lesbian Literature
ENG 253	Mythology in Literature

DIVERSITY (Continued)

ENG 264	Survey of World Cinema
ENV 207	Environmental Issues in our Diverse Society
FRE 224	Contemporary French Literature
FRE 228	French Culture and Civilization
GER 224	Contemporary German Literature
GER 228	German Culture and Civilization
HED 150	Contemporary Health Issues
HED 200	Human Sexuality and Family Life
HIS 123	History of Civilization in East Asia
HIS 124	History of Civilization in the Third World
HIS 245	History of Major World Religions
HIS 258	History of Women
HIS 260	Dimensions of Prejudice, Genocide and the Holocaust

LNC 123	An Introduction to the Study of Human Language
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PSY 163	Psychology of the African- American Experience
PSY 217	Psychology of Women
PSY 227	Psychology of the Handicapped

SOC 121	Introduction to Sociology I
SOC 123	Introduction to Anthropology
SOC 205	Diversity & Multiculturalism in US Society
SOC 231	Indians of the Americas
SOC 240	Perspectives on Sexual Identity

SPA 223	Main Currents in Hispanic Literature
SPA 224	Contemporary Hispanic Literature
SPA 226	Hispanic Civilization
SPA 228	Spanish Civilization and Culture
SPA 242	Masterpieces of Hispanic Literature in Translation (20 th Century)

HUMANITIES

AFS 123	Introduction to African Civilizations
AFS 231	African American History

ART 104	History of Photography
ART 105	Introduction to Art
ART 115	Survey of Non-Western Art
ART 120	Survey of American Art
ART 123	Art History: Ancient to Renaissance
ART 124	Art History: Renaissance to Modern
ART 125	Art History: Modern & Contemporary

ASL 121/122	American Sign Language I and II
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DAN 132	Dance Appreciation
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ENG 221	English Literature I
ENG 222	English Literature II
ENG 225	World Literature I
ENG 226	World Literature II
ENG 227	Literature of Black America
ENG 228	Modern British & American Poetry
ENG 233	Introduction to the Novel
ENG 234	Introduction to Shakespeare
ENG 239	Women in Literature
ENG 243	Literature of the U.S. to 1880
ENG 244	Literature of the U.S.: 1880 to 1945
ENG 245	Literature of the U.S.: W. W. II to Present
ENG 247	Principles of Literary Study: Intro. to Poetry
ENG 248	Introduction to Short Fiction

HUMANITIES (Continued)

ENG 249	Biography & Autobiography
ENG 253	Mythology in Literature
ENG 254	Literature and Film
ENG 255	Introduction to Film
ENG 258	Modern Dramatic Literature and Politics
ENG 262	Cinema History
ENG 263	Survey of American Cinema
ENG 264	Survey of World Cinema
FRE 121/122	Elementary French I and II
FRE 221	Intermediate French I
FRE 222	Intermediate French II
FRE 224	Contemporary French Literature
FRE 228	French Civilization & Culture
FRE 231	French Conversation and Composition I
FRE 232	French Conversation and Composition II
GER 121	Elementary German I
GER 122	Elementary German II
GER 221	Intermediate German I
GER 222	Intermediate German II
GER 224	Modern German Literature
GER 228	German Culture & Civilization
GER 231	German Conversation & Composition I
GER 232	German Conversation & Composition II
HIS 121	History of West. Civ. I
HIS 122	History of West. Civ. II
HIS 123	History of Non-Western Civ. in East Asia
HIS 124	History of Non-Western Civilization in the Third World
HIS 221	United States History I
HIS 222	United States History II
HIS 256	History of Twentieth Century
HIS 258	History of Women
ITA 121	Elementary Italian I
ITA 122	Elementary Italian II
ITA 221	Intermediate Italian I
ITA 222	Intermediate Italian II
MUS 107	Introduction to Music
MUS 123	Music History: Traditional
MUS 124	Music History: Contemporary
PHI 121	Philosophy
PHI 122	Logic
PHI 123	Ethics
SPA 121/122	Elementary Spanish I and II
SPA 124	Conversational Spanish
SPA 210	Spanish for Hispanics
SPA 221	Intermediate Spanish I
SPA 222	Intermediate Spanish II
SPA 223	Main Currents in Hispanic Literature
SPA 224	Contemporary Hispanic Literature
SPA 226	Hispanic Civilization
SPA 228	Spanish Civilization & Culture
SPA 231	Spanish Conversation & Composition I
SPA 232	Spanish Conversation & Composition II
SPA 242	Masterpieces of Hispanic Literature in Translation (20 th Century)
THE 105	Introduction to Theatre
THE 123	Theatre History
THE 124	Contemporary Theatre

SOCIAL SCIENCE

ECO 201	Principles of Economics I
ECO 202	Principles of Economics II
POS 121	Introductory Government and Politics
POS 201	United States State and Local Government
POS 220	United States National Government
POS 222	Comparative Government
PSY 123	Introductory Psychology
PSY 223	Child Psychology
PSY 232	Lifespan
PSY 255	Adolescent Psychology
PSY 270	Adult Development and Aging
SOC 121	Introduction to Sociology I
SOC 122	Social Institutions
SOC 123	Introduction to Anthropology

Course Updates

NEW COURSES

BIO 132

■ INTRODUCTION TO BIOTECHNOLOGY: CONCEPTS AND ISSUES CREDITS: 1 (2-0)

Prerequisite(s): BIO 123

This course is a seminar survey of biotechnology methods and techniques that raise ethical or moral questions. Topics include issues pertaining to basic and applied research in human health, agriculture, and the environment. Students will research, present and lead weekly roundtable discussions on bioethical topics.

BIO 140

GE MST

■ ECOLOGY

CREDITS: 3 (2-2)

A survey of the major ecosystem types of New Jersey including hardwood forests, pinelands, swamps, marshes, dunes and seashore. Students will observe representative organisms from each ecosystem, explain their ecological interrelationships, determine the chemical and physical factors that influence their survival and recognize the historical and current impact of human activities on these ecosystems. Students will also evaluate the applications of the scientific method to conservation efforts that promote biodiversity in New Jersey

BIO 251

■ INTRODUCTION TO BIOMOLECULES AND MOLECULAR BIOLOGY - LECTURE

CREDITS: 3 (3-0)

Prerequisite(s): CHM 221, CHM 227, BIO 123 and BIO 124

Corequisite(s): CHM 222, CHM 228 and BIO 252

This course introduces the students to structure, functions, synthesis and degradation of biologically important macromolecules of the cell such as carbohydrates, proteins, lipids and nucleic acids. Bioenergetics and regulation of metabolic pathways will be discussed. The interrelationship between the metabolic pathways and genetic defects will be emphasized. The course will focus on molecular biology, including the metabolism of DNA and RNA and regulation of gene expression.

BIO 252

■ INTRODUCTION TO BIOMOLECULES AND MOLECULAR BIOLOGY - LAB

CREDITS: 1 (0-3)

Corequisite(s): BIO 251

This course introduces the students to biochemical and molecular techniques used for studying carbohydrates, lipids, proteins and nucleic acid. Students will gain hands-on experience on a variety of experimental techniques used in biological research.

CIT 253

■ MECHANICS OF MATERIALS

CREDITS: 3 (3-0)

Prerequisite(s): MEC 221

An engineering science level course discussing the basics of strength of materials. This is a lecture-oriented courses dealing with the determination of stress resultants, analysis of stress vs. strain, analysis of statically determinate and indeterminate structures, trusses, columns and connections. Introduction to stress and deformation analysis of basic structural elements subjected to axial, torsional, bending, and pressure loads. Additional topics include area moments, conjugate beam method, deflection due to shear, bending of unsymmetrical beams, curved beams, shear flow, shear center, stresses in open sections, theories of failure, plastic stress-strain relations, plastic deformation, limit analysis, and energy methods.

CSC 263

■ COMPUTER ORGANIZATION AND ARCHITECTURE I CREDITS: 3 (2-2)

Prerequisite(s): CSC 161

This course presents the fundamentals of computer architecture, emphasizing RISC architecture and assembly language. Topics include binary arithmetic, Boolean algebra, gates and simple circuits, data representation, RISC architecture, RISC vs. CISC principles, and the development of RISC assembler programs.

CSC 264

■ COMPUTER ORGANIZATION AND ARCHITECTURE II CREDITS: 3 (2-2)

Prerequisite(s): CSC 263

This course presents an introduction to the organization and architecture of computer systems, including the Von Neumann model, data representation, assembly language organization, memory and input/output methodologies. The architecture of the central processing unit, arithmetic and logic unit, and microprogram controller are examined in sequence. The basic architecture and function of operating systems is also covered.

DHY 218

■ LOCAL ANESTHESIA AND PAIN CONTROL

CREDITS: 2 (1-2)

Prerequisite(s): DHY 105, DHY 208, DHY 211

Corequisite(s): DHY 212

This course is designed to prepare the student to administer local anesthesia to patients for pain management during the course of dental treatment. Instruction includes the anatomy of the head and neck, pharmacology of anesthetic and analgesic agents, patient pre-evaluation, injection techniques, recognition of adverse patient reactions and management of emergency procedures. The laboratory component includes the administrations of local anesthesia to laboratory partners. Successful course completion prepares the student for the North East Regional Board examination on the administration of local anesthesia and eligibility to apply for a New Jersey Board of Dentistry local anesthesia permit.

DMA 218

■ GRAPHICS FOR WEB DESIGN

CREDITS: 3 (1-4)

Prerequisite(s): MAD 113 and MAD 118

This course focuses on developing and preparing graphics for websites and web applications. Emphasis is on image manipulation and generating original graphics. Students learn image acquisition through photography, scanning, and stock images. Copyright issues are addressed; RGB color, color systems and palettes, graphic file formats, resolution, image quality and compression are covered as they pertain to web use. Advanced tools in industry standard software, such as Illustrator and Photoshop are used to create and edit images. Basic 3D illustration using Maya is also introduced. Files are exported for web use and published on an interactive website.

DMA 219

■ TYPOGRAPHY OF WEB DESIGN

CREDITS: 3 (1-4)

Prerequisite(s): MAD 113 and MAD 118

This course offers a general overview of typography with a particular emphasis on use of typography in web publishing. Topics include type history, type anatomy, font identification, readability, grid systems, hierarchy, spacing and scaling, and type as image. While based on traditional typographic principles, web typography differs in software tools used and in strategies for organization and usability consistent across browser platforms. Typographic principles are stressed in terms of screen readability, navigation, organization, and editability. A variety of web development tools are used to apply the principles covered in this class, including basic HTML and CSS coding for text formatting.

DMA 222

■ WEB ANIMATION AND INTERACTIVE MEDIA

CREDITS: 3 (1-4)

Prerequisite(s): DMA 218

This course is an introduction to animation for websites and web applications. Animated graphics and type, interactive user interface design, and basic character development are covered. Traditional animation terminology and techniques are discussed as they apply to professional animation software, such as Flash, Maya and After Effects. Projects involve assembling clips with motion and sounds, and developing short interactive animation that responds to user input. Projects focus on developing short animation pieces for basic web publishing. Project-based learning is used in applying techniques and technologies to emphasize conceptual and creative development.

DMA 223

■ WEBSITE DESIGN AND LAYOUT

CREDITS: 3 (1-4)

Prerequisite(s): DMA 218, DMA 219

This course is an introduction to web design with an emphasis on layout principles and visual content management. Best design practices in layout, typography, and color theory are applied to presenting information on the web. On the technical side, students address issues such as: multi-browser and multi-platform usability, troubleshooting and debugging and accessibility. Concepts expand to navigation, user interface design, and project planning. Tools used include Dreamweaver and basic HTML and CSS. Project-based learning is used in applying techniques and technologies to emphasize conceptual and creative development.

DMA 280

■ PORTFOLIO

CREDITS: 3 (1-4)

Prerequisite(s): DMA 218, DMA 219

Corequisite(s): DMA 222, DMA 223

Students learn about industry-specific job search practices and developing a self-promotional package including resume, cover letter, and leave-behind materials, in addition to building an interactive portfolio website. Students evaluate their goals and set up strategies for meeting these goals. Career development includes topics on employment and employer research, job-targeted promotional materials, information on internships and transfer opportunities, interview strategies and an end of semester public portfolio review.

ELT 109

■ PROGRAMMING FOR TECHNICIANS AND ENGINEERS

CREDITS: 3 (2-2)

Prerequisite(s): MCT 101

An introductory course for using a computer to solve engineering problems. The course will introduce the concepts on interfacing computers to sensors and output devices and using the computer to control the output functions using feedback from the input sensors. The course will introduce the students to the graphical language LabVIEW and the data acquisition equipment that uses this language. The second half of the course will use Program Logic Controllers programmed in traditional ladder logic and programmed in a mnemonic language and interfaced to switch devices for inputs and output devices such as relays, motor starters and solenoid valves.

ENG 080

■ ENGLISH WORKSHOP

CREDIT EQUIVALENTS: 3 (2-2)

Prerequisite(s): Appropriate Score on the College Placement Test

For students whose college placement test scores show they need intensive work to improve their writing abilities. Objectives are designed to develop the ability to write in Standard American English. Instruction is provided in sentence structure, punctuation, and usage; students regularly practice writing effective sentences, paragraphs and short essays. Designed to improve fundamental skills of Standard American English through the writing of effective sentences, paragraphs and essays and to build confidence in beginning writers. Correct spelling, punctuation and grammar are stressed.

ENG 262

GE HUM

■ CINEMA HISTORY

CREDITS: 3 (3-0)

Prerequisite(s): ENG 122 or written permission of the department chairperson

This course surveys the chronological development of motion pictures since their inception to the present, with an emphasis on key artistic principles and technical advancements. The course focuses on film as a changing, dynamic art form, a commercial industry, a world-wide cultural phenomenon, and a reflection of and influence on people's experiences, values and lives and changing standards of artistic taste. Students view numerous examples of classic films from various historical decades and genres as well as complete reading, writing and research assignments.

ENG 263

GE HUM

■ SURVEY OF AMERICAN CINEMA

CREDITS: 3 (3-0)

Prerequisite(s): ENG 122 or written permission of the department chairperson

This course surveys the masterpieces of major genres of American cinema, focusing on the elements and visual styles of Hollywood storytelling through genres, including but not limited to Western, Film noir, war, romance, comedy, horror, musical and science fiction, which entertain audiences as well as mirror American attitudes and values. Students view various examples of classic American motion pictures and analyze them from a variety of cultural, historical, and intellectual perspectives, with an emphasis on key artistic principles and technical advancements. As well, students complete reading, writing and research assignments.

ENG 264

GE HUM

GE DIV

■ SURVEY OF WORLD CINEMA

CREDITS: 3 (3-0)

Prerequisite(s): ENG 122 or written permission of the department chairperson

This course surveys the major masterpieces of international cinema. Students view films from various countries, including but not limited to Russia, Germany, Sweden, France, Italy, England, Japan, India and more, and analyze motion pictures from a variety of cultural, historical, and intellectual perspectives, with an emphasis on key artistic principles and technical advancements. Students view numerous examples of classic films from various historical decades as well as complete reading, writing and research assignments.

ENG 265

■ SURVEY OF GREAT CINEMA DIRECTORS

CREDITS: 3 (3-0)

Prerequisite(s): ENG 122 or written permission of the department chairperson

This study of the director-the basis and explanations of his/her creative process-offers a critical approach to studying the relationship between the personal, theoretical, social and historical elements in creating art, specifically motion pictures. This course surveys the great cinema directors, whose body of work has elevated film to the level of art, affording them the title of "auteur." Each has made a noteworthy, enduring and influential contribution to the development of film and the film industry. Each has directed a consistent body of work with a number of great movies, displays his/her own original style that has influenced other directors, and displays his/her own personal stamp that cuts across films, genres and decades.

PHY 123

GE MST

■ GENERAL PHYSICS I – LECTURE

CREDITS: 3 (4-0)

Prerequisite(s): MAT 129 or MAT 129A/MAT 129B

Emphasizes theoretical models and basic physical principles. The course is precalculus based and uses some basic calculus in the development and applications of physical principles in a scientific environment. Students will use computers in the laboratory for developing programming skills for the analysis of experimental data. Topics include kinematics, dynamics, conservation of energy and momentum, waves, temperature and heat and thermodynamics. The first semester of a two-semester college-parallel sequence for liberal arts science and pre-professional students.

PHY 124 GE MST

■ **GENERAL PHYSICS II – LECTURE**

CREDITS: 3 (4-0)

Prerequisite(s): PHY 123

Emphasizes theoretical models and basic physical principles. The course is precalculus-based and uses some basic calculus in the development and applications of physical principles in a scientific environment. Students will use computers in the laboratory for developing programming skills and for the analysis of experimental data. Topics include electro-statics, direct current circuits, electromagnetism, alternating currents, electromagnetic waves, geometrical and physical optics, quantum theory, atomic physics and nuclear physics. The second semester of two-semester college-parallel sequence for liberal arts science and pre-professional students.

PHY 125 GE MST

■ **GENERAL PHYSICS I – LAB**

CREDITS: 1 (0-2)

Prerequisite(s): MAT 129 or MAT 129A/MAT 129B

This course is to be taken in conjunction with General Physics I and is the first semester of a two semester laboratory university-parallel sequence for liberal arts science and pre-professional students. Students will make measurements and develop an understanding of the errors in those measurements and the final result. The importance of maintaining a laboratory notebook is emphasized as well as accurate and concise reporting of the data and results; data interpretation is also emphasized. The computer is used of data acquisition and analysis. Laboratory safety is also discussed.

PHY 126 GE MST

■ **GENERAL PHYSICS II – LAB**

CREDITS: 1 (0-2)

Prerequisite(s): PHY 125

This course is to be taken in conjunction with General Physics II and is the second semester of a two semester laboratory university-parallel sequence for liberal arts science and pre-professional students. Students will make measurements and develop an understanding of the errors in those measurements and the final result. The importance of maintaining a laboratory notebook is emphasized as well as accurate and concise reporting of the data and results; data interpretation is also emphasized. The computer is used of data acquisition and analysis. Laboratory safety is also discussed.

PHY 133 GE MST

■ **ANALYTICAL PHYSICS I – LECTURE**

CREDITS: 3 (4-0)

Prerequisite(s): One year of high school laboratory physics

Coresquisite(s): MAT 131 or equivalent

A calculus-based general physics course. Topics include statics, kinematics, dynamics and the conservation of energy and momenta. Appropriate computer and laboratory experiences are included. The first course in a three-course series consisting of PHY 133, PHY 134 and PHY 236.

PHY 134 GE MST

■ **ANALYTICAL PHYSICS II – LECTURE**

CREDITS: 3 (4-0)

Prerequisite(s): PHY 133

Coresquisite(s): MAT 132 or equivalent

A continuation of PHY 133. Topics include wave motion, special relativity, thermodynamics, electrostatics and DC circuits. Appropriate computer and laboratory experiences included. The second course in a three-course series consisting of PHY 133, PHY 134 and PHY 236.

PHY 135 GE MST

■ **ANALYTICAL PHYSICS I – LAB**

CREDITS: 1 (0-2)

Prerequisite(s): One year of high school laboratory physics

Coresquisite(s): MAT 131 or equivalent

This course is to be taken in conjunction with Analytical Physics I and is the first semester of a three semester laboratory college-parallel sequence for engineering science and physics students. Students will make measurements and develop an understanding of the errors in those measurements and the final result. The importance of maintaining a laboratory notebook is emphasized as well as accurate and concise reporting of the data and results. The importance of interpreting the data is emphasized. The computer is used of data acquisition and analysis. Laboratory safety is also discussed.

PHY 136 GE MST

■ **ANALYTICAL PHYSICS II – LAB**

CREDITS: 1 (0-2)

Prerequisite(s): PHY 135

Coresquisite(s): MAT 132 or equivalent

This course is to be taken in conjunction with Analytical Physics II and is the second semester of a three semester laboratory college-parallel sequence for engineering science and physics students. Students will make measurements and develop an understanding of the errors in those measurements and the final result. The importance of maintaining a laboratory notebook is emphasized as well as accurate and concise reporting of the data and results. The importance of interpreting the data is emphasized. The computer is used of data acquisition and analysis. Laboratory safety is also discussed.

PHY 236 GE MST

■ **ANALYTICAL PHYSICS III – LECTURE**

CREDITS: 3 (4-0)

Prerequisite(s): MAT 132 and PHY 134

Continuation of PHY 134. Topics include magnetism, AC circuits, electromagnetic waves, optics and atomic and nuclear physics. Appropriate computer and laboratory experiences included. The third course in a three-course series consisting of PHY 133, PHY 134 and PHY 236.

PHY 239 GE MST

■ **ANALYTICAL PHYSICS III – LAB**

CREDITS: 1 (0-2)

Prerequisite(s): MAT 132 and PHY 136 or one year of integral and differential calculus.

This course is to be taken in conjunction with Analytical Physics III and is the third semester of a three semester laboratory college-parallel sequence for engineering science and physics students. Students will make measurements and develop an understanding of the errors in those measurements and the final result. The importance of maintaining a laboratory notebook is emphasized as well as accurate and concise reporting of the data and results. The importance of interpreting the data is emphasized. The computer is used of data acquisition and analysis. Laboratory safety is also discussed.

POS 225H

■ **AMERICAN POLITICAL THOUGHT**

CREDITS: 3 (3-0)

Prerequisite(s): POS 121, Introductory Government and Politics and/or faculty recommendation

In accordance with the Honors Criteria, a cumulative GPA of 3.5 or higher after the completion of 12 college credits and completion of all developmental coursework, or specific waiver of same via faculty nomination.

This course explores contemporary and historical American political activity through the study of key Western European and American ideas, theories, ideologies and philosophies. Original writings and commentaries serve as the primary course source material. Diverse areas of study are examined, including democratic theory, constitutional principles, domestic and international policy, and economic and religious thinking, as the value-based architecture of the historical and ongoing American Political and Governmental Experience.

RDG 080

■ **READING WORKSHOP**

CREDIT EQUIVALENTS: 3 (2-2)

Prerequisite(s): Appropriate Score on the College Placement Test

Provides intensive instruction to help students develop basic reading comprehension, vocabulary, communication and study skills. Designed to help students improve their comprehension and speed, to develop a college-level vocabulary and to learn academic study skills. Mastery of the behavioral objectives will enable students to comprehend collegiate texts. Successful students may obviate RDG 011 altogether, or may move from RDG 009 to RDG 011.

SCI 116

GE SCI

■ **INTRODUCTION TO RENEWABLE ENERGY**

CREDITS: 3 (2-2)

Prerequisite(s): MAT 107 or higher

Corequisite(s): ENG 121

This is a survey course that includes topics of energy conversion, and the regulatory and economic aspects of alternative energy sources. The course covers the scientific aspects of the carbon cycle, fuel combustion, nuclear fission, heat transfer and thermodynamics. The course has a laboratory component that uses the scientific method to explore aspects of energy conversion (mechanical to electrical conversion, radiant collection, photo voltaic conversion, wind and mass flow to mechanical conversion, etc.).

SCI 160

GE SCI

■ **ESSENTIALS OF OCEANOGRAPHY**

CREDITS: 4 (3-2)

Prerequisite(s): One year high school laboratory science, MAT 013 or appropriate score on the College placement test

The focus of this course is on the physical aspects of the world's oceans; the architecture of ocean basins, plate tectonics and tsunamis, the distribution of marine sediments, oceanic circulation and productivity, and the effects of deep ocean circulation on world climate. Geology, chemistry, physics and biology are addressed as interactive and interdependent systems. The history of marine exploration, marine fauna and flora, shore processes, and environmental concerns will also be covered.

SOC 217

■ **HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT I**

CREDITS: 3 (3-0)

Prerequisite(s): SOC 121

This course presents an interdisciplinary approach to the understanding of human bio-psycho-social development from birth through death, emphasizing the effects that ethnicity, gender, race, culture, poverty, sexual preference and life style have on the individual's life cycle and social systems. It explores implications for social justice, empowerment, and social work practice resulting from this interaction. Implications for social work practice, and especially from relationship building and enhancing client strengths, are drawn from the process.

SOC 218

■ **HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT II**

CREDITS: 3 (3-0)

Prerequisite(s): SOC 121 and SOC 217

This course explores the theories and knowledge of bio-psycho-social human behavior within the reciprocal relationship of groups, organizations, communities and society. It provides the theoretical foundation for agency-based professional social work intervention with communities and organizations, including protective services, substance abuse, gerontological services and early childhood services. Systems theory serves as the organizing framework. This second course in the HBSE sequence continues to build students' understanding of how human behavior interacts with the social environment.

CHANGES/CORRECTIONS IN CREDITS

BIO 108

GE MST

■ **ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY**

CREDITS: 4 (3-2)

CIT 212

■ **WATER RESOURCES TECHNOLOGY**

CREDITS: 4 (3-2)

ELT 223

■ **ELECTRONIC DESIGN AND MANUFACTURING**

CREDITS: 2 (1-2)

CIT 216

■ **SOIL MECHANICS**

CREDITS: 4 (3-2)

MEC 130

■ **MANUFACTURING PROCESSES AND TECHNOLOGY**

CREDITS: 3 (0-6)

RAD 275

■ **RADIOGRAPHIC PHYSICS AND EQUIPMENT MAINTENANCE**

CREDITS: 3 (2-2)

CHANGES/CORRECTIONS IN TITLE & DESCRIPTION

ENG 206

■ **JOURNALISM II**

CREDITS: 3 (3-0)

Prerequisite(s): ENG 205 or written permission of the department chairperson

An advanced course in journalism emphasizing the development of editorial skills and actual newspaper production. Membership on the school newspaper is required.

FIN 113

■ **PERSONAL FINANCE**

CREDITS: 3 (3-0)

Prerequisite(s): BUS 115

This is a practical course designed to prepare students to manage their present and future financial affairs. Topics to be covered include: goal setting, saving and using credit, budgeting, tax planning, housing (renting vs. buying), health, disability and life insurance, investment planning, as well as retirement planning, wills and estates.

PCP 225

■ **COMMERCIAL PHOTOGRAPHY**

CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108

Course emphasizes the needs of commercial photographers with regard to technical expertise, creativity, and professional equipment. Technical aspects include film to digital transfer, lighting, digital image manipulation, alternative processes, large format camera work and stock photography. Creative exploration of subject matter, lighting, color theory and other psychological characteristics in the development of images are studied. A variety of photographic equipment is utilized for the studio and on location. Students are expected to create a portfolio of work for both print and electronic formats. Additional supplies will need to be purchased.

CHANGES/CORRECTION IN CREDITS & TITLE

CHM 010

■ BASIC CHEMISTRY FOR HEALTH SCIENCE STUDENTS CREDIT EQUIVALENTS: 4 (4-2)

Prerequisite(s): MAT 013 or appropriate score on the College placement test.

An introduction to the fundamental principles of chemical structure and reactions. Includes applications in related laboratory work. A "C" is the minimum acceptable grade for movement from one developmental level to another and for completion of developmental requirements to include all credit equivalent courses.

CHM 020

■ BASIC CHEMISTRY FOR SCIENCE TRANSFERS CREDIT EQUIVALENTS: 4 (4-2)

Prerequisite(s): MAT 014 or appropriate score on the College placement test

An introduction to chemistry and chemical theory. This course is designed for students intending to enroll in general chemistry. The emphasis is on atomic structure, electron configuration and the periodic table. In addition, chemical reactions, balancing equations and stoichiometry will be stressed.

CHANGES/CORRECTIONS IN CREDITS & DESCRIPTION

MAD 107

■ PHOTOGRAPHY I CREDITS: 3 (1-4)

This is a basic photography course with an introduction to black and white film. It also covers use of the digital darkroom for basic image correction, scanning, and inkjet printing. Students will be expected to expose and process black and white film in the traditional manner and to utilize the digital darkroom for making prints. Aspects of lighting, composition, contemporary and historical background of photography will be explored. Aspects of multimedia will be introduced such as slide shows, sound and online interactivity.

MAD 108

■ PHOTOGRAPHY II CREDITS: 3 (1-4)

Prerequisite(s): MAD 107

This course is an advanced study of basic photography. It includes both film and digital imaging basics. Students are expected to utilize a film camera and a digital camera. Traditional areas of digital imaging will be covered: color, composition, natural light, electronic flash, studio lighting basics and alternative imaging practices. The study of multimedia and its applications are explored using a variety of methods. Upon completion of the course, students will have an electronic and printed portfolio.

PCP 226

■ PROFESSIONAL STUDIO PHOTOGRAPHY CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108

This course provides hands on instruction on the subject of studio lighting and portraiture. It covers photographing in the studio and on location. Professional lighting techniques, styles and a variety of equipment are utilized. Knowledge of the DSLR camera and uses for the professional photographer will be studied. Images in both color and black-and-white will be created and printed using inkjet printing techniques. Basic image correction and retouching will also be explored. Professional presentation of photographic images for print and for online viewing will be discussed and practiced. Students are expected to perform a minimum of two location shoots on or off campus during the day or evening hours.

PCP 280

■ PORTFOLIO CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108 and a minimum of two PCP courses.

This course allows the student to concentrate on personal development as a professional photographer. This includes resume writing, developing a portfolio, marketing and self-promotion and business practices for photographers. The preparation and presentation of a portfolio for job employment and for acceptance into senior institutions is emphasized. Students will attend field trips.

CHANGES/CORRECTIONS IN DESCRIPTION

BIO 123

GE MST

■ GENERAL BIOLOGY I CREDITS: 4 (3-3)

Prerequisite(s): One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 020 passed with a "C" or higher. Also, appropriate score on the College placement test or MAT 013.

A study of the basic principles and origins of life; the chemistry of living things; cell structure, function and reproduction; cell metabolic process including cellular respiration and photosynthesis; Mendelian genetics and modern genetics principles. Required for science transfer students in the biology option and biology pre-professional option and biotechnology.

BIO 228

■ GENETICS CREDITS: 4 (3-3)

Prerequisite(s): BIO 124, CHM 122 and CHM 126 or written permission of the department chairperson.

Mendelian and molecular concepts of heredity and their relationship to cell function, development and evolution. Topics include structure, function of genes, patterns of inheritance, nature and causes of mutations, mechanisms of gene regulation. Lab includes genetics of fruit flies, fungi, bacteria, human pedigree analysis and modern molecular techniques.

BIO 240

■ RESEARCH IN BIOLOGY CREDITS: 4 (0-8)

Prerequisite(s): BIO 124, CHM 124 and ENG 121

Students will engage in a scientific investigation under the guidance of a research scientist in an academic institution. A faculty member of the Middlesex County College Biology Department will monitor the project. The research scientist and the MCC Biology faculty will jointly assess the student's work. The assessment includes between 180-220 hours of lab work, library work, data analysis, a written report and oral presentation. This course can be used to fulfill the SCI/MAT elective or Biology Elective but not both, for the Science Transfer Biology Program. Students are expected to provide their own transportation.

CHM 240

■ RESEARCH IN CHEMISTRY CREDITS: 4 (0-8)

Prerequisite(s): BIO 124, CHM 122, CHM 126 and ENG 121

Students will engage in a scientific investigation under the guidance of a research scientist in an academic institution. A faculty member of the Middlesex County College Chemistry/Physics Department will monitor the project. The research scientist and the MCC Chemistry faculty will jointly assess the student's work. The assessment includes between 180-220 hours of lab work, library work, data analysis, a written report and oral presentation. This course can be used to fulfill the SCI/MAT elective or Chemistry Elective but not both, for the Science Transfer Chemistry Program. Students are expected to provide their own transportation.

■ MYTHOLOGY IN LITERATURE

CREDITS: 3 (3-0)

Prerequisite(s): ENG 122 or written permission of the department chairperson

Myths of ancient cultures from around the globe are read and discussed through some of their great epics, plays, poems, folktales and histories. Students study myths from diverse cultures and traditions, such as Greco-Roman, Judeo-Christian, Mesopotamian, Egyptian, African, Hindu, Buddhist, Taoist, Nordic, Meso-American and Native American. Students analyze research and write about the myths they read. Moreover, they examine the manipulation of myth by one culture to promote its own values over those of another. Myths are also studied from a variety of critical perspectives, including the literary, cultural, psychological, historical, religious, sociological, and anthropological. As part of their analysis, students explore the way myth can formulate ethical dilemmas, such as religious faith vs. reason; blood vengeance vs. trial by jury; pacifism vs. war & imperialism; women's rights vs. male hegemony; individual vs. community rights; family obligation vs. civic duty, etc. Attention is also given to the relevance of myths to contemporary cultural beliefs and practices.

CHANGES/CORRECTIONS IN TITLE, DESCRIPTION, & CONTACT HOURS

PCP 221

■ COLOR PHOTOGRAPHY

CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108

This course is an advanced study of digital photography using a DSLR camera and the digital darkroom. A variety of methods and techniques are explored for professional photographic imaging including exposure, image manipulation, correction, multimedia applications and printing of digital files. Basic digital asset management and archiving methods will be utilized. Fine art printing, large format printing and alternative processes will be studied. Students will create a printed and online portfolio of color photography.

PCP 224

■ DIGITAL IMAGING

CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108

This course provides an introduction to some essential techniques and tools for the professional photographer. These include image capture, manipulation, editing, organizing, printing and presenting digital files. Emerging technology such as Photoshop will be the primary tool for learning a variety of techniques like retouching, editing, manipulation, special effects, and preparing images for output. Visual thinking skills, multimedia literacy and photographic concepts will be explored.

PCP 226

■ PROFESSIONAL STUDIO PHOTOGRAPHY

CREDITS: 3 (1-4)

Prerequisite(s): MAD 107 and MAD 108

This course provides hands on instruction on the subject of studio lighting and portraiture. It covers photographing in the studio and on location. Professional lighting techniques, styles and a variety of equipment are utilized. Knowledge of the DSLR camera and uses for the professional photographer will be studied. Images in both color and black-and-white will be created and printed using inkjet printing techniques. Basic image correction and retouching will also be explored. Professional presentation of photographic images for print and for online viewing will be discussed and practiced. Students are expected to perform a minimum of two location shoots on or off campus during the day or evening hours.

CHANGES/CORRECTIONS IN PREREQUISITE

ELT 224

■ COMMUNICATION ELECTRONICS

CREDITS: 3 (2-3)

Prerequisite(s): ELT 110

ENV 220

■ PRINCIPLES OF OCCUPATIONAL SAFETY AND HEALTH

CREDITS: 3 (2-3)

Prerequisite(s): CHM 117 or equivalent

HRI 201

■ HOTEL-MOTEL FRONT OFFICE OPERATIONS

CREDITS 3 (2-2)

Prerequisite(s): CSC 105

MCT 220

■ INTRODUCTION TO ROBOTICS AND CONTROL SYSTEMS

CREDITS: 3 (1-4)

Prerequisite(s): MEC 123, MAT 129 or MAT 129B, ELT 105

PLS 121

■ ADVANCED LEGAL RESEARCH

CREDITS: 2 (2-0)

Prerequisite(s) or Corequisite(s): PLS 100, PLS 101, PLS 113, CSC 105 or CSC 106

SCI 157

GE MST

■ INTRODUCTION TO METEOROLOGY

CREDITS: 4 (3-2)

Prerequisite(s): One year of high school laboratory science, MAT 013 or appropriate score on the College placement test

CHANGES/CORRECTIONS IN TITLE

DHY 210

■ COMMUNITY HEALTH

RAD 172

■ RADIOGRAPHIC IMAGING AND SCIENCE II

MED 102

■ INTRODUCTION TO THE MEDICAL LABORATORY II

SPA 231

GE HUM

■ SPANISH CONVERSATION AND COMPOSITION I

SPA 232

GE HUM

■ SPANISH CONVERSATION AND COMPOSITION II

UTI 106

■ INTRODUCTION TO ENERGY UTILITY ENGINEERING

UTI 108

■ INTRODUCTION TO UNDERGROUND UTILITIES

CHANGES/CORRECTION IN COURSE NUMBER

DHY 115

■ PERIODONTOLOGY

CHANGES/CORRECTIONS IN PREREQUISITE/COREQUISITE

DTC 210

■ SUPERVISED FIELD EXPERIENCE: CLINICAL, COMMUNITY, FOODSERVICE

CREDITS 4 (0-12)

*Prerequisite(s): DTC 209 and HRI 213 with a grade of "C" or better
Corequisite(s): DTC 220, HRI 205 and HRI 218*

DTC 220

■ SEMINAR IN DIETETIC TECHNOLOGY

CREDITS 1 (1-0)

*Prerequisite(s): DTC 209 with a grade of "C" or better
Corequisite(s): DTC 210, HRI 205 and HRI 218*

PSR 102

■ COMMUNICATION TECHNIQUES IN INTERVIEWING AND COUNSELING

CREDITS: 3 (2-2)

There are no prerequisite(s) or corequisite(s)

PSR 103

■ INTRODUCTION TO GROUP DYNAMICS

CREDITS: 3 (2-2)

There are no prerequisite(s) or corequisite(s)

PSR 104

■ CLINICAL PRINCIPLES IN PSYCHOSOCIAL REHABILITATION AND TREATMENT

CREDITS: 3 (3-0)

There are no prerequisite(s) or corequisite(s)

PSR 209

■ EMERGING TOPICS IN PSYCHOSOCIAL REHABILITATION AND TREATMENT

CREDITS: 3 (3-0)

Corequisite(s): PSR 211

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